

Hand Tools

Hand Tools - Pipe Tools - Wrenches, Cutters, Reamers, and Threaders

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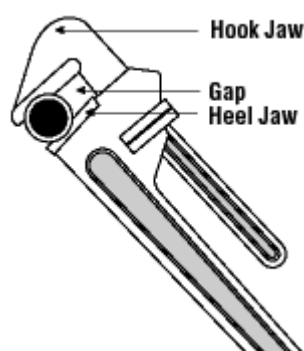
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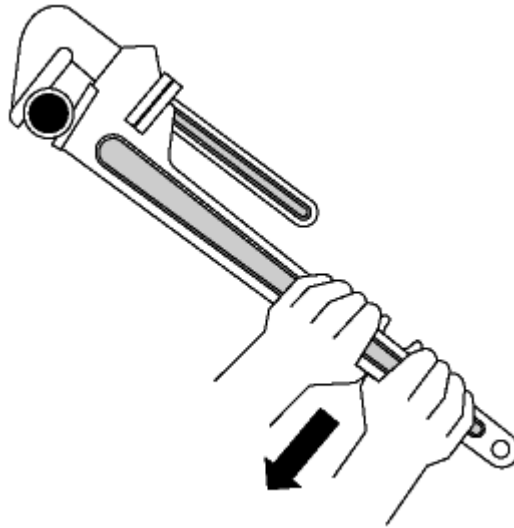
What are some safety tips when using pipe wrenches?

Pipe tools are available in various shapes and sizes and for many uses. Always use the correct tool for the job.

- Wear safety glasses, goggles, or a face shield (with safety glasses or goggles) when necessary.
- Wear hearing protection, as needed.
- Keep good footing and balance when using the tools.
- Select a pipe wrench with sufficient capacity and leverage to do the job.
- Use a pipe wrench to turn or hold a pipe. Never use a pipe wrench to bend, raise or lift a pipe.
- Adjust the pipe wrench grip to maintain a gap between the back of the hook jaw and the pipe. This placement concentrates the pressure at the jaw teeth, producing the maximum gripping force. It also aids the ratcheting action.



- Inspect pipe wrenches for bent or twisted handles, discolouration or heat damage, and worn or unsafe parts (e.g., check for worn threads on the adjustment ring and movable jaw). Remove the tool from service and replace it.
- Keep the pipe wrench's teeth clean and sharp.
- Face a pipe wrench forward. Turn the wrench so the pressure is against the heel jaw.
- Pull, rather than push, on the pipe wrench handle. Maintain a proper stance with feet firmly placed to hold your balance.



What are some things I should not do when using pipe wrenches?

- Do not use a pipe wrench as a hammer, or strike a pipe wrench with a hammer.
- Do not use pipe wrenches on nuts and bolts.
- Do not use a pipe extender, chains, machines, or other devices for extra leverage. Get a larger pipe wrench.

What are some safety tips for using pipe cutters, reamers, and threaders?

- Secure the pipe before cutting.
- Replace pipe cutter wheels which are nicked or otherwise damaged.
- Use a 3- or 4-wheeled cutter, if there is not enough space to swing the single-wheel pipe cutter completely around the pipe.

- Choose a cutting wheel suitable for cutting the type of pipe material required:
 - Thin wheel for cutting ordinary steel pipe.
 - Stout wheel for cutting cast iron.
 - Other wheels for cutting stainless steel, plastic and other materials.
 - Select the proper hole diameter and correct tap size to tap a hole. The hole should be sized so that the thread cut by the tap will be about 75% as deep as the thread on the tap.
 - Use a proper tap wrench (with a "T" handle) for turning a tap.
 - Use lubricant or machine-cutting fluid with metals other than cast iron.
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What are some things I should not do when using pipe tools?

- Do not allow chips to clog the flutes (grooves in the tap that allow metal chips to escape from the hole). The chips may prevent the tap from turning - the tap may break if you continue to apply pressure.
- Do not use a conventional adjustable wrench for turning a tap - it will cause uneven pressure on the tap that may cause it to break.
- Do not attempt to thread hardened steel. This action can chip or damage the die.
- Do not thread any rod or other cylindrical object that is larger in diameter than the major diameter of the die thread.
- Do not use a spiral reamer on a rotating pipe. The reamer may snag and cause serious injury.

Refer to the OSH Answers on [General Hand Tool Operation](#) for more tips.

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