Money-Saving Repairs & Maintenance Shortcuts

Have you come up with any unusual money-saving repair methods for fixing farm equipment? What maintenance shortcuts have you found? Have you had any equipment recalled by the factory? Name a particularly tough mechanical problem you've had with a piece of equipment and how you solved it.

These are a few of the questions we asked randomly selected FARM SHOW readers. If you have a repair tip, maintenance shortcut, or other mechanical experience you'd like to share, send details to: FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 or email us at: editor@farmshow.com.

Mark Newhall, Editor

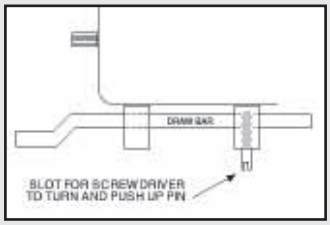
Elmer Pinkerton, Elmwood, Neb.: "When welding and cutting, it's quite a chore to keep changing torches and resetting the oxygen gauge. I made it a lot easier by installing a T fitting on the oxygen tank and fitting it with a second gauge and another set of hoses. Now I can drop one and pick up the other. There's no need to reset the acetylene gauge."

Mark Eilers, Tower Hill, Ill.: He came up with a lightweight metal brake that fits onto the front edge of his workbench. He first lag-bolted a long piece of 1/4-in. thick

steel plate to the front edge of the bench, leaving a thin space underneath it. For the break plate, he used a heavy piece of angle iron that's fastened to the front edge of the bench with door hinges. Then he attached a short length of metal pipe to the angle iron to give him the leverage to bend metal. He slips a sheet of metal under the steel on the bench and bends it up with the angle iron.

Glen Teel, Hays, Kan.: "When the batteries in my Ryobi electric lawn mower went out, I didn't want to pay $50 apiece for re-

placement batteries from the company. So I used two 12-volt lawn mower batteries that only cost $18 each. They're larger so I had to modify the battery holders and raise the main cover up about 3 in. But the mower runs longer on them and they charge up fine with the mower's regular charger. I've used it two years this way. If your mower has a 24-volt system, you have to connect the batteries to produce 24 volts."



David P. Campbell, Elnora, Ind.: "I ground a slot in the bottom of the drawbar pins on my Deere 4020 and 2520 tractors. Makes it easy to use a screwdriver to turn and push up on the pin when you need to lengthen or shorten the drawbar as needed for whatever job you're doing."

Brian Haubrich, Glenbain, Sask.: Brian says this is one of the best ideas he's ever

had. He hangs tool racks inside the access door on his Case IH combine. He says it's much more convenient that trying to carry a toolbox on the combine. He also hangs toolracks on his Conserva Pak air seeder. He says you have to twist the hooks on the racks so wrenches won't jump off on rough ground.

Emil E. Smith, Franklin, Wis.: "I came up with a cheap way to replace expensive air filters on riding mowers. I bend 1/4-in. hardware mesh to the form of the old filter, then cut a piece of cloth and wrap it around the outside of the mesh and trim any loose strings. The suction coming out of the carburetor will keep the cloth tight against the mesh and away from the carburetor's throat. When the cloth gets dirty, I just throw it away and put on a new one.

"I've used this idea for two years on a Yard Man 14 hp riding mower, an MTD 10 hp riding mower, and on a Troy Bilt rototiller. I think the same idea would work on any kind of small engine that has a paper air filter. Not only do you save the cost of a new filter, but the engine seems to breathe a lot easier, probably because air flows through the cloth better."

Shambaugh Farms, Oakley, Ill.: These two wheeled carts, equipped with short ladders and spring-loaded feet, are much appre-

ciated in T.J. Shambaugh's shop. He got them at a close-out auction held by a pipe supply firm.

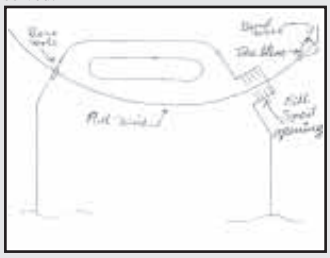
One cart has three shelves and the other two. He attached a cabinet on one of the units for storing tools and other supplies. The curved handlebars work great for guiding the units about, and the spring-loaded feet keep them in place.

Alan MacLean, Kingston, Ontario: "In the last issue of FARM SHOW, a reader described how to rotate a dead tractor engine by placing another tractor back to back with a driveshaft between the two pto shafts. A transmissioin with its shift lever in reverse was used in the driveline in order to rotate the engine in the right direction.

"I've used this approach several times but without the extra gearbox. Some years ago Massey Ferguson tractors featured what they called a 'ground-drive' pto position for the selector lever. In this position, the pto shaft was rotated by the rear axle gears.

"Using one of these tractors, with the left rear wheel jacked clear off the ground and the transmission in reverse, rotates the pto backward, which turns the dead engine in the right direction. For safety, operators should remain on both tractors. Many pto-driven generators have driveshafts with 1 3/8-in. U-joints at each end, which is ideal for this purpose."

Douglas Fast, Dallas, Oregon: "I filled my above-ground refurbished fuel tank with 4,000 gal. of diesel fuel only to discover there was a crack on the lower side of the tank, which leaked about a half gallon of fuel per hour. Making sure the connection around the lid of the tank was airtight, I connected my shop vac to the lid to create suction (negative pressure) which stopped the leak. I was then able to apply an epoxy sealant to the crack, which sealed the leak. After 24 hours I shut off the shop vac, and my problem was solved."



R. E. Dickinson, Theodore, Alabama: "My neighbor came up with this vent for plastic fuel cans. After draining and drying the inside of the can, drill a hole in location as per the drawing using a 1/2-in. drill bit. Invert the can and shake out any drill cuttings (that's why you need a dry can). Push a 3-ft. length of wire through the drilled hole and then out the filler spout hole.

"Remove the valve cap and core from a new tubeless tire stem and thread it onto the end of the wire. Pull the stem out through the vent hole.

"To vent the can while dispensing fuel, I simply take the cap off the stem."

Jerry Foster, Magalia, Calif.: "In your last issue someone installed an electric plug-in socket on his Lincoln welder so he could use it to operate power tools. He removed the back of the welder and ran wire to the 110-volt socket, including a ground wire.

"Don't do it. A welder connects with a 3-prong plug. Two of the prongs are at 110 volts with respect to ground (220 volts measured

High-Wear Parts For Hammermills, Hay Processors

If hammers, flails, rods and screens are failing faster than you think they should, it may be time to check out Doran Manufacturing. Randall Doran says they use higher quality steel than OEM's and harden it, too.

"We combine high-quality steel with heat treatments to harden off the parts that wear," says Doran. "Our parts have a substantially longer life than OEM parts under the same conditions, and we're usually priced 15 to 20 percent lower."

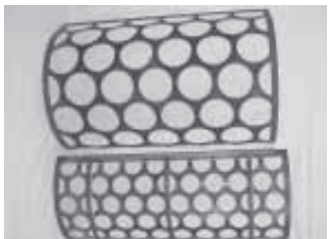
Doran sells parts to farmers throughout the country, though the majority of their business is in the Midwest and Great Plains states. Over the past 14 years they've made parts for most of the hay tubs and hammer mills in use.

"In most cases, all we need is the make and model," says Doran. "If the equipment is old or intended for a special use, we might require measurements. Regardless, every part is made the old fashioned way: Manually."

Doran credits his employees' craftsmanship for the quality of the parts produced. "We're more expensive than some after market competitors, but we feel we make a better product," he says. "We use raw materials suited for the application and tailor the part for the characteristics of each machine."

Parts can be ordered direct from the company by phone, fax or email. A catalog is also available.

"Our hammermill parts have a longer life than OEM parts and are usually priced lower," says manufacturer Randall Doran.



The company's hammers, flails, rods and screens are built with high quality steel.

Contact: FARM SHOW Followup, Doran Manufacturing, 1230 870th St., P.O. Box 147, Harlan, Iowa 51537 (ph 712 755-7980; fax 712 755-7877; doranmfg@fmctc.com).