



Hoisting is used to lift and lower loads using a drum or wheel wrapped around ropes or chains. Hoists can be powered manually, electrically, or pneumatically. Hoists effectively move heavy and/or awkward equipment, requiring specialized training and following safe work procedures. To operate a hoist, you must receive proper training. Know the rated capacity of your hoist; it should be clearly labeled on the equipment. Read the manufacturer's operating instructions and warnings. Receive training on how to operate the hoist machine, as well as how to rig and safely maneuver loads. Perform regular maintenance on the hoist and lifting rope/chain.

Conduct daily hoist inspections using a check sheet for recordkeeping. Guards on moving parts should be in place. Inspect hooks for deformations or cracks. Before lifting a load, test the brake stop and upper and lower limit switches. Watch that the hoist operates smoothly; grinding sounds or vibrations indicate a problem. All operating switches should be properly labeled. Hook travel should be in the same direction as it is labeled to avoid mistakes.

Inspect ropes and chains for signs of wear, stretch, and twisting. Look for areas with a thinner diameter, frayed fibers or strands, where the fibers or strands are lifted away from the core. Check the rope reeving on the drum and sheave grooves to ensure it is properly seated. Don't try to lengthen or repair ropes or chains. If hoist parts or operations don't pass inspection, place them out of service for repair.

The most common hoisting hazard is electrocution, which occurs when hoist lines, loads, or other equipment come into contact with overhead electrical wires. Survey your worksite for electrical hazards before you begin work. Maintain proper distances from electrical lines and de-energize them if you must work near them. Use proximity alarms to warn if your equipment comes too close to an energized line.

Improper rigging or overloading capacity can cause loads to suddenly fall. Before each use, inspect load slings for signs of wear and tear. Slings should be labeled with their rating capacity. Calculate your load weight and use the proper amount of rigging and latches to secure the load. Never shock load a sling, as it could abruptly fail.

Properly set up your hoist on stable ground or a secure structure. For stability, you may need to use outriggers, cribbing, or other devices. Survey the work area so the load will not run into obstacles, equipment, or workers. Never exceed the rated load capacity; this could cause the hoist to fail, tip, or collapse. Consider wind factors that may add stress to the hoist. Use rigged tag lines to maintain a stable and straight load during movement.

When you hoist the load, take up the slack slowly and carefully. Hold the load in action while you watch for stability and balance. Keep the load centered under the hook. If the load sways or appears unstable, lower it to its starting position and reconfigure the rigging. Communicate when you are hoisting so that others in the work area know. Don't hoist loads over workers or let them ride slings or loads. Hoists can't be used to support working surfaces.