



Hand and Portable Power Tools

Manually operated hand tools and portable power tools are manufactured with safety in mind. Incidents can still happen, though, when employees don't learn to identify and eliminate hazards associated with these tools. Using tools while fatigued, or under the influence of alcohol, medication, or other drugs, is dangerous. The Occupational Safety and Health Administration (OSHA) provides rules for staying safe when using manual or portable power tools.

Using Manual Hand Tools

In standard 29 Code of Federal Regulations (CFR) 126.301(a), OSHA says employers must never provide or permit use of unsafe hand tools. OSHA also says misuse and improper maintenance are the greatest hazards of manual hand tool use. To avoid these dangers when using manually operated hand tools, do not:

- *Use a screwdriver as a chisel.* The tip may break and fly off, hitting the user or others.
- *Use a knife blade as a screwdriver.* The blade tip can break off and injure someone nearby.
- *Use a tool with a wooden handle that is cracked, loose, or splintered.* The head could separate from the handle and injure someone. Don't try to fix a handle by taping it. Replace the handle or replace the tool.
- *Use a sprung jaw on adjustable, pipe, end, or socket wrenches.* A sprung jaw can slip.
- *Use impact tools – such as drift pins, wedges, and chisels – with mushroomed heads.* Damaged heads can cause flying fragments that can damage the eyes.

Using Portable Power Tools

OSHA outlines these general precautions for using portable power tools:

- Never carry a power tool by the cord or hose, and never yank the cord or hose to unplug it. Doing so can damage the cord or hose, and cause the tool to malfunction.
- Make sure the grounding prongs are present on tool power cords and extension cords before plugging them in. Do not use a tool with missing prongs.
- Keep cords and hoses away from heat, oil, and sharp edges.
- Disconnect tools when not in use, before servicing, and when changing accessories, such as blades, bits, and cutters.
- Keep other people at a safe distance from the work area. Only operators should be in the area where power tools are in use.
- Secure the work with clamps or a vise to keep your hands free. If the material breaks loose, it could injure the operator.
- Keep your finger off the switch button when you are carrying a tool that's plugged in so that you don't accidentally turn it on.
- Keep the tool's instruction manual, and follow all maintenance and safety recommendations.
- When using a tool, wear protective equipment recommended by the manufacturer, such as goggles, safety glasses, or hard hats.
- Maintain good footing and proper balance when operating tools.
- Wear appropriate clothing – no loose clothing, ties, or jewelry – to avoid getting caught in moving parts.
- Remove damaged power tools and don't use them until they're repaired.

- Do not remove guards from a power tool. The manufacturer should provide the necessary guards, which are there to protect the operator and nearby coworkers.
 - Never remove a safety guard from a tool that is in use.
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