

Tractor Converted To Run On Propane

By C.F. Marley, Contributing Editor

"It works great and saves money on fuel," says Charley Marley, Nokomis, Ill., who converted his Case 830 65 hp tractor to run on propane.

A few years back, Marley started running a stationary Oliver 1650 tractor powering a corn dryer off the fumes from a 500-gal. propane tank - the same tank that supplied gas to the corn dryer. The system required the use of a type "Z" gas controller made by Garretson Carburetor Systems, Roswell, New Mexico (still in business at ph 877 425-8383; www.propanecarbs.com/beam_garretson.html).

With gas prices rising rapidly, Marley recently decided to dig out the old gas controller and rig it up to burn propane from a much smaller, 30-gal. tank which he mounted on front of the tractor.

"With gas selling for about \$3 a gallon but propane for only \$1.50, it cuts my fuel bill in half," says Marley. "I think the same idea would work on any smaller tractor equipped with a carburetor. It won't work on bigger

tractors, because the propane can't be vaporized fast enough to supply enough power. However, I don't use my tractor for real heavy work. I just run a small mower and baler, and the 30-gal. tank and controller can supply plenty of gas to handle those jobs."

He mounted the 30-gal. tank on a couple of steel rails that bolt to the sides of the tractor. To burn the gas, he simply drilled a 1/8-in. dia. hole into the bottom of the carburetor and ran a copper tube up into the venturi valve. Vacuum created by the venturi opens a diaphragm in the controller, pulling in gas.

A pressure valve on the controller shows how much vapor is entering the carburetor. Another valve can be adjusted with a screw to regulate the vapor flow rate. A shut-off valve on the hose at the propane tank is used to turn the system on or off.

Marley has noticed one other big difference when using propane. "The engine on an ordinary gas tractor coughs and belches, but once you convert an engine to run on propane it runs quiet, just like a fuel-injected car.



Charley Marley converted his Case 830 65 hp tractor to run on propane, using a gas controller that burns propane from a 30-gal. tank he mounted on front of the tractor.

And the engine oil stays clean. In fact, the longer the tractor runs on propane, the cleaner the oil seems to get," he notes.

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Ed Schroeder added a home-built "brake" arm when mounted on his 3-pt. top link. It hooks up to the 3-pt. top link.

Bale Unroller Fitted With "Brake" Arm

A Missouri farmer, looking for a way to reduce waste caused by hay falling off his bale unroller during transport, solved the problem by mounting a home-built "brake" arm on it.

Ed Schroeder added the brake arm to the center of his 3-pt. mounted bale unroller. It hooks up to the 3-pt. top link. The 5-ft. 3-in. long arm is made from 2 by 4 tubing, and has two 8-in. long arrow-shaped points welded onto the end of it about 1 ft. apart. The base of the arm hinges on a pin, which is inserted through a metal bracket that he welded onto the unroller's frame. The arm is moved up or down by extending or retracting an 8-in. stroke, two-way hydraulic cylinder. Lowering the arm brings the points down into the bale, keeping it from rolling forward or backward during transport.

"It's not a 100 percent cure but it solves 98 percent of the problem. I've used it for five years with no problems," says Schroeder. "It

does take a little practice to figure out how to load the bale. I got the idea because I store all my hay outside and the strings can get rotten. As a result, sometimes when I picked up the bale it would make a half turn causing some of the bale to fall off. Now I can go right down the highway and never lose any hay."

The top end of the cylinder pins onto a steel bracket welded to the underside of the arm. By changing the position of a pin in the bracket, Schroeder can adjust the arm to fit different size bales. The bottom end of the cylinder swivels on a steering knuckle off a Deere 3155 Deere tractor, with the knuckle welded to the unroller frame.

"The knuckle allows the cylinder to move up or down as well as sideways," says Schroeder. "The unroller is about 10 years old, and over the years wear caused the side arms to flop back and forth. As a result, the



"Corn Caddy" is small enough to fit into a garage, and light enough that you can pull it behind a small pickup or SUV.

"Corn Caddy" Carries Corn For Stoves

"It looks nicer than placing a bulk tank next to your house or an old rusty grain cart. It's small enough to fit into a garage, and light enough that you can pull it behind any small pickup or small SUV," says Waylon McKinney, Coalgate, Okla., about his 2-wheeled Corn Caddy for fueling corn-burning stoves.

The 6-ft. 8-in. tall unit can hold up to 1,500 lbs. or 25 bu. of corn. That's close to a month's supply for most customers. Standard equipment includes electric brakes, radial tires, taillights and safety chains.

The tank is designed to fill from the top. To feed out corn, you place a 5-gal. bucket on a 4-ft. sq. metal tray and then slide the bucket under the cone.

The unit is painted olive green but can be custom painted other colors. Sells for \$1,650.

Contact: FARM SHOW Followup, Heavybilt Mfg., Inc., RR 4, Box 1420, Coalgate, Okla. 74538 (ph 800 807-0012 or 580 927-3003; fax 580 927-3059; heavybilt@coalgate.net; www.heavybiltmfg.com).

cylinder kept breaking off. The knuckle allows the cylinder to swivel so it won't break as the bale shifts from side to side during transport."

He didn't spend much money to build the brake arm. "The cylinder is off the variable speed reel on a Massey Ferguson 300 com-

bine. I paid \$40 for it. I already had the steering knuckle. I made the bracket from two pieces of 3/8-in. flat iron," notes Schroeder.

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"Big Box" For Cargo ATV's

You can haul a 4 by 8 sheet of plywood or a load of rocks with this new slip-in "big box" for Deere Gators and other ATV utility vehicles.

"We've been using the idea on our own farm for 8 years so we've perfected it," says Robert Rottinghaus of Clever Tech, Inc., Jesup, Iowa. An earlier version of the slip-in box was featured in FARM SHOW's Vol. 23, No. 4.

The 30 cu. ft. box is made of heavy 11 ga. steel. It simply slips into the box with no holes to drill. It's held in place by clamps. A wood tailgate on back slips into a set of grooves on either side of box.

Sells for \$590. Fits Deere, Polaris, CubCadet, Yamaha, Kawasaki, and others.

Contact: FARM SHOW Followup, Clever Tech, Inc., 4121 South Canfield Rd., Jesup, Iowa 50648 (ph 319 827-1311).



Slip-in "big box" is designed for Deere Gators and other ATV utility vehicles. The 30 cu. ft. box simply slips into the utility vehicle box with no holes to drill.