



# SAFETY ALERT

## Ten Points To A Safe Lift and Carry With An Overhead Crane

- 1. The crane operator is qualified and trained.**
  - a. Only properly trained and qualified operators may operate and/or inspect a crane.
  - b. Operation includes any movement of the block, bridge or trolley including movement for maintenance.
  - c. Training consists of classroom instruction and hands-on evaluation. The training is documented and on file for review. The training also consists of examinations in both the classroom and hands-on evaluation. Operators not passing the examinations should not operate the crane except during training and then only under the complete supervision of a qualified trainer.
  
- 2. A Pre-Operation inspection of the crane has been thoroughly completed.**
  - a. OSHA requires that a pre-shift, pre-operation inspection be completed by a qualified operator prior to making any lifts.
  - b. The inspection form should be completed and any discrepancies noted on the form. Any discrepancy that makes the crane unsafe to use requires that the crane be taken out of service immediately and Management notified. Do not use the crane even for one more lift if it is unsafe.
  - c. Pre-operation inspection includes the rigging to be used for the lift. Any broken wires, damaged, twisted or stretched chain links, bent hooks, etc requires that the rigging be removed and tagged out of service immediately.
  
- 3. Plan your travel path before lifting the load.**
  - a. Ensure that all obstacles both overhead and on the floor are out of the way.
  - b. Plan the travel so that you can walk forward and watch the hook and the load while looking at the ground in front of you often.
  - c. Remove obstacles that could be a trip hazard.
  - d. Make sure employees are not in the travel path. Look behind forms and in hidden areas. Never pass a load over or nearly over any person.
  - e. Know where the load is going to end up. Make a spot before you lift it.
  
- 4. Know the weight and attachment points of the load.**
  - a. The weight must be known before the lift.
  - b. If unknown, don't guess. Consult with the shop drawings or your supervisor.
  - c. Know where the rigging is to be connected. Lifting eyes or devices are typically built in or inserted in designed lifting points.
  - d. Ensure that the lift attachment points are centered so that the load will not tip when lifted.
  
- 5. Know the capacity of the crane and the rigging.**
  - a. The rated capacity must be marked on the bridge and the block of the overhead crane. Check the capacity against the weight of the load and never lift a load that is even slightly over the capacity of the crane.
  - b. The rated capacity must be marked on the rigging and on any spreader bars and other lifting devices. Check the capacity of the rigging and devices against the load weight.

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Rigging that is attached at angles greater than 60 degrees decreases the capacity. Consult with your Supervisor before lifting loads at angles greater than 60 degrees. A thirty degree angle decreases the capacity of the rigging by 50%.

- c. If the rated capacity tag is not attached to the rigging take the rigging out of service immediately.

**6. The operator and other employees are to remain away from the suspended load.**

- a. At no time shall the operator or any employee be permitted to stand or pass under a suspended load. This includes suspension at any height. If the weight is off of the floor the load is suspended.
- b. The operator shall warn other persons to stay away from a suspended load and shall stop movement of the crane if any person enters the suspended load area.
- c. The suspended load hazard area is the area directly under the load and an area around the suspended load that could pose a hazard if the load was to free fall to the ground or fall and strike or "bounce" off of another object and fall to the ground.
- d. There is no absolute hazard distance around a suspended load. The operator must make decision based on the height, length and width and the free fall and "bounce off of" measurements. "Could this load or any part of the rigging hit me if the load rope or rigging broke?" If you can answer yes then you are too close.
- e. No employee or operator shall handle a suspended load to maneuver it into place. If the suspended load must be turned, pushed or otherwise moved by an employee then a tag line or other stand off device shall be attached to manage the movement. Makes plans for this before lifting the load.

**7. The operator shall ensure that there is no debris or other material that could fall from the load as it is being carried.**

- a. Remove all tools and concrete debris prior to lifting the load.

**8. The operator shall ensure that rigging is securely attached prior to the lift.**

**9. The operator shall ensure that the load is balanced in the rigging and the rigging is securely attached by lifting the load only a few inches and holding prior to traveling.**

- a. If the load is not balanced or appears to be rigged improperly then the load shall be immediately lowered onto the floor or onto the form or other area from which it was lifted and adjustments made.

**10. The operator is in control and has complete responsibility for the lift.**

- a. The operator is responsible for ensuring all of the above and if in doubt the load shall not be lifted.
- b. If the operator cannot see the lift, the load or the travel path then a signal person shall be assigned that is familiar with formal crane signals.
- c. The operator shall only take signals from one person and that shall be the person assigned. The signal person and the operator must discuss the lift and signals prior to the lift.
- d. Any person can signal an emergency stop to the operator and the operator must obey that signal.
- e. The operator shall never leave a suspended load unattended. There is no distance that is safe to be away from the crane controls. The operator must stay with the controls and at a distance that they can watch the area around the load in order to warn others.

If the operator has any questions or concerns about the lift or the safety of themselves or those around then they have complete authority and responsibility not to make the lift until consulting with management.