

**§12-133.2-5 Hoisting and rigging.** (a) All the provisions of 29 CFR 1926.550 apply to hoisting and rigging with the exception of 29 CFR 1926.550(g)(2).

(b) In addition, subsections (c) through (e) of this section apply regarding the hazards associated with hoisting and rigging.

(c) General.

- (1) Pre-shift visual inspection of cranes.
  - (A) Cranes being used in steel erection activities shall be visually inspected prior to each shift by a competent person; the inspection shall include observation for potential deficiencies that may occur during operation. At a minimum this inspection shall include the following:
    - (i) All control mechanisms for maladjustments;
    - (ii) Control and drive mechanism for excessive wear of components and contamination by lubricants, water or other foreign matter;
    - (iii) Safety devices, including but not limited to boom angle indicators, boom stops, boom kick out devices, anti-two block devices, and load moment indicators where required;
    - (iv) Air, hydraulic, and other pressurized lines for deterioration or leakage, particularly those which flex in normal operation;
    - (v) Hooks and latches for deformation, chemical damage, cracks, or wear;
    - (vi) Wire rope reeving for compliance with hoisting equipment manufacturer's specifications;
    - (vii) Electrical apparatus for malfunctioning, signs of excessive deterioration, dirt, or moisture accumulation;
    - (viii) Hydraulic system for proper fluid level;
    - (ix) Tires for proper inflation and condition;
    - (x) Ground conditions around the hoisting equipment for proper support, including ground settling under and around outriggers, ground water accumulation, or similar conditions;
    - (xi) The hoisting equipment for level position; and
    - (xii) The hoisting equipment for level position after each move and setup.
  - (B) If any deficiency is identified, an immediate determination shall be made by the competent person as to whether the deficiency constitutes a hazard.
  - (C) If the deficiency is determined to constitute a hazard, the hoisting equipment shall be removed from service until the deficiency has been corrected.
  - (D) The operator shall be responsible for those operations under the operator's direct control. Whenever there is any doubt as to safety, the operator shall have the authority to stop and refuse to handle loads, in accordance with section 12-57-7(b), until safety has been assured.
- (2) A qualified rigger (a rigger who is also a qualified person) shall inspect the rigging prior to each shift in accordance with 29 CFR 1926.251.
- (3) The headache ball, hook or load shall not be used to transport personnel except as provided in paragraph (4).

- (4) Cranes or derricks may be used to hoist employees on a personnel platform when work under this chapter is being conducted, provided that all provisions of 29 CFR 1926.550 (except for 29 CFR 1926.550(g)(2)) are met.
  - (5) Safety latches on hooks shall not be deactivated or made inoperable except:
    - (A) During the hoisting and placing of purlins and single joists when the rigger, who shall be a qualified rigger, has determined that safety latched on hooks are a greater hazard, or
    - (B) When equivalent protection is provided in a site-specific erection plan.
- (d) Working under loads.**
- (1) Routes for suspended loads shall be pre-planned by the controlling contractor to ensure that no employee is required to work directly below a suspended load except for:
    - (A) Employees engaged in the initial connection of the steel; or
    - (B) Employees necessary for the hooking or unhooking of the load.
  - (2) When working under suspended loads, the following criteria shall be met:
    - (A) Materials being hoisted shall be rigged to prevent unintentional displacement;
    - (B) Hooks with self-closing safety latches or their equivalent shall be used to prevent components from slipping out of the hook; and
    - (C) All loads shall be rigged by a qualified rigger
- (e) Multiple lift rigging procedure.**
- (1) A multiple lift shall only be performed if the following criteria are met:
    - (A) A multiple lift rigging assembly is used;
    - (B) A maximum of five members are hoisted per lift;
    - (C) Only beams and similar structural members are lifted; and
    - (D) All employees engaged in the multiple lift have been trained in these procedures in accordance with section 12-133.2-13(f)(1).
    - (E) No crane is permitted to be used for a multiple lift where such use is contrary to the manufacturer's specifications and limitations.
  - (2) Components of the multiple lift rigging assembly shall be specifically designed and assembled with a maximum capacity for total assembly and for each individual attachment point. This capacity, certified by the manufacturer or a qualified rigger, shall be based on the manufacturer's specifications with a 5 to 1 safety factor for all components. The written certification of the components of the multiple rigging assembly by the manufacturer or qualified rigger along with the documentation supporting the certification shall be made available at the site.
  - (3) The total load shall not exceed:
    - (A) The rated capacity of the hoisting equipment specified in the hoisting equipment load charts;
    - (B) The rigging capacity specified in the rigging rating chart.
  - (4) The multiple lift rigging assembly shall be rigged with members:
    - (A) Attached at their center of gravity and maintained level such as by the use of tag lines;
    - (B) Rigged from top down; and

- (C) Rigged at least 7 feet (2.1 m) apart.
- (5) The members on the multiple lift rigging assembly shall be set from the bottom up.
- (6) Controlled load lowering shall be used whenever the load is over the connectors. [Eff 1/10/03 (Auth: HRS §396-4)  
(Imp: HRS §396-4)