

Overhead Cranes

Overhead cranes, including gantry cranes, are essential in many manufacturing, maintenance, and industrial work environments when efficiency is required for lifting and moving heavy loads. Crane operators, riggers and employees that work near overhead cranes need to be aware of the unique hazards of these large machines. This safety topic will focus on general safety tips and some of the specific OSHA standards that apply when any overhead crane is being used in the workplace.

OSHA Standard 1910 Subpart N covers *Materials Handling and Storage – Overhead and Gantry Cranes*

Caught-in/Between, Struck-by/Against, Crane Overloading and Falling Materials are the most common industrial overhead crane hazards.

- Only trained and authorized workers should be allowed to operate any overhead crane.
- Employees who work in the vicinity of the overhead crane must be trained in workplace general safety awareness to ensure all safety precautions are taken during the course of the work day to keep all workers safe.
- Visitors should not be allowed near overhead cranes when they are in use.



OSHA Standard 1910.179(b)(8) *Only designated personnel shall be permitted to operate a crane covered by this section.*

Perform a basic crane inspection at the beginning of every shift or before using the crane for the first time each workday. At minimum, look for the following:

- Survey the area around the crane and check for leaking fluids and trip hazards
- Ensure guards are in place and working as intended
- Inspect the wire rope for damage or
- Inspect the drum for proper rope
- Inspect the block and hook for cracks or
- Inspect the bumpers for damage
- Test the limit switches for proper functionality



distortions
alignment
damage

OSHA Standard 1910.179(e)(6)(i) *Exposed moving parts such as gears, set screws, projecting keys, chains, chain sprockets, and reciprocating components which might constitute a hazard under normal operating conditions shall be guarded.*

- If any defects or issues are found during any inspection do not operate the crane and report immediately.
- A crane inspection process should be implemented to document a more comprehensive periodic check of all cranes with written records maintained.
- All crane operators, riggers and employees who work in the area where overhead cranes are in operation must wear the appropriate PPE, such as hard hats, safety glasses, work gloves and hard-toe boots.
- The hoist operator and rigger should be trained in common crane operation hand signals, especially if there could ever be a situation when voice communications cannot be heard.
- It is important that crane operators and riggers know the load rate. Load markings should be posted on the crane and hoist block. Before the lift, verify that the load is not heavier than the maximum load capacity.

