

# "Best Selling" Repowering Kits For Tractors, Pickups

## Perkins Diesel

"While visiting a relative in England I bought three 6-cyl. Perkins engines and brought them back with me," says Bob Mattice, who farms and runs a repair shop near Morewood, Ontario. He installed the first of the diesel engines in an IH 656 gas tractor.

"The old engine was worn out and burned too much fuel. But the tractor was ideal for the conversion because it has one shaft for the pto and hydraulics and one shaft for the wheels. To replace it with the Perkins we had to lengthen the frame and engine hood about 2 3/4 in. because the engine is that much longer. The most difficult part of the conversion was adapting the IH transmission and clutch to the new engine. We did it by machining the IH flywheel onto the Perkins flywheel, joining the two by machining in 'steps' and bolting them together. Then we matched the Perkins bell housing up to the IH belhousing. Worked great," says Mattice.

Most of the original equipment on the tractor is still in use, including the fuel tank, which is now used for diesel.

Before the conversion, the 263 engine in the tractor always seemed to be straining when doing fieldwork or powering forage blowers and doing other chores. Now Mattice says it always has power to spare. "The converted tractor has been in use for two years. It uses just 3 gph under load," he says.

Mattice installed one of the other Perkins engines in a Farmall M and sold the third engine to another farmer. He has been involved in other repowering jobs. "A neighbor of mine put a 466 IH diesel in a Chevy 3/4-ton pickup, replacing a V-8 350 engine. He needed the extra power to haul a cattle truck. It was a complicated job but it works great and has plenty of power."

Contact: FARM SHOW Followup, Bob Mattice, Box 81, Morewood, Ontario, Canada (ph 613 448-3450).

## Cummins Kit For Oliver Tractors

"There's a lot of them in this area and they had bad engines," says Mark Hannah, of Cummins Great Lakes, a Cummins dealer in Wisconsin that's doing big business repowering Oliver tractors with 4 and 6 cyl. Cummins "B" series engines.

Because the manufacturer doesn't make repower kits, the dealer had to come up with its own. So far they've got kits for Oliver 1750, 1755, 1855, 1950T and 1955 models. According to Hannah, the diesel engines in the tractors have had a lot of problems. "People like the tractor but in many cases they've stopped using them because of the engine. With this conversion it's like a new tractor."

Installing the kit requires some modification to frame - grinding it out a bit in spots - and other modifications to mount the new engine and remount engine accessories. The turbo-charged, direct-injection B-series engine is the same engine installed in new Dodge diesel pickups and is available in both 4 and 6 cyl. ranging from 50 to 180 hp. Cost of repower kit and installation is about \$6,000.

For more information, contact: FARM SHOW Followup, Cummins Great Lakes, Inc., Rt. 3, Highway 41, De Pere, Wis. 54115 (ph 800 666-1191 or 414 336-9631).



## Allis Chalmers 4-WD Repowered With Cummins Diesel Engine

"When the engine in our 1981 Allis Chalmers 7580 4-WD blew up after only 1,500 hrs., we started shopping around for an engine to replace it," says Howard Hilbert, Franklin, Minn.

"We priced short blocks from International, Deere and Deutz-Allis, but found them all to be too expensive. Finally we priced a Cummins engine and found it to be \$3,500 less than Deutz-Allis, and Cummins gave us a 5-year warranty compared to only a 6 mo. warranty from Deutz-Allis.

"We first had a flywheel and adaptor plate custom-made at a shop in North Dakota that used specs from a repower specialist in Australia. Then we put the engine into the

tractor with the help of a local farmer with his own shop.

"In order to match the previous engine, we set the 8.3 liter engine at 2,500 rpm's with 215 hp. We routed the exhaust out the side rather than through the hood. We were able to use the radiator, starter, generator and air conditioner off the old engine.

"The repowered tractor has almost the same horsepower but more torque which makes for increased pulling power. We now pull implements 1/2 mph faster and it pulls like it's just playing."

Contact: FARM SHOW Followup, Howard B. Hilbert, Rt. 1, Box 42, Franklin, Minn. 55333 (ph 507 557-8232).

## Cummins Mid-America

"We've seen a lot of interest in repowering certain Versatile tractors as well as pickups used for heavy hauling over long distances," says Jerry Smith of Cummins Mid-America, a Cummins distributor headquartered in Wichita, Kan.

In addition to farm machinery the big Mid-America engine distributor has repowered huge fleets of bread trucks and other daily use vehicles that require heavy-duty reliable power.

Smith says one employee does nothing but repower conversions. "It can get very complicated. I don't know of any tractor that can't be converted but it's time-consuming and expensive because there's always a lot to figure out in matching engines to different transmissions and engine mounts. Most of the interest is for good tractors that have had or worn-out engines and for pickups that get an extraordinary amount of use."

Versatile 145 and 700 models, with their V-8 504 and 555 engines have been popular

conversions. Smith says the owners don't want to give up the tractors but the engines need replacing. Mid-America equips the tractors with B and C-series 6-cyl. engines ranging from 5.9L to 8.3L and at a cost of \$10,000 to \$11,000 per conversion. "That's not cheap but once it's converted it's almost like a new tractor," notes Smith.

The company is willing to look at any conversion but they say people should realize nearly every repower job is complicated, and therefore expensive. Most jobs require new engine mounts, shrouds, vacuum pumps, and other parts as well as special machined parts to match up to existing transmissions and other components. "Everybody wants the engine but few people want to pay the price, or can justify it," says Smith.

Contact: FARM SHOW Followup, Cummins Mid-America, Inc., 5101 North Broadway, P.O. Box 2681, Wichita, Kan. 67201 (ph 316 838-0875).

## Kinze Power Products

Kinze Manufacturing, Williamsburg, Iowa, is doing a booming business putting Cummins engines in Deere 4-WD tractors.

"Since the original FARM SHOW report we've repowered 36 tractors from all over the country including some from as far away as Texas and Florida," says Jim Spaid, head Kinze mechanic in the company's new repower division. Kinze repowers Deere

8630, 8640 and 8650 tractors with Cummins 855 diesels. Because the original Deere engine was an integral part of the tractor frame, the company had to build a sub-frame around and beneath the engine to the front of the engine where it fastens to the front axle. The engine also had to be matched up to the Deere driveline, and a number of other components had to be specially adapted

## Tippecanoe Manufacturing Co.

If you've been thinking about repowering a tractor or pickup with a diesel engine, you'll want to check out Tippecanoe Manufacturing before you get started.

The Lafayette, Ind., firm works hand-in-hand with diesel engine manufacturers - primarily Cummins and Caterpillar - to develop kits for repowering pickups, tractors and larger farm trucks. Kits can be shipped direct to individuals for do-it-yourself installation or the company can do the job at their facility in Indiana. They will tackle almost any repower job on a custom basis if they don't have a kit already developed for it.

Tippecanoe supplies Cummins Engine Co. with all the pickup repower kits they sell through dealers. They also work with Caterpillar to put their engines in tractors, pickups and farm trucks.

"We're repowering a lot of gas-powered and even diesel-powered Ford and Chevy pickups," says VonHoltzen, noting that one popular conversion involves replacing the 7.3 liter diesel engine in Ford's F-250 pickup with a Cummins 6.9 liter engine. The 5.9 liter Cummins, which is the engine in the Dodge Ram pickup, is also a popular repower engine for many Ford and Chevy trucks.

The repower kit includes virtually everything needed to make the engine switch including air cleaner, fuel lines, throttle, linkage, header pipe, transmission adapter, radiator, hoses, belts, air intake, and so on. The kits sell for \$750 to \$1,500, depending on the job and not including the engine.

VonHoltzen says the company has had much more interest in repowering pickups and larger farm trucks than in repowering tractors. They currently have kits available for White 95, 110 and 2-180 Series tractors. They have done other conversions on a custom basis.

Tippecanoe is also in the process of developing a low restrictive exhaust system for the Dodge Ram diesel pickup. It's designed to boost performance by increasing the dia. of the tailpipe from 3 to 3 1/2 in. and dia. of the exhaust from 2 3/4 in. to 3 1/2 in. VonHoltzen says the exhaust system fitted to Dodge trucks at the factory reduces performance. "We get a big improvement in performance, improved longevity of the engine and better fuel mileage," he says, noting that there are three systems still being evaluated in the field so final figures on improvements are not yet available. The company hopes to have the new exhaust system on the market this fall at a cost of \$175 to \$250.

For more information, contact: FARM SHOW Followup, Tippecanoe Manufacturing Co., Inc., P.O. Box 5508, Lafayette, Ind. 47903 (ph 317 448-6646).

to the new engine, or repositioned.

All conversions are performed at the Kinze facility in Iowa.

For more information, contact: FARM SHOW Followup, Kinze Power Products, Inc., P.O. Box 806, Williamsburg, Iowa 52361 (ph 319 668-1300).