

Chain Hoist Safety Inspection & Use

Hand-operated hoists have many applications around a shipyard, construction site, and waterfront operations. These devices are simple to use but misuse can result in sudden failure, property damage, and serious injury. Keep these precautions in mind:

1. Before use, inspect the hoist to be sure it is in good condition. Inspect hoists for operation warning notices and legibility. Some things to look for include the following:



- Safe Working Load capacity
- Enlarged hook opening (throat) beyond normal
- Hooks that are bent or worn
- Broken, missing, or non-closing safety latch
- Brake function working properly
- Gouged, distorted, kinked, or damaged chain links
- Chain properly lubricated and free of foreign material
- Stiff operation
- Broken ratchet teeth
- Bent handle

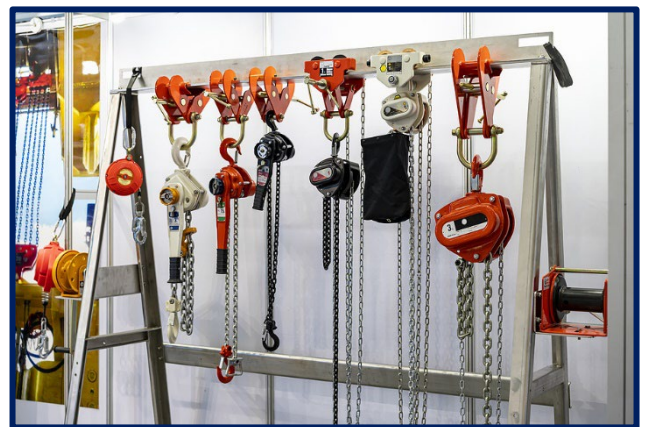
Do not use and immediately remove any defective hoists or rigging equipment from service.

2. Determine the weight of the load you plan to lift and ensure the lifting capacity of the hoist/straps/rigging gear is adequate to handle the load. Never surpass the Safe Working Load (SWL). Remember that the rating capacity is based on new conditions. Age, dirt, wear, and improper maintenance will reduce the lifting capacities.
3. Hoists should be kept clean and free of dust, dirt, moisture, etc., which may affect the operation or safety of the equipment. Lubricate the chain as recommended by the manufacturer.
4. Before hoisting a load, ensure that the structure that the hoist is attached to is strong enough to support the load you are lifting as well as a possible shock load.
5. Check the load for proper lifting points. Some equipment has lifting points built in while others may require rigging. In any event, be sure the load is rigged securely to prevent the possibility of shifting during the lift. Be sure the load is balanced based on the center of gravity and hooked securely. Do not tip-load the hook. The safety latch must be fully closed before hoisting.
6. Never operate a hoist in a manner that causes the load to bend or slide around objects, such as corners or sharp edges. Do not use the hoist chains or cables as a substitute for a sling.

Focus on Safety Agenda

7. Use hoists only in locations that will not expose you to a hazard if you lose your grip or slip while operating; the site of use must also permit you to stand clear of the load at all times.
8. Never put a cheater bar on the operating lever or use more than one person to pull the lever or chain. Hoists are designed to a certain capacity utilizing only one person pulling on the handle. Using a cheater bar or more than one person to pull is a sure sign that you are overloading the hoist.
9. Do not allow helpers to place their hands on a raised load, the slings, or the hoisting chain (cable) while a load is being hoisted. Taglines help control the load. Use a tagline to control the loads' swing and to help orient the load for proper placement or corrections upon landing. If using taglines, ensure they are long enough to stay out of the danger zone. Do not step in the loop of a tagline or wrap the tagline around your arm or leg. If in danger, release the tagline and move away to a safe distance.
10. Stand well clear of the danger zone where the load could fall or roll if the hoist/sling fails, which is greater than the area directly beneath the load. Always leave yourself an escape path clear of obstructions.
11. Start lifting operations with a test lift. Slowly lift the load and stop once the load has been slightly raised. Stop hoisting and check that the straps and rigging gear are properly laid out, the load is coming up evenly, and that the center of gravity is properly centered under the hoist. Slowly lower the load back down and adjust the slings and/or chaffing gear as needed, or proceed if all is correct.
12. Apply the load evenly. Do not jerk, bounce, or allow the load to swing. Any violent motion or shock to the load could easily exceed the capacity of your hoist.
13. Never leave a suspended load unattended and keep everyone away from below a suspended load. Avoid pinch points.
14. Once the hoisting operation is completed, return the hoist to its proper storage location. Keep it out of the weather and away from high moisture or wet areas. Use caution when carrying hoists as chains could become trip or snag hazards.

Remember a hoist can make your job much easier, but if misused or treated poorly, it can be an accident waiting to happen.



Group Discussions:

What are some inspection criteria that need to be checked before use?

What are the proper steps to take once the load is ready to be lifted?

