

How To Fix A Rusted Fuel Tank

Sooner or later, all steel fuel tanks are likely to have the same problem. They will begin to rust, flake and develop pinhole leaks.

But there's an inexpensive way to repair old tanks, says Gackle, N. Dak. farmer Roger Gutschmidt. He successfully fixed his own fuel tank after noticing that rust flakes had started to collect in his fuel filter.

"The first thing I did was clean out the inside of the tank with the pressure washer, using hot soapy water," he explains. "This removed the loose flakes, which I could look for by using a flashlight to see inside the tank. Then I tipped the tank upside down and let it drip dry for a few hours."

Next, Gutschmidt poured about a pint of a product called "POR-15 U.S. Standard Fuel Tank Sealer" (POR stands for Paint Over Rust) into the tank through the top, immediately tipping the tank "every which way" so the product could completely coat and adhere to the entire inner surface. Finally, he poured out any excess product.

"Of course, you have to use some common sense. You can't let the product run into a fuel line and if you have a shut off valve in the bottom of your tank, you have to take that out and screw a pipe plug into its place."

Gutschmidt let the product dry for 24 hrs.

before reinstalling the tank into the tractor.

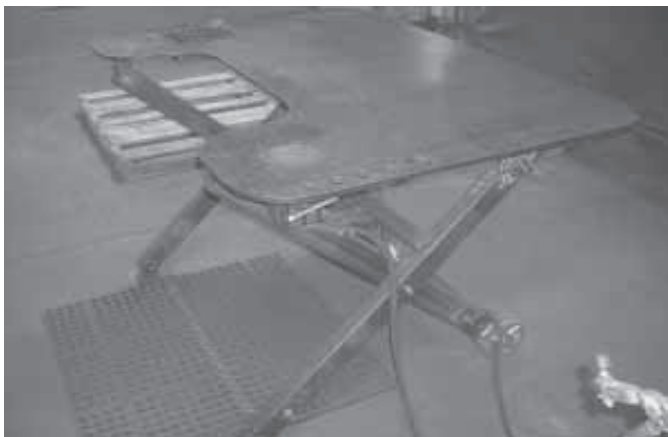
"This is an amazing product. It gets hard as a rock and leaves a glossy coating that you can't scratch off with your fingernail. It's a permanent fix," he explains.

This company also makes a wide selection of other products, which Gutschmidt highly recommends. They include a high-temperature paint (for restoration work on tractor frames and firewalls), rust preventative paint, engine enamel, and repair putty and fillers.

"You brush the paint on right out of the can. It's a lot more expensive, but if you're going to go through the work of fixing an older piece of equipment, you want something that's going to last," he points out.

Some of the major automotive supply stores sell POR-15 products, or you can buy online at www.por15.com. A quart of fuel tank sealer is \$36.95 plus shipping. The company's website says the product is impervious to all fuels, including the new Stage II fuels which have a high alcohol content.

Contact: FARM SHOW Followup, Gutschmidt Manufacturing, LLC, Roger Gutschmidt, 6651 Hwy. 56, Gackle, N. Dak. 58442 (ph 701 698-2310; shopdoc@drtel.net).



Shop-built welding table is designed with U-shaped opening so welder always has his work close to him. Square socket on right side holds vise.

Adjustable-Height Welding Table

Kit Talbot is the CSI facilitator at Schulte Industries of Englefeld, Sask. He recently sent photos to FARM SHOW of a heavy-duty, adjustable welding table he and other employees made from scrap steel.

"We needed a welding table that would be ergonomically friendly. Unfortunately, the ones on the market were either priced too high or were built too light," says Talbot.

The welding table measures 36 by 48 in. and is designed with a U-shaped opening so the welder always has his work close to him. The top of the table is made from 3/8-in. steel plate, with "X" iron braces underneath for added strength. The legs and frame are made from 2-in. sq. tubing. The operator moves the table with a 10-in. implement hitch jack, lifting one end of the table. The legs on the other end are fitted with two 4-in. solid caster wheels. By using a hand-operated jack the table can be raised from 36 in. to 46 in. high.

One side of the table has a small open grid made up of replaceable 1/4-in. thick metal straps. "The grid allows the operator to do cutting work without having to hang the object over the edge of the table," says Talbot. "The other side of the table is designed to support a homemade bench vise, which is held in place by inserting the base of the vise



An implement jack is used to move table up or down. Table can be raised from 36 to 46 in. high.

through a hole in the table and then tightening a bolt. There are also a series of holes for storing hammers and other tools.

"I built it because I couldn't find anything suited to my needs at a reasonable price," says Talbot. "Some commercial models sell for up to \$4,000. I used mostly dropoff material from our shop which kept the cost way down. I didn't use any blueprints - I just got a piece of paper and pen and started drawing it out on the floor"

Contact: FARM SHOW Followup, Kit Talbot, Schulte Industries, P.O. Box 70, Englefeld, Sask., Canada S0K 1N0 (ph 306 287-3715; ktalbot@Schulte.ca).

Kit Retrofits Diesels For Multiple Fuels

A new flex fuel kit from Dino Fuel Alternatives lets you chop fuel costs and clean up engines by making it easy to burn, says James Tracy, one of Dino Fuel's owners.

Tied into the ignition system, it makes flipping back to diesel from an alternative fuel as easy as flipping a switch. After a fuel system reverts to diesel the engine only stops once the system has been purged completely of alternative fuel.

"Our system lets customers run on alternative oils when they want without concern over temperatures, and they don't have to be mechanics," says Tracy. "Customers like the fact that once the system is installed, it monitors itself, turning on and off automatically. Flip a rocker switch, and the automatic system becomes fully manual."

The company's Vegi system is a self-contained, heated and fully automated unit developed originally for waste vegetable oil. It's now certified to burn straight diesel, B100 (100 percent biodiesel), straight vegetable oil (new and filtered waste), as well as kerosene and several other fuels. Installing the kit leaves the original OEM fuel system untouched.

Dino Fuel was the first to use temperature and pressure based switching instead of solenoid valves. The system consists of a compact modular aluminum block with oil filter, valves and sensors. When activated, the higher-pressure alternative fuel overrides the diesel fuel system, forcing the diesel fuel back into recirculation. If the alternative fuel pressure drops for any reason, diesel flows back into the engine and quickly purges any remaining alternative fuel.

The Vegistroke V3 Manifold kit is recommended for Ford Powerstroke engines. The VegiRam CRV1 Manifold fuel system is designed for 5.9-liter Cummins engines in



Flex fuel kit is tied into vehicle's ignition system. It allows you to flip back to diesel from an alternative fuel by simply flipping a switch.

Dodge trucks. Prices vary from \$1,900 with manual only control to \$2,975 for a fully automatic with manual option control system. Tanks are extra, and components are available individually as well as in kit form.

Three models of alternative fuel tanks are available. Two are designed for placement in the truck box, and the third is a belly tank. Tanks have an engine coolant based heat exchanger built in to prevent fuel gelling. They range in size from 40 to 90 gal. and are priced from \$500 to \$1,187.

Tracy says the company is concentrating on corporate and government fleet conversions. Consumer sales have fallen off with diesel prices. "Most people get complacent with diesel at \$2 per gallon," he says. "People concerned about the environment or independence from foreign oil are still buying. The others are waiting for the price of oil to go back up."

Contact: FARM SHOW Followup, Dino Fuel Alternatives, 7911 NE 33rd Drive, Suite 360, Portland Oregon 97211 (ph 866 369-5172; info@dinofuelalternatives.com; www.dinofuelalternatives.com).

Swinging "Partition Door" Closes Off Room Inside Shop

Mark Musser, Beecher City, Ill., needed a tall work space in his shop building where he could work on big machinery during the winter. But he didn't want to heat his entire shop. So he built a large swinging "partition door" out of lightweight, 3-in. thick, insulated siding taken from a refrigerated semi trailer.

The door measures 20 ft. wide by 15 ft. high and hinges on three large steel pins. When closed it forms a 20-ft. wide by 30-ft. long room, with an overhead door at the opposite end.

For access into the area when it's closed off, Musser built a "walk-through" door made up of 6-in. wide strips of hanging and overlapping carpet.

"The partition creates a small space where I can work on machinery. It's like having a shed inside a shed," says Musser. "I got the reefer siding free from a friend who does demolition work at a truck salvage yard, so it didn't cost much to build."

"I use four 500-watt spotlights and a small propane heater to heat the area. The partition folds back against one of the building's walls when not in use."

Contact: FARM SHOW Followup, Mark Musser, 2361 E. 1950 Ave., Beecher City, Ill. 62414 (ph 618 487-5837).

Mark Musser built this large swinging "partition door" out of lightweight insulated siding taken from a refrigerated semi trailer. When closed it forms a 20-ft. wide by 30-ft. long room, with an overhead door at the opposite end.

