

## Spot The Safety Violation: Stormy Weather Strikes Again



What do you think caused this crane to collapse on a shed containing sheltering workers?



Cranes and similar lifting devices may appear really sturdy and difficult to knock over. But in certain conditions, such as during very strong winds or if the equipment is overloaded, such devices *can* collapse'often with tragic consequences.

For example, this picture shows the collapse of a crane at a construction site in China due to heavy winds. The crane fell on a shed that was sheltering the workers, killing 18, seriously injuring another 18 and causing minor injuries to 15 workers. Eighty-eight workers managed to evacuate on their own.

The collapse, which occurred on April 13, 2016, is under investigation. But at the time, the area had been experiencing downpours, strong winds, hail and thunderstorms. Several cities even reported strong winds that led to trees toppling. So following the incident, people questioned why such a heavy frame was placed next to the shed, which was used as a dormitory for workers, during such extreme weather.

## **LIFTING DEVICE SAFETY**

To ensure that cranes, hoists and other lifting devices you use don't collapse, comply with the requirements in the OHS regulations for such devices. Also, ensure that your OHS program and safe work procedures for lifting devices cover these key areas:

1. Design and construction
2. Load capacities and load charts (see, overhead crane lift calculation form)
3. Inspections of the devices
4. Log books
5. Training of lifting device operators
6. Use of devices
7. Repair and maintenance.

And implement these basic rules for the safe use and operation of lifting devices:

1. Workers shouldn't leave a lifting device unattended when a load is suspended from it.
2. Ensure that safe work procedures for work around overhead power lines are followed when there's a risk a lifting device could come into contact with such lines.
3. When the movement of a load could endanger others, use tag lines, guide ropes or clamps to control it.
4. When traveling with a load, the operator should ensure it's carried as close to the ground as possible.
5. Bar workers from riding on a load, hook, rigging or bucket attached to a lifting device.
6. Implement appropriate traffic safety measures, such as signs, barricades or flaggers.
7. Ensure lifting devices have audible warning signals to alert workers to lifting operations.
8. Ensure that the wind or other weather conditions won't impact the lifting of a load. And to avoid what happened in China, secure lifting devices in such conditions to prevent them from falling over or collapsing even when they're not in use.
9. Protect the operators of lifting devices from hazards such as falling or flying objects or material, and extreme cold or heat.
10. Make sure a load is safely landed and supported *before* it's unhooked from the lifting device.

## 6 WIND SAFETY TIPS

If high winds or wind gusts could endanger workers or others near your worksite, follow these safety tips:

1. Pay attention to forecasts, especially wind speeds, and plan work activities accordingly.
2. Don't permit workers to work on scaffolding, elevated lifts, cranes, etc. in high winds. Also, ensure such equipment is secured properly so that it doesn't blow over or collapse like the crane in China did.
3. Take steps to tie down or otherwise secure materials and tools to prevent them from blowing around or away. Particular attention should be paid to lighter materials such as sheets of insulation or vinyl and metal siding, which can easily become airborne.
4. Inspect solid fencing, concrete formwork and false work, and vertical walls on incomplete buildings to ensure they can withstand high winds. Install additional supports if necessary.
5. Ensure workers wear appropriate PPE in windy conditions, including eye protection and safety headgear.

6. Inspect the worksite *after* the wind has died down to check the structural integrity of buildings, lifting devices, scaffolds, falsework and formwork, and ensure that any hazards created by the high winds are addressed before work resumes.