

Dale F. Smith, Danville, Ill.: "When the fuel pump went out on my 1984 Chevrolet van, I found that it was nearly impossible to install a new one. The problem is that the push rod on the fuel pump drops down and gets in the way. I solved the problem by using a 1 1/2 hp 5-gal. shop vac to create vacuum inside the engine. I simply hook up the shop vac's hose to the oil fill hole on the engine. The vacuum inside the engine sucks the push rod up so it's out of the way."

Dan Wolf, Uniontown, Wash.: "The seal on the front axle on my 1985 Ford F-250 pickup kept wearing out near the axle carrier housing, allowing oil to leak out. I've heard that when this happens, the twin I-beam suspension isn't as stiff which can allow the outside edges of the front tires to wear out prematurely. Replacing the seal is a difficult, time-consuming job because you have to disassemble the axle carrier housing. I had to replace the seal three times this way before I came up with a method that permanently solves the problem. I used a welding rod and bronze alloy to build the axle up so that it's slightly larger in diameter. Then I used my lathe to smooth the axle down so it fits tight against the new seal. Now the seal doesn't leak at all."

Larry Reuter, Jesup, Iowa: "In doing repair work for some of my neighbors, I came up with an easy way to add hydraulic fluid to Deere 10 and 20 series tractors. The problem is that the fill tube's located under the seat so you have to use a funnel. If the tractor has a cab you have to unbolt and remove an angled panel from the cab next to the seat. My neighbor got tired of having to remove the panel. I made an L-shaped device that replaces the original fill tube and extends out the back of the tractor. I cut a hole in a shield over the hydraulic lines and fitted the original fill cap onto it so that he can easily add oil from behind the tractor without a funnel."

Jim Stepan, 604 13th St. S.W., Willmar, Minn. 56201: "As a mechanic for a local implement dealer I often make service calls to straighten out rasp bars. I came up with an easy-to-use tool that lets me straighten rasp bars without having to remove them. In most cases I don't even have to disassemble the bars. The tool has become so popular that we often loan it out to farmers. It's designed mainly for use on Deere 7700 and 7720 combines. It will work on 9000 series combines, but you have to remove the filler plates because they have a smaller gap between the filler plate and rasp bar."

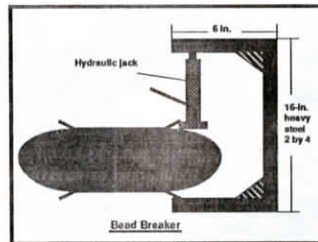
John Berry, Abingdon, Va.: "To replace the parking brake cable on an IH 784 tractor, you have to remove several other parts. So when I had the mounting bracket removed while making the replacement, I drilled a hole in the side of the bracket. That now allows me to remove pin from brake cable without having to remove the bracket."

Harold J. Lux, Jr., Denison, Kan.: "When welding close to bearings or other parts that you don't want slag to stick to, blacken the parts with acetylene from a cutting torch. After welding, the slag will wipe off easily with a rag."

Dean Eckmann, Cavour, S. Dak.: "I bought a 12-volt powered hand-pushed forklift. I bought it to handle pallets of seed but it ended up in the shop and hasn't left since. It'll lift the front of a pickup 3 ft. off the floor or I can use it as a cherry picker to change a light bulb or do other jobs."

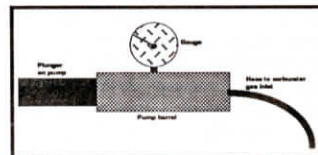
H.A. Sawyer, Erwin, N.C.: "I put a welder and a torch in the center of my shop and equipped them with lines long enough to reach both ends of the shop."

Joe D. Lewis, Edina, Mo.: "This is a tire bead breaker that works good for me. I made a frame out of 2 by 4-in. sq. tubing - a 16-in. long piece with a 6-in. long piece on either end and gussets in the corners for



extra strength. I place the tire on the bottom piece and put the base of a hydraulic jack on top of the tire close to the rim. Then I pump the jack, pushing down from the top to break the bead from the rim. It's easy to take to the field or you can keep it out of the way in the shop."

Cloise Webb, Sunbury, Ohio: "I bought a handy tool to check carburetors on chainsaws and weed eaters. It consists of a hand-



air pump with a gauge on it. You pump in 7 lbs. pressure to start. If there are no leaks

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.

in the diaphragm, it will hold steady at 7 lbs. Then pump it up to 14 or 15 lbs. to check the float valve or needle and seat. The float should pop off (depending on how it's equipped), or the needle valve will open at that pressure. If these tests go okay, then you can assume the carburetor is okay. Previously, I would put in a rebuild kit if there were any questions. Now if the saw still doesn't run, I know it's an electrical problem or something else. The tool's called a 'Carb Tester' and cost \$61.98 from Beckert Distributing (405 Chapel Hill Rd., Zanesville, Ohio 43701 ph 800 282-3591 - part #186-058)."

Dave Karg, Tallmadge, Ohio: "If I have a screw or lag bolt that won't hold, I insert a short length of stranded electrical wire - with insulation - alongside the screw. Helps tighten concrete anchors or stripped out holes in wood. Works better than using a matchstick or toothpick because the rubber insulation provides extra grip."

Harry Seelman, Oxford, Iowa: "I put a shaft monitor on my combine separator auger. I 'belted' a 110-volt electric motor to the top shaft on the clean grain elevator and wired an electric motor starting circuit switch in series with an alarm in the cab - in series with the combine electric system. If the clean grain conveyor stops for any reason, the alarm sounds."

need to hassle with blocks that usually seem to slip out. I sell the tool for \$110.

"I also make a tool to help remove links from flat chain on elevators, manure spreaders, and other equipment. It lets you get out one more link than you would normally be able to take out. I make two sizes that sell for \$20 and \$30.

"Another tool I make, which sells for \$35, is an 'Udder Zinger' for singeing hairs on cow udders with a small hand-held propane tank. This method has been shown to lower somatic cell counts as much as 100,000. It also makes it nicer to wash udders off and helps keep udders cleaner. Takes about one hour to do 75 cows and one container of propane. I made this device 10 years ago because I was sick of clipping hair."

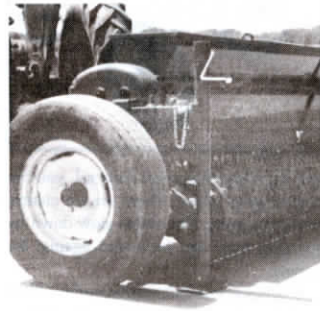
Elmer J. Matz, Belmont, Mich.: "I use old worn files with plastic handles to check electric fences. I short them out at steel posts. Quick and shock-free."

Marvin Kosbab, Fairmont, Minn.: "When operating a tractor on a cool 40 to 50° day with the sun shining in the windows (so it's warm in the cab), you'll often find you can't adjust the air conditioning low enough. I found that if you set both the air conditioning and the heat on low, you'll be fine. Also, on damp days the air conditioner will work well to defog windows when you've got the heater on."

Fred Kloosterhuis, Thunder Bay, Ontario: "The starter on my 1987 Comanche Jeep 4-cyl. diesel broke off the bell housing twice soon after I bought it. The second time, I welded it up myself, putting bigger gussets on the bell housing. It hasn't broke again since."

Paul Adams, Phelps, New York: "I put about 100 ft. of water hose on a reel mounted about 6 ft. off the floor in my shop. It's out of the way but you can get to it easily when needed. Very handy."

Bill June, Sparta, Wis.: "I picked up one handy maintenance idea when I bought a used corn picker from an older farmer. I found a plastic squeeze-type dish soap bottle in the toolbox that was filled with used oil. Anyone with older equipment knows you can never have too much oil around. These



Eugene Christianson, Gene's Machine & Welding, 626 19th St., Chetek, Wis. 54728 (ph 715 837-1102): "I designed a tool for my Brillion cultipacker-seeder for removing the end wheels. Eliminates the

Shop Specializes In Hubs, Spindles

An Indiana farm shop has carved out a profitable niche market providing hubs and spindles for repairing or building farm equipment.

"We make 4, 5, 6, 8 and 10-bolt hubs with load ratings from 1,000 to 25,000 lbs.," says Duane Martin, owner of Du-Mar Welding in Rochester. "We make them in both implement and automotive bolt patterns, matching spindles from 1 1/4 to 5 1/2 in. dia. Some spindles are available in stress-proof steel, and spindles with tandem tubes are also available."

In addition, Du-Mar repairs damaged tractor spindles, equipping them with a new, heavier-than-original hub and spindle complete with a dirt shield. You can have the repairs made at their shop or do it yourself. Various PTO parts and bearings



also available. For a list of available parts, contact: FARM SHOW Followup, Duane Martin, 2858 E. 650 N., Rochester, Ind. 46975 (ph 219 223-9889).