

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, Managing Editor

Gerald Wright, Pendleton, Ky.: "While shopping at a tool outlet store, I found a Dewalt adapter that lets you fit the new 20-volt lithium ion batteries into the old 18-volt tools. It gave my old tools new life. You can pick up the older style tools dirt cheap at farm sales or flea markets so you can have extra tools around."

"On another topic, with Sears closed I've discovered that we can't return our old Craftsman tools under the lifelong warranty at Lowes or other stores that sell Craftsman tools. They won't honor the warranty."

Carlton Dubberly, Waycross, Ga.: "To help hold a nut or screw on a tool, keep a toilet ring around and just put a touch of the wax on the tool. It sticks well but is not as messy as axle grease or other substances."



Harold Wells, Gridley, Ill.: Harold is impressed with "WaterWeld" from JB Weld. "It will plug leaks or patch holes in almost anything, from metal gas tanks to pvc pipe, copper pipe, iron, feed tanks, water tanks, and so on. It sets up in 15 to 25 min. and has tensile strength up to 1,300 psi. It will also withstand heat up to 320 degrees. Amazing product. You can buy a tube of it at Dollar General for \$6."

Carrol Jones, Louisa, Va.: "I needed a metric allen wrench for a job but didn't have one. Instead, I used a metric bolt head, with 2 nuts on the bolt locked together down at the head. I put a wrench on the nut closest to the head. Worked like a charm."

Gordy Kessler, Wolverton, Minn.: "On one of my Allis Chalmers WD tractors the coil in the magneto would shut down when it got warm and I couldn't start the tractor again until it cooled off. It would have been expensive to repair the magneto, so I fixed the problem by disconnecting all the wires to the coil, drilling a small hole in the magneto cap, and running a wire from a regular outside-mounted coil to the points. The only thing the magneto does now is open and close the points. You also have to run the wire from the

outside coil to a resistor to keep the points from burning or pitting, and the timing will be different with the outside coil. But once you get that adjusted, the engine never stops when it gets warm anymore. I hid the coil and resistor up under the hood so the tractor still looks original. This fix has lasted for 15 years."

Elias Wolf, Mancelona, Mich.: "I store paperwork like warranties and owner's manuals under the liners in my tool chest drawers. They stay clean but are always handy."

George Egas, Dublin, Ga.: "Some time back FARM SHOW showed a way to install a rubber tubeless tire valve stem in a plastic gas can, leaving the 'core' out so it provides a vent when pouring out fuel. It's a great idea but I recommend people use a steel tire valve. The rubber ones break off too easily."

Marvin M. Smith, Hooper, Neb.: "I always had trouble with the drive belt on the tiller behind my 149 Cub Cadet garden tractor. To solve the problem, I rotated the gearbox and ran a driveshaft from the gearbox to the tiller drive. That was 10 years ago and it still runs great."

Jim Ellinger, Hanna, Ind.: "To make it easy to change tires around the farm, I mounted a small Harbor Freight tire changer to the receiver hitch on my pickup."

"To make rubber cutting edges on snowplows or other equipment, and to line pickup beds, go to Tractor Supply Co. and spend \$40 on a 4 by 6-ft. horse stall mat. You'll save hundreds of dollars."

"One of the handiest things in my farm shop is an electric winch that hangs from the trusses in my shop. Great for changing mower blades and other lifting chores."

Timothy Rankin, Middlebrook, Va.: "The fuel lines on my 1991 Chevy Scottsdale were rusting through and would have been very expensive to replace. So I ran rubber fuel lines instead of steel and slipped a piece of flexible steel conduit over the rubber lines wherever they ran close to the exhaust manifolds and engine. I cut the factory crimps off the old fuel lines and used high pressure hose clamps to attach the rubber lines."

"After a friend of mine lit a trash barrel on fire in his shop while cutting metal, I

Dennis Schenk, West Burlington, Iowa:

"To install hard-to-reach spark plugs, I use a short length of rubber hose that fits tightly over the end of the spark plug. Lets me put the plug in the hole and get it started."

"If you've got a pin clip that's hard to remove, just attach a short length of small chain to it that you can easily grab onto. You can leave it on the pin all the time."



Morse Mfg. Co., Syracuse, N.Y.: If you buy a lot of product in 55-gal. drums, you need a bung wrench like this one from Morse Mfg. Sells for \$24.45.

Daniel J. Moore, Bellingham, Wash.: "I put a 1 7/8-in. ball hitch on one side of my tractor loader bucket and a 2-in. ball on the other side. Makes it easy to move trailers around the yard."



Steve Faber, Tiffin, Ohio: "To make a counterweight for my Deere 5085E tractor, I took the rear counterweight from a non-running forklift that I bought at an auction. I welded up brackets to fit and then drilled and tapped holes as needed. I made the mounting fit my quick hitch so I can quickly pick it up or drop it off. It weighs about 2,000 lbs. and is just about right on this tractor. I also plan to adapt the mast from the forklift to my tractor quick hitch."

Parts and kits from Pusher Intakes are designed to bolt on reduce exhaust gas temperatures.



Air Intake "Pushers" Boost Performance, Extend Engine Life

Pusher Intakes can improve fuel mileage, reduce exhaust gas temperatures (EGT), speed turbo spool, improve throttle response, and extend engine life.

"The number one reason people come to us is to get their exhaust gas temperature down," says Elizabeth Allenbaugh at Pusher Intakes. "This is especially true when towing raises engine temperatures. The hotter the engine runs, the faster it wears out. Our product cools down the engine and extends longevity."

Allenbaugh and her engineer husband, Jacob, run Pusher Intakes. Founded in 2008, they now carry around 100 products from single items to complete systems.

"We have intake systems for most makes and models," says Allenbaugh. "We sell components, such as charge tubes, heater grids and manifolds, but more often than not, people buy a kit."

A simple charge tube replacement connecting the outlet of the turbo to the intercooler can have a significant impact on the engine. Installing the Pusher 3-in., driver-side, charge tube on a 2004 to 2010 Duramax LLY, LBZ or LMM truck supplies 86.4 percent more air. The difference comes from both the larger diameter and improved flow design of the Pusher unit. It's priced at \$199.99.

Replacing the heater grid on a 6.7L Dodge Cummins (2007 to 2018) with the Pusher Heater Grid Delete supplies more air to all cylinders. It also drops EGT by 50 to 100 degrees, increases mpg., gains throttle response and speeds turbo spool, and sells for \$179.

Allenbaugh notes that compound turbos are available for most models and are very popular. They combine the benefits of a small turbo with its great throttle response with a large turbo's top-end power. They typically run in the low \$3,000 range for a Cummins specific system, the low \$4,000 range for a Duramax system, and \$5,000 for the new Powerstroke system.

The majority of components, like intake manifolds and charge tubes, come in mild steel. Select parts are also available in aluminum for the polished aluminum look. The downside, warns the Allenbaughs, is that aluminum is much weaker than steel. Some aluminum parts, they add, simply can't handle the abuse a diesel truck dishes out.

All parts and kits are designed to bolt-on. They can be installed with basic hand tools using the detailed instructions that accompany them. Installation videos for select parts are also available. Parts are available in a variety of powder-coated colors, as well as unfinished.

The company distributes online in the U.S. and Canada. While they have no store front of their own, they do have a dealer network that stocks their parts.

"You may see our parts in local stores," says Allenbaugh. "Give us a call to discuss your engine and your needs, or go on our website and search by year, make and engine."

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