

Clearheart Construction Co., Inc.

Rigging Material Handling

RIGGING FOR MATERIAL HANDLING

Cranes and derricks. - 1926.550

Rigging equipment for material handling. – 1926.251

Prior to use on each shift, rigging equipment including slings and all fastenings and attachments will be inspected for damage or defects by a qualified person. Additional inspections will be performed during sling use and where service conditions warrant to ensure that it is safe.

Defective/damaged equipment including slings and rigging will not be used and will be immediately removed from service.

Per 2926.251(a)(3), rigging equipment, when not in use, will be removed from the immediate work area and stored properly so as not to present a hazard to employees.

Under no circumstances may any employee be under a suspended load.

29 CFR 1926.251, *Rigging Equipment for Material Handling*, contains Tables H-1 to H-20 which indicate rated capacities for various types of slings and grommets, safe working loads for shackles, number and spacing of U-Bolt Wire Rope Clips, and maximum allowable wear at any point of link.

Only alloy steel chain slings may be used for hoisting.

Welded alloy steel chain slings must have permanently affixed durable identification stating size, grade, rated capacity, and sling manufacturer. Of course, hooks, rings, oblong links, pear-shaped links, welded or mechanical coupling links, or other attachments, when used with alloy steel chains, will have a rated capacity at least equal to that of the chain.

Rigging equipment will **not be loaded in excess** of its recommended safe working load and load identification will be attached to the rigging.

Specific requirements for use and inspection of alloy steel chains; wire rope; natural rope and synthetic fiber; synthetic webbing; and shackles are found in the above standards.

Hoisting of personnel: Hoisting of employees using a personnel platform suspended from a crane or derrick is prohibited **except** when conventional means (ladder, aerial lift, personal hoist, etc.) of reaching the worksite is more dangerous.

Personnel platforms must be designed by a qualified engineer or qualified person competent in structural design in accordance with 29 CFR 1926.550 (g)(4).

Rigging of personnel platforms:

- a. When a wire rope bridle is used to connect the personnel platform to the load line, each bridle leg shall be connected to a master link or shackle in such a manner to ensure that the load is evenly divided among the bridle legs.
- b. Latches will be in place on all hooks eliminating the hook throat opening. Per 1926.550(q)(4)(iv)(B), hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies must be of a type that can be closed and locked, eliminating the hook throat opening. Alternatively, an alloy anchor type shackle with a bolt, nut and retaining pin may be used.
- c. Wire rope, shackles, rings, master links, and other rigging hardware must be capable of supporting, without failure, at least five times the maximum intended load applied or transmitted to that component. Where rotation resistant rope is used, the slings must be capable of supporting without failure at least ten times the maximum intended load.
- d. All eyes in wire rope slings shall be fabricated with thimbles.
- e. Bridles and associated rigging for attaching the personnel platform to the hoist line shall be used only for the platform and the necessary employees, their tools and the materials necessary to do their work and shall not be used for any other purpose when not hoisting personnel.

Personnel platform use:

- a. Except when signaling the crane or derrick operator, employees must keep all parts of their bodies within the platform during raising, lowering and positioning.
- b. Before exiting or entering a personnel platform that is not landed, the platform will be secured to the structure unless this creates an unsafe situation.
- c. Tag lines will be used unless their use creates an unsafe situation.
- e. The crane or derrick operator will remain at the controls at all time the engine is running and/or the platform is occupied.
- f. Hoisting will cease in the event of any impending danger.