

Hoisting and Rigging



CRITICAL PRACTICE



Rigging looks like an easy operation that requires no particular skill or experience.

If you think "anybody can do that," you should think "anybody can be seriously injured doing that."

Pause for Safety

Hazards

- → Equipment or material falling;
- → Equipment or material shifting;
- → Hands pinched in rigging;
- → Overloading lifting equipment, tipping or collapse
- → Inadequate rigging, breakage line of fire;
- → Contact with overhead wires;
- → Hand lacerations while working with a frayed cable;
- → Workers being struck by load; and
- → Workers caught between load and equipment.

PPE



Additional PPE



Controls

- → Chains and slings;
- → Hooks and shackles
- → Guide hand-signals
- → Two-way radios
- → Measuring Tape

Strategies and Procedures

Only Trained workers are permitted to perform hoisting and rigging.

Plan the move

 Determine the weight of the object or load prior to a lift to make sure that the lifting equipment can operate within its capabilities.



- 2. Select only alloy chain or cable slings.
 - NEVER exceed the working load limits.
 - Use slings of proper reach.
 - Never shorten a line by twisting or knotting.
 - With chain slings, never use bolts or nuts.
 - Inspect all slings thoroughly at specified intervals and maintain them in good condition.
 - Inspect each chain or sling for cuts, nicks, bent links, bent hooks, etc., before each use.
 - If in doubt, don't use it destroy and discard.



- 3. Ensure that safety latches on hooks are in good working condition.
- 4. Balance the load
 - Estimate the center of gravity or point of balance.
 - The lifting device should be positioned immediately above the estimated center of gravity.

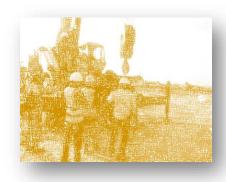


- 5. Identify the designated signalman by the use of distinctive vest, armlets, etc.
 - Ensure that the signaler is properly identified and is competent in the techniques of proper signaling.
 - Instruct the equipment operator to recognize signals from that person only.
- 6. Prepare a place to land the load.

 Remove unnecessary blocks or other objects that might fly up if struck by the load.

Lifting and moving

- → If you must hold the sling or choker in position, be sure your hand is clear of pinch points.
 - Your hand should be far enough away so there's no possibility of a frayed wire catching your glove and jerking your hand into a pinch point.
 - (Frayed cables should never be used.)



- → Each rigger must be sure he's in the clear before he gives an "all ready" to the signalman.
 - When you have positioned the sling or choker you're using, release it, if possible, before you give the "all ready" signal.
- → The signalman must be careful not to order a move until he has received the "all ready" signal from each member of the crew.
- → Make sure all personnel stand clear from the load being lifted.
 - Never permit anyone to ride the lifting hook or the load.
 - Never work under a suspended load unless the load is properly supported.
 - Keep from under the boom as much as possible.
- → Never leave a load suspended when the hoist or crane is unattended.



- → Make sure a tagline is used to control the load.
- → Watch out for the roll or swing of the load.
 - Since it's almost impossible to position the hook exactly over the load center, there will almost always be a swing or roll.
 - Anticipate the direction of the swing or roll and work away from it.
- Never place yourself between material, equipment or any stationary object and the load swing.
 - Also, stay away from stacked material that may be knocked over by a swinging load.

Landing the Load

- → Be sure your feet and all other parts of your body are out from under.
- → Lower the load gently and slowly
 - Anticipate that if the load rolls on the blocking, it will be a slow shift that you can get away from.
- → Make sure load is stable before slackening the sling or chain.





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