

Hand and Power Tools

Something to consider when using hand and power tools:
Hand and power tools account for more than 100 workplace fatalities annually
Millions of workers are injured by hand and power tools every year
These injuries cost employers \$100,000,000,000 annually.

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Hand Tools

Hazards associated with hand tools include:

Cuts, scrapes and punctures
Injuries from falling objects
Trips
Electric Shock

General precautions associated with hand tools:

Preventing falling objects

In order to keep tools from falling off elevated platforms and scaffolds, you should tie off your tools and containers to secure them in a fixed, stable state

Working and Sharp Tools

Use sheaths and holsters for carrying sharp tools. When you are using cutting tools, cut in a direction that is away from your body

Defective Tools

Do not use any tools that have loose heads or damaged handles that may have splinters, burrs, cracks, or splits. Tag any worn, damaged, or defective tools and store them in a safe place, marking "Out of Service" on the container.

Use the Right Tool

- Lastly and most importantly, use the right tool for the job. As an example, do not use a knife as a screwdriver or the end of a tool as a hammer.
- If you are unsure of the correct precautions in a certain situation, it is your responsibility to get the information you need. Check with a supervisor or consult a safety regulation handbook.



Precautions Associated with Specific Categories of hand Tools

Striking Tools



Precautions

- Don't strike with side of hammer
- Don't use a wedge or pry bar
- Keep hands and tool handles free of oil, grease and moisture
- Rest fatigued body parts
- Avoid defective tools

Tightening and Loosening Tools



Screwdrivers



Open end and socket wrenches



wrench



C-Clamp

Precautions

- Fit screwdriver to the job
- Keep fingers away from the blade
- Don't use a plier or a hammer on a screwdriver
- Don't use a pipe to extend a wrench or vice handle
- Don't use a c-clamp to hoist materials
- Don't use a clamp for permanent fastening

Cutting Tools



Knife



Saw



Electric Saw



Chisel

Precautions

- Avoid mushroomed heads or damaged cutting surfaces
- Control saws by releasing downward pressure
- Keep bladed sharp
- Avoid improper use of tools
- Implement proper maintenance
- Never carry a tool by the blade
- Never point the blade toward yourself or a coworker

Scissor-Type Tools



Precautions

- Don't use pliers as a wrench or a hammer
- Don't force pliers by using a hammer on them
- Never use pliers that are cracked, broken or sprung
- Select the appropriate cutter for the job
- never use cutters around electrical wires
- Wear eye protection

Prying Tools



Crowbar



Hydraulic
Jaws of life spreader



Hurst ram type to spread
or prop open a structure

Precautions

- Use a crowbar that contains a grip and a heel
- Never use makeshift crowbars
- When using electric or hydraulic prying tools or spreaders, make sure you are trained and understand the moving parts and working mechanisms.
- You should always use safety glasses when using prying tools.

Digging Tools



Precautions

- Don't twist your spine
- Put the most pressure on your legs
- Use the ball of your foot to push the shovel

Smoothing Tools



Precautions

- Grasp handle with one hand and toe with the other hand
- Never use a file as a pry bar, chisel, hammer or screwdriver
- Always wear safety glasses, protective gloves and protective clothing when using electric or air grinders,
- You must follow your company hot burn and fire precautions and safety policy when grinding any material that will or may cause sparks.
-

Tool Boxes



Precautions

- Tape sharp edges
- Lock wheels
- Lock drawers when moving
- Never stand on toolboxes, chests or cabinets
- Keep tools in their proper place when not in use
- Always put tools away
- Never set tools where they could fall into machinery or from any height

Power Tools

There are hazards associated with power tools. There are general precautions associated with power tools. There are specific precautions with each category or power tools.

Hazards associated with power tools include:

- Cuts Scraps and Punctures
- Power tools have moving parts. Loose clothing, hair, fingers and jewelry can be caught in power tools.
- There can be inhalation hazards with power tools

There are also general hazards associated with the type of power source used.

Electrical Power Tools

- Even a small amount of exposure to electric shock can cause severe injury, heart failure and even death.

Pneumatic Power Tools

- If the air hose is punctured or cut it could result in uncontrolled whipping of the hose

Gasoline Power Tools

General Precautions Associated with power Tools

Cords and Hoses

- Never yank the cord or the hose when disconnecting a tool. Also, carry the tool by the handle, not the cord. Keep cords and hoses away from heat, oil, or sharp edges. Make sure that all cords are disconnected when they are not in use. This is especially important when they are being serviced and when you are changing accessories.

Secure your work

- When working with power tools, use clamps and vises to secure your work, thus freeing your hands.

Carrying Tools

- Avoid unintentional starting by keeping your fingers away from the switch button when you are carrying an energized tool

Maintenance

- Optimal performance of power tools can be achieved by keeping tools sharp, clean, and well maintained

Safety Guards

- Keep all safety guards in good working shape. Never disable or disable a guard.
- Wear gloves and protective footwear



- Store in dry location
- Work in dry locations

Powered Abrasive Wheel Tools

Precautions

- Perform sound and ring testing



- Make sure the wheel fits the spindle

Pneumatic Tools

- Wear hearing, face, and eye protection.
- Use screens
- Attach short wires or positive locking devices to the hoses of the tool
- Use safety clips



Power-Actuated Tools



- Never use in an explosive or flammable area
- Never point the tool at anyone
- Do not load tool until you are ready to use it
- Keep hands away from barrel end
- Wear eye and face protection
- Receive authorized training before use
- Allow for varying powder charges

Hydraulic Power Tools



Splitter



Jack Hammer



Lift

Always use fire-resistant fluid. This fluid should be rated to be fluent operationally for all temperatures, including extreme temperatures.

Never use hands to search for leaks. Instead, use a piece of cardboard or wood.

Before disconnecting lines, be sure to relieve pressure. Before applying pressure make sure, all connections are tight and fittings and hoses are not damaged.

Always use the manufacturer's recommended safe operating pressures for the hoses, valves, pipes, filters and other fittings on the hydraulic power tools.

Following safety guidelines may save you life.