

MANITOWOC ENGINEERING CO.

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



LIFT CRANE 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
70' LUFFING JIB NO. 136
SET AT 135 DEGREE BOOM TO LUFFING JIB ANGLE
207,000 LB. CRANE COUNTERWEIGHT
150,000 LB. 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 5,000 LBS. 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 30 MPH 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 30 MPH. LOWER BOOM AND LUFFING JIB TO GROUND WHEN WIND IS ABOVE 50 MPH.

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 30'9" CRAWLERS, 48" TREADS, 28' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 1-1/2" BOOM PENDANTS, 10 PART LUFFING JIB HOIST REEVING, TWO 1-3/4" LUFFING JIB PENDANTS AND BACKSTAYS, 207,000 LB. CRANE COUNTERWEIGHT, TWO 30,000 LB. AND FOUR 22,500 LB. CARBODY COUNTERWEIGHTS.

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

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
80	20	82.4	86.9	460,000*
	21	81.7	86.7	456,800*
	22	80.9	86.5	453,800*
	23	80.2	86.3	450,800*
	24	79.5	86.1	446,900*
	25	78.7	85.9	428,700*
	26	78.0	85.6	411,700*
	27	77.3	85.4	396,000*
	28	76.5	85.1	381,200*
	29	75.8	84.8	367,500*
	30	75.0	84.5	354,600*
	32	73.5	83.9	331,000*
	34	72.0	83.2	310,100*
	36	70.5	82.4	290,800