**MANITOWOC ENGINEERING CO.**
Division of the Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

# LIFTCRANE BOOM CAPACITIES WITH CONTAINER HANDLING LUFFING JIB ATTACHED

MEETS ANSI B30.5 REQUIREMENTS

**M-250 SERIES 2 SPECIAL**

**BOOM NO. 44 WITH HEAVY LIFT TOP**
**21.3m LUFFING JIB NO. 136**
**SET AT 135 DEGREE BOOM TO LUFFING JIB ANGLE**
**93 890 kg CRANE COUNTERWEIGHT**
**68 040 kg CARBODY COUNTERWEIGHT**
**360 DEGREE RATING**

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 (*).

WEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM POINT SHEAVES, IS CONSIDERED PART OF MAIN BOOM LOAD. WEIGHT OF LUFFING JIB AND 2 270 kg SUSPENDED BENEATH LUFFING JIB POINT SHEAVES HAVE BEEN INCLUDED IN CAPACITY DETERMINATION. 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. DURING OPERATION, LUFFING JIB MUST BE MAINTAINED AT 135 DEGREE BOOM TO LUFFING JIB ANGLE. REFER TO LUFFING JIB ASSEMBLY NO. 177438, WIRE ROPE SPECIFICATION CHART NO. 7877-A, LUFFING JIB RAISING PROCEDURE CHART NO. 7878-A 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 IN WINDS UP TO 13 m/s 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 WHEN WIND IS ABOVE 13 m/s. LOWER BOOM AND LUFFING JIB TO GROUND WHEN WIND IS ABOVE 22 m/s.

MACHINE TO TRAVEL ON A FIRM, LEVEL AND UNIFORMLY SUPPORTING SURFACE WITH BOOM WITHIN ANGLE RANGE SHOWN IN CAPACITY CHART AND LUFFING JIB SET AT 135 DEGREE BOOM TO LUFFING JIB ANGLE.

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 38 mm BOOM PENDANTS, 10 PART LUFFING JIB HOIST REEVING, TWO 45 mm LUFFING JIB PENDANTS AND BACKSTAYS, 93 890 kg CRANE COUNTERWEIGHT, TWO 13 610 kg AND FOUR 10 205 kg CARBODY COUNTERWEIGHTS.

CONSULT CHART NO. 7880-AM FOR LUFFING JIB CONTAINER HANDLING CAPACITIES.

| BOOM LENGTH METERS | BOOM LGTH. FEET | OPER. RADIUS METERS | BOOM ANG. DEG. | BOOM POINT ELEV. METERS | BOOM CAPACITY KILOGRAMS |
|---|---|---|---|---|---|
| 24.4 | 80 | 6.1 | 82.4 | 26.5 | 208 600* |
| | | 6.5 | 81.4 | 26.4 | 206 700* |
| | | 7.0 | 80.2 | 26.3 | 204 500* |
| | | 7.5 | 79.0 | 26.2 | 198 400* |
| | | 8.0 | 77.8 | 26.1 | 184 900* |
| | | 8.5 | 76.6 | 26.0 | 173 600* |
| | | 9.0 | 75.4 | 25.8 | 163 500* |
| | | 9.5 | 74.1 | 25.7 | 154 400* |
| | | 10.0 | 72.9 | 25.5 | 146 100* |