

Toolbox Talks

Hand Tool & Power Tool Safety

Power tools can cause serious injury when operated improperly. Even the simplest hand tool is capable of causing devastating injuries. A hand injury can result in a permanent disability, a life-threatening infection, or loss of ability to do certain types of work.

Pre-Inspection before use:

- Check the overall condition of any tool(s).
- Generally, all power tools are to be inspected by operators frequently for the following malfunctions:
 - Defective or broken insulation or cord.
 - Improper or poorly made connections to terminals.
 - Broken or otherwise defective plugs.
 - Loose or broken switches.
 - Brushes sparking.
 - Damaged housings, accessories, and dull edges.
- Check for missing guards or protective devices.
- Check for leaking gasoline, oil, or other fluids.
- Check the 3-wire cords unless they are double-insulated or battery-powered.
- Always test equipment before use.
- Ensure proper housekeeping of the work area to avoid trip hazards.

Follow these guidelines:

- Only use tools for their intended purpose.
- Keep hands in a safe and clear position, away from moving parts to avoid injury.
- Use aids (i.e., push sticks, feather boards or and tongs) to avoid contact with saw blades and hot objects.
- Be aware and alert of what you and others are doing.
- Ensure equipment is de-energized before attempting adjustments or repairs.
- Follow all lock-out procedures to prevent accidental start-up of equipment.
- Never bypass/remove machine guards and safety interlocks.
- Store tools in a safe place to avoid damage and injury.
- Tools used in flammable or explosive environments should not emit sparks.
- Wear the proper personal protective equipment before operating specific repetitive motion/vibratory/reciprocating tools (*check manufacturers' specifications for specific PPE*).
- Ensure your tool is properly grounded or is double-insulated.
- Keep power cords away from objects and chemicals that could damage insulation.
- Keep the work area and your hands dry when operating electrical equipment.
- Keep power cords clear of wet surfaces and use a Ground Fault Circuit Interrupter (GFCI).
- Use tools in well-lit areas.
- Report poor terminal connections, broken switches, plugs, sparking or overheating equipment, and outlets without GFCIs in damp areas.

- Do not carry power tools by their cord or hose.
- Secure work material with clamps or a vise if possible.
- Avoid wearing clothing or jewelry that may become caught in a tool.
- Report equipment if sparking or shock comes with use.
- No horseplay around power tools.
- When turning off a tool, let it come to a complete stop before putting it down.
- Never modify three prong power cords. Make sure to plug power cords into a grounded outlet. Avoid using adapters whenever possible.
- Pay attention to a tool's rotation direction to avoid being struck by a flying object strike.
- Use the switch lock only when the tool is in a stand or jig.
- Make sure you have a solid footing when using heavy tools or working at an awkward angle, such as overhead.
- Take breaks in order to stay alert.

Grounding portable electric tools is the most efficient way of safeguarding operators. If there is a defect or short inside the tool, the current drains through the metal frame and ground wire and does not pass through the operator's body.

Ground fault protection in temporary power systems is the modern method of protecting operators from potential shock. Periodic inspections of portable electrical equipment using specialized measuring devices are suggested.

Storage:

- De-energize tool prior to storage (includes air, hydraulic pressure, and removing loads).
- Store electric-powered tools in dry areas.
- Drain equipment (of gasoline) if stored for extended periods of time.
- Store flammables in accordance with applicable regulations.
- Stretch and flex before operating tools for extended periods of time to avoid repetitive motion injuries.

Ensure crew/individual is trained in the Code of Safe Work Practices of the tool before operating.