



**Roland Holder, Hinton, Iowa:** "I keep a few old wood splitting wedges on my welding bench to hold uneven pieces as I weld them together. They're heavy enough to hold the parts in place and you can set up many angles. They'll adapt to most any project."

**Kirk Dahl, Ruby Valley, Nev.:** "I scratch the date, engine hours and oil weight on each oil filter that I replace when changing oil. At a glance I know when to change oil again."

**Robert Slattery, Rudolph, Wis.:** "When I bought a tractor with a cab on it, I could no longer reach the manual controls on my Deere 3940 chopper. To solve the problem, I mounted a small orbit motor on the shaft that turns the blower pipe and operate it with the hydraulic lever in the cab. To adjust the deflector hood on the blower pipe, I used a 12-volt electric car window motor. I ran a piece of clothesline from the window motor to the hood of the blower and wired a 2-way electric switch in the cab."

**Donald L. Olson, Saco, Mont.:** "The power steering on my 706 International tractor quit working. I thought it was the hydraulic pump, which would have cost \$490 to replace. But I found out there are not one but two filters in the hydraulic lines and one of them was plugged. I cleared it out and solved the problem."

**Kevin McWilliams, Columbia, N.J.:** "We changed our Deere 3020 over to 12-volt electric from 24-volt and used a Delco alternator to replace the original generator system, which never charged enough to keep the batteries fresh."

"I made cheap TIG (heli-arc) wire for cast iron by sanding the old coating off some stickwire ni-rod. It had become wet and the coating was chipping off. It made perfect TIG wire, which I would otherwise have to buy for as much as \$10 per pound."

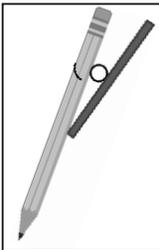
**Mark Bint, Cysco, Tex.:** "When a bolt head breaks off, I weld a flat washer to the bolt using a mig welder. Then I weld a large nut to the washer, let it cool, and 90 percent

of the time I can just wrench the bolt right out."

**Paul Rusch, Nekoosa, Wis.:** "I save money on bearings by purchasing them at one of two local bearing distributors for at least half the dealer price. One tip on working with bearings: Heat expands and cold shrinks. Put a bearing in an oven at 200° to slide it on a shaft. Put it in the freezer to drop it into a bore."

**Mel Naggatz, Holyoke, Colo.:** "I came up with a simple way to carry an emergency supply of air to the field. I made up a 8-ft. length of air hose with valve fittings on each end. If an implement tire gets low on air in the field I connect the hose to a tire in the back of my pickup and to the implement tire. Air is simply transferred from the pickup tire to the low tire."

**S. Reppert, Reading, Mich.:** "I take a round chain saw file and cut a notch on a pencil. Then I take half of a clothespin, with the spring in place, and I slip it down to the notch. This gives you a pencil that you can clip to your pocket just like a clothespin. Works especially well with flat carpenter pencils."



**John Adams, Cross Plains, Texas:** He had trouble with dirt and dust getting into the couplings for his air compressor-powered impact wrenches, paint guns and other tools.

"To solve the problem, I found I could simply place a plastic valve stem cover over the coupling," says John. "They fit perfectly to keep the 'bugs' out."

**L.A. Daily, Norman, Okla.:** "I had a lot of trouble starting my Deere 4010 propane burner in real cold weather. To solve the problem, I bought a pair of electric heating pads at the drug store and fastened them under the oil pan. I simply plug them in at night and they work great to keep the tractor starting even in the coldest weather."

**Carroll Kerley, Peck, Kan.:** Carroll came up with a low cost way of repairing the openers on his Deere 494 4-row planter.

"I cut off a piece of a worn out cultivator sweep and properly shaped it to fit the opener. I then weld it to the bottom of the old opener. I weld a little hard facing onto the leading

FARM SHOW

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 farm 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.

Mark Newhall, Editor

edge and it works better than new. This repair can be done for little or no money, while Deere wants \$46 apiece for new openers."

**John W. Morgan, Colfax, Wash.:** "I've never talked to anyone who wasn't given fits by the 'Brake Boosters' on some early 1970's IHC trucks like the 1973 1310 1-ton service truck I bought used five or six years ago. The 'booster' was apparently standard equipment that installed between the master cylinder and engine compartment to reduce the amount of pressure needed to operate the brake pedal. The problem is that the device invariably applies pressure to the front brake first, an especially troublesome situation on ice."

"We tried everything we could think of to adjust the brake system to get equal braking front and rear but nothing worked. Finally, I simply pulled off the 'booster' and the original master cylinder and threw them away. I then installed a regular pickup master cylinder I had lying around. I used this master cylinder instead of the original. It solved the braking problem and made the truck a pleasure to drive."

**Darrell Cranfill, Hillsboro, Ill.:** There are a couple of Midwestern companies that specialize in recovering old tractor steering



Photos courtesy The Belt Pulley Magazine

**Before**

wheels, but Darrell found a way of doing it himself.

"Plasti-Dip is a rubber coating that comes in a can. It's normally used to cover tool handles to get a better grip. I had a dilapidated old steering wheel I was working on. I first built up cracks and chips with body putty and sanded those areas smooth to match the rest of the wheel.

"Then I applied several heavy coats of Plasti-Dip, using the version that comes in an aerosol spray can. It gave the steering

wheel a great finish, not too shiny and not too dull. I got a like new steering wheel for



**After**

the price of a dab of body putty and the Plasti-Dip, which sells for \$5 per 11 oz. can."

For information on Plasti-Dip, contact: FARM SHOW Followup, PDI Inc., 3760 Flowerfield Rd., P.O. Box 130, Circle Pine, Minn. 55014 (ph 800 969-5432 or 612 785-2156; fax 2058).

**Linden Hankins, Bonanza, Ore.:** "Freeman bale chamber slide bars have a tendency to get hay and dust behind them, making the plunger hard to adjust. When replacing the slide bars, I put a bead of silicone gasket adhesive behind them and along the top edge. This prevents the problem."

"Freeman baler knives also have a tendency to wear at the bottom while the rest of the knife remains sharp. I fill the groove worn in the knife by the guide with hardfacing and grind it flat. They wear a long time and don't add extra wear and tear to the plunger knife slide."

**George H. Hall, Jr., Somerset, Ky.:** George built a "poor man's" wick wiper out of a cattle oiler rope and a few other odds and ends.

"I used 10 ft. of oiler rope wrapped around a 1 in. dia. 10-ft. long pipe. I tied the rope to the pipe with some smaller rope I had around and then tied two boxes of 'face flips' onto the larger rope. I slipped the pipe horizontally onto the hay forks on back of my tractor and drove out to the pasture. I soaked the rope in 2-4,D and water, which then saturated the 44 'face flips' tied to it. I lowered the forks so the Face Flips dropped down 6 to 8 in. below the tops of the weeds and rode around the pasture, stopping periodically to re-coat the rope with chemical. Cost of the oiler rope

## Do-It-Yourself Hose End Crimper

You can repair broken hydraulic hose right on the machine without removing the hose and without the need to use a certain brand of hose ends. However, the hose and ends must be compatible, says Robert Rottinghaus, farmer-engineer from Jesup, Iowa, about the latest model of his popular do-it-yourself hose end crimper.

He first came up with his crimper tool about 8 years ago. The latest new model works essentially the same but now has infinitely variable crimp diameter - from 1/4 to 3/4-in. - on one and two wire hose.

"It works on virtually any hose in agriculture, industry or even the military," says Rottinghaus. "Weighs just 3 lbs. and works as well in the field as it does in the shop."

Hose ends must be the long body style. Rottinghaus recommends the following brands of fittings for the tool: Weatherhead, Anchor-Goodyear, Dayco, Imperial Eastman, and Aero-Quip.

To fix a broken hose, you simply use the Dial Calipers that come with the tool to



check the diameter of the hose end, and then duplicate that crimp diameter or refer to chart.

The kit comes in a plastic carrying case and includes Crimper, Hose End Holder, Dial Calipers, and instructions. Sells direct for \$179.

Contact: FARM SHOW Followup, Robert Rottinghaus, Clever-Tech, Inc., 4121 South Canfield Rd., Jesup, Iowa 50648 (ph 319 827-1311; fax 319 827-2425).