

PERKINS DIESEL OUT OF A MASSEY COMBINE "GETS FANTASTIC FUEL MILEAGE"

## "Better Than New" Custom-Built Pickup

"It gets fantastic fuel mileage and cost a lot less than a new pickup," says Larry Munro, Tiverton, Ontario, about his "custom-built" Chevrolet diesel pickup.

Munro paid \$6,700 for the frame and body of a new Chevrolet Silverado 1/2-ton 4-WD pickup in 1986. He bought it from a company that built ice scraping machines for ice arenas and needed only the pickup's engine and drive train. Munro installed a Perkins 6-cyl., 345 cu. in. diesel engine out of a 1972 Massey Ferguson 510 combine and the driveline and automatic 4-speed transmission from a 1977 Chevrolet Jimmy.

In 1990 he decided to update the pickup with a new Chevrolet body from the same ice machine company. This time he paid \$8,500. Then he added a turbocharger salvaged from a Wakashaw 318 cu. in. engine (commonly used on Cockshutt and Oliver tractors) to the Perkins engine. He also added a 3-in. dia. exhaust pipe, new brakes, and new cab mounts.

"It was a lot of work but it was worth it," says Munro. "I use the pickup mainly to go back and forth to work. It's a lot quieter than a GM diesel engine so when people hear it they know right away that it isn't original. It gets 35 mpg on the highway depending on road conditions. I installed the Perkins diesel engine because for years GM didn't offer a good diesel engine. Even their new diesels don't have the fuel economy of my Perkins. I paid \$1,000 for the engine and \$400 for the Jimmy. My total cost for this latest version of the pickup was about \$12,000 whereas a new comparable pickup would have cost \$24,000 or more.

"The Perkins engine is rated at 95 hp but with the turbocharger it has about 105 hp. It's a 1/2-ton pickup so it isn't geared for pulling big, heavy loads. I've never had to tune the engine whereas a gas pickup would've needed several tune-ups by now. I put 70,000 miles on the pickup before I updated it in 1990 and 130,000 miles on it since then. Although the Perkins diesel has about 4,000 hours on it I think it'll outlast even the new body.

"Installing the Perkins diesel engine was a big job. I had to build new motor mounts and a new a bell housing to match the engine and transmission. The combine oil pan wouldn't fit so I had to make a new one. I also had to put an extra set of springs in the front end. The 1990 body didn't match up exactly to the 1986 frame so I had to make new cab mounts. The cab now sits a little higher than the original one.

"When I added the new body I kept the old frame because in 1990 Chevrolet switched to a frame with a wishbone front end and there wouldn't have been enough room for the Perkins engine. I kept the Jimmy driveline because at that time drivelines for 1990 pickups were in short supply. The diesel engine runs slower than a gas engine so I mounted 750 by 16 tires to speed up the gearing for better fuel economy. At 50 mph it has a rear end ratio of 3:43 and an engine rpm of 1,250 which is the peak fuel economy range. At 60 mph the engine rpm is 1,500."

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METERS CORN INTO OIL STOVE

## He Uses Planter Unit To Burn Shelled Corn

"I call it my Kernel Kremator and it's just an easy and simple way to burn shelled corn in the oil burning stove I use to heat my shop," says Melvin Van Haneghan, Palmyra, N.Y.

"Last winter, while cleaning my shop, I found some old seed corn. Knowing that there are a number of stoves out now that burn shelled corn, I dumped a cupful of kernels into the burn pot in my oil stove. The immediate intense heat made me worry about a melt-down in the stove, but it also prompted me to get to work on a device that would automatically feed shelled corn into that burner.

"I now use a planter unit from an old IH planter to feed 4.7 lbs. of corn per hour into the stove, turning the driveshaft one revolution per 8 seconds by use of a 100:1 speed reducer, belt-driven by a small electric motor. The motor is wired to the terminals of the burner motor on the oil stove so I was able to take advantage of the thermostat on the oil burner to start and stop my corn feeder, making the entire unit automatic. I found that a .50 oil nozzle is more than ad-

equate to incinerate the 4.7 lbs. of corn per hour.

"Feeding corn in gradually like this eliminates any clinkers in the stove - there's only a black dust residue. There are no harmful fumes. It burns totally clean. The planter unit is placed a few feet away from the stove and the corn gravity feeds down into it. Field corn right out of the combine runs just fine through the planter mechanism with the proper plate installed. I can vary the amount of corn feeding through by changing drive sprockets on the planter or motor shaft.

"At the \$2.10 price for corn last year, I found that 19 cents worth of corn equalled 35 cents worth of oil. According to my calculations, with oil at around 70 cents a gal., corn is cheaper to burn up to a price of around \$3.90 per bushel."

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The giant "bagger" consists of a 32-ft. wide, 16-ft. high metal truss that gradually feeds out the big plastic sheet. A silo blower blows silage into the "bagger".

COVERS AND SEALS PILES 32-FT. WIDE AND UP TO 150 FT. LONG

## First-Of-Its-Kind Giant Silage Bagger

"It lets you make big silage piles anywhere that can be used the year around with virtually no spoilage," say Mark and Dan Walder, Wittenberg, Wis., about their first-of-its-kind giant silage bagger that makes use of their "Silage Shaper" which was previously featured in FARM SHOW (Vol. 18, No. 1).

The Silage Shaper makes self-sealing stacks on flat ground or it can be mounted on the walls of a bunker silo. It consists of a 32-ft. wide, 16-ft. high metal truss lined with nylon canvas. A silo blower blows silage into the "shaper". You keep filling and moving the unit ahead until you've got the stack as big as you want. The silage packs itself, like in an upright silo.

"We've had a lot of interest in the Silage Shaper but 95% of the time we hear the same question: 'Is there a way to cover the pile so we can use it all year long?'," says Mark. "Most farmers who pile silage don't have a good way to cover them. Our new 'bagger' covers the pile during the filling process. It works like an Ag Bagger only it makes a much bigger pile and is a lot less expensive. Ag Baggers sell for as much as \$20,000. We plan to sell our unit for about \$2,000. We tested it last year on haylage and oatlage and there was virtually no spoilage. The piles never even heated up.

"Our bagger uses a flat sheet of plastic that's rolled up around a flexible pipe and is equipped with seven roller clamps that hold the plastic up inside the arch. This design keeps the plastic out of the wind as it's

being fed out so it doesn't flap around. You pull the arch ahead with a cable winch anchored to a tractor. One person can move the unit 10 ft. ahead in only a few minutes. Then you tuck 2 to 3 ft. of plastic under the sides of the pile and you're ready to blow in 6 to 8 more loads of silage.

"As the pile settles during filling, it pushes the sides out, keeping the plastic as tight as it would be on an Ag Bagger. Once the pile is finished, we use a shop vac to pull out any extra oxygen under the plastic and to pull the plastic in tight so it won't blow around. We simply cut a small hole in the side of the plastic and insert the shop vac hose.

"The weight of the silage on the tucked-in plastic makes a perfect seal and eliminates the need for any extra tie-downs or old tires to hold the plastic down. The only side you have to seal is the front end of the pile. Any time during filling you can cut the plastic off, seal it, and start a new pile.

"When you feed out the silage piles, there's no plastic on the ground to get mixed in with the feed or wrapped around the loader tractor's tires. You can keep recovering the face of the pile.

"One \$300 sheet of plastic covers the equivalent of six 150-ft. long bags or about 600 tons of silage."

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