



# Safe Crane Operation

Cranes can be found on almost every construction site. We use them to move large, heavy loads of materials, machines, equipment, steel, rebar, and concrete. Cranes make it possible for us to build skyscrapers and set communications towers and cellular phone antennas. The most common and deadly errors made during crane operation include coming in contact with power lines, overloading, tipping over, and two-blocking.

Many accidents and injuries occur when a crane is moving materials near energized power lines and the boom, main hoist line, or whip line comes in contact with an energized power line. Eliminate this electrocution hazard by making sure the work area is free of energized power lines. If you are a crane operator, look up and around the crane before swinging the boom. Work with your local power company to get wires relocated or de-energized prior to beginning work. Cranes and power lines should not occupy the same work area!

Overloading occurs when the rated capacity of a crane is exceeded while the load is lifted and maneuvered, resulting in upset or structural failure. Crane operation requires both planning and training in the use of the latest technologies. Know the weight of what you are going to lift. Use the crane load chart and make sure you include the weight of your rigging in the calculations. If you have not been adequately trained, do not attempt to operate a crane.

A crane can tip over when an operator fails to extend the machine's outriggers or when a crane is positioned on soft or unstable ground. Load charts are based on either the use of fully extended outriggers or "rubber" for rubber-tired cranes. Read and follow those charts carefully. Never deviate from the charts. You should always read the operator's manual before you operate a crane, and follow the manufacturer's recommendations.

Two-blocking occurs when the hoist block or hook assembly comes in contact with the boom tip, causing the hoist line to break. If this happens, the load can fall and kill workers below. Many of today's cranes come equipped with anti-two-block devices. Keep these devices in good working order and never bypass them. To prevent two-blocking hazards, make sure you know where your load is at all times.

The safety of bystanders depends on the competence of the crane operator. Be alert when you operate a crane. Bystanders must be alert and careful too. Whenever possible stay away from the crane and the load.

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**SAFETY REMINDER**  
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**The operator and the signal person must be in constant contact. If you lose contact with the signal person, do not move the load until you regain contact.**

**NOTES:**

SPECIAL TOPICS /EMPLOYEE SAFETY RECOMMENDATIONS/NOTES:  
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S.A.F.E. CARDS® PLANNED FOR THIS WEEK:

REVIEWED SDS # \_\_\_\_\_ SUBJECT: \_\_\_\_\_

**MEETING DOCUMENTATION:**

JOB NAME: \_\_\_\_\_  
MEETING DATE: \_\_\_\_\_  
SUPERVISOR: \_\_\_\_\_  
ATTENDEES: \_\_\_\_\_  
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*These instructions do not supersede local, state, or federal regulations.*