

Theatre Safety

Rigging – Hoists and Winches

Hoists and winches are used to move all types of materials and equipment such as scenery, platforms, flying individuals, operating fire safety curtains, moveable lighting instruments, and hoisting trusses.

Employees and students must receive formal and documented training on proper use and safe operation of the equipment prior to use. The following codes of safe practices are general guidelines. Each motorized device has a manufacturer's manual that contains information about the intended use and design of the device, load specifications, and instructions on safe operation.

1. Never exceed the hoist's lifting capacity; check to ensure the capacity is stenciled on both sides of the hoist.
2. Determine the allowable weight of the load by checking the manufacturer's information.
3. Ensure the allowable weight is clearly labeled on the hoist/winch and support beam.
4. Select the proper rigging gear. Ensure it is within the Safe Working Load (SWL) of the web sling or wire rope being used.
5. Inspect the rigging gear prior to use. Look for signs of wear and/or damage, such as broken wires, separation in the wire or strand, flattened wires, signs of chemical etching, rust, or other unusual conditions.
6. Replace and discard wire rope when even one broken wire is observed at any point in the rope.
7. Check emergency stops and brakes for efficiency and safety.
8. Only use a hoist hook equipped with a safety latch that closes the throat of the hook.
9. Lock out and tag out the equipment if it is defective, malfunctions, or needs repair, and report these details to your Supervisor/Instructor immediately.
10. Never exceed 45 degrees on the sling angle, as this will put too much tension on the sling.
11. Conduct all lifting operations so no one would be injured if there were an equipment failure.
12. Never leave a suspended load unattended.
13. Never pass a load over coworkers or allow anyone to walk under the load unless appropriate safety measures are in place.
14. Require all students and employees working in the area to wear personal protective equipment appropriate to the hazard, including hard hats, eye protection, hearing protection, and gloves.
15. Talk to your supervisor or instructor if you have any unanswered questions as to capacity, loads, applications, or movement.