



SECTION 4

CHAPTER 18

CRANES, HOISTS, MONORAILS, MOBILE EQUIPMENT, AND AERIAL LIFTS

Purpose

This chapter establishes the requirements for...

- Inspection
- Maintenance
- Use
- Training

...of those lift assist devices found on company property or vehicles

Scope

These regulations apply to all company employees, temporary employees, and contractors

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**Specifications
and capacities**

Mandatory compliance is given to all manufacturers' specifications and limitations applicable in the operation of any and all cranes and derricks. Where manufacturer specifications are not available, limitations assigned to the equipment shall be based on the determinations of a qualified engineer competent in his field and such determinations will be appropriately documented and recorded. Attachments used with cranes shall not exceed the capacity, rating, or scope recommended by the manufacturer.

Rated load capacities, and recommended operating speeds, special warning hazards, or instruction, shall be conspicuously posted on all equipment. Instructions or warnings shall be visible to the operator while he is at his control station.

Hand signals to crane and derrick operator shall be those prescribed by the applicable ANSI standard for the type of crane in use. An illustration shall be posted at the job-site with an unobstructed view and inside the crane or derrick control area in plain sight.

All mobile equipment shall have a warning signal that operates when the equipment is backing up.

Types

There are lift assist devices found throughout the company. These devices are designed to help employees safely load, unload, or relocate bulky articles of modest weight. Such devices include...

- chain hoists
- electric hoists
- hydraulic hoists
- monorails
- mobile hydraulics

These can be found located...

- on pick-ups
- on welding trucks
- on mechanics trucks
- in shop facilities

They may be...

- equipped with a stiff arm or telescoping boom
- mounted on an overhead traveling rail
- permanently mounted in shop facilities
- mobile A frame hoists

All crawler, truck, or locomotive cranes in use shall meet the applicable requirements for design, inspection, construction, testing, maintenance and operation as prescribed in the ANSI B 30.5-1968.

Inspection by competent person

Prior to every use and during operations, the device should be inspected for...

- obvious defects, wear, or damage to exposed components
- making sure the device is in safe operating condition
- condition of rigging material to be utilized to perform the task
- load rating to ensure that it is suitable for the job

The device must be inspected monthly using the “Overhead Crane & Sling” inspection form. Needed repairs should be brought to the attention of the Yard Manager/Supervisor, and deficiencies corrected before further use. Any device unsuitable for safe use should be clearly marked/labeled “**DO NOT USE**” or “**OUT OF ORDER**” until it is repaired. The device should be “locked out” to prevent use until repairs are made. In addition to the documented monthly inspection, an annual inspection must be completed by a certified third party and documentation must be obtained and filed at the local area yard.

Maintenance

The device should be maintained as per the manufacturer’s recommendations. In general the equipment should be kept clean and moving parts lubricated. The power supply (hydraulic or electric) should be serviced by a professional.

Refer to the chapter on *Rigging Material*-for additional information associated with the equipment.

Safe use

When using hoisting devices and mobile equipment, always:

- use appropriate PPE
- ensure other personnel stay away from loads
- ensure device and rigging material is suitable for the job
- don't use the device without proper training

Whenever internal combustion engine powered equipment exhaust into enclosed spaces, tests shall be made and recorded to ensure employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres.

Ensure the following:

- An accessible fire extinguisher of 5 BC rating or higher shall be available at all operator stations or cabs of equipment.
- The operator of any mobile equipment shall shut off the engine before filling the fuel tank and shall see that the nozzle of the filling hose makes contact with the filling neck of the tank. No personnel shall be on the vehicle during fueling operations except as specifically required by design. There shall be no smoking or open flames during fueling operations.
- **Do not** operate mobile hoisting equipment within 10 feet of any power line.
- Unauthorized personnel shall not be permitted to ride on equipment unless it is equipped to accommodate riders safely.
- The operator shall use access provided to get on or off the equipment.
- Modifications or additions which affect the safe operation of the equipment may only be made with the manufacturer's written approval.
- No operator shall operate the mobile equipment without the protection of an enclosed cab or approved eye protection.
- Before starting engine, the driver will fasten the seatbelt and adjust for a proper fit.
- The operator shall not use, or attempt to use any vehicle in any manner or for any purpose other than for which it was designated.
- The operator shall not load the vehicle/equipment beyond its established load limit and shall not move loads which because of the length, width, or height have not been centered and secured for safe transportation

Aerial lifts

Include the following types of vehicle mounted aerial devices used to elevate personnel to job-sites above ground:

- extensible boom platforms
- aerial ladders
- articulating boom platforms
- vertical towers; and
- a combination of any such devices

Ensure the following:

- All aerial lifts acquired for use on or after January 22nd, 1973 shall be designed and constructed in conformance with ANSI A 92.2-1969.
 - Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.
 - Tests shall be made at the beginning of each shift during which the equipment is to be used to determine that the brakes and operating systems are in proper working condition.
 - Modifications shall not be made to the equipment without written approval from the manufacturer.
 - Only authorized personnel will be allowed to operate aerial lifts.
 - Boom and basket load limits specified by the manufacturer shall not be exceeded.
 - The vehicle has a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when a ground guide signals it is safe to do so.
 - Do not operate aerial lifts within 10 feet of any power line.
 - Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket, or use planks, ladders, or other devices for a work position.
 - Approved fall protection shall be worn and a lanyard attached to the basket or boom when working from an aerial lift to prevent an employee from falling more than 2 feet.
 - Positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3000 lbs, whichever is greater.
 - Proper slings and rated/tagged chains shall be used to hoist materials. Harnesses and lanyards shall not be used to hoist materials.
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Training

Training will be received on the job by an individual familiar with the use of the equipment, and employees should not be allowed to operate the equipment until their supervisor is confident they are qualified to do so.

The company shall permit only those employees qualified by training or certification to operate hoisting equipment, mobile equipment, machinery, and aerial lifts.