Fuel "Refiner" Heats, Filters Diesel

By Mark Newhall, Editor & Publisher

I got a call the other day from Allen McKay, president and CEO of Ramco Performance Manufacturing in Fargo, N.Dak. Ramco specializes in aftermarket filter systems and has had products on the market for mostly industrial and over-the-road trucking – for more than 20 years.

Allen says he has been getting interest from the farm market and wondered if he could tell our readers about his TurboFyner™ filter for diesels.

"This is a filter and a water separator that also heats the diesel before it enters the engine. It's a very compact product that simply plumbs in ahead of the existing filter. Fuel is heated by plumbing in a line from the engine coolant or transmission fluid. Heat helps prevent fuel waxing or gelling in cold weather. In fact, it'll let you use #2 diesel in winter instead of #1, which costs more money and doesn't do as good a job of lubricating.

"Our filtering media is what makes us unique. It filters down to 5 microns but does it with the flow restriction of a 25-micron filter. It'll extend the life of your existing OEM filter indefinitely. This filter traps moisture and harmful particles before they can get to the injectors, pumps and internal engine components. The heat in the filter keeps ice from forming in the filter media before the separated water can be drained away.

"The self-contained filter element is easily replaced. There are no seals or gaskets on the filter to leak.

TurboFyner filter for diesel engines also separates out water and heats the fuel before it enters the engine. It plumbs in ahead of the existing filter.

"We've had customers install it on small diesel generators up to big 2,000 hp models. It's also ideal for biodiesel applications, especially because of the way it heats the fuel."

The TurboFyner is sized to fit pickups, trucks, tractors, combines and other farm-sized equipment. It sells for $189.95. The company also makes a variety of other smaller and larger filters.

Contact: FARM SHOW Followup, Allen McKay, Ramco Performance Mfg. LLC, 2710 33rd St. SW, Fargo, N.Dak. 58103 (ph 701 476-1320; www.ramcoperformance.com).

Module Boosts Diesel Power In A New Way

"Don't chip your truck and run the risk of destroying your engine by overfueling. Get safe power increases and fuel savings with the new Workhorse."

That's the ad FARM SHOW spotted in a recent farm publication for the "Workhorse" computer module that simply plugs into your engine's wiring harness with factory-style connectors. It's not a conventional power chip, says Adam Hochstetler, Southcoast Performance Solutions, Eugene, Oregon.

He says the Workhorse is the only diesel performance product that guarantees a 15 percent or greater mpg increase; provides 160 more lbs. of torque and 80 more usable horsepower; doesn't require gauges or exhaust modifications; and requires no changes to factory computer settings.

"Power Chips are designed to get more power from a diesel engine by overfueling it. Instead of adding more fuel to the engine, the Workhorse increases the combustion efficiency of the engine through improved atomization of the injected fuel," says Hochstetler. "Another key difference is that the Workhorse saves fuel and also boosts power while power chips do one or the other but not both."

The unit manages the fuel delivery based upon the rpm's and load you're putting on the engine. "It changes your engine's peak efficiency, so you can start accessing your engine's power curve at a lower rpm range," says Hochstetler. "It breaks down the diesel into smaller particles, mixing in more oxygen. This causes the diesel to burn faster in the combustion chamber, releasing more thermal energy and producing more power.

"Every power chip that I know of produces more power by adding fuel and changing the timing of the injection pulse," says Hochstetler. "Overfueling does produce more power, but it also produces high exhaust gas temperatures, cylinder wash-down, and a lot of black smoke. If you add more fuel without adding more air to your engine, you get an unbalanced air/fuel ratio. The unburned fuel ignites as it exits through the exhaust manifold and turbo, causing excessive gas temperatures, which can literally melt parts of your engine. Because of the high temperatures, diesel owners often have to spend a lot more money on a larger air intake and exhaust system, and expensive gauges, just to make sure they don't burn up the engine."

He says customers tell him they're getting up to 100 more miles out of a tank of fuel with the Workhorse installed. "Normally they would get 14 to 15 mpg, but with the Workhorse installed, they're now getting 19 to 20 mpg. Even when towing they're still gaining several miles per gallon," he says. "The average driver will save $1,400 in fuel costs the first year alone. You can expect a 15 to 20 percent increase in fuel economy."

The module doesn't interfere with or change your truck's computer so it won't void the engine warranty, he says.

Sells for $695.

Contact: FARM SHOW Followup, Southcoast Performance Solutions, 14761 Cool Valley Ranch Road, Valley Center, Calif. 92082 (ph 888 223-2396; www.morepowerlessfuel.com).

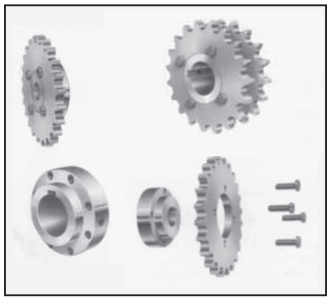
Where To Buy Sprockets, Hubs

If you're looking for a sprocket or hub for an older piece of equipment or to complete a "made it myself" project, you might want to check out Linn Gear Co., Lebanon, Oregon.

The company has been making sprockets, hubs and gears for more than 30 years. They stock virtually all types, sizes, and pitch with hundreds of models in stock. They can also do custom runs of non-stock items.

Linn makes sprockets and gears out of .35 to .45 carbon steel and they can be hardened as needed, more than doubling life expectancy.

Contact: FARAM SHOW Followup, Linn Gear Company, P.O. Box 297, 100 N. 8th St., Lebanon, Oregon 97355 (ph 541 259-1211; www.linngear.com).



Linn Gear Co. has hundreds of different models of sprockets, hubs and gears in stock.

They Specialize In Parts For Moldboard Plows

If you need parts for a moldboard plow, there's a good chance Elmer Bearinger has what you need.

"We can save you a lot of money," says Bearinger, Moorefield, Ontario.

He has been buying and selling new and used moldboard plows for years. "When we get one in that we can't repair, we part it out. We also have new and reconditioned parts," he says.

Parts include coulters, moldboards, stems, castings, hubs, wheels, and more.

He sells new moldboards and shares for domestic and European plows including Kverneland, Overum and KKK.

While they don't stock parts for every make and model of moldboard plow ever produced, Bearinger says it would have to be an extremely rare part if they didn't have it. "We have most of the hard-to-find parts, either used, new or after market."

He even has antique plows for sale.

"Farmers come to us because sometimes they can't get parts from their dealer, or the parts are very expensive. We ship mainly to Canada but can also ship to the U.S."

Contact: FARM SHOW Followup, E. Bearinger, 8494 Concession 12, RR 1, Moorefield, Ontario, Canada N0G 2K0 (ph 519 638-3538; fax 519 638-3353).

Air-Powered Oil Transfer Pump

Norm Batson, Clay Springs, Ariz., converted an old power steering pump and a 1-in. pneumatic air gun into a simple, low-cost bulk oil transfer pump.

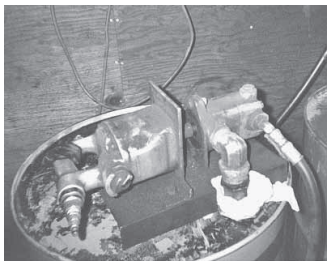
"It works reliably and cost very little to build," says Batson. "Commercial diaphragm pumps with comparable capacity sell for $800 to $900, and are much more likely to break down."

The 4-in. sq. power steering pump is shaft-driven by the air gun, which has its hammer removed and its trigger taped open. An air compressor hose hooks up to the air gun. An air valve is used to turn the pump on and off.

The power steering pump came off a Cummins diesel engine and was originally attached to the engine's oil pump by a 2-bolt flange and a small collar spline. He made a bracket to attach the pump to a shaft coming out of the air motor. He welded a short 3/4-in. dia. shaft from the collar to the air motor. Then he unbolted the hammer from an old Chicago pneumatic 1-in. air gun and taped the trigger open, then bolted the air gun to a homemade metal bracket.

"It's quite noisy because of the air gun, but it'll pump three times faster than most oil transfer pumps you can buy. We built our first one 15 years ago, and the only maintenance it has ever needed was to replace some O-rings inside the air gun. The pump still works as good as ever," says Batson. "It takes less than an hour to assemble.

"My brother and I have a general purpose hauling business and use the pump a lot in our shop, where we change the oil on up to 35 trucks and bulldozers. Most of the time we pump 15-40 motor oil. We put a lot of miles on these trucks and change the oil on them at least once a month, so we pump a lot of oil. We also built a portable model that we use to pump from barrel to barrel, including hydraulic oil and diesel fuel.



Power steering pump is shaft-driven by an air gun, which has its hammer removed and its trigger taped open. An air compressor hose hooks up to the air gun to drive the pump.

"We already had the air gun. Used air guns are pretty easy to come by. Usually the hammer wears out but the motor is still good.

"Any shop that works on Cummins engines will have used power steering pumps around because internal seals on them tend to go bad. The power steering pump doesn't leak, but often it's more economical to replace the pump than to replace the shaft or seal.

"If you're going to use this system you need a 2-stage air compressor and a 1-in. air gun to operate the pump - a 3/4-in. air gun won't handle it," he notes.

Contact: FARM SHOW Followup, Norm Batson, P.O. Box 881, Clay Springs, Ariz. 85923 (ph 928 739-4336).