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 1976 Dodge Aspen 225 slant six engine with just 5,000 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 “flywheel” and that’s it.

“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 install a gas tank,” says Stewart. He also notes that rpm’s were speeded up to 2,850 from 2,500 which sped up the knives, reel and auger. “It now outcuts a new 1976 junked New Holland swather. It cuts like a lawn mower,” states Stewart.

Farm Home Becomes Tourist “Hotel”

FARM SHOW Followup, Jack Dverkotte, 604 N. 15, 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 or not. You can determine 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 Dverkotte.

“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,” he notes.

“With everything else shut off, my 5-hp. fan makes the meter go around 49 times a minute. My meter number reads k2h so, multiplying 49 times 2 equals 98 watts per minute. To figure watts used per hour, multiply 98 times 60 and get 5,880 watts, or 5.88 kw 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.

“Estimate amperage drawn, divide 5.88 kw by 230 volts to get 25.36 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 freezer or refrigerator to see how much electricity they use is to plug a clock or electric meter into the appliance and turn the electric clock into the unit and multiply the time it runs times the amount of current it draws using the method explained above.”


Roto-Strip Tillage Solves Trash Problems

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

Columbus’ set-up for plowing, planting, and spraying in one pass features four pt-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 propel apply Dual herbicide. Nitrogen could be applied at the same time,” he notes.

In 1984, roto-tilt pipe 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-tilt 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-tiltillage 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-tiltillage provides better seed/soil contact, more uniform plant growth, less trash in the seeding area and a slightly warmer seedbed. He feels that roto-tiltillage 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., N4H 2W9 (ph 519-582-1950).

“Rock-Proof” Cable Mower

Boyd Ratliff, Edmond, Okla., took the blades off his 5-1/2 Bush Hog rotary mower and replaced them with 1/4-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 back together if you do not use it. 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 630, Edmond, Okla. 73021.