

# MANITOWOC ENGINEERING CO.

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



## MAXIMUM ALLOWABLE TRAVEL SPECIFICATIONS

**M-250**

**M-250 SERIES 2**

**BOOM NO. 44 WITH 5' (1524 mm) TOP  
AND FOLD UNDER LUFFING JIB NO. 133A**

### A. JOBSITE TRAVEL

#### 1. MACHINE TRAVEL WITH LOAD

- a. TRAVEL WITH CRANE UPPERWORKS IN LINE WITH CRAWLERS AND TRAVEL MOTORS TO REAR. GRADE IN ANY DIRECTION MUST NOT EXCEED 1 PERCENT (0.5 DEGREES).
- b. TRAVEL SURFACE MUST BE FIRM, LEVEL, AND UNIFORMLY SUPPORTING. CAPACITY CHARTS ARE BASED ON STATIC CONDITIONS; THEREFORE JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC EFFECTS OF TRAVELING WITH LOAD.
- c. REFER TO CAPACITY CHART FOR MAXIMUM WIND SPEED WITH VARIOUS BOOM AND FOLD UNDER LUFFING JIB LENGTH COMBINATIONS.

#### 2. MACHINE TRAVEL WITHOUT LOAD

- a. POSITION BOOM TO APPROXIMATELY 75 DEGREE BOOM ANGLE (PLUS OR MINUS 1 DEGREE) AND POSITION FOLD UNDER LUFFING JIB AT 35 TO 50 DEGREES ABOVE HORIZONTAL.
- b. MACHINE TO TRAVEL ON A FIRM AND UNIFORMLY SUPPORTING SURFACE. GRADE IN DIRECTION OF TRAVEL SHOULD NOT EXCEED 15 PERCENT (8.5 DEGREES). SEE TABLE BELOW FOR GRADE VS. ANGLE. WHEN TRAVELING ON UPHILL GRADE, LOWER BOOM THE CORRESPONDING DEGREES FOR GRADE TO BE TRAVELED. WHEN TRAVELING ON DOWNHILL GRADE, RAISE BOOM THE CORRESPONDING DEGREES FOR GRADE TO BE TRAVELED. SIDE TO SIDE GRADE MUST NOT EXCEED 1 PERCENT (0.5 DEGREES).

PERCENT GRADE VS. ANGLE IN DEGREES	
% GRADE	ANGLE
1	0.5
3	1.7
6	3.4
9	5.1
12	6.8
15	8.5

- c. LOAD BLOCK SUSPENDED BELOW FOLD UNDER LUFFING JIB POINT OR TIED OFF TO MACHINE ROTATING BED.
- d. TRAVEL WITH CRANE UPPERWORKS IN LINE WITH CRAWLERS AND TRAVEL MOTORS TO REAR. MAINTAIN ONE PERCENT GRADE AT BOOM HINGE PINS WHEN CUTTING (STEERING ON GRADE). RETURN TO IN LINE POSITION FOR CONTINUATION OF TRAVEL.
- e. MAXIMUM WIND SPEED FOR BOOM AND FOLD UNDER LUFFING JIB LENGTHS UP TO 315' (96.0m) IS 20 MPH (9 m/s). MAXIMUM WIND SPEED FOR BOOM AND FOLD UNDER LUFFING JIB LENGTHS OF 325' (99.1m) TO 375' (114.3m) IS 15 MPH (7 m/s). WIND SPEED MEASURED AT ELEVATION SHOWN ON CAPACITY CHART.