

## Owner's Report On Repowering Tractors

to carry a can of ether along with us to start it when it got below 50 degrees."

The only problem Jeff has had with any of the tractors was a slightly misaligned engine on the first repowered White. "That was covered under warranty and Cummins fixed it at our convenience and their expense," he notes.

**"Before we repowered it, we had to carry a can of ether with us to start it whenever it got below 50 degrees."**

"For anyone considering repowering a tractor, I can't emphasize enough that you need to know your installer and make sure he'll stand behind his work, like Cummins Great Plains does."

**Jerome Miller, Zumbrota, Minn.:** "It's got more power than we need around the farm but not too much for the tractor," says Jerome, who had a late 1960's or early 1970's **Oliver 1950T** repowered with a Cummins diesel in August.

"The original Waukesha 125 hp engine used in this tractor was just too lightly constructed," Jerome says. "I understand they had a tendency to blow up at around 3,000 to 4,000 hours. At that point, the one in our tractor was getting weak."

So he had the tractor repowered with a Cummins 4.9-liter turbocharged diesel set at 140 hp. The same engine is used in Dodge Ram pickups and the new International C-Series tractors. The engine came from Cummins North Central and Dale's Repair at Pine Island, Minn., did the work.

"It's really quick off-the-go because it's equipped with a low-end turbocharger," says Jerome, who uses the tractor for chopping corn stalks, filling silo and fall and spring tillage. "They also equipped it with a straight-line injector pump for increased fuel efficiency. We use under 3 gals. of fuel per hour, about 1 gal. less than the Waukesha.

"We've put 200 hours on it since August and it starts real well. Cold weather starts shouldn't be a problem."

Cost of the project, including engine and labor, was \$14,000.

**Bill Jonely, Weyauwega, Wis.:** "You can't buy much of a used tractor for the kind of money we spent to repower," says Bill who repowered a **Deere 3010** with a new Deere diesel from Superior Diesel four years ago. Tom Stilen Repair in Shiocton, Wis., installed the 95 hp diesel. Total cost of the job was about \$7,700.

"We've definitely got more power and better fuel efficiency now," Bill says. "When we're hauling silage, we can go for three days without filling up. It's just an all-around better tractor."

**Jim Needs, Upper Sandusky, Ohio:** Two years ago, the V-8 engines in Jim's pair of **Deere 8850 4-WD's** went out within a week of each other at around 3,500 hours.

"I bought the tractors used and have come to understand those Deere V-8's were a mistake from day one, with all kinds of cooling problems. In my case, the cam shaft went out on one and the main bearings went out on the other," says Jim. "The simplest thing to do would have been to repower the tractors

with the same Deere engine. But it's no longer available and would not meet current EPA emission standards even if it were."

Instead, Jim had his tractors repowered at Kinze Power Products with remanufactured Cummins 450 hp, 855 cu. in. in-line 6-cyl. diesels. They were covered by a two-year warranty. Each repower job cost \$30,000 to \$31,000.

"I'm very pleased," Jim says. "Fuel economy is a little better, by maybe 10 percent at most. But for spring tillage and fall chisel plowing and ripping, it's a much better engine. It has phenomenal low end torque. There's just no comparison with the original engine."

**Jeff Webber, Sparland, Ill.:** "We've repowered Steiger, Versatile and Allis Chalmers tractors starting as far back as 1986. So some of the repowered tractors have been working for over 10 years. We've had few problems. The best thing about repowering is that if you do it right, the tractors run at half the rpm's so they run much cooler. In some cases, repowering eliminated the need for air conditioning in the cab. Running at lower rpm's is also easier on the transmissions, rear ends, and other drive components.

"The best engine out there for repowering is the Cummins diesel used in Dodge pickups. Unfortunately, you have a better chance of winning the lottery than finding one. My neighbor did get one from a wrecked pickup. He put it in an LM Gleaner combine and then sold it at an auction for 5 times what the old combine would normally been worth. I've also seen Dodge pickup engines put in a Deere 4020, a Ford pickup, and a forklift. The great thing about his engine is the unbelievable horsepower-torque ratio."

### Where To Find A Repower Expert

If you want to find a repower expert, here are addresses and phone numbers of a few companies and shops that do the work:

**Alden Diesel and Tractor Repair**  
14356 State Hwy. 941  
Alden, Iowa 50006  
Ph 515 859-7167

**Altura Truck & Tractor**  
Rt. 1, Box 10  
Altura, Minn. 55910  
Ph 507 689-4667

**Arlo Williams**  
23902 280th St.  
Parkersburg, Iowa 50665  
Ph 319 346-1814

**Costello Diesel**  
P.O. Box 414 - V68 North  
Fairbank, Iowa 50629  
Ph 319 635-2923; fax 2200

**Cummins Great Plains**  
625 33rd. Ave. S.W.  
Cedar Rapids, Iowa 52404  
Ph 319 366-7537

**Cummins North Central**  
3030 Centre Point Drive  
Suite 500  
St. Paul, Minn. 55113  
Ph 651 638-2469

**Dale's Repair**  
320 2nd St. N.W.  
Pine Island, Minn. 55963  
Ph 507 356-4520

**Hunley Sales & Service Inc.**  
3636 Frontage Road  
Austin, Ind. 47102  
Ph 800 310-5113 or 812 794-2771

**Kinze Power Products**  
P.O. Box 806  
Williamsburg, Iowa 52361  
Ph 319 668-1300

**Larson Tractor**  
44490 Hwy. 52 Blvd.  
Zumbrota, Minn. 55992  
Ph 888 732-7325 or 507 732-7325

**Midwest Diesel**  
Box 307  
Beemer, Neb. 68716  
Ph 402 528-3201; fax 3202

**The Motor Works**  
Ahrendt & Clark Inc.  
Hwys. 9 & 60  
Sibley, Iowa 51249  
Ph 800 262-7720 or 712 754-3741

**R.L. Stauffer Inc.**  
R.R. 1, Box 233  
U.S. 27 South  
Portland, Ind. 47371  
Ph 219 726-9041

**Superior Diesel**  
1632 N. Stevens St.  
P.O. Box 1187  
Rhineland, Wis. 54501  
Ph 715 369-5900; fax 5918

**Tom Stilen Repair**  
N 8021 State Rd. 187  
Shiocton, Wis. 54170  
Ph 920 525-2757

**Truck & Tractor Parts Inc.**  
3114 E. U.S. Hwy. 30  
Warsaw, Ind. 46580  
Ph 219 269-6262

### Cockshutt Tractor Repowered With Datsun Car Engine

When the engine on his 1953 Cockshutt 20 tractor wore out, Dave Lentz, Frazeyburg, Ohio, replaced it with a 4-cyl. gas engine out of an old Datsun car. He also connected the car's 3-speed automatic transmission to the tractor's original 4-speed transmission.

"It has a lot of power and runs like a deer. With 12 forward speeds and 4 reverse speeds I can go anywhere from a slow crawl to 35 mph," says Lentz.

The tractor's original 20 hp Continental engine needed a total rebuild. Lentz had a Datsun 610 car that was badly rusted but had a good engine and transmission. He removed the hood to make room for the new engine and installed new rubber engine mounts. To make room for the engine he moved the radiator about 8 in. forward and mounted it on a pair of angle irons bolted to the sides of the tractor. He made a new grill using long bolts salvaged from old wooden reels that were used to hold phone cable. He also had to make an adapter plate that connects the two transmissions.

The tractor was originally equipped with a single front wheel. Lentz replaced it with the front axle and wheels off an old Dodge van. He mounted the axle upside down in order to get more ground clearance. The axle pivots on a 6-in. long, 1 1/4-in. steel shaft that rides inside a pipe. A pair of 2 1/2-in. dia. pipes are used to brace the axle



and keep it from twisting. The back end of the pipes rides up or down on two loose bolts, allowing the pipes to pivot with the axle.

"It turns people's heads when they first see it. Many of them can't believe it," says Lentz. "I use it mostly around my home to pull a 5-ft. Bush Hog mower as well as a 2-bottom plow which I use in my two big gardens. I also use it to haul firewood and to drag logs out of my woods. The car's 1,800 cc engine is rated at 105 hp at 6,000 rpm's. However, I usually go 2,000 to 3,000 rpm's."

"To drive the tractor I put the automatic transmission in neutral and then put the 4-speed transmission in gear. I usually go in

third gear. However, if I want to go at a crawl I put both transmissions in first gear. If I want I can shift the automatic transmission on-the-go. I like the addition of the automatic transmission because it allows the tractor to provide constant power without digging its wheels into the ground. I can use the throttle to regulate engine speed to the point where the tractor is just about to spin its wheels, then back off on the throttle. The automatic transmission also eliminates the need to set the brake whenever I stop."

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