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## Hand and Power Tools

Most technicians and engineers will use some type of hand or power tools in their job. Workers using hand and power tools may be exposed to **flying objects, harmful dust and vapors, electrical shock and other hazards posed by damaged tools, loss of limbs and even death.**

Every hand and power tool has its own individual safety aspects. This makes it nearly impossible to create general guidelines to cover all of them. Because of this, **it is extremely important to follow the manufacturers' guidelines for proper and safe operation.**



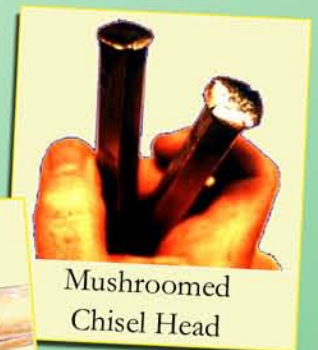
**Hazards are usually the result of improper tool use or not following these protection techniques:**

- Inspecting the tool before use
- Using PPE (Personal Protective Equipment)
- Using guards
- Properly storing tools
- Using safe handling techniques

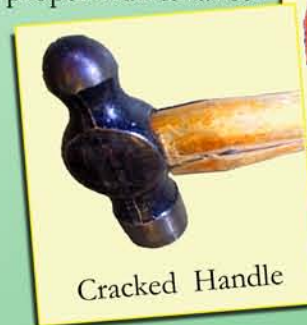
**Hand Tools:** Hand tool hazards are usually caused by misuse and improper maintenance.

### Do not use:

- Wrenches when jaws are sprung
- Impact tools (chisels and wedges) when heads have mushroomed
- Tools with loose, cracked or splintered handles
- A screwdriver as a chisel
- Tools with taped handles – they may be hiding cracks



Mushroomed Chisel Head

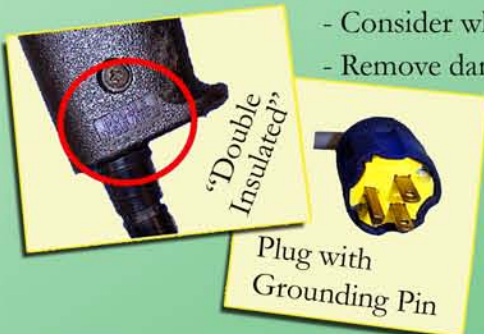


Cracked Handle

**Power Tools:** Power tools must be fitted with guards and safety switches. They are extremely hazardous when used improperly, and they come in many different types, determined by their power source: Electric, Pneumatic, Liquid fuel, Hydraulic, Powder-actuated.

### Precautions:

- Disconnect tools when not in use, before servicing and cleaning, and when changing accessories
- Keep people not involved with the work away from the work
- Secure work with clamps or a vise, freeing both hands to operate the tool
- Don't hold the switch button while carrying a plugged-in tool
- Keep tools sharp and clean, and store in a dry place
- Consider what you wear – loose clothing and jewelry can get caught in moving parts
- Remove damaged electric tools & tag them: "Do Not Use"



**Electric Power Tools - Shocks:** To protect a worker from shock, these tools must:

- Have a 3-wire cord plugged into a grounded receptacle
- Be double insulated, or
- Be powered by a low-voltage isolation transformer

OSHA recommends the follow basic safety rules while using hand or power tools:

- Ensure they are maintained properly.
- Use the right tool for the job.
- Perform a safety inspection of the tool prior to use.
- Operate the tool in accordance with the manufacturer's instructions
- Always use the appropriate PPE (Personal Protective Equipment).
- If the tool was designed to be used with a guard, ensure the guard is installed and working properly.



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# Remember... Safety Matters.

Comments and suggestions are always welcomed and encouraged.



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