

## Farmer Repowers Tractors With "Junked" Car Engines

Junked car engines are great for re-powering farm tractors, forage harvesters, combines and other equipment, according to a Washington farmer who's installed car engines in two tractors and his 912 New Holland self-propelled swather.

"Farmers should consider adapting car engines to farm equipment because good car engines are generally available for a fraction of the cost of replacement or rebuilt engines for tractors and other farm equipment," says Bob Stewart, Zillah, Wash.

For example, he says that when the 4-cyl. Ford 250 cc industrial engine in his 1963 New Holland swather went out, he had it rebuilt at cost of \$2,300. When it broke down again just 100 hrs. later, he went out and bought a used 1978 Dodge Aspen 225 slant six engine with just 55,000 miles on it for \$350 and installed it in the machine. He says all he had to do was rebuild the motor mounts and machine a plate to bolt the crankshaft to the machine's driveshaft.

"It has plenty of power and uses less than a gal. of fuel per acre — versus 3 gal. per acre with the Ford engine. The engine runs hotter so we had to insulate the gas tank," says Stewart. He also notes that rpm's were speeded up to 2,850 from 2,500 which speeded up the knives, reel and auger. "It now outcuts a new 1986 self-propelled New Holland swather. It cuts like a lawn mower," states Stewart.

## Farm Home Becomes Tourist "Hotel"

Farm wife Mildred Musselman, of Gettysburg, Pa., is meeting new people and making "egg money" at the same time by using a vacant house on the farmstead as a farm "hotel" for vacationers who want to escape the city.

Musselman became interested in using the house as a hotel, in lieu of renting to tenants, after reading a brochure on "farm vacations."

The brochure is published by the Farm Vacation Home Association which is assisted by the Penn. Dept. of Agriculture. Frank Topper, advisor to the group, explains that the two groups set guidelines for the homes, which includes that they be on working farms, pass a clean water test and fulfill cleanliness standards. Participants pay yearly dues to belong to the association.

Published once a year, the brochure lists the participating farms and includes details on each set-up. It's distributed to tourist stops, res-

He also put junked engines in his 1950 Oliver 77 diesel tractor and his Deere "R" diesel.

"The dealer wanted \$1,700 to rebuild the engine in the Oliver so, for only \$50, I put a used 1974 slant six Dodge Dart engine in and went from a 38-hp. diesel power to 110 hp. gas. It adapted to all existing parts except that I had to drill the flywheel to adapt the crankshaft and put a plate on the bell housing," says Stewart. He also had to reroute steering rods and cut a section out of the frame to make room for the oil pump.

In another conversion, Stewart installed a 305 V-6 GMC pickup engine in his Deere "R" diesel and has used it for the past 6 years. He says the new engine, which had to be mounted sideways, has enough power to spin the tractor's duals in the field. He bought the tractor, which had a cracked block, for \$800 and the total cost of conversion was \$1,200. He machined V-pulleys into the flywheel and drives the crankshaft with V-belts through 2:1 ratio pulleys. He says the tractor, to which he also added hydraulics during the conversion, now develops tremendous power thanks to the high compression, low torque GMC engine.

"For \$2,000 I got a powerful 85 hp. tractor," he notes.

Contact: FARM SHOW Followup, Bob Stewart, Rt. 2, Box 2552, Zillah, Wash. 98953 (ph 509 829-5783).

taurants and mailed to interested parties. Topper notes that Pennsylvania is the only state with such a program.

Association members are free to set their own prices and meal arrangements. Set-ups range from guests staying in the family farm home and eating meals with the family, to staying in a separate house and cooking their own meals.

The Musselman's have been receiving guests since last summer. They've had ten different families stay, some coming from as far away as California and Iceland.

Mildred points out that she and her husband enjoy the chance to meet varied and interesting people through their farm hotel.

For a free brochure, send a stamped, self-returned envelope to: FARM SHOW Followup, Penn. Farm Vacation Association, Dept. of Ag., 2301 N. Cameron, Harrisburg, Penn. 17110-9408.

## "Rock-Proof" Cable Mower

Boyd Ratliff, Edmond, Okla., took the blades off his 5-ft. Bush Hog rotary mower and replaced them with 1/2-in. dia. steel telephone guide wire to cut weeds in rock-infested pastures. He says it works like a giant "weed eater".

Ratliff, who is still testing the idea, says his cable mower "works best in rocky pastures because it will cut weeds without throwing rocks. However, it's somewhat slower than

blades and won't cut heavier brush," he notes.

The cable was cut at about the same length as the blades they replaced. Ratliff recommends welding the ends together so they don't fray. Because the cut is more ragged than with blades, he says his idea should only be used on rough pastures.

Contact: FARM SHOW Followup, Boyd P. Ratliff, P.O. Box 636, Edmond, Okla. 73083.

## Calculate Your Own Electric Bill

"I've cut my electric bills drastically by determining which appliances and motors use too much electricity. Excess consumption often indicates a malfunction," says Jack Dwerlkotte, Marysville, Kan. He's figured out how to calculate his own electric bill by reading his electric meter, which he says is much more accurate than a conventional ammeter.

"It can tell you how many amps an individual motor draws, which tells you if it's overloaded for its horsepower rating. You can learn how much electricity a load of wash takes to dry in an electric dryer. You can determine how many cents per hour per day you're using and from that figure what your total bill will be at the end of the month if usage continues at the same rate," says Dwerlkotte.

"Look at the dial on your electric motor for the "Kh" symbol followed by a small number. Every time the meter wheel goes around, that's how many watts are consumed.

"With everything else shut off, my 5-hp. fan makes the meter go around 49 times a minute. My meter number

reads Kh2 so, multiplying 49 times 2 equals 98 watts per min. To figure watts used per hour, multiply 98 times 60 and get 5,880 watts, or 5.88 kilowatts per hour. Multiply 5.88 times the 7.2 cent electric rate for this area and you get 42 cents per hour usage cost for that 5 hp. motor.

"To figure amperage drawn, divide 5.88 kilowatts by 230 volts to get 25.56 amps line draw. There are 746 watts to the horsepower so 5 hp. times 746 equals 3,730. You divide the number of watts consumed (5,880) by 3,730 and you get a 1.5764 service factor which may or may not indicate that the motor is overloaded.

"I often find that some motors use too much power. One way to test appliances like a deep freeze or refrigerator to see how much electricity they're consuming is to wire an electric clock into the unit and multiply the time it runs times the amount of current it draws using the method explained above."

Contact: FARM SHOW Followup, Jack Dwerlkotte, 604 N. 15, Marysville, Kan. 66508 (ph 913 562-2058).



## Roto-Strip Tillage Solves Trash Problems

"With roto-strip tillage we're eliminating the slow seed start, lower yields and trash toxicity problems with zero tillage, plus reducing the number of trips and soil compaction you get with conventional tillage," reports Mike Columbus, energy specialist for the Ontario Ministry of Agriculture and Food, Delhi, Ontario.

Roto-strip tillage involves roto-tilling a 12-in. wide, 3 to 4-in. deep strip as you plant, just in front of each planter row unit. Roto-stripping can be done in grain fields with the stubble left untouched, or in last year's cornfields by roto-stripping beside the old row.

Columbus' set-up for plowing, planting, and spraying in one pass features four pto-powered roto-tillers mounted on a toolbar and hooked up to the tractor 3-pt. A bridge hitch was put on the conventional 4-row (36 in. spacing) planter so it pulls right behind the tillers. This set-up allows easy unhooking of the planter when using the tillers as cultivators. Columbus added spray tanks and hoses to the tractor to preplant apply Dual

herbicide. Nitrogen could be applied at the same time," he notes.

In 1984, roto-strip corn yielded 137 bu./acre while the test strip of conventionally tilled (plowed and secondary tillage) corn yielded 139 bu./acre. Last year, the roto-strip corn yielded 169 bu./acre while the check plot yielded 165 bu. Columbus attributes the poorer yields in 1984 to heavy rainstorms part-way through the year.

Another advantage cited for roto-strip tilling as opposed to conventional tillage is that more trash is left on the soil to help reduce erosion, and to put more organic matter in the soil. In comparison to zero-tillage, Columbus notes that roto-strip tillage provides better seed/soil contact, more uniform plant growth, less trash in the seeding area and a slightly warmer seedbed. He feels that roto-strip tillage will work in most areas and soils.

Contact: FARM SHOW Followup, Mike Columbus, Ontario Ministry of Agriculture and Food, P.O. Box 186, Delhi, Ont. N4B 2W9 (ph 519 582-1950).