

# WORKING SAFELY WITH POWER TOOLS

Concise Version

## Leader's Guide, Fact Sheet & Quiz

Item Number: 1595 © ERI Safety Videos This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.

#### PREPARING FOR THE MEETING

Here are a few suggestions for using this program:

- a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.
- b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.
- c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.
- d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes <u>before</u> the quiz itself, which is on the final page.

#### CONDUCTING THE PRESENTATION

- a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.
- b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.
- c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.
- d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

### 1595 WORKING SAFELY WITH POWER TOOLS - Concise FACT SHEET

LENGTH: 9 MINUTES PRODUCTION YEAR: 2004

#### **PROGRAM SYNOPSIS:**

Because simple hand and power tools are commonly used for many basic job tasks, we often fail to consider the dangers associated with using them improperly or in an unsafe manner. Fortunately, most injuries involving tools can be avoided when we keep them in good working condition and use them properly.

In this program, viewers are shown the basic safety rules that will greatly reduce the risk of injury during power tool use. Stressed is the importance of having a good safety attitude and exercising good judgment while using such tools as drills, power saws and battery-operated tools. Equipment inspection and personal protective equipment are other featured topics.

#### **PROGRAM OBJECTIVES:**

After watching the program, viewers should be able to explain the following:

- Basic safety rules for power drills, power saws and battery-powered tools;
- The importance of having a good safety attitude when using tools;
- What to look for when inspecting tools;
- The importance of wearing the appropriate PPE when using tools.

#### **PROGRAM OUTLINE:**

#### **INTRODUCTION**

- Our tools. Indispensable to our ability to do even the simplest tasks. Turn a bolt. Drill a hole. Drive a nail. Cut a board or a pipe.
- There are as many different tools as there are jobs to be done. And while each type of tool is designed for a specific job, they all have one thing in common: they must be kept in good working condition and be used properly to avoid injury.
- Because simple hand and power tools are commonly used for many of our basic job tasks, we often fail to consider their dangers when they are used improperly or in an unsafe manner.
- In this video, we will discuss specific safe work practices and highlight common mistakes made by operators of hand and power tools. But first we need to discuss a tool we all have at our disposal that can be used to prevent most injuries: our attitude.

#### **GOOD SAFETY ATTITUDES**

- A good safety attitude is the first step in injury prevention. A good safety attitude means being aware of the potential hazards in your work area and taking the necessary steps to control them.
- One way to eliminate hazards in your work area is to follow good housekeeping practices. Keeping your tools neat, organized, and stored in a proper manner not only ensures you can find the proper tool when you need it, but it also reduces trips and falls, hand and finger injuries, or other mishaps that come from a poorly maintained work area.

#### **EQUIPMENT INSPECTION**

- A good safety attitude also means making sure the tool you are about to use is in good condition.
- Check hand tools for cracked or broken parts. Pay special attention to any wooden handled parts. Wood handles may crack or split.
- Pay special attention to the areas of the tool that grips materials, such as the inside of a box wrench or the gripping face of pliers and other gripping tools. If these areas are stripped or worn, the tool should be replaced.
- Power tools should be checked for electrical safety by inspecting the cord for damage and ensuring a proper ground connection. Be sure to inspect any extension cords as well.
- It's always a good idea to use a ground fault circuit interrupter when using power tools, especially in damp areas.
- Some tools are double-insulated and do not have a ground prong. These tools are safe to use, but the cords should still be inspected for damage.

- All too often, workers grab a familiar tool and begin working without bothering to inspect it. This is the cause of many needless injuries. After all, if you don't inspect it, how do you know it's safe to use?
- If a tool is found to be damaged or defective, don't use it. Report it to your supervisor; damaged tools must be removed from service so they may be repaired or replaced.

#### PERSONAL PROTECTIVE EQUIPMENT

- Depending on your work environment and the type of task you are performing, there are various types of personal protective equipment you may need to wear.
- At a minimum, you should always wear a pair of safety glasses when using any tool, even a hand tool. Not only will safety glasses protect eyes from falling and flying debris, they will protect against inadvertent impacts as well.
- Be aware that jobs that generate flying debris such as grinding require safety glasses and a face shield.
- Depending upon your particular work environment, you may also be required to wear a hard hat, gloves, safety footwear, or other PPE.
- Putting a good safety attitude into practice means always wearing the proper protective equipment. After all, an injury can happen in the blink of an eye.
- Let's take a closer look at some common tools and examine some simple rules you can follow to help you work safely.
- Drilling, grinding, and cutting are just a few of the tasks power tools are able to accomplish. Of course, the same ability to drill, grind, and cut solid materials like wood, metal, and masonry can also cause serious injury and amputation when applied to the soft tissue of our hands, fingers, and other body parts.
- Here are some safety tips for using handheld power tools.

#### **POWER DRILLS**

- When using power drills, be sure you know what is on the other side of the material you are drilling through.
- When drilling, never place your hand on the backside of the material.
- One common source of injury while using drills is pressing too hard on the bit, causing it to break.
- One way to avoid the need to apply excessive pressure is to use sharp drill bits. Drill bits must be sharpened or replaced periodically. A dull bit just won't drill well.
- Another common cause of a drill slipping and causing injury is applying too much force before the bit is started properly. To prevent this, use a punch to make a small dent or hole where you intend to drill. This helps hold the bit in place until it begins to cut.

#### **PORTABLE SAWS**

- Portable saws come in many sizes and shapes. The number one rule for all of them is to keep your hands and fingers out of the blade.
- Many saws come with guards to reduce the risk of hands entering the cutting path. When this is the case, make sure the guards are present and functioning properly.
- Never remove or tie back the guard. This is an amputation waiting to happen.
- Due to the nature of many reciprocating saws, it is not possible to completely guard the blade. When using these types of saws, stay alert to where you place your hands.
- Understand that the blade is going through the material with each stroke; never allow hands, legs or other body parts to come close to the reciprocating blade on the underside of the material.
- Using sharp blades designed for the material you are cutting should eliminate the need for excessive force. Nonetheless, always be prepared for a sudden freeing of the blade and keep hands clear of the path of blade travel.

#### **TAKING CARE OF POWER TOOLS**

- No matter what type of power tools you use, taking proper care will give them a longer life and help prevent injury.
- Never carry any electrical tool by the cord. This can damage the cord and connections, rendering the tool unsafe to use.
- When unplugging the tool from the wall, grab the plug. Don't yank the cord.

#### **BATTERY-POWERED TOOLS**

• When using a battery powered tool, only use the type of battery specified by the tool's manufacturer. Also, you should only recharge the battery with a charger that is specifically designed for that tool.

- If you do not plan on using the tool for an extended period of time, remove the battery before storing.
- Remove the battery before changing accessories or making adjustments to the tool. This has the same effect as unplugging a traditional power tool and is an important safety precaution often overlooked when using battery powered tools.
- Store battery packs safely so nails, screws, wrenches or any other objects cannot come in contact with the battery terminals. This could result in sparks, fires or burns.

#### **CONCLUSION**

- Hand and power tools have become an indispensable part of our ability to do our jobs. But as we've seen, they may also be hazardous.
- We must fight the human tendency to become complacent while using these tools and always remember that doing a job a thousand times without incident doesn't ensure your safety the next time.
- Even when using the simplest hand or power tools, pay attention to your own safety and take steps necessary to prevent injury.
- Whenever you work with hand or power tools, always put to use the most important tool you have at your disposal, your good safety attitude. Because when you do that, there's no task you can't do safely.

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#### **ANSWERS TO THE REVIEW QUIZ**

- 1. b
- 2. a
- 3. d
- 4. a
- 5. c
- 6. c
- 7. b
- 8. b
- 9. a

#### WORKING SAFELY WITH POWER TOOLS – Concise Version REVIEW QUIZ

The following questions are provided to determine how well you understand the information presented in this program.

NameDate	
1.	is the first step in injury prevention.
a.	Good housekeeping
b.	A good safety attitude
c.	A neat and tidy workspace
2.	Some tools are double-insulated and do not have a ground prong. These tools are safe to use, but the cords should still be inspected
foi	damage.
	True
b.	False
3.	What should you do if a tool is damaged or defective?
	Don't use it
	Report it to your supervisor
	Remove it from service
a.	All of the above
4.	You should always wear safety glasses when using any tool, even a hand tool.
	True
b.	False
5.	What is the proper way to start a drill bit into its path?
	Apply enough force on the drill to make it cut into the material
	Turn a Phillips head screwdriver clockwise to make a dent or hole where you intend to drill
c.	Use a punch to make a dent or hole where you intend to drill
6.	When is it acceptable to tie back the guard on a power saw?
a.	When you need to get a better view of the material being cut
b.	When the guard prevents you from making a straight cut
c.	Never
7.	Why must you be alert and careful when using a reciprocating saw?
a.	They are never grounded
	It is not possible to completely guard the blade of a reciprocating saw
c.	They are difficult to inspect before use
8.	You should always carry an electrical tool by its cord.
a.	True
b.	False
9.	Which of the following statements about battery-operated tools is NOT true?
a.	They are not powerful enough to cause severe injury
b.	Only use the type of battery specified by the tool's manufacturer

c. Remove the battery before storing the tool for an extended period of time

d. Remove the battery before changing accessories or making adjustments to the tool