

Hand tool safety

By Warren K. Brown

Before you begin

Review the history of hand tool incidents in your organization and the action plans designed to correct or avoid future possible incidents.



Introduction

One of the key issues associated with hand tool safety is choosing and using the right tool. Unfortunately, many people use tools improperly at home, where they improvise with what they have on hand. Also, many people view hand tools as simple to use, so there is little concern for safety. In reality, a person using hand tools, no matter what they are, should always follow safety precautions. Approximately 8 percent of industrial incidents result from the improper use of hand tools, according to studies. Injuries range from simple cuts, contusions and abrasions to amputations, fractures and punctures.

The fact that nearly everyone uses hand tools in some fashion further complicates the education process. By looking at the injury statistics for your organization, you can discover valuable clues about the tools workers are misusing most often.

Perform a survey of your organization's hand tools. Locate a representative sample of the tools for the presentation. Become familiar with your organization's injury experience and know the proper way to use, inspect and store those tools. Typical hand tools workers use in your organization could include hammers, saws, pliers, wrenches, screwdrivers and knives. Below are examples of improper use of hand tools.

- Pushing rather than pulling a wrench to loosen a tight fastener.
- Bending metal with undersized pliers, which can damage the pliers and the metal.
- Holding an item you're working on in one hand while attempting to remove a screw with a screwdriver in the other hand.
- Cutting toward your body with a cutting tool.
- Using dull cutting tools.
- Filing materials not properly secured in a vise with no handle on the file.
- Using a tool not sized properly for the job (e.g., sockets that are slightly larger than the fastener).

Inspect tools before each use to make sure they are in good condition. Repair damaged tools before using them. Examples of tools that need repair include:

- A hammer with a chipped head and/or with a loose or broken handle;
- A screwdriver with a worn or broken tip;
- Any cutting tool with a dull surface;
- Chisels with a mushroomed head;
- Tools that have had their temper removed or modified due to excess heating.

Now that we have listed some of the problems associated with the use of hand tools, have the group discuss ideas that you can use to reduce the potential for injury while using hand tools both on and off the job.

General safety rules for hand tool usage include:

- Selecting the correct tool and the right sized tool for the job;
- Inspecting tools for damage before attempting a task;
- Keeping tools clean and cutting tools sharp;
- Carrying tools in a manner that prevents cuts to yourself or someone else, especially if you should fall;
- Never striking a screwdriver with a hammer;
- Never using wrenches or other tools as hammers;
- Always passing tools to others handle first and never throwing tools to another person;
- Ensuring workers have proper training before using a particular tool for the first time;
- Transferring tools to a work area by rope or bucket when using a ladder or taking tools to an elevated surface by ladder;
- Storing tools with sharp edges safely in your storage device;
- Wearing proper personal protective equipment (e.g., safety glasses, face shields, gloves, etc.) when using hand tools;
- Cutting away from your body to avoid injury if the cutting device should slip;
- Taking advantage of the ergonomically shaped handles available on some tools and holding tools in a manner that minimizes stress to the hand, wrist and arm.

Make sure employees have the appropriate training for the tools they use.

When starting a job requiring the use of hand tools, ask yourself: Do I have the right tools? Do I know how to use these tools correctly? Are the tools in good condition? Do I have the right personal protective equipment? Is there a place to store these tools when not in use?

Quiz – Circle T for true or F for false.

1. If the wrench being used cannot turn the bolt, use a cheater bar. T F
2. The best way to transport tools is in your pocket. T F
3. When handing a tool to another person, hand it to them handle first. T F
4. It may be necessary to use personal protective equipment when using hand tools. T F
5. Is it safer to pull or push a wrench? a. Pull
b. Push
6. Since workers use tools both on and off the job, there is no need to train at work. T F
7. There is no need to store hand tools in an orderly fashion. T F

Answers: 1. F; 2. F; 3. T; 4. T; 5. A; 6. F; 7. F.

References

What Are Hand Tools? (BWC): <https://www.ohiobwc.com/downloads/blankpdf/HandTools.pdf>

Hand and Power Tools (OSHA): <http://www.osha.gov/Publications/osha3080.pdf>

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