Manitowoc Cranes, Inc. Manitowoc, Wisconsin 54220 U.S.A.

## Maximum Allowable **Travel Specifications**

Boom No. 49A-44 With Heavy Lift Top Luffing Jib No. 133 or No. 133A Wheeled Counterweight

## A. Jobsite Travel

- 1. MACHINE SWING AND TRAVEL WITH LOAD
  - a. Travel with crane upperworks in-line or at 90 degrees to crawlers. 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. Carry load as close to ground as possible. Stabilize load with taglines. Travel slowly and smoothly to avoid shock loading boom, luffing jib and rigging.
  - c. Refer to operators manual for maximum wind speed for various boom and luffing jib lengths.
  - d. Machine can swing and travel in normal manner when wheeled counterweight assembly is free of ground support.
  - e. Counterweight wheels must be properly positioned before swinging or traveling machine when wheeled counterweight is contacting ground.

## 2. MACHINE SWING AND TRAVEL WITHOUT LOAD

- a. Position boom to approximately 75 degree boom angle (plus or minus 1 degree) and position luffing jib at 35 to 50 degrees above horizontal.
- b. Load blocks suspended below boom and luffing jib point or tied off to machine rotating bed.
- c. Travel with crane upperworks in-line or at 90 degrees to crawlers. Do not exceed 1 percent (0.5 degrees) grade at boom hinge pins when cutting (steering on grade).
- d. Machine to travel on a firm and uniformly supporting surface.
- e. For crane upperworks in-line to crawlers, grade in direction of travel must not exceed 5 percent (3 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) measured at boom hinge pins.
- f. For crane upperworks at 90 degrees to crawlers, grade in direction of travel must not exceed 1 percent (0.5 degrees) measured at boom hinge pins. Grade must not exceed 5 percent (3 degrees) measured parallel to boom centerline. See table below for grade vs. angle. If grade causes boom angle to horizontal to increase, lower boom the corresponding degrees for grade to be traveled. If grade causes boom angle to horizontal to decrease, raise boom the corresponding degrees for grade to be traveled.
- g. Rate of change in grade must not exceed 5 percent (3 degrees) in 50 Ft. (15.2m).
- h. Refer to operators manual for maximum wind speed with various boom and luffing jib lengths.
- i. Counterweight wheels must be properly positioned before swinging or traveling machine when wheeled counterweight is contacting ground.

Percent Grade vs. Angle In Degrees	
% Grade	Angle
1	0.5
3	1.7
5	3

MAX-ER 225

On 2250 or

M-250