## Money-Saving Repairs & Maintenance Shortcuts

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have to connect cables from the fuel pump on the trailer up to my tractor battery all the time so I installed electrical boxes on each side of the tractor, and wired them up to the tractor's 12-volt system. I also attached a 110-volt, 3-prong male plug to the cord on the 12-volt fuel pump on the trailer. It lets me use the tractor's 12-volt system to operate the pump and eliminates the need to use jumper cables off the battery.

"You can buy these box receptacles at almost any hardware or electrical supply store. I used existing holes in the tractor frame and ran a bolt through the back of the box. I also grounded the receptacle by running another bolt through the tractor frame and attaching a ground wire to it. I installed a box on each side of the tractor so that I can drive the tractor up to either side of the trailer. I made this conversion on my Deere 4430 and 4420 tractors and also installed a box on my Deere 7700 combine for the same purpose.

"I paid about \$1.25 for the box, 50 cents for the receptacle, and \$2.50 for the cover."

Rodman & Co., Inc., 2823 N. San Fernando Blvd., Burbank, Calif. 91504 (ph 800 228-1806 or 818 846-9494; fax 9681):



"Our new 'Nibbler' sheet metal cutting head fits any electric, pneumatic or cordless drill with a speed range of 1,500 to 3,000 rpm's. It cuts steel, brass, copper, aluminum, plastic, and fiberglass with no distortion, jagged edges, or sparks. The unit's main body attaches to the drill chuck and comes with a grip handle on one side and the cutting mechanism - which uses a punch and die on the other side. As the drill turns it operates a mechanism inside the body, which uses the rotary action of the drill to move the punch up and down. The punch rides up and down inside a die that has a gap in it. You grab the handle to guide the gap into the material you want to cut. The design allows the unit to cut corrugated, round or flat stock.

"The punch can't be sharpened due to the unique design of the cutting head. However, you can lengthen the life of the punch by rotating the die to a new position to provide a new cutting edge. Simply loosen a set screw under the die and turn it, then tighten the set screw back up. Four different positions are available.

"There are other sheet metal cutters on the market, but they're self-contained units that are large and cumbersome and hard to maneuver. Our unit keeps the price down by using an existing power source – your drill. Self-contained models are designed so that only one edge of the punch can be used. And they're much more expensive, selling for \$400 to \$800. Our unit sells for \$179.95 plus S&H. Extra punches and dies are available, as is a bench holder bracket that lets you mount the unit on a bench."

Harold Stoudt, Hamburg, Pa.: "Several years ago I completely restored my 1952 Allis Chalmers G tractor and rebuilt the engine. Recently the engine crankshaft broke. The



original Continental engine is no longer made and parts for it are no longer available. I use this tractor a lot to clean my barn and for other jobs, having built a front-end loader for it years ago. I didn't want to give it up so I removed the engine and replaced it with a new Kohler 2-cyl., 25 hp, air-cooled gas engine. It works great.

"To mount the new engine I mounted a 1/2-in. steel plate against the original clutch housing and attached the new engine mounts to it. I had a machine shop make a 1 1/4-in. dia. shaft which has a hub on the end of it that matches up with the tractor's original flywheel and clutch. The engine uses three V-belts to drive this shaft. The original engine ran at 2,300 rpm's, but the new engine runs at 3,600 rpms so I had to carefully calculate the belt ratio to maintain the original drivetrain speed.

"The Kubota engine has a big muffler that's right behind the tractor seat. To keep its heat away from the driver, I mounted a steel shield between it and the seat. The shield mounts right where the original radiator used to be (the air-cooled Kubota engine doesn't need a radiator).

"I paid \$1,576 for the engine which I bought new. The original 4-cycle engine was rated at 19 hp but the 4-cycle Kubota engine is rated at 23 hp. However, the horsepower on the two engines is about the same because newer engines don't have as much torque.

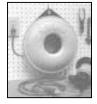
"The original engine weighed 225 lbs. but the Kubota weighed somewhat less than that. I wanted to keep an equal weight with the new engine so when I used two pieces of 8-in. channel iron. The engine mounts on a steel plate that's bolted to an 8-in. channel iron frame. The bolts are welded to the top of the frame and can be adjusted so that the engine can be raised or lowered in order to tighten the V belts. I also mounted a drawbar on the back of the frame.

"I also mounted a belt-driven hydraulic pump behind the shield. The pump is used to operate the loader.

"No plans are available."

BurkTek Inc., Box 10736, Kansas City,

Mo. 64188 (ph 800 700-6784 or 816 468-4650; fax 5744; Website: www.cordpro.com): "Our new 100-ft. extension cord reel is designed with a unique reel divider



that lets you wind up each half separately. That means you don't have to keep the cord reel next to an electrical outlet which is much handier. To install the cord you simply insert the cord end through a hole in the divider and then pull the cord through to half way.

"The unit prevents the cord from becoming loose and tangled and also keeps it clean, neat and ready to use. A reinforced eyelet allows it to be hung from a wall. It can store 100 ft. of 16 ga. cord, 80 ft. of 14 ga. cord, or 50 ft. of 12 ga. cord. Sells for \$10 plus S&H."

## Where To Go To Get Tractor Seats Restored

If you're tired of sitting on that cracked, ripped, uncomfortable old tractor seat, Bill Buchanan and Jonas Martin can help you.

These two craftsmen operate a couple of reupholstery shops that specialize in tractor seats. Buchanan's shop, in Linwood, Ontario, specializes in cloth covered seats. Martin's shop, near Wallenstein, Ontario, specializes in weather-resistant Naugahyde coverings.

The work is a sideline for both men and they sometimes work together on jobs.

Reupholstering tractor seats can be fairly simple but often requires several hours of work

The men have all the forms and patterns to cut new foam padding and coverings for the most popular tractor seats. "One of the easiest and quickest seats to re-cover is the style that Deere used on their 20 through 55 series tractors. We can do those in a short time," says Martin.

He says one of the most difficult seats to re-cover is the one on Case IH Maxxum tractors. "Those are just beginning to come in to us," he notes.

"Some of the older Farmall seats are difficult, too, and they sometimes leave off some of the piping or otherwise simplify a cover to save customers some money. But if you want an exact restoration, they can handle that, too."

Martin says some of the seats that come in from older equipment require metal work

before new cushions and covers can be put into place. "We can do some of that here, but more extensive metal work we send out to another shop," he says.

While they specialize in tractor seats, Buchanan and Martin can work on just about any type of automotive seat, including those from cars, trucks, construction and earthmoving equipment, motorcycles and even bicycles.

"I suppose if someone wanted furniture, antiques, or a car interior reupholstered, we could probably do that, too," Martin notes.

For tractor seats, prices range from \$65 to \$95 (Canadian), plus shipping both ways. Some, however, can run closer to \$200. And once in a while, when metal work is extensive, the total bill can come out even higher. "We have to pay by the hour for welding and metalwork," Martin explains.

He says a small percentage of seats that come in for repairs just can't be fixed. "Sometimes after-market seats are available for less money, and we encourage people to take a look at those. But most of the time, the covers aren't cold-crack resistant like ours are."

Contact: FARM SHOW Followup, Jonas W. Martin, R.R. 1, No. 7595, Wallenstein, Ontario, Canada N0B 2S0 (ph 519 698-9970) or Bill Buchanan, 36 Isabel St., Linwood, Ontario, Canada N0B 2A0 (ph 519 698-9834 please don't call on Sunday).



## Oil Cooler Boosts Tractor's Hydraulic Capacities

If you've got a job to do that overheats your hydraulic system, you'll be interested in this "cooler" built by Alberta farmer Raymond Hart.

He uses a Case 2470 4-WD tractor to pull a chain-type earth mover fitted with an "endless" chain loader. It'll handle up to 8 yards of dirt at a time and is operated by tractor hydraulics.

"This tractor's hydraulics were originally designed to handle just the power steering and front-end loader. It did not have enough capacity to run the earth mover," says Hart. "So I bought a large hydraulic pump and mounted it on front of the tractor's diesel engine and installed a 30-gal. reservoir behind the cab. Then a new problem developed.

"The hydraulic oil was running too hot. The hydraulic motor on the earthmover would get extremely hot and smoke.

"A friend of mine suggested I mount a 45-gal. drum of water on the tractor drawbar and coil up about 60 ft. of 1/2-in. dia. copper tubing inside the barrel. I attached the line coming from the hydraulic pump to the copper tubing and then hooked the line to the

30-gal. reservoir to the output from the barrel.

"Before I installed the cooler, I could only run for 3/4 of an hour and had to shut down for four hours before it was safe to go again. Since installing the cooler, I can run continuously 12 to 15 hrs. a day. I've loaded about 40,000 yards of dirt in the past two years since making the change.

"To install the hydraulic pump on the front of the tractor, I had to alter the radiator. I needed to make room for a driveshaft and universal joint which run to the pump, which is mounted ahead of the radiator.

"The water barrel holds 40 gal. of water and had to be mounted very firmly so it would stay in place on rough ground. The barrel sits on top of a large steel pulley with four hold-down bolts. It never moves.

"The final modification I made was installing a 3-speed transmission off a 1-ton Chevy truck behind the hydraulic motor on the earth mover. The output shaft connects to the drive shaft on the chain. It was originally pto-powered."

Contact: FARM SHOW Followup, Raymond H. Hart, Box 578, Claresholm, Alberta TOL 0TO Canada.