

**David Kent, Bedford, Iowa:** "I have heavy, wet clay soil on my farm that sticks to the rubber gauge and press wheels on my Krause no till drill. It also plugs up the wheels in front of the drill's double disc openers."

"To solve the problem, I removed both sets of wheels. Then I bought an old Deere 400 rotary hoe, removed the hoe wheels, and bent the tines to a 90 degree angle. The original wheel bearings were frozen up so I replaced them with new ones. Then I bolted the wheels to the mounting arms on the drill. The bent spokes on the rotary hoe wheels penetrate the ground without picking up wet soil. Now my drill pulls easier, and beans emerge just as well as if I used rubber wheels, if not better. The rotary hoe wheels also do a better job of closing the trench and covering the seed. They crush the seed trench and 'cave in' enough soil to adequately cover the seed."

"These Deere 400 rotary hoes can be bought cheap at auctions or junk yards. The bearings on the rotary hoe wheels happen to be the same size as the bearings on the Krause drill's wheels so they're a perfect fit."

"On a New Holland TR 85 combine, the way the cylinder bars are attached to the rotors creates a slap (backward and forward) in the rotors whenever they're under load. This wears out the connecting drive sprockets and the double chain that's used to connect the rotors to the gearboxes. It's actually a rather crude system. St. John's Welding in Kansas suggested the first bar be set at 90 degrees and the second bar split the distance between the first bars. But the factory rock trap doesn't always work so you can have trouble with those settings. Instead, I positioned both bars at 90 degrees to the rotor. It seems to even out the load and allows rocks to flow through. I used the mounting bar brackets off a junked New Holland TR 70. I use the cheaper second bar only. Now it seems to have more capacity."

**Jimmy R. Batemon, Batemon & Sons, Hanceville, Ala.:** "The wear plates on the bottom of New Holland and Vicon pull-type mowers often wear out prematurely. The problem is that dirt gets into a 5-in. wide cavity on the mowers' skid plates, which causes the front part of the skid plate to wear down. It can be an especially big problem wherever there are fire ant mounds."

"To solve the problem, we weld two or three 1-in. wide strips of stainless steel along the front part of the skid plate, in order to

partially cover the cavity and keep dirt out. It works surprisingly well. We've also used this idea on several neighbors' mowers and their mowers show almost no wear."

**Pen-Plas, 1249 Mid Valley Drive, Jessup, Pa. 18434 ph 800 348-7473 or 570 489-8554; website: [www.penplas.com](http://www.penplas.com):** Using pvc piping for compressed air lines can be unsafe. This company offers a new thermoplastic piping system specifically-designed for compressed air. Manufactured from a specially engineered formulation of ABS, the end result is a shatter-resistant piping system with outstanding strength, ductility and impact resistance, says the company. It handles pressures of up to 185 psi at 100 degrees Fahrenheit.

**Martin J. Engelbrecht, Jefferson City, Mo.:** "We have 14 different tractors scattered around our farm in five or six different sheds. Instead of having to drive the tractors to a central shop all the time for maintenance, we keep a vise and workbench in each shed. As a result, wherever there's a tractor, there's a place to work on it."

"The 3-pt. hydraulics on our small Massey Ferguson loader tractor tend to 'bleed off' which causes the lower lift arms to drop down. Sometimes we use the tractor to feed hay to our cattle, and if there's a plow on back we don't want it accidentally falling onto the ground."

"So we ran chains from two clevises mounted on the tractor's differential to two more clevises on the lower lift arms. Each lower clevis uses a pin that goes through a hole already in the lift arm. To remove the chains we just remove a pin from the clevis on each lift arm. It saves a lot of aggravation. It's important to use chains that are strong enough to override the valve on hydraulics in case someone accidentally engages the hydraulics."

**Edwin Ruff, Moses Lake, Wash.:** "Here's a photo of an electric lift I made in my garage to put boxes up in the attic. I already had a winch so I mounted a pulley on the rafter for the rope and made a platform that's about 32 in. square. I just load the platform and winch it up to unload the boxes. In the past I always had to climb up and down a ladder for each box. I use the lift mostly at Christmas time when storing decorations in the attic."

"The winch was originally equipped with a hand crank, but I converted it to electric

## Quick-Detach Vise

Harold Fratzke recently called FARM SHOW to tell us about a nifty "quick-detach" vise mounting bracket that he came up with. It lets him mount a vise alongside his welding table - leaving a clear table top - or on back of a pickup in the receiver hitch.

"We came up with the idea when we put a new 6 by 4-ft., 1/2-in. thick welding table in our shop," says Fratzke. "We wanted a vise on the table, but we didn't want it mounted on the table top because it would sometimes interfere with our welding projects. So we welded a piece of 8-in. sq., 3/8-in. thick metal plate to a 20-in. length of heavy duty sq. tubing. We drilled three holes in the plate so we could bolt the vise on, and also drilled a hole in the sq. tubing.

"We then welded a length of sq. tubing under the table, the same type of tubing that's commonly used to make a standard pickup receiver hitch. We added two set screws to the sq. tubing to secure the vise platform. The vise can be rotated in any one of four different positions, by simply pulling out the sq. tubing and rotating it."

"The tubing can be installed in any pickup receiver hitch, an idea that really comes in handy during harvest."

Contact: FARM SHOW Followup, Harold Fratzke, 234 Shoreview Dr., Cottonwood,



Bracket lets Fratzke mount vise alongside his welding table, leaving a clear table top.



Bracket can also be installed in any pickup receiver hitch.

Minn. 56229 (ph 507 423-6341; email: [hnl@starpoint.net](mailto:hnl@starpoint.net)).

**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 E-mail us at: [Editor@farmshow.com](mailto:Editor@farmshow.com).*

*Mark Newhall, Editor*



operation by attaching a rod to the winch and using an electric drill to supply the power."

**Ben O'Neill, Broadview Hts., Ohio:** "When you first open a can of paint, take a moment to tap a small hole in the lower ridge on top of the paint can's rim. As you dip and wipe the brush between strokes, excess paint will flow or drip back into the can instead of running down the outside. A flat-tipped screwdriver can be used to make the hole."

"When resealing the can after you're done painting, place a cloth or sheet of paper over the lid to keep paint from splattering around as you hammer or tap the lid shut."

**Stanley Dirksen, Davis Junction, Ill.:** "I had a tractor with a stuck engine. To solve the problem, I knocked the center out of an old spark plug and brazed in a valve stem. Then I put in some penetrating oil, screwed a plug into one of the cylinders on the engine, and clamped an air compressor hose onto the plug. I also removed the rocker arms. The air pressure forces the penetrating oil past the rings to free them up. It works great."



Neil Schumacher, 42804 385th Ave., Lindsay, Neb. 68644 ph 402 923-1037; email: [Hobnobb@mavision.com](mailto:Hobnobb@mavision.com): "Our new

four-wheeled torch/caddy is easier to maneuver and more stable than other models on the market so it's not as likely to tip over. It's also easy to load and allows you to place the cylinders in line rather than side by side. As a result it measures less than 24 in. wide. It's designed to hold standard cylinders up to 9 1/4 in. diameter."

"The caddy is made from powder coated steel and rides on a pair of 15 1/2-in. high pneumatic wheels in front and two smaller 8-in. solid rubber tires on back. Conventional torch caddies have two smaller wheels on back, so when you tip the caddy back and wheel it around you have to do a balancing act. With our four-wheeled caddy there's no problem with stability."

"We can make units for either propane or acetylene. The caddies sell for \$160 to \$180 plus S&H."

**John Boogaart, Blenheim, Ontario:** "Our 6-furrow moldboard plow is quite long and we found it difficult to keep the rear of the plow at the desired depth. On this plow the in-furrow tail wheel was equipped with a hydraulic cylinder to raise and lower the plow. The land side wheel had a hand crank screw adjuster on it. We replaced this adjuster with a cylinder. It's much easier now to keep the rear of the plow at the desired depth, in varying field conditions."

"To clean up an oil or anti-freeze spill on our shop's cement floor we use a handheld squeegee and a dust pan. From the dust pan we pour out the liquid into a bucket. We spread an oil-absorbing product on the oil spill afterward to prevent slipping."

**Dan Gray, Dewberry, Alberta:** "Dodge diesel pickups equipped with a manual transmission have a notoriously faulty fifth gear. It's retained by a split nut that's tensioned with a machine screw that can break. To solve the problem, I groove the nut with a die grinder, then weld it on."

"When I want to bleed brakes but don't have any help, I use an air valve and a modified tire pump - the old cylinder style. I regulate the air pressure to about 30 psi and brace the tire pump between the steering wheel and the brake pedal, then apply and release air pressure as required from under the vehicle to depress the brake pedal. It may sound like a corny idea, but it works."

**Robert Ingram, McArthur, Calif.:** "Having parts and repair manuals for each piece