

Little Cummins 4-Cylinder Replaces Chevy V-8

Bruce Basinger was tired of poor gas economy and the overall temperamental nature of the 350 V-8 engine in his 1984 Chevy pickup. But he liked the truck's body style and wanted to keep it. After hearing that a local company had converted a delivery truck from a 350 gas engine to a 4-cyl. turbo Cummins diesel, he decided to follow suit.

"I picked up a retired Frito-Lay truck with the Cummins engine and kept the engine, radiator, electric fan, air intake system, torque converter and exhaust system. I sold the rest of the truck for scrap," says Basinger.

The little Cummins diesel weighed only 80 lbs. more than the 350 V-8, so no changes to suspension were needed. The engine mounts needed to be modified some, but the engine itself needed virtually no modifications. The new engine fit neatly under the hood. Even the bell housings on the two engines were the same.

"The big difference was the Cummins had a 4-bolt pattern from the torque converter to the flywheel while the Chevy had a 3-bolt pattern," says Basinger. "However, the input shafts were the same size, so I banked on the idea that I could use the Cummins torque converter on the Chevy transmission. The

cases were a different size, but it just barely fit. Plus it gives the transmission more oil capacity, which is good."

He says modifying the engine mounts was the most time consuming part of the entire job. He used rubber mounts from the delivery van, but had to place, remove and replace the motor several times to get positioning correct. Using the original mounts for the engine was important.

"I needed the engine to sit at an angle so the turbo would be low enough for the pipes to clear the firewall," says Basinger.

Basinger had to add an electric vacuum pump for the brakes, the heating and the defroster. The radiator from the delivery van was the same length and height as the original Chevy radiator, but is thicker for greater cooling power.

"Natural air flow usually provides plenty of cooling power for the engine," he says. "I hardly have to use the electric fan."

Basinger increased horsepower on the engine by about 10 percent from its standard 110 hp. He says the additional power really made a difference, yet mileage remained great.

Best of all, he adds, are the conversations



Bruce Basinger replaced the 350 V-8 engine in his 1984 Chevy pickup with a Cummins 4-cyl. engine.

that have occurred as people notice the sound of the Cummins in the Chevy truck. "Getting to know and talk with people about the project has been priceless," says Basinger.

The conversion itself ended up costing him only about \$1,500 out of pocket. "I've put about 12,000 miles on since the conversion, and I've had no problems at all," he adds. "I

doubled my fuel economy, and the truck performs better than it did with the original Chevy 350."

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Off-Highway Diesels Power Pickups

Simon Vanderkooy had a couple good reasons the first time he repowered his pickup truck with an off-highway diesel engine. He had four teenagers he didn't want rating his V8-equipped truck, and he wanted better mileage. The first converted truck worked out so well that he just kept using non-highway diesels the rest of his life.

"Dad liked getting 30 miles per gallon with a full size truck, even if it did take about 30 seconds to go from zero to 60," recalls Brian Vanderkooy. "His first repower was a 1980 GMC Jimmy 2-wheel drive. He used an Isuzu diesel from a Union Pacific refrigerated car."

The engine worked so well that by 2000, when the Jimmy wore out, the elder Vanderkooy kept the engine and installed it in a 1989 F250 with 4-WD. Meanwhile, he

had picked up a Ford diesel from a 1968 New Holland swather, which he installed in a 1974 F250. A few years later, he moved it to a 1988 F250. Before he died, he gave each of the diesel repowers to interested sons. Brian got the Ford/Ford and an older son, Ralph, received the Isuzu/Ford.

"Swapping the engines was never much of a problem," says Brian. "He took out the motor mounts and had pieces of angle iron welded to them and drilled with holes to match the new engines. A friend, who was a machinist, made new bell housings to match the new engines and the old transmissions."

The only other big changes were to add vacuum pumps and to modify coolant hoses to match the diesels. Vanderkooy also altered the gearing.



Simon Vanderkooy repowered several different pickups with off-highway diesel engines. "Swapping the engines was never much of a problem," says son Brian.

"First gear is a creeper you can pull a mobile home with," says Brian. "Third gear tops out at 35, and you can get up to 76 mph going down hill in fourth."

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Skid loader had no trouble moving outbuilding in one piece.

Skid Loader Takes Shed For A Ride

By C.F. Marley, Contributing Editor

This 1800's, 10 by 14-ft. outbuilding had to be moved in order to make room for a new attached garage on our farm. I asked my son to use his Bobcat skid loader to lift off the roof and was standing outside the house with my camera ready. Was I ever surprised when he picked up the entire building in one piece

and carried it away. Apparently he had unbolted the sides from the cement floor to move the building in one piece.

He set the shed down about 200 ft. away in an old hoglot. I gave it to a guy who removed the sides and uses the open-air shelter to shade calves on pasture.

Electric "Zapper" Explodes Weed Cells

Chemical-free control of broadleaf weeds like dandelion and thistle is fast and easy with the NatureZap. The electric-powered tool kills troublesome weeds by overheating the cells at the base of the stem.

"Plants with tap roots are ideal targets for the NatureZap," says Jon Jackson, president, Global Neighbor, Inc., importer of the NatureZap. "When you press the heating element probe into the plant base, it actually explodes cells."

The high-performance heater is designed to produce sufficient heat quickly to disrupt plant function in plant leaves, root crown and root. A small ceramic stone with a rapid heating response time but self-limiting temperature setting of about 400°F is set in the base of the NatureZap. To operate, the probe is pressed into the plant base and rotated back and forth with light pressure for 3 to 7 seconds. The twisting action exposes more plant material to the heating element.

The NatureZap weighs about 6 lbs. and plugs into an extension cord. It's priced at \$139. Because the heating element probe is set inside the cane-like tube, it can safely be used in mulch or among other plants without harm.

"It draws less than two amps of power," says Jackson.

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Electric-powered tool kills weeds by overheating cells at base of stem. "When you press the heating element probe into the plant base, it actually explodes cells," says importer Jon Jackson.

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