

MANITOWOC ENGINEERING CO.

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



LIFTCRANE BOOM CAPACITIES

M-1200

BOOM NO. 72/75A OR NO. 72A/75A

MAST NO. 75 OR NO. 75A

60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS

52,000 LB. CRANE COUNTERWEIGHT

2,061,600 LB. AUXILIARY COUNTERWEIGHT

360 DEGREE RATING

CAPACITIES FOR VARIOUS BOOM LENGTHS AND OPERATING RADIUS 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 LIFTCRANE SERVICE WITH 6 PART LINE IS 180,000 LBS. IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR MAIN BOOM CAPACITY. UPPER BOOM POINT MINIMUM OPERATING RADIUS WILL BE RESTRICTED WITH BOOM AT MAXIMUM ANGLE.

WEIGHT OF ALL LOAD BLOCKS, HOOKS, SLINGS, HOIST LINES, ETC., BENEATH BOOM SHEAVES, IS CONSIDERED PART OF MAIN BOOM LOAD. BOOM IS NOT TO BE LOWERED BEYOND RADIUS 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 ROLLER PATH LEVEL WITHIN A TOLERANCE OF 1-1/4" IN 60' AND PROPERLY SUPPORTED. REFER TO BOOM RIGGING NO. 174950, NO. 175729 OR NO. 175956 AND WIRE ROPE SPECIFICATION CHART NO. 7683-B. 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.

MACHINE MAY BE OPERATED IN WINDS UP TO 30 MPH PROVIDED CRANE OPERATOR JUDGMENT IS USED TO ALLOW FOR WIND EFFECT ON THE 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 TO APPROXIMATELY 75 DEGREE BOOM ANGLE WHEN WIND EXCEEDS 30 MPH. LOWER BOOM TO GROUND WHEN WIND IS ABOVE 50 MPH.

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 60' RINGER ATTACHMENT, 30' 9" CRAWLERS, 48" TREADS, 28' RETRACTABLE GANTRY, 150' NO. 75 MAST WITH 32 PART BOOM HOIST REEVING OR NO. 75A MAST WITH 36 PART BOOM HOIST REEVING, STRAP BOOM PENDANTS, 52,000 LB. CRANE COUNTERWEIGHT AND 2,061,600 LB. AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM LENGTH
LIFTED UNASSISTED = 353'

LOAD BLOCKS ON GROUND AT START.

JIB AND JIB BACKSTAYS MUST BE REMOVED FOR USE OF THIS CHART.

WARNING: CHECK AMOUNT OF AUXILIARY COUNTERWEIGHT ON MACHINE BEFORE USE OF THIS CHART.

| BOOM LGTH. FEET | OPER. RAD. FEET | BOOM ANG. DEG. | BOOM POINT ELEV. FEET | BOOM CAPACITY POUNDS |
|-----------------|-----------------|----------------|-----------------------|----------------------|
| 303 | 75 | 81.6 | 310.8 | 1,764,000* |
| | 80 | 80.6 | 310.0 | 1,764,000* |
| | 85 | 79.7 | 309.1 | 1,630,000 |
| | 90 | 78.7 | 308.1 | 1,488,100 |
| | 95 | 77.7 | 307.0 | 1,367,200 |
| | 100 | 76.8 | 305.8 | 1,262,900 |
| | 105 | 75.8 | 304.5 | 1,172,100 |
| | 110 | 74.8 | 303.2 | 1,092,300 |
| | 115 | 73.8 | 301.7 | 1,021,600 |
| | 120 | 72.8 | 300.2 | 958,600 |
| | 125 | 71.8 | 298.5 | 902,000 |
| | 130 | 70.8 | 296.8 | 851,000 |
| | 135 | 69.8 | 295.0 | 804,600 |
| | 140 | 68.8 | 293.0 | 762,500 |
| | 145 | 67.8 | 291.0 | 723,900 |
| | 150 | 66.8 | 288.9 | 688,400 |
| | 155 | 65.7 | 286.6 | 655,700 |
| | 160 | 64.7 | 284.2 | 625,500 |
| | 165 | 63.6 | 281.8 | 597,500 |
| | 170 | 62.6 | 279.2 | 571,500 |
| 175 | 61.5 | 276.5 | 547,200 | |
| 180 | 60.4 | 273.6 | 524,500 | |
| 185 | 59.3 | 270.7 | 503,200 | |

| BOOM LGTH. FEET | OPER. RAD. FEET | BOOM ANG. DEG. | BOOM POINT ELEV. FEET | BOOM CAPACITY POUNDS |
|-----------------|-----------------|----------------|-----------------------|----------------------|
| 303 | 190 | 58.2 | 267.6 | 483,300 |
| | 195 | 57.1 | 264.3 | 464,500 |
| | 200 | 55.9 | 261.0 | 446,900 |
| | 205 | 54.8 | 257.5 | 430,200 |
| | 210 | 53.6 | 253.8 | 414,400 |
| | 215 | 52.4 | 249.9 | 399,500 |
| | 220 | 51.2 | 245.9 | 385,400 |
| | 225 | 50.0 | 241.8 | 371,900 |
| | 230 | 48.7 | 237.4 | 359,100 |
| | 235 | 47.4 | 232.8 | 347,000 |
| | 240 | 46.1 | 228.0 | 335,400 |
| | 245 | 44.8 | 223.0 | 324,400 |
| | 250 | 43.4 | 217.8 | 313,800 |
| | 255 | 42.0 | 212.3 | 303,700 |
| | 260 | 40.6 | 206.5 | 294,000 |
| | 265 | 39.1 | 200.4 | 284,800 |
| | 270 | 37.5 | 193.9 | 275,900 |
| | 275 | 35.9 | 187.1 | 267,400 |
| | 280 | 34.3 | 179.8 | 259,200 |
| | 285 | 32.5 | 172.1 | 251,300 |
| 290 | 30.7 | 163.8 | 243,700 | |
| 295 | 28.8 | 154.9 | 236,400 | |

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M-1200

BOOM NO. 72/75A OR NO. 72A/75A

MAST NO. 75 OR NO. 75A

60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS

52,000 LB. CRANE COUNTERWEIGHT

2,061,600 LB. AUXILIARY COUNTERWEIGHT

360 DEGREE RATING

| BOOM LGTH. FEET | OPER. RAD. FEET | BOOM ANG. DEG. | BOOM POINT ELEV. FEET | BOOM CAPACITY POUNDS |
|----------------------|-----------------|----------------|-----------------------|----------------------|
| 3 2 8 | 80 | 81.4 | 335.3 | 1,323,700* |
| | 85 | 80.5 | 334.5 | 1,261,500* |
| | 90 | 79.6 | 333.6 | 1,204,100* |
| | 95 | 78.7 | 332.6 | 1,150,600* |
| | 100 | 77.8 | 331.5 | 1,100,700* |
| | 105 | 76.9 | 330.3 | 1,054,100* |
| | 110 | 76.0 | 329.1 | 1,010,200* |
| | 115 | 75.1 | 327.7 | 968,800* |
| | 120 | 74.2 | 326.3 | 929,900* |
| | 125 | 73.3 | 324.8 | 892,900* |
| | 130 | 72.4 | 323.2 | 848,400 |
| | 135 | 71.4 | 321.6 | 802,100 |
| | 140 | 70.5 | 319.8 | 759,900 |
| | 145 | 69.6 | 317.9 | 721,300 |
| | 150 | 68.6 | 316.0 | 685,900 |
| | 155 | 67.7 | 313.9 | 653,200 |
| | 160 | 66.7 | 311.8 | 623,000 |
| | 165 | 65.8 | 309.5 | 595,000 |
| | 170 | 64.8 | 307.2 | 568,900 |
| | 175 | 63.9 | 304.7 | 544,600 |
| | 180 | 62.9 | 302.2 | 521,900 |
| | 185 | 61.9 | 299.5 | 500,700 |
| | 190 | 60.9 | 296.7 | 480,800 |
| | 195 | 59.9 | 293.8 | 462,000 |
| | 200 | 58.9 | 290.8 | 444,300 |
| | 205 | 57.8 | 287.7 | 427,700 |
| | 210 | 56.8 | 284.4 | 411,900 |
| | 215 | 55.7 | 281.0 | 397,000 |
| | 220 | 54.7 | 277.5 | 382,800 |
| | 225 | 53.6 | 273.8 | 369,400 |
| | 230 | 52.5 | 269.9 | 356,600 |
| | 235 | 51.4 | 266.0 | 344,500 |
| 240 | 50.2 | 261.8 | 332,900 | |
| 245 | 49.1 | 257.5 | 321,800 | |
| 250 | 47.9 | 253.0 | 311,300 | |
| 255 | 46.7 | 248.3 | 298,500* | |
| 260 | 45.5 | 243.4 | 283,300* | |
| 265 | 44.2 | 238.3 | 268,300* | |
| 270 | 42.9 | 233.0 | 253,600* | |
| 275 | 41.6 | 227.4 | 239,100* | |
| 280 | 40.3 | 221.5 | 224,900* | |
| 285 | 38.9 | 215.4 | 211,000* | |
| 290 | 37.5 | 208.9 | 197,300* | |
| 295 | 36.0 | 202.1 | 183,800* | |
| 300 | 34.5 | 194.9 | 170,400* | |
| 305 | 32.9 | 187.2 | 157,300* | |
| 310 | 31.2 | 179.1 | 144,200* | |
| 315 | 29.5 | 170.4 | 131,300* | |
| 320 | 27.6 | 161.0 | 118,500* | |

| BOOM LGTH. FEET | OPER. RAD. FEET | BOOM ANG. DEG. | BOOM POINT ELEV. FEET | BOOM CAPACITY POUNDS |
|----------------------|-----------------|----------------|-----------------------|----------------------|
| 3 5 3 | 80 | 82.0 | 360.6 | 1,271,000* |
| | 85 | 81.2 | 359.8 | 1,211,700* |
| | 90 | 80.3 | 359.0 | 1,156,500* |
| | 95 | 79.5 | 358.1 | 1,105,200* |
| | 100 | 78.7 | 357.1 | 1,057,100* |
| | 105 | 77.8 | 356.0 | 1,011,800* |
| | 110 | 77.0 | 354.8 | 969,200* |
| | 115 | 76.2 | 353.6 | 928,900* |
| | 120 | 75.3 | 352.3 | 890,800* |
| | 125 | 74.5 | 350.9 | 854,800* |
| | 130 | 73.7 | 349.4 | 820,300* |
| | 135 | 72.8 | 347.9 | 787,600* |
| | 140 | 71.9 | 346.3 | 756,200* |
| | 145 | 71.1 | 344.5 | 719,000 |
| | 150 | 70.2 | 342.7 | 683,600 |
| | 155 | 69.4 | 340.9 | 650,900 |
| | 160 | 68.5 | 338.9 | 620,700 |
| | 165 | 67.6 | 336.8 | 592,700 |
| | 170 | 66.7 | 334.7 | 566,600 |
| | 175 | 65.8 | 332.4 | 542,400 |
| | 180 | 64.9 | 330.1 | 519,700 |
| | 185 | 64.0 | 327.7 | 498,400 |
| | 190 | 63.1 | 325.1 | 478,500 |
| | 195 | 62.2 | 322.5 | 459,700 |
| | 200 | 61.3 | 319.8 | 442,100 |
| | 205 | 60.4 | 316.9 | 425,400 |
| | 210 | 59.4 | 314.0 | 409,600 |
| | 215 | 58.5 | 310.9 | 394,700 |
| | 220 | 57.5 | 307.7 | 380,600 |
| | 225 | 56.5 | 304.4 | 367,200 |
| | 230 | 55.5 | 301.0 | 351,200* |
| | 235 | 54.5 | 297.5 | 334,400* |
| 240 | 53.5 | 293.8 | 318,000* | |
| 245 | 52.5 | 290.0 | 302,000* | |
| 250 | 51.5 | 286.0 | 286,400* | |
| 255 | 50.4 | 281.9 | 271,100* | |
| 260 | 49.4 | 277.6 | 256,100* | |
| 265 | 48.3 | 273.1 | 241,400* | |
| 270 | 47.2 | 268.5 | 227,100* | |
| 275 | 46.0 | 263.7 | 213,000* | |
| 280 | 44.9 | 258.7 | 199,200* | |
| 285 | 43.7 | 253.5 | 185,600* | |
| 290 | 42.5 | 248.1 | 172,300* | |
| 295 | 41.3 | 242.5 | 159,300* | |
| 300 | 40.1 | 236.6 | 146,500* | |
| 305 | 38.8 | 230.4 | 133,800* | |
| 310 | 37.4 | 223.9 | 121,400* | |
| 315 | 36.1 | 217.1 | 109,200* | |