



# Tailgate/Toolbox Safety Training

Safety Services Company-Safety Meeting Division, PO Box 6408 Yuma, AZ 85366-6408 Toll Free (866) 204-4786



Company Name: \_\_\_\_\_ Job Site Location: \_\_\_\_\_

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_ Foreman/Supervisor: \_\_\_\_\_

## Topic 20: Aerial Devices and Cranes

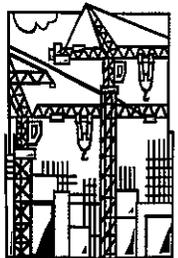
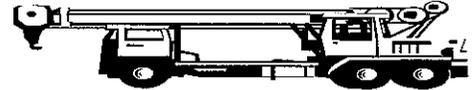
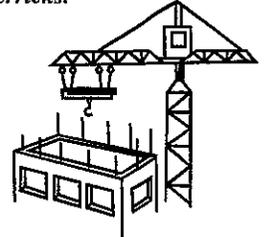
**Introduction:** *Cranes and Aerial Devices* are designed to fulfill a specific purpose which they alone can accomplish (the lifting and placement of significant loads to significant heights). This task sounds simple, but modern cranes and hoists are complexly engineered machinery which requires a high degree of knowledge and skill to operate safely and effectively. Aerial Devices and Cranes also require a strict maintenance program, since failure of almost any component on these machines may pose a safety hazard. Crane operators and maintenance personnel should be comprehensively trained, including an apprenticeship under the supervision of a knowledgeable, competent person.



*The information listed below applies to truck and crawler cranes, hammerhead cranes, derricks, and floating cranes and derricks.*

**General Crane and Aerial Device safety guidelines include the following:**

- **The employer must** comply with manufacturer's specifications and limitations applicable to operation of all cranes and derricks. If specifications are not available, limitations must be based on determination of a qualified engineer.
- **Attachments used with** cranes must not exceed manufacturer's recommendations for capacity, rating, or scope.
- **Rated load capacities** and operating speeds, hazard warnings or instructions, must be conspicuously posted on all equipment and visible to operator's station. Hand signals must be those prescribed by ANSI for cranes and derricks.
- **The employer must** designate a competent person to inspect equipment prior to each shift, and during use, to ensure the equipment is safe. Any defective equipment must be replaced or repaired before continued use.
- **A thorough annual inspection** of hoisting machinery must be made by a person certified by the U.S. Dept. of Labor. A record of these inspections, their dates, and results must be maintained by the employer (always keep a copy with the equipment).
- **Moving parts** of equipment must be guarded if employees may come into contact with them, or otherwise create a hazard.
- **The swing radius** of the rear superstructure of the crane must be barricaded to prevent employees from being struck or crushed.
- **All cab windows** must be constructed of safety glass and free of cracks, breaks, or distortions that might pose a hazard to safe operations.
- **Where access to the cab roof** is necessary for rigging or service, a ladder must be provided.
- **Guard rails, handholds, and steps** must be provided on cranes for access to the car and cab.
- **Platforms and walkways** must have an anti-skid surface and be kept free of oil and grease.
- **Fuel tank filler caps** must be positioned or protected to prevent a spill or overflow from running into the engine compartment, exhaust, or electrical systems. An operable fire extinguisher of at least 5BC rating must be kept at all operators' stations.
- **Except where electrical** transmission lines have been taken out of service and visibly grounded at point of work, or where insulating barriers not attached to the equipment have been erected to prevent contact, cranes must be operated within regulated clearances.
- **No modifications or additions** which affect the crane capacity or safe operation may be made by the employer without the written permission of the manufacturer.
- **All employees must** be kept clear of loads about to be lifted or already suspended.
- **Employees required to work** on horizontal booms on hammerhead cranes must be protected from falling with guard rails or fall arrest gear.
- **Buffers must** be in place at both ends of travel, on the trolley of bridge or overhead trolley hoists.
- **Cranes mounted on tracks** must have limiting switches and buffers at each end of the track.
- **Overhead and gantry cranes** must have load limits clearly marked on both sides and legible from the ground floor.
- **Floating cranes, derricks, and mobile cranes** mounted on barges must have a new load rating chart provided when load ratings are reduced to stay within limits for list of the vessel. Mobile cranes on barges must be positively secured.
- **The employer must** comply with the applicable requirements for protection of employees working onboard marine vessels.



**Conclusion:** All cranes, derricks, and hoists must meet the applicable requirements for design, inspection, construction testing, maintenance, and operation as prescribed by the American National Standards Institute's safety codes. The employer must maintain a certification record which includes the dates of the items inspected, the signature of the person who inspected the items, and a serial number or identifier for the equipment inspected. The most recent record shall be maintained on file until a new one is prepared (keep a copy with the equipment). Follow these guidelines for safe Crane and Aerial Device operations.

### Work Site Review

Work-Site Hazards and Safety Suggestions: \_\_\_\_\_

Personnel Safety Violations: \_\_\_\_\_

**Employee Signatures:** \_\_\_\_\_  
(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

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**Foreman/Supervisor's Signature:** \_\_\_\_\_

These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.