

MANITOWOC 4600 SERIES 3  
LIFT CRANE CAPACITIES - 113,500# CWT.  
BOOM #27 WITH OPEN THROAT TOP  
CRAWLER MACHINE ON A BARGE - 2 DEGREE MACHINE LIST

| RAD.<br>IN<br>FT. | CAPACITIES IN THOUSANDS OF LBS. |        |       |       |       |       |       |       |       |       | RAD.<br>IN<br>FT. |
|-------------------|---------------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|
|                   | BOOM LENGTH - FT.               |        |       |       |       |       |       |       |       |       |                   |
|                   | 80                              | 90     | 100   | 110   | 120   | 130   | 140   | 150   | 160   | 170   |                   |
| 21                | 294.4*                          |        |       |       |       |       |       |       |       |       | 21                |
| 22                | 281.7*                          |        |       |       |       |       |       |       |       |       | 22                |
| 23                | 269.0                           | 258.9* |       |       |       |       |       |       |       |       | 23                |
| 24                | 254.0                           | 248.1  |       |       |       |       |       |       |       |       | 24                |
| 25                | 240.5                           | 235.1  | 230.2 |       |       |       |       |       |       |       | 25                |
| 26                | 228.3                           | 223.3  | 218.8 |       |       |       |       |       |       |       | 26                |
| 27                | 217.3                           | 212.6  | 208.5 | 204.1 |       |       |       |       |       |       | 27                |
| 28                | 207.2                           | 202.9  | 199.0 | 195.0 | 191.6 |       |       |       |       |       | 28                |
| 29                | 198.0                           | 193.9  | 190.3 | 186.5 | 183.4 |       |       |       |       |       | 29                |
| 30                | 189.5                           | 185.7  | 182.3 | 178.7 | 175.9 | 172.5 |       |       |       |       | 30                |
| 32                | 174.5                           | 171.1  | 168.1 | 164.9 | 162.4 | 159.3 | 156.6 |       |       |       | 32                |
| 34                | 161.6                           | 158.5  | 155.8 | 152.9 | 150.7 | 147.9 | 145.4 | 142.7 |       |       | 34                |
| 36                | 150.4                           | 147.5  | 145.1 | 142.4 | 140.4 | 137.9 | 135.6 | 133.1 | 131.3 |       | 36                |
| 38                | 140.5                           | 137.9  | 135.7 | 133.2 | 131.4 | 129.0 | 126.9 | 124.6 | 122.9 | 120.8 | 38                |
| 40                | 131.8                           | 129.4  | 127.3 | 125.0 | 123.4 | 121.1 | 119.2 | 117.1 | 115.5 | 113.5 | 40                |
| 45                | 114.0                           | 111.8  | 110.1 | 108.0 | 106.7 | 104.8 | 103.1 | 101.3 | 100.0 | 98.2  | 45                |
| 50                | 100.1                           | 98.2   | 96.6  | 94.8  | 93.7  | 92.0  | 90.5  | 88.8  | 87.8  | 86.2  | 50                |
| 55                | 89.0                            | 87.2   | 85.9  | 84.2  | 83.2  | 81.7  | 80.3  | 78.8  | 77.9  | 76.4  | 55                |
| 60                | 80.0                            | 78.3   | 77.1  | 75.5  | 74.7  | 73.2  | 72.0  | 70.5  | 69.7  | 68.3  | 60                |
| 65                | 72.5                            | 70.9   | 69.7  | 68.2  | 67.5  | 66.1  | 65.0  | 63.6  | 62.8  | 61.5  | 65                |
| 70                | 66.2                            | 64.6   | 63.5  | 62.1  | 61.4  | 60.1  | 59.0  | 57.7  | 57.0  | 55.8  | 70                |
| 75                | 60.8                            | 59.3   | 58.2  | 56.8  | 56.2  | 54.9  | 53.9  | 52.6  | 52.0  | 50.8  | 75                |
| 80                | 56.2                            | 54.7   | 53.6  | 52.2  | 51.6  | 50.4  | 49.4  | 48.2  | 47.6  | 46.4  | 80                |
| 85                |                                 | 50.6   | 49.6  | 48.2  | 47.7  | 46.4  | 45.5  | 44.3  | 43.7  | 42.6  | 85                |
| 90                |                                 | 47.1   | 46.0  | 44.7  | 44.1  | 43.0  | 42.0  | 40.9  | 40.3  | 39.2  | 90                |
| 95                |                                 |        | 42.9  | 41.6  | 41.0  | 39.9  | 39.0  | 37.8  | 37.3  | 36.2  | 95                |
| 100               |                                 |        | 40.2  | 38.8  | 38.3  | 37.1  | 36.2  | 35.1  | 34.6  | 33.5  | 100               |
| 105               |                                 |        |       | 36.3  | 35.8  | 34.6  | 33.7  | 32.6  | 32.1  | 31.1  | 105               |
| 110               |                                 |        |       | 34.1  | 33.5  | 32.3  | 31.5  | 30.4  | 29.9  | 28.9  | 110               |
| 115               |                                 |        |       |       | 31.5  | 30.3  | 29.4  | 28.3  | 27.9  | 26.9  | 115               |
| 120               |                                 |        |       |       | 29.6  | 28.4  | 27.6  | 26.5  | 26.0  | 25.0  | 120               |
| 125               |                                 |        |       |       |       | 26.8  | 25.9  | 24.8  | 24.3  | 23.3  | 125               |
| 130               |                                 |        |       |       |       | 25.2  | 24.3  | 23.2  | 22.8  | 21.8  | 130               |
| 135               |                                 |        |       |       |       |       | 22.9  | 21.8  | 21.3  | 20.3  | 135               |
| 140               |                                 |        |       |       |       |       | 21.6  | 20.5  | 20.0  | 19.0  | 140               |
| 145               |                                 |        |       |       |       |       |       | 19.2  | 18.8  | 17.8  | 145               |
| 150               |                                 |        |       |       |       |       |       | 18.1  | 17.6  | 16.6  | 150               |
| 155               |                                 |        |       |       |       |       |       |       | 16.6  | 15.5  | 155               |
| 160               |                                 |        |       |       |       |       |       |       | 15.6  | 14.6  | 160               |
| 165               |                                 |        |       |       |       |       |       |       |       | 13.6  | 165               |
| 170               |                                 |        |       |       |       |       |       |       |       | 12.8  | 170               |

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| RAD.<br>IN<br>FT. | CAPACITIES IN THOUSANDS OF LBS.<br>BOOM LENGTH - FT. |      |      |      |      |      |      |      | RAD.<br>IN<br>FT. |
|-------------------|------------------------------------------------------|------|------|------|------|------|------|------|-------------------|
|                   | 180                                                  | 190  | 200  | 210  | 220  | 230  | 240  | 250  |                   |
| 40                | 111.6                                                |      |      |      |      |      |      |      | 40                |
| 45                | 96.6                                                 | 94.9 | 93.6 | 91.9 |      |      |      |      | 45                |
| 50                | 84.8                                                 | 83.2 | 82.1 | 80.5 | 79.2 | 77.7 | 76.5 |      | 50                |
| 55                | 75.1                                                 | 73.7 | 72.7 | 71.3 | 70.0 | 68.7 | 67.6 | 66.3 | 55                |
| 60                | 67.1                                                 | 65.8 | 64.9 | 63.6 | 62.4 | 61.2 | 60.2 | 59.0 | 60                |
| 65                | 60.4                                                 | 59.2 | 58.3 | 57.1 | 56.0 | 54.8 | 54.0 | 52.8 | 65                |
| 70                | 54.7                                                 | 53.5 | 52.7 | 51.6 | 50.5 | 49.4 | 48.6 | 47.4 | 70                |
| 75                | 49.8                                                 | 48.6 | 47.9 | 46.8 | 45.8 | 44.7 | 43.9 | 42.8 | 75                |
| 80                | 45.5                                                 | 44.3 | 43.7 | 42.6 | 41.6 | 40.5 | 39.8 | 38.8 | 80                |
| 85                | 41.7                                                 | 40.6 | 39.9 | 38.9 | 38.0 | 36.9 | 36.2 | 35.2 | 85                |
| 90                | 38.3                                                 | 37.3 | 36.6 | 35.6 | 34.7 | 33.7 | 33.0 | 32.0 | 90                |
| 95                | 35.3                                                 | 34.3 | 33.7 | 32.7 | 31.8 | 30.8 | 30.2 | 29.2 | 95                |
| 100               | 32.7                                                 | 31.6 | 31.0 | 30.0 | 29.2 | 28.2 | 27.6 | 26.6 | 100               |
| 105               | 30.2                                                 | 29.2 | 28.7 | 27.7 | 26.8 | 25.8 | 25.2 | 24.3 | 105               |
| 110               | 28.0                                                 | 27.0 | 26.5 | 25.5 | 24.7 | 23.7 | 23.1 | 22.2 | 110               |
| 115               | 26.0                                                 | 25.0 | 24.5 | 23.5 | 22.7 | 21.8 | 21.2 | 20.3 | 115               |
| 120               | 24.2                                                 | 23.2 | 22.7 | 21.7 | 20.9 | 20.0 | 19.4 | 18.5 | 120               |
| 125               | 22.5                                                 | 21.5 | 21.0 | 20.1 | 19.3 | 18.3 | 17.8 | 16.9 | 125               |
| 130               | 21.0                                                 | 20.0 | 19.5 | 18.5 | 17.8 | 16.8 | 16.3 | 15.4 | 130               |
| 135               | 19.5                                                 | 18.6 | 18.1 | 17.1 | 16.3 | 15.4 | 14.9 | 14.0 | 135               |
| 140               | 18.2                                                 | 17.2 | 16.7 | 15.8 | 15.0 | 14.1 | 13.6 | 12.7 | 140               |
| 145               | 17.0                                                 | 16.0 | 15.5 | 14.6 | 13.8 | 12.9 | 12.4 | 11.5 | 145               |
| 150               | 15.8                                                 | 14.9 | 14.4 | 13.5 | 12.7 | 11.8 | 11.2 | 10.4 | 150               |
| 155               | 14.8                                                 | 13.8 | 13.3 | 12.4 | 11.6 | 10.7 | 10.2 | 9.3  | 155               |
| 160               | 13.8                                                 | 12.8 | 12.3 | 11.4 | 10.6 | 9.7  | 9.2  | 8.3  | 160               |
| 165               | 12.8                                                 | 11.9 | 11.4 | 10.5 | 9.7  | 8.8  | 8.3  | 7.4  | 165               |
| 170               | 12.0                                                 | 11.0 | 10.5 | 9.6  | 8.8  | 7.9  | 7.4  | 6.5  | 170               |
| 175               | 11.1                                                 | 10.2 | 9.7  | 8.8  | 8.0  | 7.1  | 6.6  | 5.7  | 175               |
| 180               | 10.4                                                 | 9.4  | 8.9  | 8.0  | 7.2  | 6.3  | 5.8  | 4.9  | 180               |
| 185               |                                                      | 8.7  | 8.2  | 7.2  | 6.5  | 5.6  | 5.1  | 4.2  | 185               |
| 190               |                                                      |      | 7.5  | 6.6  | 5.8  | 4.9  | 4.4  |      | 190               |
| 195               |                                                      |      | 6.8  | 5.9  | 5.1  | 4.2  |      |      | 195               |
| 200               |                                                      |      |      | 5.3  | 4.5  |      |      |      | 200               |
| 205               |                                                      |      |      | 4.7  |      |      |      |      | 205               |

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 75% OF A STATIC TIPPING LOAD. CAPACITIES BASED ON STRUCTURAL COMPETENCE ARE DENOTED BY AN ASTERISK (\*).

UPPER BOOM POINT CAPACITY FOR LIFT CRANE SERVICE WITH SINGLE PART WHIP LINE OR COMBINATION OF TWO SINGLE PART LINES IS 40,000#. IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR THE MAIN BOOM CAPACITY.

WEIGHT OF UPPER BOOM POINT, ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM POINT SHEAVES, IS CONSIDERED PART OF THE 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.

MACHINE TO OPERATE WITH MACHINE LIST NOT TO EXCEED DEGREES NOTED ABOVE. REFER TO RIGGING #50973, LOAD LINE SPECIFICATION CHART #6444-A, RANGE CHART #6721-A AND POWER PLANT AND COUNTERWEIGHT ARRANGEMENT CHART #6655-A. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, WIND CONDITIONS, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION AT BARGE DECK TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK.

MACHINE EQUIPPED WITH 26'-1 CRAWLERS, 60 IN. TREADS, 30' HEAVY DUTY MAST, VICON INDEPENDENT BOOM HOIST WITH 16 PART REEVING, 12 PART MAST HOIST REEVING, FOUR 1-3/8 IN. BOOM PENDANTS AND 113,500# COUNTERWEIGHT.

| MAXIMUM BOOM LENGTH LIFTED UNASSISTED                                                                                    |                               |
|--------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| OVER FRONT OF BLOCKED CRAWLERS IS 250'                                                                                   | OVER SIDE OF CRAWLERS IS 220' |
| LOAD BLOCK, HOOK AND WEIGHT BALL ON BARGE AT START. JIB IS NOT TO BE USED ON CRAWLER MACHINE WHILE OPERATING ON A BARGE. |                               |

| DEDUCT FROM CAPACITIES WHEN UPPER BOOM POINT IS ATTACHED |        |
|----------------------------------------------------------|--------|
| ONE SHEAVE POINT                                         | 1,200# |
| TWO SHEAVE POINT                                         | 1,500# |
| INTEGRAL POINT                                           | 1,600# |