

DOSH DIRECTIVE

Department of Labor and Industries
Division of Occupational Safety and Health
Keeping Washington safe and working

7.00

ROLLING OUTRIGGERS ON MOBILE CRANES

Updated: March 25, 2013

I. Purpose

This DOSH Directive provides enforcement guidance regarding the use of mobile outriggers on mobile cranes.

II. Scope and Application

This DOSH Directive applies to DOSH enforcement and consultation staff whenever they encounter mobile cranes using rolling outriggers. The changes in this Directive updates the rule references in WRD 7.00, issued August 10, 2006, and replaces any other guidance on the subject, whether formal or informal.

III. Background

There is a need for clearer guidance regarding the use of rolling outriggers on mobile cranes. The rolling outrigger concept came about several years ago in the concrete tilt-up market, as a means to substantially increase the cranes “on rubber chart” while retaining the crane’s mobility. Rolling outriggers usually consist of a set of rollers attached to a steel support structure that replaces the crane’s standard outrigger pad.

In order to fully use these rolling outriggers, the user must set part of the weight of the crane on its wheels so that it can maneuver. ASME B30.5, 2007 (5-3.2.1.5(h)) states, “Any time outriggers are used, the outriggers shall be extended or deployed per the crane manufacturer’s load/capacity chart specifications and set to remove the machine weight from the wheels, except for locomotive cranes.”

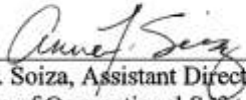
There are crane manufacturers that provide rolling outriggers as an option for their cranes. When they do provide these, they also provide a corresponding load chart that addresses the use and limitations of the crane while using the rolling outriggers. This would be the ideal situation for cranes using rolling outriggers.

The crane manufacturer must supply the load chart for the configuration that the crane is set up for. If the crane manufacturer does not address the use of rolling outriggers while some of the crane’s weight is on its wheels, then the user must use the “on rubber” chart.

IV. Enforcement Policy

- A. Requirements for Crane operations involving tilt-up operations are found in Chapter 296-155 WAC, Safety Standards for Construction Work.
1. If DOSH staff find that an employer is using rolling outriggers and not following the manufacturers specifications, or is not using the “on-rubber” load chart, then WAC 296-155-53400, General Requirements, applies.
 2. If the employer is using rolling outriggers that are not supplied by the manufacturer, then WAC 296-155-53715(3), Additional Requirements, applies, as this would be considered a modification or addition which would affect the capacity or safe operation of the equipment.
- B. The above rule requirements state that a qualified engineer’s written approval could be used providing the manufacturer’s specifications are not available. DOSH recognizes that a Registered Professional Engineer (RPE) can develop a load chart for a mobile crane that uses rolling outriggers. This load chart must be less than the load chart for that same crane using fully extended outriggers with the crane’s weight removed from its wheels. In the event that specific situations require further guidance, staff should consult the Crane Specialist in DOSH Technical Services.

Approved: _____


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For more information about this or other DOSH Directives, contact the Division of Occupational Safety and Health, P.O. Box 44610, Olympia, WA 98504-4610, or call (360) 902-5436.

Visit the DOSH website at: <http://www.lni.wa.gov/Safety-health/>.