

# Portable Power Tools Safety & Compliance Game Plan



- Electrocution
- Burns
- Eye injuries
- Severed tendons
- Lacerations
- Amputation
- Puncture wounds
- Musculoskeletal disorders
- Hearing loss
- Traumatic brain injury

These are just a few of the common injuries workers can suffer when they use portable power tools like drills, grinders, nail guns, wrenches, chainsaws, and sanders. In addition to serious or even fatal injury, failure to comply with [OHS power tool safety regulations](#) can also lead to [fines](#), stop-work orders, and other enforcement actions. Here's a 9-step Game Plan to ensure this doesn't happen to you.

## Defining Our Terms

Most workplaces contain a large variety of different tools. This Game Plan addresses a class of hand-held tools known as portable power tools:

- **Power tools**, unlike hand tools for which the user

supplies the power, are powered by an external force such as electricity, liquid fuel, hydraulics, pneumatic energy or actuating powder.

- **Portable tools** are those that workers can easily carry from one place to another, as opposed to stationary or fixed tools that are permanently attached to a single location.

This Game Plan is designed for general power tools. OHS Insider also has separate Game Plans for power tools that have their own set of OHS regulations, including [powder actuated tools](#), [chainsaws](#), and [grinding wheels](#).

## Step 1. Perform Portable Power Tool Hazard Assessment

Have a [competent person](#) perform a power tools [hazard assessment](#) at your workplace. Methods:

- Identify all of the different portable power tools used at your workplace, including personal tools owned by the workers themselves.
- Inspect each of those tools.
- Observe workers when they use those tools to ensure they follow safe work practices and use appropriate PPE.
- Interview workers and supervisors who work with portable power tools.
- Review written records of worker complaints and JHSC safety recommendations involving portable power tools.
- Review OHS incident reports, injury logs, first aid records, workers' comp claims and other materials that may reveal power tool injury patterns or trends.
- Be aware of and on the lookout for risk factors that cause power tool injuries.

## Step 2. Ensure Power Tools Are Properly Designed & Constructed

Employers that furnish power tools for workers to use must ensure that the [equipment they select](#) is made of quality materials and capable of safely performing the work functions it's used to carry out and withstanding the stresses and conditions to which it's subjected. Tools must also be properly designed with effective operating controls and appropriate safety features and devices, which may include:

- Shut-off switches, buttons, or devices that are readily accessible to the user.
- Guards to prevent contact with blades, moving parts, nip points, and other hazards.
- Special kinds of handles.
- Tight fittings and couplings.
- Restraining devices on hoses, pipes and connections under pressure.
- Non-sparking features on tools used in explosive atmospheres or around combustible materials

**Compliance Strategy:** Construction and design standards apply to all of the tools used at the workplace, including those that are personally owned by the worker. Employers, constructors, and supervisors that allow a worker to use unfit tools may thus be liable for an OHS violation even if they don't select and own those tools.

## Step 3. Implement Electric Safety Rules for Electrical Power Tools

While specific precautions vary by tool, there should be a [general safety policy for portable power tools](#), including those powered by electricity, including the requirement that electrical tools be:

- Double insulated or bonded to ground or, if the tool isn't double insulated and it's not practical to bond to ground, equipped with a double insulated portable ground fault circuit interrupter (GFCI) of the class A type.
- Kept away from water or damp locations unless there's a GFCI.
- Totally de-energized with the energy source isolated from the power tool during servicing or maintenance operations like changing blades or tips—the good news is that most electric power tools are “cord and plug,” and can be completely de-energized simply by unplugging them from the outlet.

## **Step 4. Implement Safe Work Procedures for Power Tool Operations**

Employers must create, implement and train workers in safe work procedures for all power tools used at the workplace, regardless of who owns those tools. Safe work procedures must be in writing, kept in an accessible location at the workplace and based on the operating instructions of the tools' manufacturer. The Table below lists basic Do's and Don'ts that safe work procedures for portable power tools should incorporate:

### **General Safe Work Procedures for Portable Power Tools**

#### **When operating portable power tools, DO:**

- Inspect the tool before using it.
- Notify your supervisor if the tool is defective.
- Ensure the defective tool is removed from services so that nobody uses it.

- Use the tool only for its intended purpose.
- Follow all safe work procedures and manufacturer's instructions.
- Keep guards in place.
- Disconnect the source of power before changing accessories or servicing, cleaning, or maintaining the tool.
- Hold the end of a tool with a flexible shaft firmly when starting the motor to prevent whipping.
- Use the right PPE and protective clothing.
- Keep long hair tied back or confined.
- Disconnect the tool after use.
- Clean, maintain, and store the tool in accordance with safe work procedures or manufacturer's instructions.

## **When operating portable power tools, DON'T:**

- Use any tool you're not competent to operate.
- Use a defective tool.
- Engage in any use that's not in accordance with safe work procedures or manufacturer's instructions.
- Run cords, lines, and hoses across aisles, travelways, or work areas.
- Point a tool that ejects nails, pins, or other projectiles at another person.
- Use the tool in hazardous weather or conditions.
- Leave the tool in walkways or other places where someone may trip on them.
- Leave the tool in an elevated place it may fall on somebody below.
- Wear loose clothing, ties, jewelry, or other things that can get caught.
- Make any repairs, alterations, or modifications to the tool without authorization.

## Step 5. Ensure Chain Saw Operators Use Required PPE

You must ensure that workers wear appropriate PPE when operating a power tool, which may include:

- [Safety footwear](#).
- [Limb and body protection](#).
- Safety glasses, goggles, or other protection shielding the worker's [eyes and face](#).
- [Protective gloves](#) or other suitable protection against hand hazards and vibration.
- Suitable [hearing protection](#).

## Step 6. Ensure Proper Power Tool Inspection

Require workers to check their power tools before using them and immediately report any defects they find to their supervisor. A competent person should also periodically inspect all tools at intervals recommended by the equipment's manufacturer. Ensure that tools found to be defective are immediately removed from service and either thrown away or marked as defective and not used again unless and until they're properly repaired. Keep records of the repairs you make, when you made them, and how you verified that they were effective and safe to return to service.

## Step 7. Ensure Proper Power Tool Maintenance & Storage

Implement policies and protocols for portable power tool cleaning, maintenance, and storage. In general, tools should be cleaned with nontoxic and nonflammable solvents, according to manufacturers' instructions. When not in use, tools should

be turned off, placed in suitable containers and stored in a safe location with blades and sharp edges guarded. You should also ban workers from making repairs, modifications, or alterations to tools unless the tool's manufacturer provides for them.

## **Step 8. Provide Workers Portable Power Tools Safety Training**

Ensure that all workers receive safety training from a qualified person in the power tools they use covering:

- The hazards that each tool poses.
- How to select the right power tool for a job.
- How to set up the work area when using power tools.
- Safe work procedures to follow when using the tool.
- What PPE and protective clothing are required for using the tool.
- How to inspect, clean, care for, and store the tool.

Verify that workers actually understand and are capable of applying their power tool safety training on the job by:

- Quizzing workers on the lesson after you deliver it.
- Making workers demonstrate the safe work procedures covered during the training.
- Making workers demonstrate proper use of the PPE covered during the training.
- Observing workers operate power tools to ensure they're actually following their training.

## **Step 9. Monitor Your Power Tool Safety Measures**

Continuously monitor each step of this Game Plan to ensure that your measures are effective and make the adjustments and

corrections you need. Monitoring should be done on a regular basis, e.g., as part of monthly work inspections and scheduled safety audits, and in response to red flags like:

- Worker complaints.
- Incident and injuries.
- Significant changes to power tool equipment or operations that weren't accounted for in the previous hazard assessment.