

# Clamshell/Grapple Capacities

Boom No. 27 with Open Throat Top  
without Vicon Independent Boom Hoist  
88,500 lb Counterweight  
Crawler Machine on a Barge  
0 Degree thru 1 Degree and  
1 Degree thru 3 Degree Static Machine List  
360 Degree Rating

## 4600 SERIES 3

**CAPACITIES:** Capacities are for a crawler machine when operating on a barge. Machine must 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 with machine list not to exceed degrees noted. Refer to boom rigging **No. 65030**, Wire Rope Specification chart **No. 6430** and power plant and counterweight arrangement chart **No. 6655-A**. Crane operator judgment must be used to allow for adverse operating conditions and physical machine depreciation. Refer to Service Manual for operating guidelines.

**OPERATING RADIUS:** Operating radius is horizontal distance from axis of rotation at barge deck, to center of gravity of freely suspended load. Boom angle is angle above true horizontal of a line drawn through boom hinge pin and upper boom point shaft centerline.

**MACHINE EQUIPMENT:** Machine equipped with 26 ft 1 in. crawlers, 60 in. treads, 30 ft heavy duty mast, 99 tooth front drum gear, controlled converters, 12 part mast hoist reeving, four 1-3/8 in. boom pendants, and 88,500 lb counterweight.

| 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 |
|-------------------|-----------------|--|--|
| <b>80.0 ft</b>    |                 |  |  |
| 40                | 67.7            | 50,000 *   | 50,000 *   |
| 45                | 63.9            | 50,000 *   | 50,000 *   |
| 50                | 60.1            | 50,000 *   | 50,000 *   |
| 55                | 56.1            | 50,000 *   | 50,000 *   |
| 60                | 51.9            | 50,000 *   | 50,000 *   |
| 65                | 47.4            | 50,000 *   | 50,000 *   |
| 70                | 42.6            | 50,000 *   | 47,900 *   |
| 75                | 37.3            | 48,000 *   | 44,400 *   |
| <b>90.0 ft</b>    |                 |  |  |
| 45                | 66.9            | 50,000 *   | 50,000 *   |
| 50                | 63.5            | 50,000 *   | 50,000 *   |
| 55                | 60.1            | 50,000 *   | 50,000 *   |
| 60                | 56.5            | 50,000 *   | 50,000 *   |
| 65                | 52.8            | 50,000 *   | 50,000 *   |
| 70                | 48.9            | 50,000 *   | 47,800 *   |
| 75                | 44.7            | 47,700   | 44,200 *   |
| 80                | 40.2            | 43,600   | 41,100   |
| 85                | 35.2            | 39,900   | 37,800   |
| <b>100.0 ft</b>   |                 |  |  |
| 55                | 63.2            | 50,000 *   | 50,000 *   |
| 60                | 60.1            | 50,000 *   | 50,000 *   |
| 65                | 56.9            | 50,000 *   | 50,000 *   |
| 70                | 53.5            | 50,000 *   | 47,700 *   |
| 75                | 50.0            | 47,400   | 44,000   |
| 80                | 46.3            | 43,200   | 40,400   |
| 85                | 42.4            | 39,700   | 37,200   |
| 90                | 38.1            | 36,500   | 34,400   |
| 95                | 33.4            | 33,600   | 31,900   |

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| Oper.<br>Radius<br>Feet | Boom<br>Angle<br>Deg. | 0 Degree<br>Thru<br>1 Degree<br>Machine List<br>Boom Capacity<br>Pounds | 1 Degree<br>Thru<br>3 Degree<br>Machine List<br>Boom Capacity<br>Pounds |
|-------------------------|-----------------------|---|---|
| 120.0 ft                |                       |   |   |
| 65                      | 62.7                  | 50,000 *  | 49,600 *  |
| 70                      | 60.1                  | 50,000 *  | 45,600 *  |
| 75                      | 57.4                  | 45,900 *  | 42,000 *  |
| 80                      | 54.6                  | 42,100 *  | 38,700  |
| 85                      | 51.7                  | 38,600  | 35,600  |
| 90                      | 48.7                  | 35,500  | 32,900  |
| 95                      | 45.6                  | 32,700  | 30,400  |
| 100                     | 42.2                  | 30,200  | 28,200  |
| 105                     | 38.7                  | 27,900  | 26,200  |
| 110                     | 34.8                  | 25,900  | 24,300  |
| 140.0 ft                |                       |   |   |
| 85                      | 57.7                  | 37,400 *  | 33,800 *  |
| 90                      | 55.4                  | 34,400 *  | 31,300 *  |
| 95                      | 52.9                  | 31,700 *  | 29,000 *  |
| 100                     | 50.4                  | 29,300 *  | 26,900 *  |
| 105                     | 47.7                  | 27,000 *  | 25,000 *  |
| 110                     | 45.0                  | 25,000 *  | 23,200 *  |
| 115                     | 42.1                  | 23,100 *  | 21,500 *  |
| 120                     | 39.1                  | 21,300 *  | 20,000 *  |
| 125                     | 35.8                  | 19,700 *  | 18,600 *  |
| 130                     | 32.3                  | 18,200 *  | 17,300 *  |
| 135                     | 28.3                  | 16,800 *  | 16,000 *  |