

SUBJECT: Cranes and Derricks in Construction

Purpose: To clarify the 1926.550 standards on what is meant by a "competent person", "inspections", and where the records regarding cranes and derricks are to be maintained.

Scope: This instruction applies MNOSHA-wide.

References: The American Society of Mechanical Engineers ASME B-30.5-2004 Mobile and Locomotive Cranes.

Cancellation: This instruction supersedes MNOSHA instruction STD 3-12.4, Cranes and Derricks in Construction, dated May 9, 1994.

Background:

- A. 1926.550(a)(5) requires inspection of all machinery and equipment, prior to each use and during use, by a competent person to make sure it is in safe operating condition. The standard does not define "competent person", but 1926.32(f) defines it as "one who is capable of identifying existing and predictable hazards...and who has authorization to take prompt corrective measures to eliminate them."
- B. 1926.550(a)(6) requires a thorough annual inspection of hoisting machinery by a competent person or by an agency recognized by the U.S. Department of Labor. Records are to be maintained of the dates and results for each hoisting machine and piece of equipment.

ACTION:

A. **COMPETENT PERSON**

Employers who use their own employees to inspect their cranes must ensure and document that their inspectors are competent to inspect the specific machinery by reason of training and/or experience, or by a private agency recognized by the U.S. Department of Labor. Cite 1926.550 (a)(5) if such documentation can not be produced. Records of inspector's qualifications need **not** be kept on site or on the crane.

B. **INSPECTIONS**

ASME B30.5-2004, "Mobile and Locomotive Cranes", the most current edition of ANSI B30.5-1968, the source document for 1926.550, provides guidance for the type and frequency of inspections to be made on mobile cranes used in construction. Cite 1926.550(a)(5) for lack of inspections prior to use and 1926.550(a)(6) for lack of annual inspections. A copy of inspection records should be kept on the crane.

An inspection shall be made **before each use and during use** of items such as, but not limited to:

- a. All control mechanisms for proper operation and adjustment.
- b. All control mechanisms for excessive and contamination by lubricants or other foreign matter.
- c. All safety devices for proper operation.
- d. Deterioration or leakage in air or hydraulic systems.
- e. Crane hooks for cracks or deformations.

- f. Rope reeving for conformance with crane manufacturer's recommendations.
- g. Electrical apparatus for operation, cleanliness, and signs of wear.

A thorough **monthly and/or annual inspection** shall be made of hoisting machinery, depending on service and usage, on items including but not limited to:

- a. Deformed, cracked, or corroded members in the crane structure and boom.
- b. Cracked or worn sheaves and drums.
- c. Worn, cracked, or distorted parts such as pins, bearings, shafts, gears, rollers, and locking devices.
- d. Excessive wear on brake and clutch system parts, linings, pawls, and ratchets.
- e. Load, boom angle, or other indicators over their full range for any significant inaccuracies.
- f. Power plants for improper performance.
- g. Chain drive sprockets for excessive chain stretch or wear.
- h. Crane hooks should be inspected for cracks.
- i. Travel steering, braking, and locking devices must be checked for proper operation.
- j. Tires inspected for damage or wear.

C. RECORDS

The original inspection report and record shall be kept where the employer's files are generally kept. However, a copy of the current annual inspection report should be kept on the crane.

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For the MNOSHA Management Team

Distribution: OSHA Compliance and WSC Director

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