Safety Meeting Presentation

Small Power Tool Safety

Introduction

As Tim Allen says almost every week on ABC's Home Improvement, "It's tool time!"

Yes, today we're going to talk about power tools. A lot of us use them very frequently both here and at home. In fact act, power tools are so common, that many people think they know just about everything there is to know about using them properly and s afely. But, if you look into some of the accident statistics, you might get the sense that there are an awful lot of people who are like Tim Allen's character. They think they know it all, when, in reality, every time they turn on a power tools, they be come accidents waiting to happen

Seriously, though, I know that many of you have outstanding safety records. And that's great. But a little refresher course never hurts. So let's do a quick review of some basic power tool safety tips.

Rule Number One Covers It All

The first rule covers just about everything. Know the tool. If you follow this one piece of advice, it can keep you out of trouble almost every time.

What do I mean? First of all, you have to know the tool well enough to know when it is right and when it is wrong for a specific job. Too many accidents are a result of people trying to force a tool to do something it was never intended to do. You've g ot to understand the limitations of any power tool you operate. At the same time, never underestimate its power. Portable power tools can be lethal if used improperly.

Once you're sure you've selected the right tool for the job, it's vital that you know how to use it properly. Reading the manufacturer's instructions is a good start. And if you're completely unfamiliar with the tool, talk to someone else who

So now you know you've got the right tool for the job and know how the tools is in good operating condition. What else should you do to keep yourself safe?

(Allow employees to discuss ideas, etc.)

The next thing you want to do is think about what kind of protective gear you'll need. Usually, this is no big deal. But if you're working with a tool that will generate dust, shavings, or flying particles, you better put on a pair of safety glasses or g oggles. About 90,000 work-related disabling eye injuries occur every year. Keep that in mind before you start thinking goggles are a waste of time.

While we're on the subject of what to wear, let me also stress what you should not wear. As a general rule, don't wear loose clothing or jewelry when you're using power tools. It's just too easy for them to get caught in the equipment or to pull you int o it.

After you know the tools well enough to know how to dress for it, you're ready to get moving. As a final precaution before turning on the power, double check the emergency shut-off. Most power tools will stop either when you release your finger from the switch or when you press a certain button or switch. You don't want to wait until a tool is working its way through your hand before you try to find the power shut-off.

Housekeeping Rules

And those are the basics - at least some of them. There are still a few other items to keep in mind. They fall under the category of housekeeping.

For example, it's always a good idea to keep the work area clean and organized. If you have a rag soaked with a flammable material on your work table, get rid of it. This is a good habit in general,

has used i t.

Understanding how to use it does not meant the you're ready to turn it on. Again, you have to know the tool.. Look at it closely. Make sure:

- **it's not missing any parts, especially safety guards;**
- **that there are no loose or dull blades**
- **the plug and cord insulation are intact**
- **there are no defects or cracks in the tool housing**
- **guards and safety shut-off switches are in good working order**

This kind of inspection should be done every time you start an operation using a power tool.

but it's especially important if you're going to turn on a pieced of electric equipment. Sparks could fly and ignite the rag before you know what happened. It's also a good idea to clean up when you're done. Dust and debris only create additional hazards for someone else.

Housekeeping is also important with regard to storing your tools. Store sharp tools safely and use blade guards. Don't let cords dangle - they are major tripping hazards. Store bigger, heavier tools securely so they won't fall on anyone.

Most of this information is just good common sense. But if I didn't think it was important, I wouldn't be talking about it. Even if you feel like you know all of this stuff, I hope I at least reminded you to be careful with power tools. I don't want any of you to become accident statistics. And I know you don't either.

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Ladder safety

Ladders are very useful tools. By their nature, they are not very dangerous, but when used improperly they can cause death or major injury. In fact, ladders cause an estimated 300 deaths and 130,000 injuries requiring emergency medical attention every year.

Some of the most common hazards involving ladders are instability, electrical shocks, and falling. With a bit of thought and some knowledge, these accidents can be predicted and prevented.

Choose the Right Ladder
It is important that you always use a ladder that is appropriate in size and construction for the task at hand. For example, if you are going to be handling anything with an electric current, you should never use a metal ladder.

You also need to be sure that your ladder can tolerate your weight. Pay attention to the different classes and choose the ladder that suits your needs.

Type I Industrial -- this ladder is heavy-duty and can support up to 250 pounds.
Type II Commercial -- this is a medium-duty ladder that will support up to 225 pounds.
Type III Household -- this ladder is for light household task and can support up to 200 pounds.

Ladder Safety
Ladder safety is mostly common sense, but people still make foolish mistakes and pay the price. Refresh your memory with these ladder safety tips:

- Most ladders are meant to support one person
- Do not try to reach so far that you lose your balance; instead, simply move the ladder

- Place the ladder on a non-skid surface or add rubber treads to the bottom to prevent slippage
- Never stand on the ladder's top three rungs
- Never use a broken ladder
- Don't put a ladder's base too close to the thing it is leaned against; the base should be spaced 1 foot away for every 4 feet it reaches up
- When using extension ladders, make sure that all locks are firmly secured
- When dealing with electrical equipment, never use a metal ladder
- Never use a wet ladder, as you may slip while climbing

Ladder Maintenance
Most likely you don't use your ladder every day, or even every month. For this reason, it is important that you inspect the ladder for flaws before you climb up.

Be sure to check that all rungs are secure. Look for loose nails, screws, hinges or bolts. If you are using a wooden ladder, be sure that no part is warped or splintered. Lastly, check to be sure that the feet are even and that the ladder does not wobble.

-- Bailey Stoler

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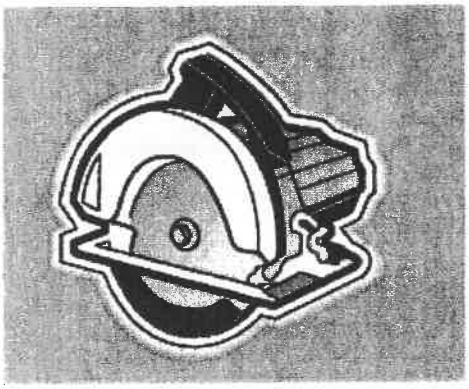
Circular Saws



Among professional tradesmen, on the farm, around the house and in the vocational shop, the circular saw is probably the most commonly used power saw, and perhaps the most commonly abused. Familiarity should not breed carelessness. The following are specific safety "musts" when using any portable circular saw. Not doing so must be considered dangerous. Failure to follow these safety rules may result in serious injury.

Always wear safety goggles or safety glasses with side shields complying with current national standard, and a full face shield when needed. Use a dust mask in dusty work conditions. Wear hearing protection during extended periods of operation.

Do not wear loose clothing, jewelry or any dangling objects that may catch in rotating parts or accessories. Tie back long hair.

Do not use a circular saw that is too heavy for you to easily control.

Be sure the switch turns on properly. Do not use a tool if the switch does not turn it off when returned to the "off" position after release.

Use sharp blades. Dull blades cause binding, stalling and possible kickback. They also waste power and reduce motor and switch life.

Use the correct blade for the application. Check this carefully: Does it have the proper size and shape arbor hole? Is the speed marked on the blade at least as high as the no load RPM on the saw's nameplate?

Check blades carefully before each use for proper alignment and possible defects. Be sure the blade washers (flanges) are correctly assembled on the shaft and that the blade is properly supported.

Is the blade guard working? Check for proper operation before each cut. Check often to assure that guards return to their normal position quickly. If a guard seems slow to return or "hangs up" repair or adjust it immediately. Never defeat the guard to expose the blade. For example, tying back or removing the guard.

Before starting a circular saw be sure the power cord and extension cord are out of the blade path and are sufficiently long to freely complete the cut. A sudden jerk or pulling on the cord can cause loss of control of the saw and a serious accident.

For maximum control, hold the saw firmly with both hands after securing the workpiece. Clamp workpieces. Check frequently to be sure clamps remain secure.

Never hold a workpiece in your hand or across your leg when sawing.

Avoid cutting small pieces of material which can't be properly secured, and material on which the base of the saw (shoe) cannot properly rest.

When making a "blind" cut (you can't see behind what is being cut), be sure that hidden electrical wiring, water pipes or any mechanical hazards are not in the blade path. If wires are present, they must be disconnected at the power source by a qualified person or avoided. Contact with live wires could cause lethal shock or fire. Water pipes should be drained and capped. Always hold the tool by the insulated grasping surfaces.

Set blade depth to no more than 1/8 in. to 1/4 in. greater than the thickness of the material being cut.

When you start your saw allow the blade to reach full speed before the workpiece is contacted. Be alert to the possibility of the blade binding and kickback occurring, (see "preventing Portable Circular Saw Kickback").

If a fence or guard board is used, be certain the blade is kept parallel with it.

NEVER overreach!

Crowded, cluttered conditions that can cause tripping, or loss of balance are particularly dangerous.

When making a partial cut, or if power is interrupted, release the trigger immediately and don't remove the saw until the blade has come to a complete stop.

Never reach under the saw or workpiece.

Portable circular saws are not designed for cutting logs, or roots, trimming trees or shrubs. These are very hazardous practices.

Switch the tool off after a cut is completed, and keep the saw away from your body until the blade stops.

Unplug, clean and store the tool in a safe, dry place after use.

PREVENTING PORTABLE CIRCULAR SAW KICKBACK

Kickback is a sudden reaction to a pinched blade, causing an uncontrolled portable tool to lift up and out of the workpiece toward the operator. Kickback is the result of tool misuse and/or incorrect operating procedures or conditions.

Take these specific precautions to help prevent kickback when using any type of circular saw:

Keep saw blades sharp. A sharp blade will tend to cut its way out of a pinching condition.

Make sure the blade has adequate set in the teeth. Tooth set provides clearance between the sides of the blade and the workpiece, thus minimizing the probability of binding. Some saw blades have hollow ground sides instead of tooth set to provide clearance.

Keep saw blades clean. A buildup of pitch or sap on the surface of the saw blade increases the thickness of the blade and also increases the friction on the blade surface. These conditions cause an increase in the likelihood of a kickback

Be very cautious of stock which is pitchy, knotty or warped. These are most likely to create pinching conditions and possible kickback.

Always hold the saw firmly with both hands.

Release the switch immediately if the blade binds or the saw stalls.

Support large panels so they will not pinch the blade. Use a straight edge as a guide for ripping.

Never remove the saw from a cut while the blade is rotating.

Never use a bent, broken or warped saw blade. The probability of binding and resultant kickback is greatly increased by these conditions.

Overheating a saw blade can cause it to warp and result in a kickback. Buildup of sap on the blades, insufficient set, dullness, and unguided cuts, can all cause an over heated blade and kickback.

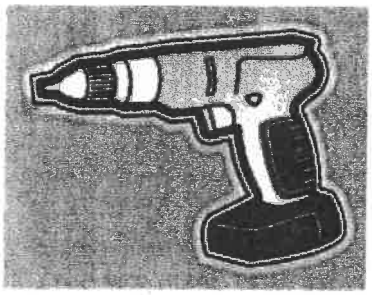
Never set a blade deeper than is required to cut the workpiece 1/8 in. to 1/4 in. greater than the thickness of the stock is sufficient. This minimizes the amount of saw blade surface exposed and reduces the probability and severity if any kickback does occur.

Minimize blade pinching by placing the saw shoe on the clamped, supported portion of the workpiece and allowing the cut off piece to fall away freely.

Back to Safety Information

pti power tool ins

Cordless Tools



Cordless tools (battery powered).
Cordless tools get their electrical power from batteries. They demand the same respect that "corded" tools demand. Remember, cordless tools are very capable of causing injury if all safety precautions are not followed. Read and thoroughly understand the instruction manual that is provided with the tool.

Electrical power source and cord recommendations on this web site do not apply to cordless tools themselves, but do apply to their chargers. If a cordless tool is connected to its recharge unit, both pieces of equipment must conform strictly with electrical power source and cord recommendations on this site.

Perform charging in a dry location, away from all combustible materials.

If the battery of your tool no longer recharges properly with its specified recharge unit, return the tool and charger to your distributor service center as listed in the yellow pages or your tool's instruction manual.

Do not operate cordless tools in or near flammable liquids or in gaseous or explosive atmospheres. Motors in these tools normally spark and the sparks may ignite fumes.

Always recharge a cordless tool and its battery with its own specified charging unit. Never attempt to recharge a cordless tool in a recharging unit not specifically recommended for that tool or battery pack by the manufacturer.

Keep both tool and recharging unit in an area not accessible to children or inexperienced persons.

Be aware that a cordless tool can always be in an operating condition because it does not have to be plugged into an electrical outlet. Unless the batteries are removed, the tool can function at any time the switch is turned on.

Remove batteries or lock the switch in its "OFF" position before changing accessories, adjusting or cleaning tools. This removes the power supply while hands are in vulnerable locations such as near switches, bits, or blades. Consult your instruction manual.

Do no short the battery pack. A battery pack short can cause a large current flow, overheating, and possible burns or a fire. Do not touch the terminals with any conductive material. Do not store the battery pack in a container with metal objects such as wire, nails or coins. Do not expose the battery pack to moisture.

Do not incinerate battery pack or throw it into water even if it is damaged or is completely worn out. Battery packs can explode in a fire.

Cordless tools may contain nickel cadmium batteries. To preserve natural resources, please recycle or dispose of properly. Local, state or federal laws may prohibit disposal of nickel cadmium batteries in ordinary trash. You may call 1-800-8-battery for disposal information.

Keep hands away from rotating or moving parts as with all power tools.

When cutting, drilling, or driving into walls, floors, or wherever "live" electrical wires may be encountered, do not touch any metal parts of the tool. Hold the tool only by the insulated gripping surfaces to prevent electric shock if you contact a "live" wire.

Do not touch the drill bit, blade, cutter or the workpiece immediately after operation. They may be extremely hot and may burn you.

Do not expose battery cartridge to moisture, frost or temperature extremes of over 110 degrees Fahrenheit or under - 20 degrees Fahrenheit.

back to safety information