

# MANITOWOC ENGINEERING CO.

Division of the Manitowoc Company, Inc. Manitowoc, Wisconsin 54220



## LIFTCRANE BOOM CAPACITIES

JAPANESE  
CODES

M-250

**BOOM NO. 44 WITH HEAVY LIFT TOP  
28 mm HOIST AND WHIP LINE  
75 750 kg COUNTERWEIGHT  
360 DEGREE RATING**

CAPACITIES FOR VARIOUS BOOM LENGTHS AND OPERATING RADII ARE FOR FREELY SUSPENDED LOADS AND ARE CALCULATED TO COMPLY WITH JAPANESE CONSTRUCTION CODES FOR MOBILE CRANES. CAPACITIES BASED ON STRUCTURAL COMPETENCE ARE DENOTED BY AN ASTERISK (\*).

UPPER BOOM POINT CAPACITY FOR LIFTCRANE SERVICE WITH SINGLE PART WHIP LINE IS 13 110 kg OR 26 220 kg WITH TWO PART WHIP LINE. IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR MAIN BOOM CAPACITY.

76.2m THRU 88.4m BOOM LENGTHS REQUIRE ONLY THE MIDDLE 3 SHEAVES TO BE USED ON LOWER BOOM POINT. ALL OTHER SHEAVES MUST BE REMOVED FROM LOWER BOOM POINT.

WEIGHT OF JIB, ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, ETC., BENEATH BOOM AND JIB 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.

MACHINE TO OPERATE IN A LEVEL POSITION ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH GANTRY UP. REFER TO BOOM RIGGING NO. 170423 OR NO. 172611, WIRE ROPE SPECIFICATION CHART NO. 7807-B AND COUNTERWEIGHT ARRANGEMENT CHART NO. 7692-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.

MACHINE MAY BE OPERATED WITHIN WIND LIMITS SHOWN IN TABLE PROVIDED CRANE OPERATOR JUDGMENT IS USED TO ALLOW FOR WIND EFFECT ON LIFTED LOAD AND OTHER CONSIDERATIONS NOTED ON CAPACITY CHART ARE FOLLOWED. WIND WILL HAVE A CONSIDERABLE EFFECT ON A LOAD WITH A LARGE 'SAIL AREA' AND MUST BE COMPENSATED FOR ACCORDINGLY BY REDUCING LOAD RATINGS, REDUCING OPERATING SPEEDS OR BY A COMBINATION OF BOTH. RECOMMEND STOPPING OPERATION AND LOWERING BOOM AND JIB TO APPROXIMATELY 70 DEGREE BOOM ANGLE WHEN WIND EXCEEDS THOSE SHOWN IN TABLE TO PREVENT JIB BEING BLOWN OVER BACKWARDS. LOWER BOOM AND JIB TO GROUND WHEN WIND IS ABOVE 22 m/s.

MACHINE TO TRAVEL ON A FIRM, LEVEL AND UNIFORMLY SUPPORTING SURFACE AND BOOM WITHIN BOOM ANGLE RANGE SHOWN IN CAPACITY CHART.

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 IS VERTICAL DISTANCE FROM GROUND LEVEL TO CENTERLINE OF BOOM POINT SHAFT.

MACHINE EQUIPPED WITH 9 373 mm CRAWLERS, 1 219 mm TREADS, 8 534 mm RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 45 mm BOOM PENDANTS, AND 75 750 kg COUNTERWEIGHT.

| WIND LIMITS DURING OPERATION       |                          |                         |
|------------------------------------|--------------------------|-------------------------|
| MAXIMUM<br>WIND<br>VELOCITY<br>m/s | BOOM<br>LENGTH<br>METERS | JIB<br>LENGTH<br>METERS |
| 14                                 | 21.3 - 51.8              | ---                     |
| 10                                 | 54.9 - 57.9              | ---                     |
| 7                                  | 61.0 - 88.4              | ---                     |
| 14                                 | 39.6 - 51.8              | 12.2 - 24.4             |
| 10                                 | 54.9 - 57.9              | 12.2 - 24.4             |
| 7                                  | 61.0 - 76.2              | 12.2 - 18.3             |
| 7                                  | 61.0 - 70.1              | 24.4                    |
| 7                                  | 39.6 - 70.1              | 30.5                    |
| 7                                  | 39.6 - 67.1              | 36.6                    |

| MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED |             |                                  |             |                          |             | DEDUCT FROM CAPACITIES<br>WHEN JIB IS ATTACHED |             |
|------------------------------------------------|-------------|----------------------------------|-------------|--------------------------|-------------|------------------------------------------------|-------------|
| OVER FRONT OF<br>BLOCKED CRAWLERS              |             | OVER REAR OF<br>BLOCKED CRAWLERS |             | OVER SIDE OF<br>CRAWLERS |             | JIB LGTH.                                      | JIB NO. 132 |
| BOOM LGTH.                                     | JIB NO. 132 | BOOM LGTH.                       | JIB NO. 132 | BOOM LGTH.               | JIB NO. 132 |                                                |             |
| (a) 88.4m                                      | ---         | (a) 85.3m                        | ---         | 79.2m                    | ---         | 12.2m                                          | 3 080 kg    |
| 85.3m                                          | ---         | 82.3m                            | ---         | 76.2m                    | ---         | 18.3m                                          | 3 990 kg    |
| 82.3m                                          | ---         | 79.2m                            | ---         | 73.2m                    | ---         | 24.4m                                          | 5 080 kg    |
| 79.2m                                          | ---         | 76.2m                            | 12.2m       | 70.1m                    | ---         | 30.5m                                          | 6 210 kg    |
| 76.2m                                          | 18.3m       | 73.2m                            | 12.2m       | 67.1m                    | 18.3m       | 36.6m                                          | 7 480 kg    |
| 73.2m                                          | 18.3m       | 70.1m                            | 24.4m       | 64.0m                    | 30.5m       |                                                |             |
| 70.1m                                          | 30.5m       | 67.1m                            | 30.5m       | 61.0m                    | 36.6m       |                                                |             |
| 67.1m                                          | 36.6m       | 64.0m                            | 36.6m       |                          |             |                                                |             |

LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START. (a) UPPER BOOM POINT CANNOT BE USED ON 88.4m BOOM AND CANNOT BE LIFTED OVER REAR OF BLOCKED CRAWLERS ON 85.3m BOOM.

CONSULT JIB CHART FOR JIB CAPACITIES. UPPER BOOM POINT CANNOT BE USED WHEN JIB IS ATTACHED.

# MANITOWOC ENGINEERING CO.

Division of the Manitowoc Company, Inc. Manitowoc, Wisconsin 54220



## LIFTCRANE BOOM CAPACITIES

JAPANESE  
CODES

M-250

BOOM NO. 44 WITH HEAVY LIFT TOP  
28 mm HOIST AND WHIP LINE  
75 750 kg COUNTERWEIGHT  
360 DEGREE RATING

| BOOM<br>LENGTH<br>METERS | BOOM<br>LGTH.<br>FEET | OPER.<br>RADIUS<br>METERS | BOOM<br>ANG.<br>DEG. | BOOM<br>POINT<br>ELEV.<br>METERS | BOOM<br>CAPACITY<br>KILOGRAMS | BOOM<br>LENGTH<br>METERS | BOOM<br>LGTH.<br>FEET | OPER.<br>RADIUS<br>METERS | BOOM<br>ANG.<br>DEG. | BOOM<br>POINT<br>ELEV.<br>METERS | BOOM<br>CAPACITY<br>KILOGRAMS |
|--------------------------|-----------------------|---------------------------|----------------------|----------------------------------|-------------------------------|--------------------------|-----------------------|---------------------------|----------------------|----------------------------------|-------------------------------|
| 2<br>1<br>: 3            | 7<br>0                | 5.5                       | 82.9                 | 23.5                             | 215 200*                      | 3<br>3<br>: 5            | 1<br>1<br>0           | 7.0                       | 82.9                 | 35.6                             | 169 600*                      |
|                          |                       | 6.0                       | 81.5                 | 23.4                             | 215 200*                      |                          |                       | 7.5                       | 82.0                 | 35.5                             | 167 700*                      |
|                          |                       | 6.5                       | 80.2                 | 23.3                             | 215 200*                      |                          |                       | 8.0                       | 81.2                 | 35.4                             | 166 000*                      |
|                          |                       | 7.0                       | 78.8                 | 23.2                             | 215 200*                      |                          |                       | 8.5                       | 80.3                 | 35.3                             | 164 300*                      |
|                          |                       | 7.5                       | 77.4                 | 23.1                             | 205 600*                      |                          |                       | 9.0                       | 79.4                 | 35.2                             | 157 000                       |
|                          |                       | 8.0                       | 76.0                 | 22.9                             | 192 000                       |                          |                       | 10.0                      | 77.7                 | 35.0                             | 130 700                       |
|                          |                       | 8.5                       | 74.6                 | 22.8                             | 172 400                       |                          |                       | 11.0                      | 75.9                 | 34.7                             | 112 100                       |
|                          |                       | 9.0                       | 73.2                 | 22.6                             | 156 100                       |                          |                       | 12.0                      | 74.1                 | 34.4                             | 97 900                        |
|                          |                       | 10.0                      | 70.3                 | 22.2                             | 130 800                       |                          |                       | 13.0                      | 72.3                 | 34.1                             | 86 600                        |
|                          |                       | 11.0                      | 67.4                 | 21.8                             | 112 400                       |                          |                       | 14.0                      | 70.5                 | 33.8                             | 77 500                        |
|                          |                       | 12.0                      | 64.4                 | 21.3                             | 98 300                        |                          |                       | 15.0                      | 68.7                 | 33.3                             | 69 900                        |
|                          |                       | 13.0                      | 61.3                 | 20.7                             | 87 100                        |                          |                       | 16.0                      | 66.8                 | 32.9                             | 63 600                        |
|                          |                       | 14.0                      | 58.1                 | 20.1                             | 78 000                        |                          |                       | 18.0                      | 63.0                 | 31.9                             | 53 500                        |
|                          |                       | 15.0                      | 54.8                 | 19.4                             | 70 600                        |                          |                       | 20.0                      | 59.0                 | 30.7                             | 45 900                        |
|                          |                       | 16.0                      | 51.4                 | 18.5                             | 64 300                        |                          |                       | 22.0                      | 54.9                 | 29.3                             | 40 000                        |
|                          |                       | 18.0                      | 43.8                 | 16.6                             | 54 300                        |                          |                       | 24.0                      | 50.5                 | 27.7                             | 35 200                        |
|                          |                       | 20.0                      | 34.8                 | 13.9                             | 46 900                        |                          |                       | 26.0                      | 45.8                 | 25.8                             | 31 300                        |
| 2<br>4<br>: 4            | 8<br>0                | 6.1                       | 82.4                 | 26.5                             | 215 200*                      | 3<br>6<br>: 6            | 1<br>2<br>0           | 28.0                      | 40.6                 | 23.6                             | 28 000                        |
|                          |                       | 6.5                       | 81.4                 | 26.4                             | 215 200*                      |                          |                       | 30.0                      | 34.9                 | 20.9                             | 25 300                        |
|                          |                       | 7.0                       | 80.2                 | 26.3                             | 215 200*                      |                          |                       | 32.0                      | 28.0                 | 17.4                             | 23 000                        |
|                          |                       | 7.5                       | 79.0                 | 26.2                             | 205 100*                      |                          |                       | 7.3                       | 83.0                 | 38.6                             | 164 700*                      |
|                          |                       | 8.0                       | 77.8                 | 26.1                             | 191 700                       |                          |                       | 7.5                       | 82.7                 | 38.6                             | 164 100*                      |
|                          |                       | 8.5                       | 76.6                 | 26.0                             | 172 500                       |                          |                       | 8.0                       | 81.9                 | 38.5                             | 162 400*                      |
|                          |                       | 9.0                       | 75.4                 | 25.8                             | 156 100                       |                          |                       | 8.5                       | 81.1                 | 38.4                             | 160 800*                      |
|                          |                       | 10.0                      | 72.9                 | 25.5                             | 130 800                       |                          |                       | 9.0                       | 80.3                 | 38.3                             | 156 500                       |
|                          |                       | 11.0                      | 70.4                 | 25.1                             | 112 300                       |                          |                       | 10.0                      | 78.7                 | 38.1                             | 130 700                       |
|                          |                       | 12.0                      | 67.8                 | 24.7                             | 98 100                        |                          |                       | 11.0                      | 77.1                 | 37.9                             | 112 100                       |
|                          |                       | 13.0                      | 65.2                 | 24.2                             | 86 900                        |                          |                       | 12.0                      | 75.5                 | 37.6                             | 97 700                        |
|                          |                       | 14.0                      | 62.6                 | 23.7                             | 77 800                        |                          |                       | 13.0                      | 73.9                 | 37.3                             | 86 500                        |
|                          |                       | 15.0                      | 59.8                 | 23.1                             | 70 300                        |                          |                       | 14.0                      | 72.2                 | 37.0                             | 77 300                        |
|                          |                       | 16.0                      | 57.0                 | 22.4                             | 64 000                        |                          |                       | 15.0                      | 70.5                 | 36.6                             | 69 700                        |
|                          |                       | 18.0                      | 51.1                 | 20.8                             | 54 000                        |                          |                       | 16.0                      | 68.9                 | 36.2                             | 63 400                        |
|                          |                       | 20.0                      | 44.5                 | 18.9                             | 46 500                        |                          |                       | 18.0                      | 65.4                 | 35.3                             | 53 300                        |
|                          |                       | 22.0                      | 37.0                 | 16.4                             | 40 600                        |                          |                       | 20.0                      | 61.9                 | 34.3                             | 45 700                        |
| 2<br>7<br>: 4            | 9<br>0                | 24.0                      | 27.6                 | 13.0                             | 35 900                        |                          |                       | 22.0                      | 58.2                 | 33.1                             | 39 700                        |
|                          |                       | 6.4                       | 82.6                 | 29.5                             | 215 200*                      | 3<br>9<br>: 6            | 1<br>3<br>0           | 24.0                      | 54.4                 | 31.7                             | 34 900                        |
|                          |                       | 6.5                       | 82.4                 | 29.5                             | 215 200*                      |                          |                       | 26.0                      | 50.4                 | 30.0                             | 30 900                        |
|                          |                       | 7.0                       | 81.3                 | 29.4                             | 215 200*                      |                          |                       | 28.0                      | 46.1                 | 28.2                             | 27 600                        |
|                          |                       | 7.5                       | 80.3                 | 29.3                             | 204 700*                      |                          |                       | 30.0                      | 41.4                 | 26.0                             | 24 900                        |
|                          |                       | 8.0                       | 79.2                 | 29.2                             | 191 400                       |                          |                       | 32.0                      | 36.3                 | 23.4                             | 22 500                        |
|                          |                       | 8.5                       | 78.1                 | 29.1                             | 172 500                       |                          |                       | 34.0                      | 30.3                 | 20.1                             | 20 500                        |
|                          |                       | 9.0                       | 77.0                 | 29.0                             | 155 900                       |                          |                       | 7.9                       | 82.7                 | 41.6                             | 158 800*                      |
|                          |                       | 10.0                      | 74.9                 | 28.7                             | 130 700                       |                          |                       | 8.0                       | 82.6                 | 41.6                             | 158 600*                      |
|                          |                       | 11.0                      | 72.7                 | 28.4                             | 112 200                       |                          |                       | 8.5                       | 81.8                 | 41.5                             | 157 100*                      |
|                          |                       | 12.0                      | 70.4                 | 28.0                             | 97 900                        |                          |                       | 9.0                       | 81.1                 | 41.4                             | 154 200                       |
|                          |                       | 13.0                      | 68.2                 | 27.6                             | 86 700                        |                          |                       | 10.0                      | 79.6                 | 41.3                             | 130 500                       |
|                          |                       | 14.0                      | 65.9                 | 27.1                             | 77 600                        |                          |                       | 11.0                      | 78.1                 | 41.0                             | 111 900                       |
|                          |                       | 15.0                      | 63.5                 | 26.6                             | 70 100                        |                          |                       | 12.0                      | 76.6                 | 40.8                             | 97 500                        |
|                          |                       | 16.0                      | 61.1                 | 26.0                             | 63 800                        |                          |                       | 13.0                      | 75.1                 | 40.5                             | 86 300                        |
|                          |                       | 18.0                      | 56.1                 | 24.7                             | 53 800                        |                          |                       | 14.0                      | 73.6                 | 40.2                             | 77 100                        |
|                          |                       | 20.0                      | 50.8                 | 23.1                             | 46 300                        |                          |                       | 15.0                      | 72.1                 | 39.9                             | 69 600                        |
|                          |                       | 22.0                      | 45.0                 | 21.2                             | 40 400                        |                          |                       | 16.0                      | 70.6                 | 39.5                             | 63 200                        |
| 3<br>0<br>: 5            | 1<br>0<br>0           | 24.0                      | 38.5                 | 18.8                             | 35 600                        |                          |                       | 18.0                      | 67.4                 | 38.7                             | 53 100                        |
|                          |                       | 6.7                       | 82.8                 | 32.6                             | 215 200*                      |                          |                       | 20.0                      | 64.2                 | 37.7                             | 45 400                        |
|                          |                       | 7.0                       | 82.2                 | 32.5                             | 215 200*                      |                          |                       | 22.0                      | 60.9                 | 36.6                             | 39 500                        |
|                          |                       | 7.5                       | 81.2                 | 32.4                             | 204 100*                      |                          |                       | 24.0                      | 57.5                 | 35.4                             | 34 600                        |
|                          |                       | 8.0                       | 80.3                 | 32.3                             | 190 900                       |                          |                       | 26.0                      | 54.0                 | 34.0                             | 30 700                        |
|                          |                       | 8.5                       | 79.3                 | 32.2                             | 172 400                       |                          |                       | 28.0                      | 50.3                 | 32.3                             | 27 400                        |
|                          |                       | 9.0                       | 78.4                 | 32.1                             | 155 900                       |                          |                       | 30.0                      | 46.3                 | 30.5                             | 24 600                        |
|                          |                       | 10.0                      | 76.4                 | 31.9                             | 130 500                       |                          |                       | 32.0                      | 42.0                 | 28.3                             | 22 300                        |
|                          |                       | 11.0                      | 74.5                 | 31.6                             | 112 000                       |                          |                       | 34.0                      | 37.4                 | 25.8                             | 20 200                        |
|                          |                       | 12.0                      | 72.5                 | 31.2                             | 97 700                        |                          |                       | 36.0                      | 32.2                 | 22.8                             | 18 500                        |
|                          |                       | 13.0                      | 70.5                 | 30.9                             | 86 500                        |                          |                       | 38.0                      | 25.9                 | 19.0                             | 16 900                        |
|                          |                       | 14.0                      | 68.5                 | 30.5                             | 77 400                        |                          |                       |                           |                      |                                  |                               |
|                          |                       | 15.0                      | 66.4                 | 30.0                             | 69 800                        |                          |                       |                           |                      |                                  |                               |
|                          |                       | 16.0                      | 64.3                 | 29.5                             | 63 500                        |                          |                       |                           |                      |                                  |                               |
|                          |                       | 18.0                      | 60.0                 | 28.4                             | 53 400                        |                          |                       |                           |                      |                                  |                               |
|                          |                       | 20.0                      | 55.4                 | 27.0                             | 45 900                        |                          |                       |                           |                      |                                  |                               |
|                          |                       | 22.0                      | 50.6                 | 25.4                             | 39 900                        |                          |                       |                           |                      |                                  |                               |
|                          |                       | 24.0                      | 45.4                 | 23.5                             | 35 200                        |                          |                       |                           |                      |                                  |                               |
|                          |                       | 26.0                      | 39.7                 | 21.2                             | 31 300                        |                          |                       |                           |                      |                                  |                               |
|                          |                       | 28.0                      | 33.1                 | 18.3                             | 28 100                        |                          |                       |                           |                      |                                  |                               |

# MANITOWOC ENGINEERING CO.

Division of the Manitowoc Company, Inc. Manitowoc, Wisconsin 54220



## LIFTCRANE BOOM CAPACITIES

JAPANESE  
CODES

M-250

BOOM NO. 44 WITH HEAVY LIFT TOP  
28 mm HOIST AND WHIP LINE  
75 750 kg COUNTERWEIGHT  
360 DEGREE RATING

| BOOM<br>LENGTH<br>METERS | BOOM<br>LGTH.<br>FEET | OPER.<br>RADIUS<br>METERS | BOOM<br>ANG.<br>DEG. | BOOM<br>POINT<br>ELEV.<br>METERS | BOOM<br>CAPACITY<br>KILOGRAMS |
|--------------------------|-----------------------|---------------------------|----------------------|----------------------------------|-------------------------------|
| 4<br>2<br>·<br>7         | 1<br>4<br>0           | 8.2                       | 82.8                 | 44.7                             | 154 800*                      |
|                          |                       | 8.5                       | 82.4                 | 44.6                             | 154 000*                      |
|                          |                       | 9.0                       | 81.7                 | 44.5                             | 152 500                       |
|                          |                       | 10.0                      | 80.4                 | 44.4                             | 130 500                       |
|                          |                       | 11.0                      | 79.0                 | 44.2                             | 111 800                       |
|                          |                       | 12.0                      | 77.6                 | 43.9                             | 97 500                        |
|                          |                       | 13.0                      | 76.2                 | 43.7                             | 86 200                        |
|                          |                       | 14.0                      | 74.8                 | 43.4                             | 77 000                        |
|                          |                       | 15.0                      | 73.4                 | 43.1                             | 69 400                        |
|                          |                       | 16.0                      | 72.0                 | 42.8                             | 63 000                        |
|                          |                       | 18.0                      | 69.1                 | 42.0                             | 52 900                        |
|                          |                       | 20.0                      | 66.2                 | 41.1                             | 45 200                        |
|                          |                       | 22.0                      | 63.2                 | 40.1                             | 39 200                        |
|                          |                       | 24.0                      | 60.1                 | 39.0                             | 34 400                        |
|                          |                       | 26.0                      | 56.9                 | 37.7                             | 30 400                        |
|                          |                       | 28.0                      | 53.6                 | 36.3                             | 27 100                        |
|                          |                       | 30.0                      | 50.2                 | 34.6                             | 24 300                        |
|                          |                       | 32.0                      | 46.5                 | 32.8                             | 21 900                        |
| 4<br>5<br>·<br>7         | 1<br>5<br>0           | 34.0                      | 42.6                 | 30.7                             | 19 900                        |
|                          |                       | 36.0                      | 38.3                 | 28.2                             | 18 100                        |
|                          |                       | 38.0                      | 33.6                 | 25.3                             | 16 500                        |
|                          |                       | 8.5                       | 82.9                 | 47.7                             | 136 900*                      |
|                          |                       | 9.0                       | 82.3                 | 47.6                             | 135 500*                      |
|                          |                       | 10.0                      | 81.0                 | 47.5                             | 130 300                       |
|                          |                       | 11.0                      | 79.7                 | 47.3                             | 111 600                       |
|                          |                       | 12.0                      | 78.5                 | 47.1                             | 97 300                        |
|                          |                       | 13.0                      | 77.2                 | 46.8                             | 86 000                        |
|                          |                       | 14.0                      | 75.9                 | 46.6                             | 76 800                        |
|                          |                       | 15.0                      | 74.6                 | 46.3                             | 69 200                        |
|                          |                       | 16.0                      | 73.3                 | 46.0                             | 62 700                        |
|                          |                       | 18.0                      | 70.6                 | 45.3                             | 52 600                        |
|                          |                       | 20.0                      | 67.9                 | 44.5                             | 45 000                        |
|                          |                       | 22.0                      | 65.2                 | 43.6                             | 39 000                        |
|                          |                       | 24.0                      | 62.3                 | 42.5                             | 34 100                        |
|                          |                       | 26.0                      | 59.4                 | 41.4                             | 30 200                        |
| 4<br>8<br>·<br>8         | 1<br>6<br>0           | 28.0                      | 56.4                 | 40.0                             | 26 900                        |
|                          |                       | 30.0                      | 53.3                 | 38.6                             | 24 100                        |
|                          |                       | 32.0                      | 50.1                 | 36.9                             | 21 600                        |
|                          |                       | 34.0                      | 46.7                 | 35.1                             | 19 600                        |
|                          |                       | 36.0                      | 43.0                 | 33.0                             | 17 800                        |
|                          |                       | 38.0                      | 39.1                 | 30.6                             | 16 200                        |
|                          |                       | 8.8                       | 83.0                 | 50.7                             | 132 200*                      |
|                          |                       | 9.0                       | 82.8                 | 50.7                             | 131 800*                      |
|                          |                       | 10.0                      | 81.6                 | 50.6                             | 127 800                       |
|                          |                       | 11.0                      | 80.4                 | 50.4                             | 111 600                       |
|                          |                       | 12.0                      | 79.2                 | 50.2                             | 97 200                        |
|                          |                       | 13.0                      | 78.0                 | 50.0                             | 85 900                        |
|                          |                       | 14.0                      | 76.8                 | 49.7                             | 76 700                        |
|                          |                       | 15.0                      | 75.6                 | 49.4                             | 69 000                        |
|                          |                       | 16.0                      | 74.3                 | 49.2                             | 62 600                        |
|                          |                       | 18.0                      | 71.9                 | 48.5                             | 52 500                        |
|                          |                       | 20.0                      | 69.4                 | 47.8                             | 44 800                        |
| 5<br>1<br>·<br>8         | 1<br>7<br>0           | 22.0                      | 66.8                 | 46.9                             | 38 800                        |
|                          |                       | 24.0                      | 64.2                 | 46.0                             | 33 900                        |
|                          |                       | 26.0                      | 61.5                 | 44.9                             | 29 900                        |
|                          |                       | 28.0                      | 58.8                 | 43.7                             | 26 600                        |
|                          |                       | 30.0                      | 56.0                 | 42.4                             | 23 800                        |
|                          |                       | 32.0                      | 53.1                 | 40.9                             | 21 400                        |
|                          |                       | 34.0                      | 50.0                 | 39.2                             | 19 300                        |
|                          |                       | 36.0                      | 46.8                 | 37.4                             | 17 400                        |
|                          |                       | 9.1                       | 83.0                 | 53.8                             | 128 500*                      |
|                          |                       | 10.0                      | 82.1                 | 53.6                             | 125 700                       |
|                          |                       | 11.0                      | 81.0                 | 53.5                             | 111 400                       |
|                          |                       | 12.0                      | 79.8                 | 53.3                             | 97 000                        |
|                          |                       | 13.0                      | 78.7                 | 53.1                             | 85 600                        |
|                          |                       | 14.0                      | 77.6                 | 52.9                             | 76 400                        |
|                          |                       | 15.0                      | 76.4                 | 52.6                             | 68 800                        |
|                          |                       | 16.0                      | 75.3                 | 52.3                             | 62 400                        |
|                          |                       | 18.0                      | 73.0                 | 51.7                             | 52 200                        |
| 5<br>4<br>·<br>9         | 1<br>8<br>0           | 20.0                      | 70.6                 | 51.0                             | 44 600                        |
|                          |                       | 22.0                      | 68.3                 | 50.2                             | 38 500                        |
|                          |                       | 24.0                      | 65.8                 | 49.4                             | 33 700                        |
|                          |                       | 26.0                      | 63.4                 | 48.4                             | 29 700                        |
|                          |                       | 28.0                      | 60.8                 | 47.3                             | 26 400                        |
|                          |                       | 30.0                      | 58.3                 | 46.0                             | 23 600                        |
|                          |                       | 32.0                      | 55.6                 | 44.7                             | 21 100                        |
|                          |                       | 34.0                      | 52.8                 | 43.2                             | 19 100                        |
|                          |                       | 36.0                      | 50.0                 | 41.5                             | 17 200                        |
|                          |                       | 9.8                       | 82.8                 | 56.8                             | 124 200*                      |
|                          |                       | 10.0                      | 82.5                 | 56.7                             | 123 600                       |
|                          |                       | 11.0                      | 81.5                 | 56.6                             | 111 200                       |
|                          |                       | 12.0                      | 80.4                 | 56.4                             | 96 800                        |
|                          |                       | 13.0                      | 79.3                 | 56.2                             | 85 400                        |
|                          |                       | 14.0                      | 78.3                 | 56.0                             | 76 200                        |
|                          |                       | 15.0                      | 77.2                 | 55.7                             | 68 500                        |
|                          |                       | 16.0                      | 76.1                 | 55.5                             | 62 100                        |
| 5<br>7<br>·<br>9         | 1<br>9<br>0           | 18.0                      | 74.0                 | 54.9                             | 51 900                        |
|                          |                       | 20.0                      | 71.8                 | 54.3                             | 44 300                        |
|                          |                       | 22.0                      | 69.5                 | 53.5                             | 38 200                        |
|                          |                       | 24.0                      | 67.3                 | 52.7                             | 33 300                        |
|                          |                       | 26.0                      | 65.0                 | 51.8                             | 29 400                        |
|                          |                       | 28.0                      | 62.6                 | 50.7                             | 26 000                        |
|                          |                       | 30.0                      | 60.2                 | 49.6                             | 23 200                        |
|                          |                       | 32.0                      | 57.8                 | 48.4                             | 20 700                        |
|                          |                       | 34.0                      | 55.2                 | 47.0                             | 18 600                        |
|                          |                       | 10.4                      | 82.6                 | 59.7                             | 109 100*                      |
|                          |                       | 11.0                      | 81.9                 | 59.7                             | 107 800                       |
|                          |                       | 12.0                      | 80.9                 | 59.5                             | 97 200                        |
|                          |                       | 13.0                      | 79.9                 | 59.3                             | 85 400                        |
|                          |                       | 14.0                      | 78.9                 | 59.1                             | 76 200                        |
|                          |                       | 15.0                      | 77.9                 | 58.9                             | 68 500                        |
|                          |                       | 16.0                      | 76.9                 | 58.6                             | 62 100                        |
|                          |                       | 18.0                      | 74.8                 | 58.1                             | 51 900                        |
| 6<br>1<br>·<br>0         | 2<br>0<br>0           | 20.0                      | 72.8                 | 57.5                             | 44 200                        |
|                          |                       | 22.0                      | 70.7                 | 56.8                             | 38 200                        |
|                          |                       | 24.0                      | 68.5                 | 56.0                             | 33 300                        |
|                          |                       | 26.0                      | 66.4                 | 55.1                             | 29 300                        |
|                          |                       | 28.0                      | 64.2                 | 54.2                             | 25 900                        |
|                          |                       | 30.0                      | 61.9                 | 53.1                             | 23 100                        |
|                          |                       | 32.0                      | 59.7                 | 52.0                             | 20 700                        |
|                          |                       | 34.0                      | 57.3                 | 50.7                             | 18 600                        |
|                          |                       | 10.4                      | 82.9                 | 62.8                             | 105 500*                      |
|                          |                       | 11.0                      | 82.3                 | 62.7                             | 104 400                       |
|                          |                       | 12.0                      | 81.4                 | 62.6                             | 97 400                        |
|                          |                       | 13.0                      | 80.4                 | 62.4                             | 85 200                        |
|                          |                       | 14.0                      | 79.5                 | 62.2                             | 76 000                        |
|                          |                       | 15.0                      | 78.5                 | 62.0                             | 68 300                        |
|                          |                       | 16.0                      | 77.5                 | 61.8                             | 61 800                        |
|                          |                       | 18.0                      | 75.6                 | 61.3                             | 51 600                        |
|                          |                       | 20.0                      | 73.6                 | 60.7                             | 43 900                        |
|                          |                       | 22.0                      | 71.7                 | 60.0                             | 37 800                        |
|                          |                       | 24.0                      | 69.7                 | 59.3                             | 32 900                        |
|                          |                       | 26.0                      | 67.6                 | 58.5                             | 28 900                        |
|                          |                       | 28.0                      | 65.6                 | 57.6                             | 25 600                        |
|                          |                       | 30.0                      | 63.5                 | 56.6                             | 22 700                        |
|                          |                       | 32.0                      | 61.3                 | 55.5                             | 20 300                        |

# MANITOWOC ENGINEERING CO.

Division of the Manitowoc Company, Inc. Manitowoc, Wisconsin 54220



## LIFTCRANE BOOM CAPACITIES

JAPANESE  
CODES

M-250

BOOM NO. 44 WITH HEAVY LIFT TOP  
28 mm HOIST AND WHIP LINE  
75 750 kg COUNTERWEIGHT  
360 DEGREE RATING

| BOOM<br>LENGTH<br>METERS | BOOM<br>LGTH.<br>FEET | OPER.<br>RADIUS<br>METERS | BOOM<br>ANG.<br>DEG. | BOOM<br>POINT<br>ELEV.<br>METERS | BOOM<br>CAPACITY<br>KILOGRAMS |
|--------------------------|-----------------------|---------------------------|----------------------|----------------------------------|-------------------------------|
| 6<br>4<br>:0             | 2<br>1<br>0           | 11.0                      | 82.7                 | 65.8                             | 101 800*                      |
|                          |                       | 12.0                      | 81.8                 | 65.7                             | 96 800                        |
|                          |                       | 13.0                      | 80.9                 | 65.5                             | 84 900                        |
|                          |                       | 14.0                      | 80.0                 | 65.3                             | 75 600                        |
|                          |                       | 15.0                      | 79.1                 | 65.1                             | 68 000                        |
|                          |                       | 16.0                      | 78.1                 | 64.9                             | 61 500                        |
|                          |                       | 18.0                      | 76.3                 | 64.4                             | 51 300                        |
|                          |                       | 20.0                      | 74.4                 | 63.9                             | 43 600                        |
|                          |                       | 22.0                      | 72.6                 | 63.2                             | 37 500                        |
|                          |                       | 24.0                      | 70.7                 | 62.5                             | 32 700                        |
|                          |                       | 26.0                      | 68.8                 | 61.8                             | 28 700                        |
|                          |                       | 28.0                      | 66.8                 | 60.9                             | 25 300                        |
|                          |                       | 30.0                      | 64.8                 | 60.0                             | 22 500                        |
|                          |                       | 32.0                      | 62.8                 | 59.0                             | 20 000                        |
| 6<br>7<br>:1             | 2<br>2<br>0           | 11.6                      | 82.5                 | 68.8                             | 98 200*                       |
|                          |                       | 12.0                      | 82.2                 | 68.7                             | 95 300                        |
|                          |                       | 13.0                      | 81.3                 | 68.6                             | 84 900                        |
|                          |                       | 14.0                      | 80.4                 | 68.4                             | 75 600                        |
|                          |                       | 15.0                      | 79.6                 | 68.2                             | 68 000                        |
|                          |                       | 16.0                      | 78.7                 | 68.0                             | 61 500                        |
|                          |                       | 18.0                      | 76.9                 | 67.6                             | 51 200                        |
|                          |                       | 20.0                      | 75.2                 | 67.0                             | 43 500                        |
|                          |                       | 22.0                      | 73.4                 | 66.4                             | 37 400                        |
|                          |                       | 24.0                      | 71.6                 | 65.8                             | 32 500                        |
|                          |                       | 26.0                      | 69.8                 | 65.1                             | 28 500                        |
|                          |                       | 28.0                      | 67.9                 | 64.2                             | 25 200                        |
|                          |                       | 30.0                      | 66.1                 | 63.4                             | 22 300                        |
|                          |                       | 32.0                      | 64.2                 | 62.4                             | 19 900                        |
| 7<br>0<br>:1             | 2<br>3<br>0           | 11.6                      | 82.9                 | 71.9                             | 87 200*                       |
|                          |                       | 12.0                      | 82.5                 | 71.8                             | 86 700*                       |
|                          |                       | 13.0                      | 81.7                 | 71.7                             | 84 600                        |
|                          |                       | 14.0                      | 80.9                 | 71.5                             | 75 500                        |
|                          |                       | 15.0                      | 80.0                 | 71.3                             | 67 900                        |
|                          |                       | 16.0                      | 79.2                 | 71.1                             | 61 400                        |
|                          |                       | 18.0                      | 77.5                 | 70.7                             | 51 200                        |
|                          |                       | 20.0                      | 75.8                 | 70.2                             | 43 400                        |
|                          |                       | 22.0                      | 74.1                 | 69.6                             | 37 300                        |
|                          |                       | 24.0                      | 72.4                 | 69.0                             | 32 400                        |
|                          |                       | 26.0                      | 70.7                 | 68.3                             | 28 400                        |
|                          |                       | 28.0                      | 68.9                 | 67.5                             | 25 000                        |
|                          |                       | 30.0                      | 67.2                 | 66.7                             | 22 200                        |
|                          |                       | 32.0                      | 65.4                 | 65.8                             | 19 700                        |
| 7<br>3<br>:2             | 2<br>4<br>0           | 12.2                      | 82.7                 | 74.9                             | 83 800*                       |
|                          |                       | 13.0                      | 82.0                 | 74.8                             | 82 600                        |
|                          |                       | 14.0                      | 81.2                 | 74.6                             | 75 400                        |
|                          |                       | 15.0                      | 80.4                 | 74.4                             | 67 600                        |
|                          |                       | 16.0                      | 79.6                 | 74.2                             | 61 200                        |
|                          |                       | 18.0                      | 78.0                 | 73.8                             | 50 800                        |
|                          |                       | 20.0                      | 76.4                 | 73.3                             | 43 100                        |
|                          |                       | 22.0                      | 74.8                 | 72.8                             | 37 000                        |
|                          |                       | 24.0                      | 73.2                 | 72.2                             | 32 100                        |
|                          |                       | 26.0                      | 71.5                 | 71.5                             | 28 000                        |
|                          |                       | 28.0                      | 69.9                 | 70.8                             | 24 700                        |
|                          |                       | 30.0                      | 68.2                 | 70.0                             | 21 800                        |
| 7<br>6<br>:2             | 2<br>5<br>0           | 12.2                      | 83.0                 | 78.0                             | 77 000*                       |
|                          |                       | 13.0                      | 82.4                 | 77.8                             | 77 000*                       |
|                          |                       | 14.0                      | 81.6                 | 77.7                             | 75 700                        |
|                          |                       | 15.0                      | 80.8                 | 77.5                             | 68 100                        |
|                          |                       | 16.0                      | 80.1                 | 77.3                             | 61 600                        |
|                          |                       | 18.0                      | 78.5                 | 76.9                             | 51 300                        |
|                          |                       | 20.0                      | 77.0                 | 76.5                             | 43 600                        |
|                          |                       | 22.0                      | 75.4                 | 76.0                             | 37 500                        |
|                          |                       | 24.0                      | 73.9                 | 75.4                             | 32 600                        |
|                          |                       | 26.0                      | 72.3                 | 74.8                             | 28 500                        |
|                          |                       | 28.0                      | 70.7                 | 74.1                             | 25 200                        |
|                          |                       | 30.0                      | 69.1                 | 73.3                             | 22 300                        |
|                          |                       | 32.0                      | 67.5                 | 72.5                             | 19 800                        |

| BOOM<br>LENGTH<br>METERS | BOOM<br>LGTH.<br>FEET | OPER.<br>RADIUS<br>METERS | BOOM<br>ANG.<br>DEG. | BOOM<br>POINT<br>ELEV.<br>METERS | BOOM<br>CAPACITY<br>KILOGRAMS |
|--------------------------|-----------------------|---------------------------|----------------------|----------------------------------|-------------------------------|
| 7<br>9<br>:2             | 2<br>6<br>0           | 12.8                      | 82.8                 | 81.0                             | 74 400*                       |
|                          |                       | 13.0                      | 82.7                 | 80.9                             | 73 900*                       |
|                          |                       | 14.0                      | 81.9                 | 80.8                             | 71 700*                       |
|                          |                       | 15.0                      | 81.2                 | 80.6                             | 68 100                        |
|                          |                       | 16.0                      | 80.5                 | 80.4                             | 61 500                        |
|                          |                       | 18.0                      | 79.0                 | 80.1                             | 51 100                        |
|                          |                       | 20.0                      | 77.5                 | 79.6                             | 43 300                        |
|                          |                       | 22.0                      | 76.0                 | 79.1                             | 37 200                        |
|                          |                       | 24.0                      | 74.5                 | 78.6                             | 32 300                        |
|                          |                       | 26.0                      | 73.0                 | 78.0                             | 28 200                        |
|                          |                       | 28.0                      | 71.5                 | 77.3                             | 24 800                        |
|                          |                       | 30.0                      | 69.9                 | 76.6                             | 21 900                        |
| 8<br>2<br>:3             | 2<br>7<br>0           | 13.4                      | 82.6                 | 83.9                             | 66 500*                       |
|                          |                       | 14.0                      | 82.2                 | 83.9                             | 65 300*                       |
|                          |                       | 15.0                      | 81.5                 | 83.7                             | 63 400*                       |
|                          |                       | 16.0                      | 80.8                 | 83.5                             | 60 400                        |
|                          |                       | 18.0                      | 79.4                 | 83.2                             | 51 000                        |
|                          |                       | 20.0                      | 78.0                 | 82.7                             | 43 000                        |
|                          |                       | 22.0                      | 76.5                 | 82.3                             | 36 800                        |
|                          |                       | 24.0                      | 75.1                 | 81.7                             | 31 900                        |
|                          |                       | 26.0                      | 73.7                 | 81.2                             | 27 900                        |
|                          |                       | 28.0                      | 72.2                 | 80.5                             | 24 500                        |
|                          |                       | 30.0                      | 70.7                 | 79.8                             | 21 600                        |
| 8<br>5<br>:3             | 2<br>8<br>0           | 13.4                      | 82.9                 | 87.0                             | 64 100*                       |
|                          |                       | 14.0                      | 82.5                 | 86.9                             | 63 700*                       |
|                          |                       | 15.0                      | 81.8                 | 86.8                             | 63 000*                       |
|                          |                       | 16.0                      | 81.1                 | 86.6                             | 60 800                        |
|                          |                       | 18.0                      | 79.8                 | 86.3                             | 51 500                        |
|                          |                       | 20.0                      | 78.4                 | 85.9                             | 43 400                        |
|                          |                       | 22.0                      | 77.0                 | 85.4                             | 37 200                        |
|                          |                       | 24.0                      | 75.6                 | 84.9                             | 32 300                        |
|                          |                       | 26.0                      | 74.3                 | 84.3                             | 28 200                        |
|                          |                       | 28.0                      | 72.8                 | 83.7                             | 24 800                        |
|                          |                       | 30.0                      | 71.4                 | 83.1                             | 21 900                        |
| 8<br>8<br>:4             | 2<br>9<br>0           | 14.0                      | 82.7                 | 90.0                             | 59 800*                       |
|                          |                       | 15.0                      | 82.1                 | 89.9                             | 59 200*                       |
|                          |                       | 16.0                      | 81.5                 | 89.7                             | 58 100                        |
|                          |                       | 18.0                      | 80.1                 | 89.4                             | 51 500                        |
|                          |                       | 20.0                      | 78.8                 | 89.0                             | 43 100                        |
|                          |                       | 22.0                      | 77.5                 | 88.5                             | 36 900                        |
|                          |                       | 24.0                      | 76.2                 | 88.0                             | 32 000                        |
|                          |                       | 26.0                      | 74.8                 | 87.5                             | 27 900                        |
|                          |                       | 28.0                      | 73.5                 | 86.9                             | 24 500                        |
|                          |                       | 30.0                      | 72.1                 | 86.3                             | 21 600                        |