



Robert McMahon, Knoxville, Tenn.: "I was tired of having to break fittings to relieve hydraulic pressure when connecting the grapple on my front-end loader and backhoe attachment. So I made a clamp to connect the hydraulic connectors that are under pressure. Works on both standard and flat-faced connectors. U-shaped ends fit locking collar factory grooves on female hydraulic fittings. I made the ends using a hole saw and side grinder, welding them to a standard bar clamp."

"I came up with a method to drill 1/2 in. or larger holes in steel pieces that I could not bring to my drill. I had previously had problems breaking large, expensive bits. Now I use bimetal hole saws in a hand drill. I first make a guide plate out of a scrap piece of plate steel with a hole drilled in it. Then I clamp or tack weld the plate where I want to drill the hole."

"I recently had to drill 5/8-in. holes in the frame of a tractor to mount a backhoe. Removal of the frame members would have taken half a day. Instead I clamped a guide plate to the frame and cut the holes with a 1/2-in. pneumatic wrench (I remove the holesaw mandrell drill bit so I can drive it with an impact wrench). I had perfect holes cut in minutes. Sometimes I use the guide plate to enlarge a hole, or to enlarge worn holes in bucket teeth mounts. I use a liberal amount of cutting fluid when cutting with holesaws."

James Leinen, Tigerton, Wis.: "I had a 1938 U Minneapolis Moline that needed new brake shoes. I found a great company called All Friction Co. (ph 860-342-2001; www.allfrictions.com) that relined them. Anyone with older equipment who needs shoes relined should contact them. They do good work."

C.F. Marley, Nokomis, Ill.: "A 'check engine light' recently came on in my car indicating a problem somewhere in the system. We couldn't find the problem so we hunted around to find a shop for diagnosis. Turns out the gas cap was not on tight enough. It cost us \$20, a bunch of

time and a bit of worry to figure that out."

Drew Strazar, Nokomis, Ill.: This scissoring wheeled "gizmo" comes in handy around the farm for Drew and his son, Kyle.



The two angled frames pivot on each side and ride on four caster wheels. Lengths of chain on either side make it easy to raise and lower it to hold truck beds, big parts, and other loads around the farm.

Dick Clevenger, Letts, Iowa: "I have an old screw-drive garage door opener that's so noisy it hurts my ears. I tried several different lubricants but after 2 or 3 openings it would be noisy again. Then, while visiting relatives in Kentucky, I went to the Grizzly Tool warehouse in Springfield, Mo., and found a product called Slipit. They told me it was really good for preventing rust and wear so I bought a quart can for \$10. When I got home, I first treated my iron top tables and then wondered if it would work on my door opener. I put a few gobs on the screw and, after one cycle, I thought the motor had quit because it was so quiet. Here's what's amazing - I haven't put any more Slipit on there since then, about 3 years ago, and it's still working great. I've also used it on old drawer slides, front bushings on an old lawn tractor, and many other places. Best lubricant I've ever come across. You can find out more at www.Grizzly.com or www.slipit.com."

George Bagnall, Paincourt, Ont.: "The Woodruff key kept breaking on the elevator on my Massey 300 combine after I welded it twice. The third time I used stainless steel rod and that did the trick. No more problems."

"I stripped the threads in the aluminum head on a GM engine that held the power steering pump in place. I used 7/16-in. redi-rod to tap into the hole without drilling. Put loctite on the redi-rod and applied a nut. It was a metric hole but it tapped easily to the 7/16-in. redi-rod."

Anonymous: "The electric clutch on my 1974 Deere 112 lawn mower stopped working. When I went to the dealer, they told me the part was no longer available. I took it apart and found a wire broken off where it

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

entered into the epoxy covering the windings. I took my Dremel tool and cut the epoxy back to expose enough wire so a new piece could be soldered on. That done, I filled back in around the wire with some epoxy. That was four years ago and this 'best buy' tractor is still running fine."

Vernon Bratton, San Antonio, Texas: "I've never tried this idea myself but a guy down the road used it to rescue a car that had been sitting out in the weather for 2 years with no hood. The engine was totally seized up. He pulled out all the plugs and poured Coca Cola into all the cylinders. Before too long, he was able to get the parts moving. He pulled the engine, put it in a truck, and put it to work. Amazingly enough, the engine burned no oil."

Alton Eliason, Northford, Conn.: "I'm 95 years old so steering my Cub Cadet has gotten a bit more difficult. I was looking for a power steering unit when my nephew, a brilliant young mechanic, suggested I just get a couple of thrust bearings and attach them to the front axle where the steering mechanism rests. I first ground off a layer of metal, the thickness of the bearings. This way you don't have metal rubbing on metal. It's like having power steering. The idea will work on any similar steering mechanism."

Allan Wayne Bradberry, McEwen, Tenn.: "I invented this windshield washer fluid preheater in 1998 and recently installed it on my new Chevy S-10 pickup. It has been working great ever since. Heating the washer

applied an engine degreaser foam, let it sit, and then used the car wash's high pressure spray wand with soap. It cleaned the screen right up."

"I needed to get rid of some big dents in the sides of my Bush Hog mower, which were caused by turning too short around trees. To straighten out the dents I made a notch in a 1/2-in. thick piece of flat steel bar and welded it to a 6-ft. length of 2-in. dia. pipe that's curved upward at one end. I use the pipe like a crowbar, placing the notch under the edge of the bush hog's sides to pry the dents out. It was a lot easier than climbing up under and using a hammer."

Innovative Ag Products (ph 919 926-8516; www.zplusag.com): ZPlus-AG is an additive designed to protect older engines from premature wear. According to the company, EPA changes can cause trouble in engines built before 1985. EPA forced changes in engine oil, removing most of the Zinc Dialkyl Dithio Phosphate (ZDDP) from regular engine oil in order to lengthen the life of catalytic converters in modern engines.

ZPlus-AG was developed as an additive to bring ZDDP levels back to proportions needed in pre-1986 engines. The company says ZDDP reduces the wear on flat tappets, camshafts and high pressure surfaces in older tractors and agricultural engines.

Packaged in 4-oz. containers, add one bottle to each 5-quart oil change.

Sells for \$9.95 per bottle plus S&H.

Richard Faber, Tiffin, Ohio: "I bought a can of BlueMagic Brush-On Electrical Tape that's designed to waterproof electrical connections and is brushed on in a thin liquid coat (ph 888 522-2746; www.bluemagicusa.com). However, the shelf life wasn't very long so I bought a new can and put an O-ring on it so the can's cap pressed down on the ring for a seal. Then I put the can upside down inside a plastic peanut jar and twisted the lid shut. After that the product lasted a lot longer. I think the O-ring keeps the air from circulating and carrying away the fumes."

Brian Peifer, Jr., Temple, Penn.: "Last



Delbert Hayes made this simple service ramp for his Kawasaki Mule utility vehicle out of 2 sets of car ramps, with planks bolted on between them.

"Car Ramp" Maintenance System

"I made a simple service ramp for my Kawasaki Mule utility vehicle out of 2 sets of car ramps with planks bolted on between them," says Delbert Hayes, Norwalk, Iowa.

He set the 2 sets of car ramps up to face each other, then welded a short length of 2-in. angle iron onto each ramp and drilled holes into them so he can bolt on the boards. The boards span the distance between the vehicle's front and rear wheels, which rest on the ramps.

"I just drive onto the ramps, change the

oil, and drive off. The boards can be easily removed while the vehicle is still on the ramps so I have more room to crawl around under the vehicle," says Hayes.

"I came up with the idea because there isn't enough clearance to get under the Mule with a creeper. I also made a system for my Kawasaki 4-wheeler ATV that's a little shorter."

Contact: FARM SHOW Followup, Delbert Hayes, 5930 Hwy. 28, Norwalk, Iowa 50211 (ph 515 981-4911).



fluid, by wrapping the fluid line around the radiator hose, helps clean the windshield faster during the summer and melts ice off the windshield faster during the winter. It's easy to install on most any vehicle."

Tavish Presswood, Canton, Ga.: "When I purchased my Mahindra 4110 tractor, hay dust had plugged up the radiator so tight I couldn't dislodge the dirt with my 120 psi air gun. To solve the problem I removed the radiator and took it to a car wash. There, I