

## Hand Tool Safety

**Introduction:** An old proverb in the building trade states that “A craftsman is only as good as his tools.” This is true. Every competent tradesman, regardless of his field, must possess an extensive hand tool collection. Hand tools in disrepair are a hazard to the person using them and to others nearby. A workman’s hand tools must be maintained in good repair in order to ensure safety for the user and to assure the quality of the work.

**OSHA regulations state that “Employers shall not issue or permit the use of unsafe hand tools.”**

**Following are recommended practices for general hand tool safety:**

- **General Tools:** Always wear **Personal Protective Equipment** that is appropriate for the hand tool being used.
- **Damaged,** worn out, or defective tools should be tagged and removed from service. Do not perform “make shift” repairs to tools.
- **Never use** a tool if its handle has splinters, burrs, cracks, splits, or if the head of the tool is loose.
- **Do not use** impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads.
- **When handing** a tool to another person, direct sharp points and cutting edges down and away from yourself and the other person.
- **Carry all** sharp tools in a sheath or holster. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, snips, chisels, or files in your pocket unless the tool is sheathed. Transport hand tools only in toolboxes or tool belts.
- **Use tied off** containers to keep tools from falling off of scaffolds and other elevated work platforms.
- **Avoid carrying** tools in your hand when you are climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line.
- **Do not throw** tools from one location to another or from one employee to another.
  - \* **Hammers:** Do not use a hammer if your hands are oily, greasy, or wet.
  - \* Never strike another hardened steel tool or surface, such as a cold chisel, with a claw hammer.
  - \* Avoid striking nails or other objects with the “cheek” of the hammer.
  - \* Do not strike one hammer against another hammer.
  - \* Never use a hammer as a wedge or a pry bar.
- **Hand Saws:** When using a hand saw, hold the work piece firmly against the work table.
- **Do not use** an adjustable blade saw, such as a hack saw or a coping saw, if the blade is not taut.
- **Avoid using** any saw with a dull blade; always keep blades clean and sharp.
- **Keep hands** and fingers away from the point of cut when using any saw.
- **Never carry** a hand saw by the blade.
  - \* **Screwdrivers:** Do not use a screwdriver if your hands are wet, oily, or greasy.
  - \* Always match the size and type of screwdriver blade to fit the head of the screw.
  - \* Never hold the work piece against your body while using a screwdriver.
  - \* Avoid putting your fingers near the blade of the screwdriver when tightening a screw.
  - \* Use a drill, nail, or an awl to make a starting or pilot hole for screws.
  - \* Do not force a screwdriver by using a hammer or pliers on it.
  - \* Never use a screwdriver as a punch, chisel, pry bar, or nail puller.
  - \* When performing electrical work, ensure the screwdriver has a properly insulated handle.
- **Wrenches:** Discard any wrench that has spread, nicked, or battered jaws, or if the handle is loose, broken, or bent.
- **Do not use** a shim to make a wrench fit the fastener.
  - \* **Pliers:** Do not use pliers that are cracked, broken, or sprung.
  - \* Never use pliers as a wrench or a hammer.
  - \* Do not attempt to force pliers by using a hammer on them.
  - \* When you are performing electrical work, use pliers that have properly insulated handles.
  - \* When using diagonal cutting pliers, shield the loose pieces of cut material from flying into the air.

**Conclusion:** Having a good collection of the “Tools of the Trade” is important to any craftsman who intends to make a decent living in his chosen field. It is equally important that the hand tools be maintained and used in a manner that ensures safety to the one using the tools and others in the immediate work-zone. Follow these guidelines for safe hand tool practices.

**NOTICE:** These guidelines do not supersede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.

## Safety Rules for Power Tools

**Introduction:** Power tools can cause serious injuries. Following are safety guidelines for all workers that use power tools on the job:

- **Always** read, understand, and follow the manual that comes with a power tool.
- **Use** the right tool for the job. Do not force a tool to work beyond its ability to perform. Inspect the tool for cracks or damage.
- **All guards** must be in place and operational. Do not remove or alter the guard that is on the tool. Never remove any safety devices.
- **Remember**, no matter how long you have been using a power tool, overconfidence can lead to injuries. Do not rush or take short cuts.
- **Make sure** all bits, blades, and cutters are properly tightened before operations begin. All fittings and adjustments must be locked in place. Work only with double-insulated or properly grounded tools.
- **Before** plugging in a tool, make sure the power switch is in the off position. Remove adjusting keys and wrenches.
- **Make sure** all cords and outlets are grounded. The outlet must have a ground fault circuit interrupter (GFCI). When there is a power leakage, a GFCI will stop the power immediately. This stops any potential for a fatal electrical shock.
- **Extension cords** should be rated to handle more current than required by the tool. Keep the cord away from cutting edges. Never use the cord to carry tools. Always pull the cord out of the plug by the plug, not the cord. Replace any frayed or damaged cord.
- **Make sure** the electrical circuit is the one rated for the tool. Test-run the tool before applying it to the job at hand.
- **Never** leave a power tool running while unattended. Keep tools unplugged when not in use.
- **Remember**, know where your hands are at all times. Keep them away from moving parts, blades, and cutters.
- **Always** use clamps when possible. This will allow your hands to control the tool.
- **Keep** all cutting tools sharp. Control is the greatest when the tool is working at its best. Less effort is exerted.
- **Do not** over reach. You may lose your balance and control of the tool. Never draw a sharp edged tool toward you unless it is absolutely necessary. Do not reach over a blade. Keep the work area free of trip hazards. Remove obstacles in the immediate area.
- **Always** unplug the tool before making adjustments, or changing parts or blades. Let the tool cool down before working on it.
- **Turn off** the tool immediately when there are any unusual noises or vibrations.
- **Make sure** the work area is well lighted. Poor lighting and shadows can cause fatigue.
- **Never** stand on a wet surface while operating a power tool. Do not allow an extension cord to sit in water.
- **Keep** a multipurpose fire extinguisher (rated A-B-C) in your vehicle or nearby. Check the pressure gauge monthly. Recharge or replace when needed. Read the material safety data sheets (MSDS) where chemicals are present.

**Personal protective equipment:** Always make sure that the working area is properly ventilated.

- **Safety glasses** are for eye protection. Safety goggles are enclosed on the sides giving you better eye protection. Safety goggles can be worn over prescription glasses. A face shield provides full protection.
- **Hearing** can be damaged by long term exposure to loud noise. Wear ear plugs (moderate) or ear muffs for loud noise levels.
- **Wear** a NIOSH approved dust mask, or respirator with exchangeable cartridges, when exposed to dusts, toxic fumes, and vapors. Changeable color coded cartridges enable you to filter out specific dusts and fumes.
- **Wear** safety shoes or boots with non-slip soles. Some jobs require toe protection. Wear the proper gloves when necessary.
- **Do not** wear loose fitting clothing. Roll long sleeves up. Keep long hair tied back and under a hat. Remove all loose jewelry. Moving parts can pull in clothes, hair, and loose objects, causing severe injuries to the operator.
- **Keep** a first-aid kit in your vehicle. Make sure it contains all the proper supplies, an eye wash solution, and an up-to-date listing of emergency medical phone numbers.
- **Use** a shop vac to eliminate dust hazards that build up over time. Dusts can create the potential for an explosive atmosphere.

**Conclusion:** Communicate with co-workers before starting loud power tools. Utilize these safety guidelines to ensure safe operations.

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