

Cornerstones of Crane Safety

Cranes can be dangerous pieces of equipment. When a crane boom fails, lives can be lost. The major causes of crane boom failure are overloading, improper loading and poor maintenance. Fortunately, most crane boom accidents can be avoided by following safety guidelines and proper operating procedures.

Safe Crane Operation

- Cranes may only be operated by qualified people.
- Designate one person to communicate with the operator using hand signals.
- Before you begin loading, always check load limits for the length, size and angle of the boom.
- Make sure you correctly calculate the weight of the load.
- Regularly inspect all cables and hooks for wear or damage. Faulty cables and hooks are the causes of most crane boom failures.
- Make sure cranes are positioned so that the boom or bucket won't swing over workers.
- Avoid raising the boom too high.
- Use good judgment when positioning and lowering the boom.
- Avoid the quick release of the load on a near-vertical boom.
- Make sure boom stops are in place to keep the crane from flipping backward.
- Take extra caution when executing side-pulls and when working on uneven surfaces.
- To prevent load swinging, center the top block over the load before beginning.
- Position the boom to avoid long side-pulls, and use tag lines or other controls to limit swinging when you move a load horizontally.
- Turn the crane slowly and smoothly to keep the boom from twisting.
- Use properly shored outriggers to keep the crane chassis from tilting. A tilted chassis can cause a side-bend in the boom.
- Make sure you have sufficient counterweight to prevent tipping the cab.
- Be sure you're thoroughly familiar with the operation of your crane.
- Know the length of the boom and the arc it makes when it's raised and lowered.
- Avoid taking chances because you "think" it's clear.
- Never use a boom that's been damaged and not properly repaired.
- Never attempt makeshift repairs on a crane boom.
- Inspect your crane daily. Check the brakes, clutch, boom splices and braces to make sure they're in good working order.



On the Ground

- If you're going to be anywhere near a crane, you must wear a hard hat.
- Stay out from under crane booms, buckets and suspended loads, whether you're working, standing around or walking by.
- Whenever you're around a crane be aware of falling objects.
- Never enter a roped-off or barricaded area below a crane.
- Position cranes when workers aren't in the area.
- The swing area should be roped off or barricaded and clearly marked with warning signs.
- A traffic controller should be posted on crowded sites.

Cranes and Power Lines

- Always be aware of overhead hazards such as power lines.
- If you must work near power lines, have the current shut off if possible.
- If the current must remain on, be sure you understand all procedures before you begin working and make sure you maintain the proper distance.
- Stay alert and constantly keep the power lines in mind.
- Make repeated visual checks of your position in relation to power lines.
- Make sure the signal man can clearly signal the operator if the boom is too close to a power line.