

Portable Tools: Hand Tool Requirements

Department: Chemical and General Safety

Program: Portable Tools

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Authority: ES&H Manual, Chapter 25, Portable Tools

A *hand tool* is a device for doing a particular job that does not use a motor, but is powered solely by the person using it. Examples are almost endless, from general tools like the hammer to specific tools like calipers. The greatest hazards posed by hand tools result from misuse and improper maintenance.

Some examples:

- Using a screwdriver as a chisel may cause the tip of the screwdriver to break and fly, hitting the user or other employees.
- If a wooden handle on a tool such as a hammer or an axe is loose, splintered, or cracked, the head of the tool may fly off and strike the user or another worker.
- A wrench with sprung jaws might slip.
- Impact tools such as chisels, wedges, or drift pins are unsafe if they have mushroomed heads. The heads might shatter on impact, sending sharp fragments flying.

Tool users must

- Use only tools with which they have experience, or on which they have been trained
- Use the appropriate tool for the task. For example, around flammable substances, sparks produced by iron and steel hand tools can be a dangerous ignition source. Where this hazard exists, spark-resistant tools made from brass, plastic, aluminum, or wood are safer. (See Portable Tools: Flammable Atmosphere Requirements.¹)
- Visually inspect their tools before each use. For example, knives and scissors must be sharp. Dull tools can be more hazardous than sharp ones.
- Inform their supervisor if unfamiliar or unsure which tool is appropriate
- Report any tool deficiency to supervisor, remove from service, and tag “out of service” until repaired or removed from service permanently
- Stop work immediately if a tool becomes damaged
- Wear appropriate PPE for the task
- Practice job and work area housekeeping. For example, floors must be kept as clean and dry as possible to prevent accidental slips with or around dangerous hand tools.
- Return tools to their proper storage location

1 Portable Tools: Flammable Atmosphere Requirements (SLAC-I-730-0A21S-024), <http://www-group.slac.stanford.edu/esh/eshmanual/references/toolsReqFlammable.pdf>