Money-Saving Repairs & Maintenance Shortcuts

Bully Dog Propane Injector Boosts Diesel Performance

After a turbocharger on his pickup's diesel engine exploded and took out a couple of pistons, Brian Wray, Kalispell, Montana, figured there had to be a better way to improve diesel power and fuel efficiency.

The solution he found is called "Bully Dog". "It's a propane injection system that works on diesel engines," he explains. Since he installed the system on the 6.9L engine in his Ford F250, he claims he's getting 4 mpg better fuel efficiency, and considerably more power.

Wray uses his pickup to pull a 4-horse trailer and for basic transportation. "I bought it used and like all diesels, it smoked a little. After I installed the Bully Dog injector, it cleared up the diesel smoke and the exhaust smells like LP burning rather than diesel."

Priced at under \$800, it's expensive but still \$1,000 to \$1,500 less than a turbocharger, notes Wray.

He says the inector is easy to install. "You need a little working knowledge of electrical schematics and a fair sense of plumbing," he notes. "It requires installing a sending unit in the oil line. That's a safety measure that shuts off the propane flow if oil pressure drops. That way, the propane is shut off when you shut off the engine."

He says it also requires installing propane tanks somewhere in the vehicle. Materials and tanks for that cost him about \$100.

Besides cutting his diesel fuel use, Wray notes that the Bully Dog injection system uses less than 2 gal. of propane for every 20 gal. of diesel fuel he burns, even when he's using it hard.



Propane charger works on diesel engines, improving power and fuel efficiency.

Philip Klassen, who with his brother Michael, developed the Bully Dog propane injector, says it will work on any diesel engine. "Injecting a small amount of propane results in a more even amd more complete burn of the diesel, so smoke and emissions are both reduced," he says.

They sell versions for all diesel-powered pickups. Klassen says the system actually works better on a turbocharged engine than on a naturally aspirated one. "We've sold them for tractors and combines, too," he says. "And this past fall, we sold one for a cotton picker."

Klassen says people are often a little leary of a system that uses propane at first. "But it's actually quite safe," he insists. "With the oil pressure safety shut-off switch, the flow of propane is automatically cut when the engine is stopped or if there's some kind of engine malfunction."

Contact: FARM SHOW Followup, Bully Dog Technologies, 2854 West 2200 South, Aberdeen, Idaho 83210 (ph 208 397-3200; E-mail: info@bullydog.com; Website: www.bullydog.com); or Brian Wray, 1150 McMannamy Draw, Kalispell, Montana 59901 (ph 406 257-2411).

Cheap Way To Refill Small Propane Cylinders

You can safely refill small propane cylinders - which most people just throw away when they're empty - with this new refill device for propane tanks.

The "MacCoupler" allows you to refill 14.1 and 16.4-oz. propane cylinders typically used to fuel lanterns, torches, heaters, stoves, etc., from 20, 30, and 40-lb. tanks.

You use a wrench to screw one end of the coupler onto the valve on the tank. Then you hand tighten the other end of the coupler onto the cylinder you're refilling. The cylinder has to be put in a freezer for about one hour before it's refilled. Then turn the entire unit upside down and set it on the neck guard of the tank. Once you open the tank's valve you'll hear propane come out. After about 30 seconds, you'll hear it stop. You can't overfill the cylinder since the pressure simply equalizes. After the sound stops, turn off the valve and remove the cylinder, which will now be 85 to 90 percent full.



The "MacCoupler" allows you to safely refill 14.1 and 16.4-oz. propane cylinders.

"It works with either long, thin cylinders used for torches or short, fat Coleman-type ones used for lanterns, stoves, and heaters," says the company.

Sells for \$14.95 plus S&H.

Contact: FARM SHOW Followup, Preparation Enterprises, 1336 Moorpark Road, Suite 241, Thousand Oaks, Calif. 91360 (ph 888 493-4517; fax 888 457-4177; E-mail: prep@prepenterprises.com; Website: www.prepenterprises.com).

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"Panel Clamps" Help Make Better Butt Welds

You can do a better job welding sheet metal with these "panel clamps", according to the manufacturer who says they make butt welds easier by holding loose edges tightly together.

Panel Clamps are designed to be used on mild steel or aluminum with thicknesses between 18 and 24 ga. Made of non-corroding aluminum and stainless steel, the unit holds the edges together while you tack weld them together. Once the clamp is off you can finish the welding.

"It works great for patching in replacement panels and for repairing cracks, and allows you to make a butt weld that water can't penetrate," says Scott Brittin, BHP Products, Inc., Katy, Texas.

A set of five Panel Clamps sells for \$39.95 plus \$4 S&H.

Contact: FARM SHOW Followup, BHP Products, Inc., 23 Lakefield Tris, Katy, Texas 77493 (ph 800 480-3951; fax 281 391-1249).



Panel Clamps make butt welds easier by holding loose edges tightly together while you tack weld them together.



Underside components help hold two panels together.

Another Way To Fight Rust

After our story in the last issue on Por-15, a popular paint-on rust eliminator that reacts chemically with rust to turn it into a rock-hard, epoxy-like finish (call 800 576-5822 for info), we heard from a FARM SHOW reader who said we should take a look at another new rust-fighting product.

Evapo-Rust is different than other rust "neutralizers" on the market because it actually dissolves rust away rather than turning it into a new substance. Here's how it works:

Evapo-Rust is a water soluble, nonflammable product that's also biodegradable. It contains no acids or other corrosive materials and will not affect non-rusted steel. It's also harmless to rubber, plastic, pvc and most paints, according to the company.

It dissolves rust on contact. The active ingredient forms a chemical bond with the iron in the iron oxide (rust). It can remove the iron from the iron oxide but is too weak to remove iron from steel, where the iron is held much more strongly.

One gallon will de-rust up to 300 lbs. of heavily rusted steel. Mildly rusted parts can be soaked for about 10 min. to clean up. Badly rusted parts should be soaked overnight. To use on parts too big to soak, soak a sponge and place it over the area to be de-rusted. Cover the sponge with plastic wrap and tape the wrap in place to prevent moisture from evaporating.

Once the Evapo-Rust solution is spent, you can simply pour it down the drain since it's non-toxic and only contains iron from the rust.

Comes in quarts, single gallons, 5-gallon pails, 55 gal. drums, and 275 gal. totes.

Since it was introduced a year or so ago, Evapo-Rust has caught on with distributors all over the world. More dealers and distributors are still needed.

Contact: FARM SHOW Followup, Harris International laboratories, Inc., 2200 Old Missouri Rd., Suite M, Box 6487, Springdale, Ark. 72766 (ph 888 329-9877; fax 501 927-3202).



To dissolve rust, you simply dip item into



After item is removed from solution, it's "rust-proofed" for up to two weeks.



Rusty bolt (left) was soaked in Evapo-Rust for two hours.