

# Handheld power tools

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Next to the large, powerful stationary tools in the shop, handheld power tools may seem relatively benign. Don't be fooled; they're powerful enough to do you great harm, and they're swinging around at the end of your arm, not fastened to the floor. The circular saw may be the most dangerous tool in the shop.

1. **Know your power tool** – Read the owner's manual carefully. Learn its applications and limitations, as well as potential hazards specific to that tool.
2. **Ground all tools** – If the tool is equipped with a three-prong plug, it should be plugged into a three-hole receptacle. **Never** remove the third prong.
3. **Don't force your tool.** It will do the job better and safer if used at the rate for which it was designed.
4. **Use the right tool.** Don't force a small tool or attachment to do the job of a heavy duty tool.
5. **Don't abuse the electrical cord.** Never carry a tool by the cord or yank it to disconnect from the receptacle. Also, keep the cord away from heat, oil and sharp edges.
6. **Secure your work.** Use clamps or a vise to hold your work piece. It's safer than holding the piece in your hand, and it frees both of your hands to operate the tool.
7. **Avoid accidental starting.** Don't carry plugged-in tools with your finger on the switch, and be sure the switch is off when plugging in the tool.
8. **Don't lock the switch "ON"** when using a tool by hand, so that you can instantly release the trigger switch if it "binds" in the work piece. The locking button is for use only when the tool is mounted in a table or stand or is otherwise held stationary.
9. **Additional safety rules for circular saws:**
  - **Let the blade guard do it's job. Do not wedge or tie the lower guard open.** Do not use if the lower blade guard does not close briskly over the saw blade.
  - **Keep your hands away from the blade.** Do not place your free hand on your workpiece behind the saw when making a cut. Do not reach underneath your workpiece or attempt to remove cut material while the blade is rotating. Remember: The blade coasts after the saw is turned off.
  - **Always be aware of the cord location,** and keep it well away from the rotating blade.
  - **Support large panels.** To minimize the risk of blade pinching and kickback, place multiple supports under the panel you are cutting, with two supports equidistant from the blade, about 3" away. Arrange your cut so that the saw is supported by the larger portion of the panel when cutting off a smaller portion.
  - **Always keep the correct blade depth setting.** The blade should not extend more than ¼" below the material to be cut. More depth will increase the chance of kickback and cause the cut to be rough.

**Make sure the depth and bevel adjustments are tight** before making a cut