

USING HAND & PORTABLE POWERED TOOLS SAFELY

Tools are such a common part of our lives that it is difficult to remember that they may pose hazards. All tools are manufactured with a specific task and safety in mind. In the process of removing or avoiding hazards, instructors and students must learn to recognize the hazards associated with the different types of tools and the safety precautions necessary to prevent those hazards. Instructors must inspect student's tools before they are used. Non-powered and power tools all pose hazards if not handled correctly.

- **Hand tools:**

A few examples are: hammers, screwdrivers, files, hacksaws, and handsaws. They include anything from axes to wrenches. Some of the greatest hazards posed by hand tools result from misuse and improper maintenance.

Examples of misuse:

Using a screwdriver as a chisel. Screwdrivers were not intended to be hammered on, and could easily break causing damage or injuries.

Example of improper maintenance:

The handle of a hammer or ax is loose, cracked or broken. The head of the tool may fly off and strike the user or another person.

- **Power tools:**

Some examples are: drills, abrasive wheels, and sanders. They can be electric, pneumatic, liquid fuel, hydraulic, and powder-actuated. Power tools can be hazardous when improperly used.

Examples of misuse:

Taping a safety switch in the on position. This disables the users' ability to shut of the equipment in a timely manner.

Examples of improper maintenance:

Guards taken off or not maintained. Guards are designed for a purpose. They are in place to protect persons from coming into contact with moving parts.

Safety tips for handling all types of tools

- ✓ Tools should only be used for the purpose for which they were designed. Manufacturer recommendations for safe operation of **all** tools should be followed.
- ✓ Eye protection and other personal protective equipment (PPE) should be worn according to the hazard present (i.e., dust mask when sanding).



- ✓ Damaged tools need to be removed from service.
- ✓ When working overhead, unused tools should be kept in containers or otherwise secured to prevent them from falling.
- ✓ Tools shall not be left in passageways, accesses, walkways or on ramps, platforms, stairways or scaffolds where they can create a tripping hazard.
- ✓ Tools should not be thrown or dropped to another level.
- ✓ All power tools designed to accommodate guards shall be equipped with such guards when in use.
- ✓ Tools should be kept clean and free from oil and grease to prevent slipping.
- ✓ Never carry tools by the cord or hose. Inspect cord and ground plug before each use.
- ✓ Keep cords and hoses away from heat, oil, and sharp edges.
- ✓ Tools with sharp edges should have the cutting edge guarded when in storage or being carried. Edges should be pointed away from the body when being used. Tools should be sharpened as needed. Dull tools are very dangerous.
- ✓ Use extensions and universal joints when reaching for difficult parts with a wrench. Keep hands out of the danger zone.
- ✓ Care should be given to prevent clothing from being wound around moving parts.
- ✓ Damaged extension cords should be removed from service. Ground plugs on cords do serve a purpose. Don't remove them.
- ✓ The instructor needs to conduct and have written documentation of training on all tools used.

Remember:

These are only a few of the tips to use to avoid injuries while working with tools. Hand and powered tools can make a job much easier, but they need to be treated with respect. **Understand** how to properly use the tools you are working with. Then **follow** those rules to keep a safe environment around you.

Note: The Multi-Line program encourages all school personnel to consult with their facilities/maintenance staff before operating any hand or power tools.

Reference:

29 CFR 1910. 241 Subpart P