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 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

Eugene Keener, Smithville, Ohio: "Welding cast iron is much easier than people think. Instead of using a ni-rod, I use a no. 7018 in a DC reverse polarity mode. I treat the cast iron the same as if I were using ni-rod. However, the 7018 rod is much cheaper and holds better. Of course, if it's a small cast item, it's best to heat the whole item to 400° or so and it'll weld much better. If the casting is too big to do that, I just weld a little at a time – an inch or so in length – then take a ballpeen hammer or a pointed chipping hammer - and mark it so it stretches out and doesn't pull loose from the rigid cast. I don't start welding another section until I can put my bare hand on the last one. This prevents the piece from getting too hot."

Paul D. Peachey, Belleville, Penn.: He cuts up rubber cow mats to make mud flaps for his 18-wheeler, just cutting them to fit. He says they're heavy enough to last a long while. And they're cheap.

Dan Churchill, Quesnel, B.C.: "You can call me old-fashioned but I still like to lightly sand and treat with linseed oil the wood handles on my rakes, pitchforks, shovels, etc. I do it periodically, as needed.

"One winter tip that helps a lot is to use a small torch to 'wax' all my shovels, smowplow blades, the inside of my tractor bucket, etc. I just lightly heat the tool and then rub a block of wax all over, then heat it till it flows. This trick really helps keep sloppy wet snow from sticking and it protects the metal. It'll even keep wet clay from sticking to shovels and posthole diggers."

Glen R. Hoskins, 24697 Hwy D, Hughesville, Mo. 65334 ph 660-827-1255: Glen recently sent us a new tool that he invented and now manufactures. The "Pli Wrench" is an ordinary set of pliers with a closed-end wrench attached to both ends of the handles. "There's a 9/16 and 1/2-in. wrench attached to each end. They really come in handy around the farm or house. I sell the wrenches for $15.99 apiece plus $4 S&H. Each handle is covered with a rubber grip for easy use."

Lewis Leon Dick, Mount Hope, Kan.: "When working on an engine or other piece of equipment, I spread an old blanket out underneath. It catches dropped nuts, washers and other small parts, keeping them from rolling away. Makes them easy to find."

Matthew Platt, Roxbury, Conn.: "When working on a machine with hard-to-reach bolts, I use a piece of 3/16-in. dia. steel wire – bent into a snug hook at one end – to hold the bolt shank. I use it to insert the bolt and than to hold the bolt in place until I can get a nut started. The nice thing about this idea is that you can bend the wire around obstacles as needed. If necessary, you can file the wire on the hook flat to to work better on bolt heads and carriage bolt shanks."

Paul Tierney, Bloomington, Minn.: "This leg vise is one of the handiest tools in my shop. I mounted it on top of a pipe that stands on a round disc I made out of metal strapping. It rolls easily around the shop to wherever I need it."

Buzz Kutzler, Heron, S. Dak.: "If you use a rollbar-type side delivery rake - such as a New Holland - with sealed end bearings, you need to check your rake for dry bearings. After raking for an hour or more, stop and place your hand on all of the bearings. The bearings that are warm are running out of grease. To save a lot of money and time, it's a simple job to drill and tap holes into the face of the bearings and install a zerk so you can grease them. If you grease them once a year or so, they'll last longer than you will."

Joe Price, Somerset, Ky.: "The fuel injector on our 1967 International Harvester 504 tractor constantly got dirty which caused it to fail numerous times. One time both ends of the injector blew off. About a year ago a mechanic told us we could solve the problem by putting transmission fluid in the gas tank, so we did and it solved the problem. Apparently the transmission fluid cuts right through the scum and cleans the injector out. We put the transmission fluid in at a ratio of about one quart per 15 gallons of fuel. We do this about twice a year. It's a cheap way to solve the problem."

Wayne Hagen, Hagen Mfg. Ltd., Lake Alma, Sask.: "I've designed and built some neat tools for doing auto body work. They

include an English Wheel, which I use to shape larger sheets of auto body metal; a bead roller, which puts various beads or ribs in metal to make it stronger and also improve its looks; a pneumatic planishing hammer, which is used to sculpture sheet metal; an automotive frame straightener, which pulls on the frame and body steel to correct damage to frames; a manual metal roller; and a 12-ton press.

"Tools like these are used in TV shows such as 'American Hotrod', 'Rides', and 'American Chopper.' I offer plans that give you the satisfaction of building your own tools at a fraction of the original cost.

"I sell plans for other shop tools, too. Most of them have been featured in FARM SHOW over the years. All these tools are hydraulic-driven. They include a 4-ft. brake and shear combination, a bar shear, a 12-in. throat punch, a light wall tubing roller, and a light wall tubing bender. "

Family Handyman: Here's an idea we spotted in a recent issue of Family Handyman

magazine. You can give your shovel-shoving foot a more comfortable pushing surface by cutting a slit in a scrap of 1-in. pvc pipe and slipping it over your shovel's flange. If it won't stay put, just add a bead of hot-melt glue.

Gerald Puff, Harrisville, Mich.: "I've come up with an easier way to repair broken blades on my sicklebar mower. The blade tends to break at the rivet holes. When replacing a blade section, rather than welding at the spot that broke, I cut a short length from another blade and weld it to an area without holes. Then I grind off the weld to make a smooth surface."

T.E. Salsman, Richmond, Ky.: "Empty freon tanks, obtained free from refrigeration repairmen, make excellent hydraulic oil or fuel tanks. Holes are drilled to fit pipe

Make Your Own Shock Absorbers

George Hanson of Salem, Mo., recently called FARM SHOW to tell us about the shock absorber he made for his 1996 Polaris 2-WD 250 ATV.

"I built it for less than $5, and it works a lot better than the original shock, which was built from very thin material," says Hanson.

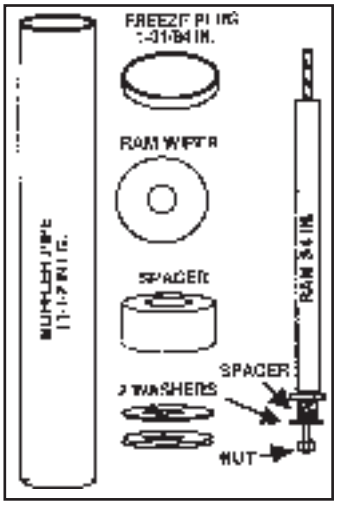
Hanson says he uses the ATV to do farm chores such as fixing fence, feeding cattle, and other general farm work. He was riding it one day when the right front shock broke in half. "I was left stranded and had to walk a mile back home just to get help so I could get it back home.

"I called the Polaris dealer but was told a new shock absorber would cost $97.50, not including tax. So I decided to make my own."

Here are the parts used: 1) an 11 1/2-in. length of muffler tubing with an outside diameter of 1 1/2 in. - the same diameter as the factory shock; 2) a 1 31/64-in. freeze plug, purchased at an auto parts store; 3) a 1 3/4-in. dia. by 1/4-in. thick spacer; 4) two 1 1/4-in. dia. by 1/8-in. thick washers for the oil cushion; 5) a ram wiper cut from the sidewall of an old tire.

The only part of the original shock absorber that he used was the ram.

He welded the freeze plug into the bottom of the tubing, then checked to make sure there were no leaks. Then he removed the nut from the bottom of the ram and installed the two washers with the spacer between them. He put the round piece of rubber into the tubing to act as the ram wiper. Then he inserted the



ram into the top of the tubing, filled it two thirds full of 10W oil, and welded the top end of the tubing shut. The last step was to reassemble the nut and bolt the unit back onto the ATV.

"The 1 1/4-in. dia. washers are smaller than the inside of the tubing, leaving room for oil to go by them which provides the shock action," notes Hanson.

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