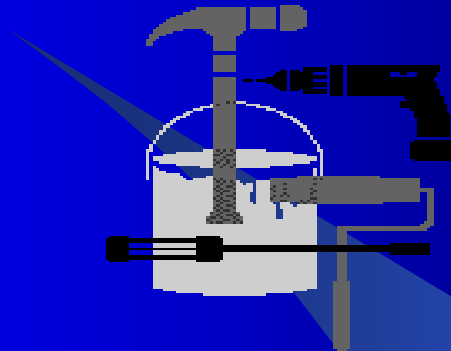


HAND AND POWER TOOL SAFETY



|
Sedgwick CMS
on the behalf of the
OFFICE OF RISK MANAGEMENT

DIFFERENCE BETWEEN Hand Tools AND Power Tools

❖ Hand tools

Have no power source, other than the physical force applied by the user. Handtools include anything from axes to hammers, and screwdrivers to wrenches.

❖ Power Tools

Require a non-human power source to function properly--e.g. External (electricity, compressed air, etc.) or Internal (battery pack, internal combustion engine, etc.).

Both kinds of tools require specific safety precautions or rules to be followed; yet some rules will apply to both.

There are **five basic rules** that apply to **all** tools used either hand or power.

5 Basic Rules

- ❖ Keep all tools in good working order
- ❖ Use the tool only for what it is designed to do
- ❖ Examine the tool for damage before each use
- ❖ Always follow the manufacturer's instructions when operating any tool
- ❖ Always wear the appropriate PPE when operating any tool

GENERAL "Hand Tool" SAFETY RULES

- ❖ Carry and store all sharp tools in a holster or sheath
- ❖ Tag worn, damaged or defective tools and do not use them
- ❖ Do not perform "makeshift" repairs to tools or use tools that have makeshift-repairs made to them
- ❖ Do not use cheater bars

GENERAL Hand Tool RULES

cont'd

- ❖ **Do not throw tools from one location to another or from one employee to another**
- ❖ **When working on a ladder or scaffolding be sure you and your tools are secure**
- ❖ **Do not carry tools in your hand while climbing, use a tool belt or host the tools by using a hand line**

The Greatest Hazards Of Hand Tools: Misuse/Improper Maintenance

- ❖ **Using a screwdriver as a chisel**
 - **Could cause the tip to break and fly, hitting either the operator or bystanders**
- ❖ **A wooden handle on tool such as a hammer or an axe is loose, splintered or cracked**
 - **The tool head could fly off and strike the operator or bystanders**

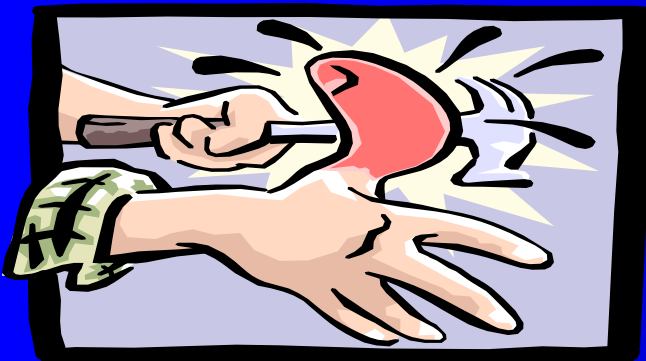
Hand Tool Misuse/Improper Maintenance cont'd

- ❖ **Impact tools, e.g. chisels and wedges, are unsafe if their heads are "mushroomed"**
 - **The heads might shatter on impact sending sharp fragments flying**
- ❖ **Wrenches must not be used if the jaws are sprung, cracked or twisted**
 - **The wrench could slip off**

SAFETY RULES For SPECIFIC Hand Tools

HAMMERS

- ❖ Use a claw hammer for pulling nails
- ❖ Do not strike a hardened steel surface with a claw hammer
- ❖ Do not strike one hammer against another hammer
- ❖ Do not use a hammer as a wedge or pry-bar



SAFETY RULES For Hand Tools cont'd

CHISELS

- ❖ Use only chisels that are sharp
- ❖ Do not use chisels with a mushroom head
- ❖ Use only hammers that are designed for use with chisels

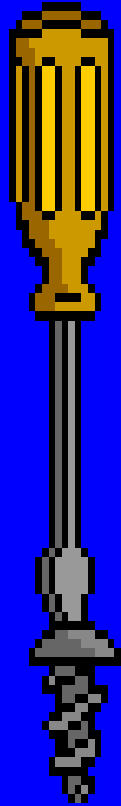


SAFETY RULES For Hand Tools cont'd

SAWS

- ❖ Do not carry the saw by the blade
- ❖ Do not use any saw that has a dull saw blade
- ❖ Keep control of the saw by releasing downward pressure at the end of each stroke





SAFETY RULES For Hand Tools cont'd

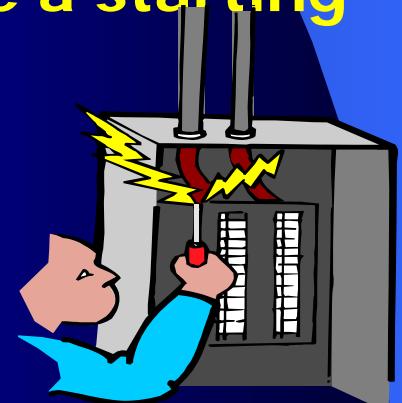
SCREWDRIVERS

- ❖ Always ensure the screwdriver fits the head of the screw
- ❖ Do not hold the work piece against your body while using the screwdriver
- ❖ Do not use a screwdriver as a punch, chisel, pry bar or nail puller

SAFETY RULES For Hand Tools cont'd

SCREWDRIVERS CONTINUED

- ❖ Do not use a screwdriver to test the charge of a battery
- ❖ Use only screwdrivers that are approved to be used on or around electrical equipment , devices, or circuits
- ❖ Do not use a screwdriver to make a starting hole for screws



SAFETY RULES For Hand Tools cont'd

WRENCHS

- ❖ Do not use wrenches that are bent, cracked, or that have loose handles
- ❖ A hammer may be used for striking "face wrenches" ONLY
- ❖ If at all possible use socket or box wrenches
- ❖ Do not use a cheater bar

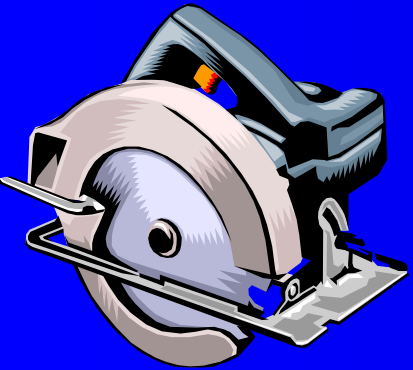
SAFETY RULES For Hand Tools cont'd



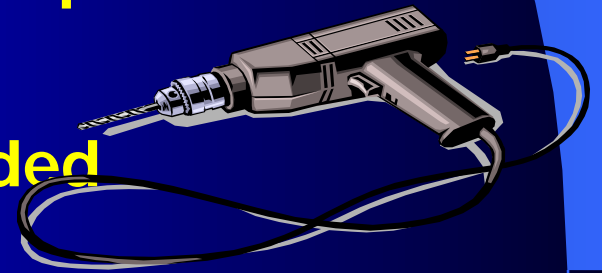
SNIPS

- ❖ **Wear safety glasses or goggles when using snips**
- ❖ **Wear work gloves when cutting material with snips**
- ❖ **Do not use snips as a hammer, screwdriver, wrench or pry bar**
- ❖ **Use the correct type of snips for the job**

GENERAL "Power Tool" SAFETY RULES



- ❖ Do not use power tools you are not trained on
- ❖ Do not lift or carry power tools by their power cord
- ❖ Keep power cords out of the paths of the power tool
- ❖ Do not leave tools unattended





GENERAL Power Tool RULES cont'd

- ❖ Do not stand in water or wet surfaces when running a power tool
- ❖ Hold all power tools by the plastic hand grips or other nonconductive areas.
- ❖ Do not plug multiple electrical cords into a single outlet
- ❖ Do not use power tools or extension cords with a missing prong
- ❖ Ground all tools unless double insulated

GENERAL Power Tool RULES cont'd

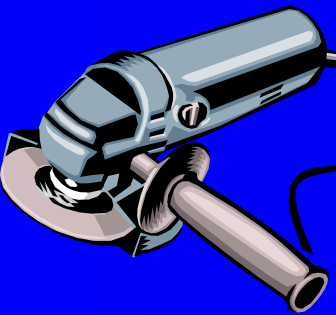
- ❖ **Be aware of all power lines, electrical circuits and water pipes that are not visible**
- ❖ **Do not wear loose clothing, dangling objects or jewelry. Long hair must be restrained**
- ❖ **All observers should be kept a safe distance from the work area**



Abrasive-Wheel Tools

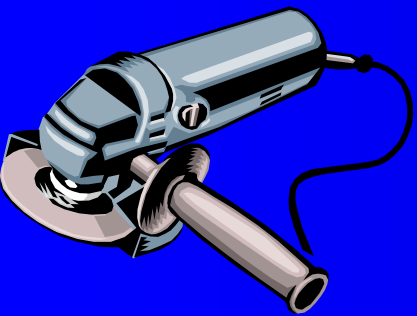
Powered abrasive grinding, cutting, polishing and wire buffing wheels create special safety problems because they can throw off flying fragments.

- ❖ Before an abrasive wheel is mounted, it should be inspected closely and sound or ring tested to ensure it is free of cracks or defects
- ❖ To test wheels, tap them with a light non-metallic instrument. If they sound “cracked or dead” do not use them; they could fly apart



Abrasive-Wheel Tools cont'd

- ❖ Always use the right wheel or cup for the job you are performing. Be sure to match the "RPM Rating" with the tool. Finally, pay close attention to any "special warnings," that the manufacturer may offer, such as "do not use in wet or high-moisture conditions."



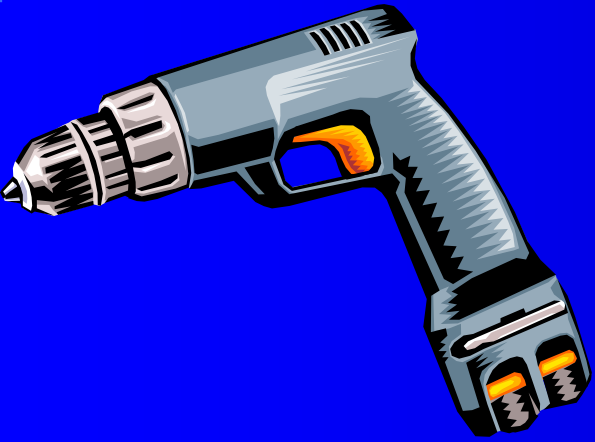
Circular Saws

- ❖ **Always wear safety goggles or safety glasses with side shields**
- ❖ **Use a dust mask, especially when cutting treated woods**
- ❖ **Wear hearing protection, especially during extended periods of operation**



Circular Saws cont'd

- ❖ Use sharp blades because dull blades cause binding, stalling, and possible kickbacks
- ❖ Use the correct blade for the job
- ❖ Ensure the blade guard is in working order, never remove it or tie it back
- ❖ Avoid cutting small pieces that can't be properly secured or the saw shoe can't properly rest



Drills

- ❖ Be sure the chuck is securely tightened to the spindle
- ❖ Tighten the bit securely and remove the chuck key
- ❖ Always hold or brace the tool securely and use any auxiliary handles if provided
- ❖ Don't force a drill. Apply only enough pressure for the bit to do the cutting

Miter/Chop Saws

- ❖ **Because of the saw's downward cutting motion, be sure to keep hands and fingers out of the blades path**
- ❖ **Be sure all guards are in place and working**
- ❖ **Ensure that the recommended size and RPM blades are being used**