



Toolbox Talks

Small Tool Safety Part 1

Tool Belts:

- *It is important to secure tools & to guard sharp edges. A falling tool is subject to damage & can also cause injuries to your feet or to workers on a level below you.
- *You must choose the right tool belt assembly to keep your implements safe & secure. Pockets, pouches, & slots should be of the correct size & shape to keep your tools from falling out.
- *The belt should be made of a sturdy material, reinforced for the points of tools. Fasteners should be effective & resistant to wear.
- *Sharp tools, such as knives, saws, hatchets, axes, & other cutting or chopping tools must be guarded by scabbards or sheaths to prevent injury & tool damage.
- *Tool belts must never be used as safety belts for working at heights.
- *Do not hang your tool belt up on nails, hooks, or other protruding objects where it may cause an entanglement hazard around machinery or an overhead hazard for people working below you.
- *A tool belt should be balanced so the weight is approximately equal on each side. When the belt is heavier on one side, your back is pulled out of alignment. Repeated wearings cause chronic discomfort & back problems. If you need most of your tools on one side for easy access, balance the other side with supplies such as nails or bolts.
- *Use broad-shouldered suspenders to allow the muscles in your upper back & shoulders to take some of the load.
- *Take the tool belt off when you take a break to give your back a chance to rest & readjust. The average tool belt is 15 to 20 lbs.
- *Don't pack around excess pounds. Take a regular inventory of items in your tool belt & get

Nuts, Screws, & Bolts:

- There may be something satisfying about pulling a wrench as hard as you can until it won't move another hair . . . however you aren't doing the equipment any favors. In fact, most of the torque (bolt tightness) specifications would really surprise you.
- Besides the obvious problem of the bolt being impossible to remove by the next guy, there are some more serious issues that arise when a bolt is overtightened.** *Overtightened bolts undergo more stress than it was designed to handle. This not only applies to the nut, screw, or bolt, but also to the framework you're bolting into. This extra stress can cause the bolt or the nut to fatigue, weakening them & compromising the safety of the machine.
- *Not only that, but many injuries occur during the process of overtightening. You can pull a muscle & the opportunity for the wrench to slip off the nut increases dramatically causing a severe hand injury.
- *Also, remember the guy who has to loosen it during the next setup. He may not be as strong as you are & can get injured trying to loosen it.
- Don't get me wrong, nuts, bolts, & screws need to be tight, but there is a difference between snug & back-breaking.

Portable Power Saws:

Important safety tips when using a portable power saw:

- *Always wear eye protection. Chips from material can fly into your face, or the blade can break.
- *Avoid loose clothing, jewelry, & anything that could get caught in the saw.
- *Use both hands on the saw & make sure you are in full control of it. Avoid cutting above shoulder height.
- *Always make sure you are using the proper blade for the material you are cutting.
- *Make sure the workpiece is secure before cutting. Never hold a workpiece in your hand or across your lap.
- *Don't overreach. Keep a stable footing.
- *Double-insulated saws do not require a three-wire grounding cord, & the user is protected in the event of an electrical short.
- *Always unplug the tool before changing blades.
- *Beware of kickback when using a circular saw, which is when the blade becomes pinched & the saw lifts up out of the workpiece & toward the user. To prevent kickback, make sure the blade is sharp & clean; do not let it overheat; support large panels so they will not pinch the blade; beware of knots or sap in the wood, & never remove the blade from the material while it is cutting. Release the switch immediately if the saw stalls or binds.
- *Always make sure the cord is out of the way & not in the line of the cut.
- *Do not leave plugged-in tools unattended, especially if there are children nearby.

Utility Knives:

This is the one hand tool that demands your respect over many others in the workplace, a tool that can cut you to the bone in an instant. In fact, nearly 40 percent of all injuries attributed to manual workshop tools in the US involve knives with retractable blades.

Safety precautions to keep in mind when using utility knives:

- *Wear safety glasses to protect your eyes in case a blade breaks.
- *Always use a sharp blade. They are safer than a dull blade.
- *Wear cut resistant gloves & sleeves (at least Level 3) to protect your hands & arms.
- *Hand a utility knife to a co-worker with the handle first.
- *Use one of the newer model self-retracting blade knives. The technology has increased the safety of this tool tremendously over the past several years.
- *If the application allows, use one of the new knives with a shielded knife surface such as the Klever Kutter or similar.
- *Consider using a rounded tip blade if the application allows for such.
- *Ensure the blades are properly positioned in the handle before use.
- *Keep extremities out of the cutting path.
- *Don't apply too much pressure on the blade.
- *Follow manufacturer's instructions when changing blades.
- *Don't use utility knives to pry loose objects.
- *Dispose of dull or broken blades in a puncture-resistant container.



Toolbox Talks

Small Tool Safety Part 2

Hand Tools:

One of the key issues associated with hand tool safety is choosing & 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. According to studies, approximately 8% of industrial incidents result from the improper use of hand tools. Injuries range from simple cuts, contusions, & abrasions to amputations, fractures, & punctures.

Below are examples of improper use of hand tools. Have you done any of these?

- *Pushing rather than pulling a wrench to loosen a tight fastener.
- *Bending metal with undersized pliers, which can damage the pliers & 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).

Not only do you need to utilize the tool properly, but it needs to be in good shape. Take a moment before using any hand tool to ensure that it is in good shape.

Things to look for include:

- *A hammer with a chipped head &/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

Hand tools can be as dangerous as power tools. Make sure you use them correctly.

The Right Tool For The Job:

True Story: A chunk of broken grinder disk smashed a worker's faceshield & hit him in the forehead, causing a fatal head injury.

The employee at a metal castings plant had been using an angle grinder to remove slag from metal cast for use as forklift counterweights. He installed a cutoff saw disk on the angle grinder to cut grooves into the slag. He then switched to an air chisel & another grinder to chip & grind away the remaining slag. He repeated this process a number of times during his shift as he cleaned up the newly-cast counterweights.

About 10 hours into the shift, the grinder disk broke & a piece flew into his face. A co-worker heard an unusual sound & came to investigate. He found the victim lying on the ground & bleeding heavily. Emergency medics were not able to revive him, & a medical examiner pronounced him dead at the scene.

This fatality was caused by **incorrect use** of the angle grinder. The tool was missing a safeguard. The cutoff saw disk installed on it was 4.13 inches larger in diameter than the size recommended by the manufacturer, & the ring size was too large for the shaft of the grinder.

Are you using the right tool for the job? Today, check to ensure your tools are in good repair & that the correct accessories are being used with them.