Works great. I used a regular 5/16-in. hardware bolt so it can shear. Two years later it hasn't sheared or been replaced."

Bob Bugger, Effingham, Ill.: Bob likes to keep a tidy shop. That's why he created this setup to capture and hold grit and sparks from his chop saw.

It's an elbow and a small length of 3-in. dia. pipe that's bent at an angle and leads from the chop saw's original spark deflector down into a coffee can.

"The chop saw's original spark deflector is designed to deflect grit and sparks forward instead of straight up. My pipe deflector improves on the idea by capturing most of the material in the coffee can," says Bugger.

He built a base for the chop saw using an old brake drum and a stand pipe, on top of which he welded a metal table top. The chop saw's original mounting plate attaches to this plate by a pair of screws. "If I want to take the saw somewhere else, I just undo the wing nuts on the two screws and carry the saw off," says Bugger.

The add-on plate extends about 18 in. off to one side of the saw, where cutoff pieces can drop onto it. A short length of pipe that's welded under the plate serves as a depth guide for cutting multiple pieces to the same length. "I just bump the piece I want to cut up against the pipe and saw it, then repeat the process."

Elmridge Machine, 94 Fairview Rd., Lititz, Penn. 17543 ph 717 664-1079: A farmer came up with this 2-wheel dolly and it worked so well a local machine shop decided to put it on the market.

A hinged pin is designed to slide up into hitches on equipment tongues. As the long handle on the dolly is pushed down, the pin lifts the tongue up off its jack. Small and large equipment can be maneuvered into out-of-the-way corners for storage.

Sells for $155 plus storage.

Mel Primrose, Westlock, Alberta: He built a 5 by 7-ft. portable work bench that he can move around the shop, sometimes right outside onto the building's concrete apron.

He made a light channel iron frame and added three large wooden storage drawers on each side. The table's legs each have 3-in. castor wheels, and he installed a vice, various hooks and a power outlet to make it more useful.

"I even surprised myself how much I use this table and how often I roll it outside. When the weather's nice, I like to move it out onto the pad in front of the shop in the daylight. If I'm not finished at the end of the day, I can just roll it back inside for the night."

To compliment the portable table, Primrose also built a portable stool and tool caddy that can go along with the table. In addition, he made a variety of tool carriers that can sit on the table but make it easy to transport various accessories from one place to another.

Dale McIntyre, Orangeville, Ill.: A couple dozen carriage bolts and an old bald car tire, helped Dale McIntyre extend the life of a tractor tire for another year.

The Orangeville, Illinois, man explains that one of the tires on his F-20 Farmall was old and had a small tear in it, where the tread met the sidewall. He only used the tractor weekly for moving snow and yard work, so he couldn't justify purchasing a new tire.

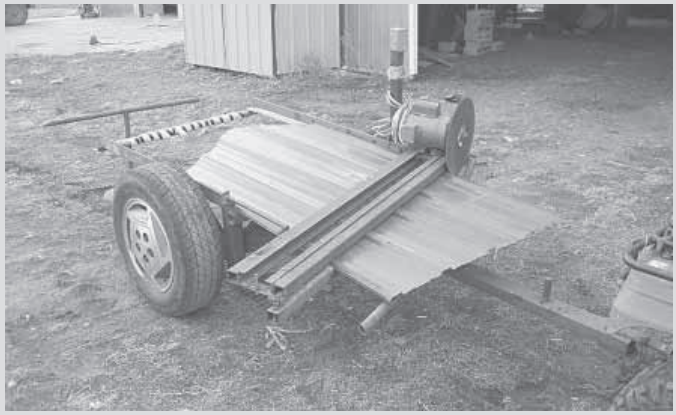
When the tear got up to 1 ft. long, he decided to get creative. With his knife he cut out an 18 by 12-in. piece from an old car tire, which included the tread and a couple of inches of each sidewall. He sanded the edges to bevel them out so they wouldn't damage the tractor tire's tube. He slipped the piece of tire inside the tractor tire and drilled 3/8-in. holes every couple of inches, about 3 in. from the edge of the patching material. He slipped 1 1/2-in. long, 5/16-in. carriage head bolts through the holes from inside the tire and tightened washers and nuts on the outside.

"It looked a little strange," McIntyre says, but it worked.

After a year he found a good deal on used tractor tires and took the patched tire off. The tube and tire were still working just fine, McIntyre says.

Keith Switzer, Cromwell, Minn.: "I keep several sets of cheap tools around for difficult repair problems. That way, if I have to bend a tool or cut one off, I haven't ruined an expensive tool. It's surprising how often I use them."

Art Gomez, Scott City, Kansas: "To change out a fuel pump on a 1986 GMC 305 V8, I cut out a piece of pliable plastic wide enough to fit in the engine block slot to hold the pin in place. I tried grease first to hold the pin but it didn't work. After fitting the plastic into the slot, I could push the pin back far enough to slip the thin plastic behind it. The fuel pump arm fits right behind the plastic allowing me to get the pump in place."



Radial arm saw will cut sheet steel at any angle up to 45 degrees.

Home-Built Radial Arm Saw For Cutting Steel

"I used to build pole buildings and hated using tin cutters to cut the sheet metal. So one weekend I went out to my shop and built a radial arm steel cutting saw," says Loron Skretteberg, Carson, N. Dak.

The saw will cut sheet steel at any angle up to 45 degrees. "Once you get your angle set, one person can cut faster than four people can put up the sheets. It reduces the time it takes to put up the sheet metal on a building by at least 50 percent," he says.

The sheet metal panel lays between a set of angle iron guides to keep it straight. The panel guide frame is 36 in. wide which is the standard sheet metal width.

The saw is set up on a 2-wheeled, home-built trailer and is powered by an electric motor that has a 16-in. blade bolted to it. The motor is bolted to a small metal carriage that's free to ride between a pair of channel iron guides. To change the cutting angle the operator simply loosens a set screw.

To attach the cutting blade to the motor, Skretteberg had a local shop machine a big 1-in. dia. bolt and drill a hole in the bolt head so the bolt could be slid onto the motor's shaft. The blade has a 1-in. dia. hole in it which fit right over the other end of the bolt. A nut keeps the blade on tight.

Saw is powered by an electric motor that has a 16-in. blade bolted to it. Motor is bolted to a metal carriage that rides between a pair of channel iron guides.

"As far as I know, no one makes a commercial radial arm cutting saw that can handle pole barn sheet metal, which comes in 3-ft. wide strips. My only expense was for the blade," says Skretteberg.

"Whenever I start moving the blade across at an angle the sheet metal tends to vibrate and pull the sheet back. To keep the metal from sliding I clamp a vise grip onto a small metal tab on back of the trailer."

Contact: FARM SHOW Followup, Loron Skretteberg, 5880 54th Ave. S.W., Carson, N. Dak. 58529 (ph 701 622-3261; cabin@wildwestriv.com).

Snowmobile Engine Converted Into Low-Cost Air Compressor

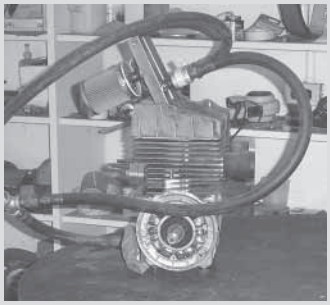
Wess Cornelius couldn't justify the expense of a new air compressor. So the Winlock, Wash., man converted a Rotec 500 cc, 2-cyl. snowmobile engine into a low-cost air compressor.

A 3/4 hp electric motor shaft-drives the Rotec engine, which is used to deliver air to a nearby air tank.

He removed the two spark plugs from the top side of the engine, then used square steel tubing and nylon block to build a pair of shuttle valves which he welded into the spark plug holes. He closed off the engine's intake ports and hooked up a pair of 1 1/2-in. dia. rubber hoses to the exhaust ports. The hoses are hooked up to a commercial air tank. Turning on the electric motor, via a pressure switch, causes air to get sucked in through the shuttle valves. At that point the engine's pistons go down, the valves open up, and the air is moved through the spark plugs toward the piston. As the pistons come back up, the valves close off and air is pushed back out the hoses and exhaust ports.

A check valve at the air tank keeps air from coming back out of tank and into the engine.

"I use it to do heavy duty work in my shop," says Wess. "It didn't cost much to build. I already had the electric motor and the air tank. I bought the Rotec snowmobile engine for $10 from someone who didn't need it any more."



Wess Cornelius converted a Rotec 500 cc, 2-cyl. snowmobile engine into this low-cost air compressor. A 3/4 hp electric motor shaft-drives the engine, which is used to deliver air to a nearby air tank.

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