

Hand and Power Tools

Employees should be trained in the proper use and be provided with the appropriate personal protective equipment for the specific tools that will be used during their job tasks.

Five basic safety rules can help prevent hazards associated with the use of hand and power tools:

1. Keep all tools in good condition with regular maintenance.
2. Use the right tool for the job.
3. Examine each tool for damage before use and do not use damaged tools.
4. Operate tools according to the manufacturers' instructions.
5. Provide and use properly the right personal protective equipment.

Hand Tools

Hand tools are tools that are powered manually (wrench, ax). Misuse and improper maintenance are the greatest hazards from hand tools.

- Use the proper tool for the job (for example, don't substitute a screwdriver for a chisel).
- Knives and scissors must be sharp; dull tools can cause more hazards than sharp ones.
- Cut in a direction away from your body.
- Wrenches must not be used when jaws are sprung to the point that slippage occurs.
- Impact tools such as drift pins, wedges, and chisels must be kept free of mushroomed heads.
- The wooden handles of tools must not be splintered.
- Iron or steel hand tools may produce sparks that can be an ignition source around flammable substances. Where this hazard exists, spark-resistant tools made of non-ferrous materials should be used where flammable gases, highly volatile liquids, and other explosive substances are stored or used.
- Never carry sharp or pointed tools in your pocket.

Power Tools

Power tools are categorized by their power source: electric, pneumatic, liquid fuel, hydraulic, and powder-actuated. Guards & safety switches that are adjusted properly and in place will protect against many hazards encountered.

To prevent hazards associated with the use of power tools, workers should observe the following general precautions:

- Never carry a tool by the cord or hose.
- Never yank the cord or the hose to disconnect it from the receptacle.
- Keep cords and hoses away from heat, oil, and sharp edges.
- Disconnect tools when not using them, before servicing and cleaning them, and when changing accessories such as blades, bits, and cutters.
- Keep all people not involved with the work at a safe distance from the work area.
- Secure work with clamps or a vise, freeing both hands to operate the tool.
- Avoid accidental starting. Do not hold fingers on the switch button while carrying a plugged-in tool.
- Maintain tools with care; keep them sharp and clean for best performance.
- Follow instructions in the user's manual for lubricating and changing accessories.
- Be sure to keep good footing and maintain good balance when operating power tools.
- Wear proper apparel for the task. Loose clothing, ties, or jewelry can become caught in moving parts.
- Do not use electric tools in damp or wet locations unless they are approved for that purpose.
- Ensure abrasive wheels are not damaged and appropriate speed rating to match the tool they are used on.
- When using pneumatic tools, a safety clip or retainer must be installed to prevent attachments such as chisels on a chipping hammer from being ejected during tool operation. Pneumatic tools that shoot nails, rivets, staples, or similar fasteners and operate at pressures more than 100 pounds per square inch (6,890 kPa), must be equipped with a special device to keep fasteners from being ejected, unless the muzzle is pressed against the work surface.
- Fuel-powered tool hazards comes from fuel vapors that can burn or explode and also give off dangerous exhaust fumes. The worker must be careful to handle, transport, and store gas appropriately and be aware of carbon monoxide dangers if using these tools indoors.

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