

# Overhead Shop Crane Safety Meeting Kit



Workers need training on crane hazards and operation, and they should never forget the safety issues moving overhead. Only trained operators should use overhead shop cranes.

## COMMON OVERHEAD CRANE HAZARDS

**Overloading Overhead Cranes – Load limits.** Suddenly dropping heavy load, using defective parts, side-loading a boom, and forcing an overhead crane beyond its operational capacity can cause overloading.

Operators must know the load capacity of their shop crane; loads that exceed the limits of the crane should not be moved. Loads that cannot be safely rigged should not be lifted. Before moving loads, the crane operator should inspect the path of the crane for obstacles and people; the path must be clear before starting any crane movement.

**Falling Materials.** Falling loads are one of the most dangerous overhead crane hazards. It can lead to serious injuries, property damage, or death.

**Electrical Issues.** According to the OSHA, approximately half of overhead crane accidents are a result of the cranes' metal parts coming into contact with high-voltage power lines. This occurs when the crane is being operated near or under power lines and the boom or hoist line touches any of the said lines.

**Pinch and Crush Points.** While the crane is in operation, operators and other site workers should be aware of the potential pinch and crush points and stay clear of the moving machinery at all times. Operators and rig loaders need fitted clothing and secured hair and jewelry when working around cranes. Workers should never "ride the load" of an overhead crane.

## THE DO'S AND DON'TS OF OVERHEAD CRANE OPERATION

### Dos?

- Do understand the CMAA duty cycle (frequency of use, type of load, and average load weight) of the crane application when specifying/purchasing the equipment. While it may cost more, a crane that is properly sized to meet the task at hand will last longer and not require premature replacement of motors, brakes, electrical components and other key mechanisms.
- Do read the owner's manual. These informational documents are developed by the

crane's manufacturer ? contain specifications, dimensions, operation instructions, inspection criteria, parts lists, and more.

- Do understand that the Occupational Safety and Health Administration (OSHA) requires facility operators to provide their employees with equipment that is both safe and operates properly.
- Do inspect the crane prior to the start of each shift before operation, as well as at frequent and periodic intervals.
- Do understand that cranes used in harsh environments and/or with a higher duty cycle will require frequent and periodic inspections to be performed more often.
- Do perform regular preventive maintenance as specified by the crane manufacturer to ensure long service life.
- Do engage independent crane service and inspection professionals with experience on the specific equipment if outsourcing preventive maintenance and repairs.
- Do ensure all employees/operators who will use the crane have been trained on its proper use and operation by someone who has experience with the equipment.
- Do follow all safety precautions specified by the manufacturer of the crane when operating the equipment.

#### Don'ts?

- Do not buy a crane that is undersized for the application. While it may save on the initial investment, a crane built to specifications that do not match the actual operation, process, environment, or load requirements will be prone to more frequent breakdowns and premature replacement of key components.
- Do not misplace or throw away the owner's manual. This document is a critical resource for owners and operators of overhead cranes.
- Do not allow an operator to rig a load without first having proper training.
- Do not attempt to lift a load that exceeds the capacity rating of the crane.
- Do not use the crane more frequently than its duty cycle specifies.
- Do not slam the bridge or trolleys into the end stops; doing so will cause premature wear on the equipment.
- Do not use the crane for any purpose outside its specified function.
- Do not allow untrained operators to use the crane.

## BEST OVERHEAD CRANE SAFETY TAKEAWAYS

- Never move a load over co-workers.
- Do not permit co-workers to walk underneath the load.
- Return the load block to its designated location after use.
- Do not leave the load block low enough for someone to run into.
- Never leave a suspended load unattended.
- Do not leave unused slings suspended on a crane hook and become snagged on passing equipment.
- If it has a designated storage area, move the crane to that location.
- Pay attention to what you are doing?don't allow yourself to become careless or distracted.

## FINAL WORD

Crane operators, riggers and employees that work near overhead cranes need to be aware of the unique hazards of these large machines.