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 E-mail us at: Editor@farmshow.com.

Mark Newhall, Editor

Scott Seaver, Montague, Mich.: "After owning my 1988 Chevrolet 4-WD pickup for several years, I grew frustrated with the fact that I couldn't put the truck into 2-WD low range because low range automatically locks the front hubs. I like to use low range to back up heavy wagons and gooseneck trailers but on hard surfaces, I didn't need to be in 4-WD and felt I might even damage some of the 4-WD components.

"To solve the problem, I located the switch wires on the trasfer case that operate the front locking hubs and cut one of them. I mounted a toggle switch on the transfer case shift lever and ran wires from the switch to each end of the cut wire.

"Now, whenever I want to switch to 2-wheel low range, I put the transfer case shift lever in 4-low and make sure the switch I installed is in the OFF position, which prevents the front axle from locking. When I want to use 4-WD again, I just flip the switch to the ON position. There's no risk of forgetting to turn the switch OFF since the transfer case switch shuts the axle off automatically, preventing the front hubs from staying locked in 2-wheel high range.

"I'm sure this solution would work on any truck with electrically locking hubs."

Bob Howard, Patterson, Ill.: Bob used salvaged parts to build this beam crane that reaches just about anywhere in his 32 by 50-

ft. machine shed. He calls it an "underslung beam crane". It runs on tracks made up of 4-in. I-beam that reaches all the way across the front and back of the 50-ft. width of the building. Suspended from the rails is a 32-ft. beam that came off a crane he bought at a sale.

Bob built a couple of carriers to support the beam and move it across the building. He made the carriers out of pieces of channel iron into which he welded some self-contained, sealed bearings.

Once the beam was in place, he attached a half-ton winch which rolls on it's own casters.

Among other things, Bob uses the crane to help butcher hogs.

Peter Ceres, Neilburg, Sask.: "Here's how I pull stuck bearings and hubs. I weld a piece of pipe to the bearing and then weld a nut to the end of the pipe. Then I screw a bolt into the nut to use to pull the stuck bearing off. The heat generated by welding helps, too, by expanding the bearing."

Robert T. Valentine, Wolsey, S.Dak.: "After reading about Dale Krueger's battery box conversion for his 4020 Deere tractor (Vol. 25, No. 6), I wanted to tell you how I solved the same problem.

"I was very dissatisfied with the 2-battery box system on my Deere. I eliminated the right side battery box and rebuilt the left side battery box as follows:

"I cut the outside panel out of the box and then welded additions to the bottom and end panels to make the box wide enough to accept two 900-amp batteries. I welded in a divider between the two battery compartments to reinforce the box because of the extra weight. I welded a 5/16-in. bolt on the inside of each end to hold the side cover on.

"I used a metal brake to bend the ends and bottom of the side cover to overlap the existing box. The side cover attaches with a pair of wing nuts.

"This modification has worked great. Now the batteries are easy to remove when necessary, and the box can be tilted out on the regular battery box pivots to connect cables, check the water, etc.

"Also, eliminating the right side box left me a place to mount a triple hydraulic valve and break-away couplers below floor level for my loader. I welded a stand to the valve bracket that reaches up beside the seat, fastening the three valve levers to it. A T-fitting was put in the main hydraulic line and routed to the loader valve. A return hose was routed to the cap on the transmission filter. This left the tractor's rear breakaway couplers free for other use."

Buck Samuelson, Glasgow, Mont.: "I salvage a lot of scrap metal along roads and get a lot of flat tires. I've eliminated flats by putting a cup full of water and antifreeze mix, plus one full crumpled-up sheet of newspaper, into each tire. After you put it in, drive about 100 miles and it'll turn into a mush mix that plugs leaks. I've changed tires later and found four or five nails in them but no leaks. The idea works on cars, pickups, RV's, and any piece of farm equipment. If you do get a big hole in a tire, you can easily clean away the mixture to patch the hole."

Editor's Note: If you've got a tractor or combine with a high first step that's always a bit difficult to reach, you might like this idea

which we recently spotted on a Cat log handler. Instead of a fixed bottom step, a piece of heavy-duty rubber belting is bolted to either side of the bottom metal step, so it hangs down below. That way you've got a step that's easier to reach but won't change the ground clearance of the tractor. It you hit something with the flexible step, it'll just deflect out of the way.

Brian Haubrich, Glenbain, Sask.: "I used 1-in. sq. steel tubing to make cheap steel storage racks that I bolt onto the wall of my seed cleaning plant. I welded a 4-in. length

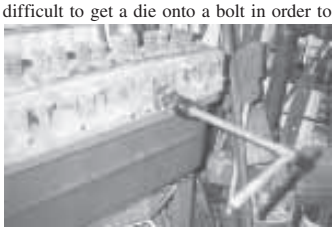
of tubing every 6 in. onto other tubing that I lag bolted vertically to the wall. The racks work great for holding various lengths of steel. They get the steel pieces up off the floor and also keep it organized so I can quickly find what I need.

"I made another rack for storing shorter lengths of steel vertically. The bottom part of the rack is welded to my work bench.

"I used the hydraulic hoist out of an old truck to make an 8-ft. high hydraulic press. The tube part of the cylinder where the snap rings hold the piston plug in had

'mushroomed' so that it was no longer usable. My brother-in-law made two 1-in. plates which hold the cylinder together with six 1-in. threaded rods so the piston plug can't come out. The rest I built with new iron, a new electric 1 hp motor, anda hydraulic power pack."

Ron Stadler, Monroe, Mich.: "It's often difficult to get a die onto a bolt in order to



clean the threads, especially when doing engine work. It's hard to use a normal tee-handled wrench.

"To solve the problem I came up with a

Bearing Replacement For Worn Twine Finger Bushings

Worn twine finger bushings probably cause more dropped knots in big square balers than anything else.

As the bushing wears, the twine fingers become sloppy and eventually, they drop the top string on the second knot, leaving the string loose.

Maize Corporation, Maize, Kansas, has come up with a solution to that problem. The company is selling a finger-bearing assembly to replace the fingers and steel bushings found on large square balers sold by New Holland, Hesston, Massey, New Idea and several other companies.

The knotter-bearing assembly, built around a sealed bearing that doesn't require lubrication, lasts considerably longer than the bushings currently used, according to the company. Installation takes no longer than installing a complete twine finger and bushing, but if the baler has lubrication lines

Finger-bearing assembly is designed to fit many models of large square balers.

to the bushings, those will have to be redirected. Price for one assembly is about $55, which is comparable to the normal cost of replacing one worn twine finger and bushing.

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