

## Owner's Report On Repowering Tractors

Total cost for repowering each tractor was between \$8,000 and \$9,000, he says.

**Mark Borlen, Clintonville, Wis.:** Mark and his Dad, Jim, are the original owners of a 1967 **Deere 3020** that was originally equipped with a 68 hp gas engine.

"It's our bucket tractor," says Mark. "After about 6,900 hours, the engine just wore out."

So three years ago the Borlens had the tractor repowered with a new Deere diesel from Superior Diesel in Rhinelander, Wis., a company that specializes in repowering Deere 3010's and 3020's without changing their appearance. Tom Stilen Repair in Shiocton, Wis., did the work.

"The only thing they changed was the frame rails," says Mark. "They swap new rails for old ones and install gussets where they mount the engine, which is rated at 110 hp.

"It's got all the power we need and fuel efficiency is unbelievable. We only have to fuel it up once every two weeks even though we use it every day for green-chopping and scraping up the cattle yard. Also, it always starts in cold weather. We've never plugged it in."

Cost of the repower was \$9,000, including a little work on the transmission.

**Ed Toll, Sandusky, Ohio:** "When you step on the throttle, the power that V-8 gives you is simply sensational," says Ed who purchased a late 1940's or early 1950's **Ford 8N** repowered with a Ford V-8 truck engine.

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A kit for such projects is available for \$850 from R.L. Stauffer Inc., Portland, Ind. It consists of a 1 1/2-in. thick steel adapter plate that's 2 ft. in dia. drilled and tapped to match the front of the transmission bell housing. A steel support frame runs from the plate to the front axle. The kit makes it relatively easy to repower 8N's with flathead Ford V-8 truck engines manufactured between 1949 and '53. The 100 hp, 239 cu. in. engine replaces the tractor's original 25 hp, 4-cyl., 112 cu. in. engine.

"It comes out beautiful without damaging the looks of the tractor at all," Ed says. "But the difference in power is amazing."

**Dale Nielson, Chapman, Neb.:** "There's a world of difference in these tractors. They start easier in winter and use about 1/3 less fuel than before," says Dale about two **Allis 4-WD**'s he repowered with kits from Hunley Sales & Service Inc. in Austin, Ind.

The first tractor he repowered was a 1980 model 7580 that was originally equipped with a 3700 **Allis 180** hp diesel which had failed about 8,000 hours. The second was a 1985 **Allis 4W 222** with 3,000 hours on it. He had experienced no serious problems with the 3750 **Allis 180** hp diesel. He installed 8.3 liter Cummins engines rated at 205 hp in both tractors. Each repower job cost about \$12,000.

"There really wasn't much to it thanks to the Hunley kit," says Dale. "It did require a few minor changes to the hood and we had to notch out the frame a little to make the engine fit. But it's nothing that's noticeable.

"They both have a lot more lugging ability now. That's important because we use them

for everything from planting corn to cultivating to pulling grain carts and everything in between."

**Gary Caldwell, Amboy, Minn.:** Caldwell Brothers Farms have two repowered **Deere** tractors and they're equally pleased with both, says Gary.

"Dad bought our 4020 new in 1969 and it had 11,000 to 12,000 hours on it," he says. "The injection pump was shot and then we spun a rod bearing a couple years ago."

So the farmers bought a rebuilt 466 cu. in. diesel combine engine from The Motor Works in Sibley, Iowa, and installed it themselves.

"There wasn't much to it, just hooking up the fuel filter system and bolting the engine in," Gary says. "It starts a lot easier and runs our grain vac just fine. We spent about \$7,000 in repowering it, then had to put in a new rear end last year. But now it should last us another 10 or 20 years."

The Caldwells also repowered a 1981 **Deere 8640 4-WD** equipped with 619 cu. in. 265 hp Deere engine. Kinze Power Products at Williamsburg, Iowa, did the work.

"It was five years old when we bought it with 5,000 hours on it," Gary says. "The engine was pretty well hammered. So we had Kinze install a rebuilt 360 hp Cummins engine. That required lengthening the frame 19 in. and mounting the engine on rubber mounts instead of having the engine serve as part of the frame of the tractor.

"Since the repower, the tractor's easier to maintain and repair. We get excellent fuel economy - about 10 gals. per hour, compared with 12 1/2 to 13 gals. before, pulling our 38-1/2 ft. field cultivator and 12 1/2-ft. disk ripper. We can also run at least a gear faster, up to 6 1/2 mph cultivating. Plus, the cab is much quieter than before because of the engine mounts."

Cost of the job was about \$23,000.

**Ray Haupt, Dows, Iowa:** "It's much smoother and quieter than it was before and it has tremendous power," says Ray about his 1983 **Versatile 555 4-WD** that was repowered last winter with a Cummins V-6, 250 hp diesel.

"It was originally powered with a V-8 Cummins and there was absolutely nothing wrong with that engine, even after 2,100 hours," he says. "But, when I had to replace a hydraulic gear, I decided to go with a new Cummins engine. It came from Cummins Great Plains and I had the work done at Alden Diesel and Tractor Repair in Alden, Iowa. It cost about \$10,000.

"I've noticed it's a little easier on fuel now and it has much more low end torque. That's important to us since we use the tractor for heavy work, including V-ripping and cultivating."

**Ken Bernard, Grand Ridge, Ill.:** The original 466 cu. in., 210 hp diesel in Ken's 1983 **Deere 8440** simply wore out after 5,100 hours. Rather than overhaul the engine, he repowered the tractor with a new Deere PowerTech 8.1-liter, 250 hp engine a year ago. Hunley Sales & Service in Austin, Ind., did the work.

"The engine fits exactly the same way the original did, bolting right to the flywheel so an adapter plate is unnecessary," says Ken. "We did do a few other minor modifications, however. For example, we put 1/2-in. thick stiffener plates on the block to reinforce it. We also added a Sideline side-mounted exhaust (135 Howardstown, New Haven, Ky.



### Kinze's "5050 Deere" Catches Eye Of Deere Executives

Here's a one-of-a-kind Deere tractor that was enough of an enigma to make Deere sit up and take note.

The Deere "5050", as it's called, is a late 1960's Deere 5020 2-WD repowered and dressed up by Kinze Power Products.

"It's very sharp," says Jim Spaid, repower manager of the Williamsburg, Iowa, company. "Sharp enough, apparently, to threaten Deere. We did it just for something to do, to make it the way we felt it should have been built in the first place. We never intended to build them to sell."

The tractor, which Kinze bought for a parts tractor in 1989, was originally powered with a 531 cu. in. Deere diesel rated at somewhere between 125 and 140 hp. The engine, at some point, threw a rod.

Kinze workers repowered the tractor with an 855 cu. in. 400 hp Cummins diesel. The tractor still has the original transmission and clutch.

40051; ph 502 549-3628).

"This is the only way to go. The engine is 20 to 25 percent more fuel efficient than the original and it has a lot more low rpm torque. It's also easier to start in cold weather. I got an exceptionally good deal on the engine - \$12,500 - because it was the first time the company had repowered a tractor with a PowerTech."

**Lauren McCracken, Brockport, N.Y.:** "The original engine in this tractor was a catastrophe," says Lauren about his **International 4786 4-WD** tractor equipped with a 300 hp, V-8 International engine. "Vibration was the big problem, which is one of the reasons I believe we lost a cylinder at about 7,000 hours."

So McCracken Farms bought a rebuilt 400 hp Cummins diesel and installation kit from Costello Diesel Service. The kit included frame extenders and a flip-up hood. The McCrackens did the work themselves to the tractor, too.

"We pull an air seeder with it, which required us to convert the hydraulic system over to a new-style closed system," Lauren says. "We also put a new 60-gal. hydraulic tank on back of the cab and reinforcing the corners of it. And we installed new radial tires on it for better traction.

"The tractor starts beautifully now and it uses only 8 to 9 gals. of fuel per hour pulling a 28-ft. disk. And we've got enough power

Besides putting a lot more horses under the hood, Kinze also made some striking cosmetic changes.

For example, they fitted it with a 40 series cab off a 1979 model tractor. They also installed a hood off a Deere 8850. Then they made up decals for the tractor calling it a "5050" Deere.

When it was finished, the company began taking it to a few shows and parades. That's when Deere got wind of the tractor.

"We got a letter from a Deere executive suggesting we not build any more of the tractors," says Spaid. "We'd never intended to and so it never went any farther than that."

As for the tractor: "We keep it around as sort of a conversation piece and to take it to a few parades every now and again."

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to keep the wheels turning in even the wettest conditions without getting stuck."

**Ed Carlson, Britt, Iowa:** Ed repowered a 1979 **Deere 8640** at Kinze Power Products a couple years ago.

"I bought the tractor used after it had a cab fire," he says. "I don't know whether there was anything wrong with the engine, which had about 3,500 hours on it, but I pulled it because I'd always wanted an 8640 with a Cummins in it. Kinze replaced the original 280 hp, 619 cu. in. Deere engine with a 400 hp, 855 cu. in. in-line 6-cyl. diesel.

"Fuel economy isn't much different, but it's got a lot more low end torque, great for pulling our 44-ft. field cultivator and 7-bottom plow. It never lugs."

Cost of the project was about \$25,000.

**Merle Olson, Shiocton, Wis.:** Merle bought a late 1960's **Deere 3020** with a blown engine a few years ago. He repowered it with a 4-cyl., 80 hp turbocharged Deere diesel using a kit from Superior Diesel in Rhinelander, Wis. The work, which cost about \$10,000, was done at Tom Stilen Repair in Shiocton.

"We never run out of power now," says Merle. "It starts well and is economical to operate. You can use it to haul forage wagons back and forth from the field to the silo all day and only have to top off the tank the next day."

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