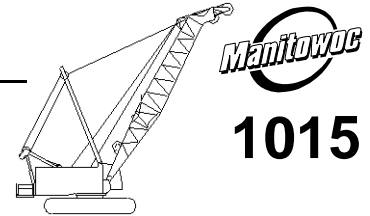


# Liftcrane Boom Capacities

**Boom No. 83 With 48 in. Sheaves**  
**53,000 Lb. Counterweight**  
**360 Degree Rating**

Meets  
ANSI B30.5  
Requirements



**LIFTING CAPACITIES:** Lifting capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load. Capacities based on structural competence are denoted by an asterisk (\*). Capacities are not shown for boom positions which, without load, provide less than required ANSI B30.5 backward stability.

Capacities indicated by (b) require 3,900 Lb. minimum weight. Capacities indicated by (c) require 10,000 Lb. minimum weight. Capacities indicated by (d) require 15,000 Lb. minimum weight.

To maintain boom and mast stability at high boom angles, a minimum of 4 parts hoist line is required for capacities denoted by (c) and (d).

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom point sheaves, is considered part of main boom load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. 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 gantry up. Refer to boom rigging **No. A15438** and Wire Rope Specification chart **No. 8474-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to Operator's Manual for operating guidelines.

**MACHINE TRAVEL:** Machine to travel on a firm, level and uniformly supporting surface and boom within boom angle range shown in capacity chart. Refer to Maximum Allowable Travel Specification chart **No. 8475-A**.

**OPERATING RADIUS:** Operating radius is horizontal distance from axis of rotation 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. In all cases, operating radius shall govern capacity.

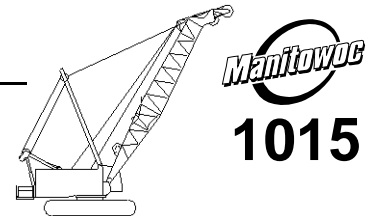
**BOOM POINT ELEVATION:** Boom point elevation is vertical distance from ground level to centerline of boom point shaft.

**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, two 48 in. sheaves in boom point and 53,000 Lb. counterweight.

## Auxiliary Drum Deduct

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

Boom Length Lifted Unassisted  
Over Front, Side or Rear = 120 Ft.  
Load block on ground at start.



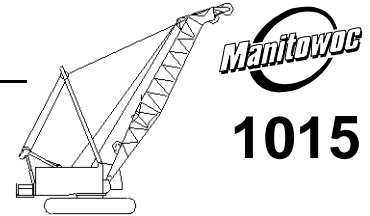
# Liftcrane Boom Capacities

**Boom No. 83 With 48 in. Sheaves**  
**53,000 Lb. Counterweight**  
**360 Degree Rating**

**Meets**  
**ANSI B30.5**  
**Requirements**

| Oper.<br>Rad.<br>Feet | Boom<br>Ang.<br>Deg. | Boom<br>Point<br>Elev.<br>Feet | Boom<br>Capacity<br>Crawlers<br>Retracted<br>Pounds | Boom<br>Capacity<br>Crawlers<br>Extended<br>Pounds |
|-----------------------|----------------------|--------------------------------|---|--|
| <b>50 Ft. Boom</b>    |                      |                                |   |  |
| 14                    | 82.0                 | 57.4                           |   | 264,600 *d   |
| 15                    | 80.8                 | 57.2                           |   | 247,300 *d   |
| 16                    | 79.6                 | 57.0                           |   | 242,700 c  |
| 17                    | 78.5                 | 56.7                           |   | 217,700 c  |
| 18                    | 77.3                 | 56.5                           |   | 197,200 c  |
| 19                    | 76.1                 | 56.2                           |   | 180,100 c  |
| 20                    | 74.9                 | 55.8                           |   | 165,600 b  |
| 22                    | 72.5                 | 55.2                           |   | 142,400 b  |
| 24                    | 70.0                 | 54.4                           |   | 124,500 b  |
| 26                    | 67.5                 | 53.5                           |   | 110,400  |
| 28                    | 64.9                 | 52.5                           |   | 98,900   |
| 30                    | 62.3                 | 51.3                           |   | 89,500   |
| 32                    | 59.6                 | 50.1                           |   | 81,500   |
| 34                    | 56.8                 | 48.7                           |   | 74,600   |
| 36                    | 53.9                 | 47.2                           |   | 68,700   |
| 38                    | 50.9                 | 45.5                           |   | 63,600   |
| 40                    | 47.8                 | 43.5                           |   | 59,100   |
| 45                    | 38.9                 | 37.7                           | 38,800  | 49,700   |
| 50                    | 27.6                 | 29.1                           | 33,000  | 42,400   |
| <b>60 Ft. Boom</b>    |                      |                                |   |  |
| 15                    | 82.4                 | 67.4                           |   | 249,200 *d   |
| 16                    | 81.4                 | 67.2                           |   | 243,400 c  |
| 17                    | 80.4                 | 67.0                           |   | 218,300 c  |
| 18                    | 79.4                 | 66.8                           |   | 197,700 c  |
| 19                    | 78.5                 | 66.5                           |   | 180,600 c  |
| 20                    | 77.5                 | 66.3                           |   | 166,000 b  |
| 22                    | 75.5                 | 65.7                           |   | 142,700 b  |
| 24                    | 73.5                 | 65.0                           |   | 124,800 b  |
| 26                    | 71.4                 | 64.3                           |   | 110,600  |
| 28                    | 69.4                 | 63.5                           |   | 99,200   |
| 30                    | 67.3                 | 62.6                           |   | 89,700   |
| 32                    | 65.2                 | 61.6                           |   | 81,700   |
| 34                    | 63.0                 | 60.5                           |   | 74,800   |
| 36                    | 60.8                 | 59.4                           |   | 68,900   |
| 38                    | 58.5                 | 58.1                           |   | 63,800   |
| 40                    | 56.2                 | 56.7                           |   | 59,300   |
| 45                    | 50.0                 | 52.6                           | 39,000  | 50,000   |
| 50                    | 43.2                 | 47.4                           | 33,300  | 42,800   |
| 55                    | 35.2                 | 40.7                           | 28,700  | 37,100   |
| 60                    | 24.9                 | 31.2                           | 24,900  | 32,300   |

| Oper.<br>Rad.<br>Feet | Boom<br>Ang.<br>Deg. | Boom<br>Point<br>Elev.<br>Feet | Boom<br>Capacity<br>Crawlers<br>Retracted<br>Pounds | Boom<br>Capacity<br>Crawlers<br>Extended<br>Pounds |
|-----------------------|----------------------|--------------------------------|---|--|
| <b>70 Ft. Boom</b>    |                      |                                |   |  |
| 16                    | 82.6                 | 77.3                           |   | 243,600 c  |
| 17                    | 81.8                 | 77.2                           |   | 218,500 c  |
| 18                    | 81.0                 | 77.0                           |   | 197,900 c  |
| 19                    | 80.1                 | 76.8                           |   | 180,700 c  |
| 20                    | 79.3                 | 76.6                           |   | 166,200 b  |
| 22                    | 77.6                 | 76.1                           |   | 142,800 b  |
| 24                    | 75.9                 | 75.5                           |   | 124,900 b  |
| 26                    | 74.2                 | 74.9                           |   | 110,700  |
| 28                    | 72.5                 | 74.2                           |   | 99,200   |
| 30                    | 70.7                 | 73.5                           |   | 89,700   |
| 32                    | 69.0                 | 72.7                           |   | 81,700   |
| 34                    | 67.2                 | 71.8                           |   | 74,900   |
| 36                    | 65.4                 | 70.8                           |   | 69,000   |
| 38                    | 63.5                 | 69.8                           |   | 63,900   |
| 40                    | 61.6                 | 68.6                           |   | 59,300   |
| 45                    | 56.8                 | 65.4                           | 39,100  | 50,100   |
| 50                    | 51.6                 | 61.5                           | 33,400  | 43,000   |
| 55                    | 45.9                 | 56.8                           | 28,900  | 37,300   |
| 60                    | 39.7                 | 51.0                           | 25,200  | 32,600   |
| 65                    | 32.3                 | 43.5                           | 22,000  | 28,700   |
| 70                    | 22.8                 | 33.1                           | 19,300  | 25,400   |
| <b>80 Ft. Boom</b>    |                      |                                |   |  |
| 17                    | 82.8                 | 87.3                           |   | 217,500 c  |
| 18                    | 82.1                 | 87.1                           |   | 197,000 c  |
| 19                    | 81.4                 | 87.0                           |   | 179,800 b  |
| 20                    | 80.7                 | 86.8                           |   | 165,300 b  |
| 22                    | 79.2                 | 86.3                           |   | 142,000 b  |
| 24                    | 77.7                 | 85.9                           |   | 124,100  |
| 26                    | 76.2                 | 85.3                           |   | 110,000  |
| 28                    | 74.7                 | 84.8                           |   | 98,500   |
| 30                    | 73.2                 | 84.1                           |   | 89,000   |
| 32                    | 71.7                 | 83.4                           |   | 81,000   |
| 34                    | 70.2                 | 82.7                           |   | 74,200   |
| 36                    | 68.6                 | 81.8                           |   | 68,400   |
| 38                    | 67.1                 | 80.9                           |   | 63,200   |
| 40                    | 65.5                 | 80.0                           | 45,600  | 58,700   |
| 45                    | 61.4                 | 77.3                           | 38,500  | 49,500   |
| 50                    | 57.2                 | 74.1                           | 32,900  | 42,400   |
| 55                    | 52.7                 | 70.3                           | 28,400  | 36,800   |
| 60                    | 47.9                 | 65.9                           | 24,700  | 32,200   |
| 65                    | 42.7                 | 60.7                           | 21,700  | 28,400   |
| 70                    | 36.9                 | 54.2                           | 19,000  | 25,100   |
| 75                    | 30.1                 | 46.1                           | 16,700  | 22,300   |
| 80                    | 21.2                 | 34.8                           | 14,700  | 19,900   |



**1015**

# Liftcrane Boom Capacities

**Boom No. 83 With 48 in. Sheaves  
53,000 Lb. Counterweight  
360 Degree Rating**

**Meets  
ANSI B30.5  
Requirements**

| Oper.<br>Rad.<br>Feet | Boom<br>Ang.<br>Deg. | Boom<br>Point<br>Elev.<br>Feet | Boom<br>Capacity<br>Crawlers<br>Retracted<br>Pounds | Boom<br>Capacity<br>Crawlers<br>Extended<br>Pounds |
|-----------------------|----------------------|--------------------------------|---|--|
| <b>90 Ft. Boom</b>    |                      |                                |   |  |
| 18                    | 83.0                 | 97.3                           |   | 196,900 <b>c</b>                                   |
| 19                    | 82.4                 | 97.1                           |   | 179,800 <b>b</b>                                   |
| 20                    | 81.7                 | 96.9                           |   | 165,200 <b>b</b>                                   |
| 22                    | 80.4                 | 96.6                           |   | 141,800 <b>b</b>                                   |
| 24                    | 79.1                 | 96.1                           |   | 124,000  |
| 26                    | 77.8                 | 95.7                           |   | 109,800  |
| 28                    | 76.5                 | 95.2                           |   | 98,300   |
| 30                    | 75.2                 | 94.6                           |   | 88,800   |
| 32                    | 73.8                 | 94.0                           |   | 80,800   |
| 34                    | 72.5                 | 93.3                           |   | 74,000   |
| 36                    | 71.1                 | 92.6                           |   | 68,200   |
| 38                    | 69.8                 | 91.8                           |   | 63,000   |
| 40                    | 68.4                 | 91.0                           | 45,400  | 58,500   |
| 45                    | 64.9                 | 88.7                           | 38,200  | 49,300   |
| 50                    | 61.3                 | 85.9                           | 32,700  | 42,200   |
| 55                    | 57.5                 | 82.8                           | 28,200  | 36,600   |
| 60                    | 53.6                 | 79.1                           | 24,600  | 32,000   |
| 65                    | 49.4                 | 74.9                           | 21,500  | 28,200   |
| 70                    | 44.9                 | 70.0                           | 18,900  | 25,000   |
| 75                    | 40.1                 | 64.2                           | 16,600  | 22,300   |
| 80                    | 34.6                 | 57.3                           | 14,700  | 19,900   |
| 85                    | 28.2                 | 48.6                           | 12,900  | 17,700   |
| 90                    | 19.9                 | 36.5                           | 11,300  | 15,800   |
| <b>100 Ft. Boom</b>   |                      |                                |   |  |
| 20                    | 82.5                 | 107.1                          |   | 165,200 <b>b</b>                                   |
| 22                    | 81.4                 | 106.7                          |   | 141,800 <b>b</b>                                   |
| 24                    | 80.2                 | 106.4                          |   | 123,800  |
| 26                    | 79.0                 | 105.9                          |   | 109,600  |
| 28                    | 77.9                 | 105.5                          |   | 98,100   |
| 30                    | 76.7                 | 105.0                          |   | 88,600   |
| 32                    | 75.5                 | 104.4                          |   | 80,600   |
| 34                    | 74.3                 | 103.8                          |   | 73,800   |
| 36                    | 73.1                 | 103.2                          |   | 67,900   |
| 38                    | 71.9                 | 102.5                          | 48,500  | 62,800   |
| 40                    | 70.7                 | 101.8                          | 45,000  | 58,200   |
| 45                    | 67.6                 | 99.7                           | 37,900  | 49,000   |
| 50                    | 64.4                 | 97.3                           | 32,300  | 41,900   |
| 55                    | 61.1                 | 94.6                           | 27,900  | 36,300   |
| 60                    | 57.8                 | 91.5                           | 24,200  | 31,700   |
| 65                    | 54.2                 | 87.9                           | 21,100  | 27,900   |
| 70                    | 50.6                 | 83.8                           | 18,500  | 24,700   |
| 75                    | 46.6                 | 79.2                           | 16,300  | 21,900   |
| 80                    | 42.5                 | 73.9                           | 14,300  | 19,600   |
| 85                    | 37.9                 | 67.6                           | 12,600  | 17,500   |
| 90                    | 32.7                 | 60.2                           | 11,100  | 15,600   |
| 95                    | 26.7                 | 50.9                           | 9,700   | 13,900   |
| 100                   | 18.8                 | 38.0                           | 8,400   | 12,400   |

| Oper.<br>Rad.<br>Feet | Boom<br>Ang.<br>Deg. | Boom<br>Point<br>Elev.<br>Feet | Boom<br>Capacity<br>Crawlers<br>Retracted<br>Pounds | Boom<br>Capacity<br>Crawlers<br>Extended<br>Pounds |
|-----------------------|----------------------|--------------------------------|---|--|
| <b>110 Ft. Boom</b>   |                      |                                |   |  |
| 22                    | 82.2                 | 116.9                          |   | 141,700 <b>b</b>                                   |
| 24                    | 81.1                 | 116.5                          |   | 123,700  |
| 26                    | 80.1                 | 116.2                          |   | 109,500  |
| 28                    | 79.0                 | 115.7                          |   | 98,000   |
| 30                    | 77.9                 | 115.3                          |   | 88,500   |
| 32                    | 76.9                 | 114.8                          |   | 80,500   |
| 34                    | 75.8                 | 114.2                          |   | 73,700   |
| 36                    | 74.7                 | 113.7                          |   | 67,800   |
| 38                    | 73.6                 | 113.1                          | 48,400  | 62,600   |
| 40                    | 72.5                 | 112.4                          | 44,900  | 58,100   |
| 45                    | 69.7                 | 110.6                          | 37,800  | 48,900   |
| 50                    | 66.9                 | 108.4                          | 32,200  | 41,800   |
| 55                    | 64.0                 | 106.0                          | 27,800  | 36,200   |
| 60                    | 61.0                 | 103.2                          | 24,100  | 31,600   |
| 65                    | 58.0                 | 100.2                          | 21,100  | 27,800   |
| 70                    | 54.8                 | 96.7                           | 18,500  | 24,600   |
| 75                    | 51.5                 | 92.7                           | 16,200  | 21,900   |
| 80                    | 48.0                 | 88.3                           | 14,300  | 19,500   |
| 85                    | 44.3                 | 83.2                           | 12,600  | 17,500   |
| 90                    | 40.3                 | 77.5                           | 11,100  | 15,600   |
| 95                    | 36.0                 | 70.8                           | 9,700   | 14,000   |
| 100                   | 31.1                 | 62.9                           | 8,500   | 12,500   |
| 105                   | 25.3                 | 53.0                           | 7,400   | 11,100   |
| 110                   | 17.8                 | 39.5                           | 6,300   | 9,900  |
| <b>120 Ft. Boom</b>   |                      |                                |   |  |
| 22                    | 82.8                 | 127.0                          |   | 141,600  |
| 24                    | 81.9                 | 126.7                          |   | 123,600  |
| 26                    | 80.9                 | 126.3                          |   | 109,300  |
| 28                    | 79.9                 | 125.9                          |   | 97,800   |
| 30                    | 78.9                 | 125.5                          |   | 88,300   |
| 32                    | 78.0                 | 125.1                          |   | 80,200   |
| 34                    | 77.0                 | 124.6                          |   | 73,400   |
| 36                    | 76.0                 | 124.1                          | 51,900  | 67,500   |
| 38                    | 75.0                 | 123.5                          | 48,000  | 62,300   |
| 40                    | 74.0                 | 122.9                          | 44,500  | 57,800   |
| 45                    | 71.5                 | 121.2                          | 37,400  | 48,600   |
| 50                    | 68.9                 | 119.3                          | 31,800  | 41,500   |
| 55                    | 66.3                 | 117.1                          | 27,300  | 35,800   |
| 60                    | 63.7                 | 114.7                          | 23,700  | 31,300   |
| 65                    | 60.9                 | 111.9                          | 20,600  | 27,500   |
| 70                    | 58.1                 | 108.8                          | 18,100  | 24,300   |
| 75                    | 55.2                 | 105.4                          | 15,800  | 21,500   |
| 80                    | 52.2                 | 101.6                          | 13,900  | 19,100   |
| 85                    | 49.1                 | 97.3                           | 12,200  | 17,100   |
| 90                    | 45.8                 | 92.5                           | 10,700  | 15,200   |
| 95                    | 42.3                 | 87.1                           | 9,300   | 13,600   |
| 100                   | 38.5                 | 80.9                           | 8,100   | 12,100   |
| 105                   | 34.4                 | 73.9                           | 7,000   | 10,800   |
| 110                   | 29.7                 | 65.5                           | 6,000   | 9,600  |
| 115                   | 24.2                 | 55.1                           | 5,100   | 8,500  |
| 120                   | 17.0                 | 40.9                           | 4,200   | 7,400  |