Tower Crane Safety

Tower cranes are commonly used to build large structures, such as skyscrapers. If they are not properly inspected, maintained, or operated, they can create serious hazards on construction sites. Fatalities and injuries can occur from the crane collapsing, electrocutions, or being struck by a load or part of the crane.

TOOLBOX

Antonio's Story

RESEARCH AND TRAINING

A tower crane was being used to lift a steel beam to the top floor of a building under construction. Antonio was guiding the beam as it was lowered to the ground. It was a windy day. The beam, which was not centered correctly, started to swing. Antonio was unable to move out of the way in time, and the load swung and struck him. He was transported to the hospital with lifethreatening injuries.

- How could this incident have been prevented?
- Have you known or heard of anyone who was injured or killed by a tower crane? If so, what happened?

Remember This

- Any personnel involved in the lift should be
- licensed/certified and trained, if appropriate.

- A qualified person must inspect the crane for excessive wear or damage before use.
- DO NOT stand underneath the crane during assembly or disassembly.
- Monitor wind speeds and DO NOT operate the crane if they are greater than those specified by the manufacturer or a qualified person.
- Inspect all rigging prior to use, and make sure the load is properly rigged before a lift.
- Always check the weight of the load. DO NOT lift a load that exceeds the crane's capacity.
- Keep clear of overhead power lines and maintain a safe working clearance from the lines.
- DO NOT stand under a suspended load at any time.
- Use tag lines to control loads. Never try to stop a moving load with your hands.
- Communicate using radio and hand signals to ensure a safe lift.



What will we do at the worksite to prevent injuries while working with tower cranes?

1	
_	
2	
\sim	

©2021, CPWR-The Center for Construction Research and Training. All rights reserved. CPWR is the research and training arm of NABTU. Production of this document was supported by cooperative agreement OH 009762 from the National Institute for Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.







- **%** Always check the weight of the load. **DO NOT** lift a load that exceeds the crane's capacity.
- Monitor wind speeds and DO NOT operate the crane if they are greater than those specified by the manufacturer or a qualified person.
- **Keep clear of overhead power lines and maintain a safe working clearance from the lines.**
- **X DO NOT** stand under a suspended load at any time.

TOOLBOX

CPWR

RESEARCH AND TRAIN