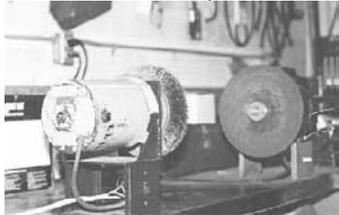


30). As the story explained, the electric motors from worn out pumps can be converted into shop bench grinders and cutters. You simply remove the electric motor from the pump, saving the pump's impeller shaft to install on the motor's output shaft. Attach



an arbor and washers to the threaded end of the shaft so you can fit a grinding wheel or abrasive wheel on the end."

"I made the bench grinder using the electric motor from an old sewage pump, mounting the abrasive cutoff wheel on a stand. I made the brush wheel using the motor from an old water pressure pump."

Doug Clark, Goderich, Ontario: "In Vol. 22, No. 1, Dan Petersen of Curtice, Ohio, asks for help to get the battery charging on his Massey-Ferguson 180 tractor. I assume that it's wired correctly, has an old-style Delco alternator, and an external voltage regulator. Sounds like a problem that took me a long time to solve on my older MF tractors.

"The voltage regulator is bolted to a base that mounts on rubber pads (to absorb vibration). The regulator is grounded by a wire running from the base plate to the ground terminal on the alternator. Occasionally the alternator loses its ground (which should be maintained through its mounting bolts) and this breaks the ground contact to the regulator base. Mr. Petersen can check this by using a test light from a good ground to the alternator frame (with the motor running). If the alternator has lost ground contact, he should run a cheater wire from the ground terminal to a good ground on the motor, to ground both the alternator and the voltage regulator. Hopefully this will solve the problem.

"If grounding the alternator and regulator does not solve Petersen's charging problems, he'll have to check the current-carrying capacity on all the wires between the starter solenoid-regulator-ammeter-alternator. He may have a bad wire terminal, a blown fuse, or a broken wire. If he thinks it worthwhile,

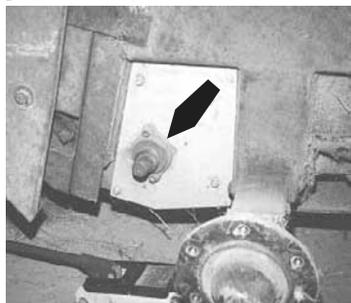
he can call me at 519 524-1582 late at night.

"With respect to maintenance tips, I've ruined about a dozen oil filter wrenches, including some expensive ones - over the years. I now make my own oil filter wrenches from a 2-ft. length of baler twine and a pair of pliers. Simply knot the twine into a loop, slip it over the top of the filter, grab the knotted end in the pliers, and wrap it up tight. Then use the pliers as a lever to loosen the filter. If the twine breaks, use a piece twice as long and double it up. I've never had a filter that I couldn't loosen with my twine 'wrench'."

Ken Dawson, Wheatley, Ontario: "I rigged up a buzzer that sounds whenever I turn off my Allis-Chalmers 185 diesel tractor but forget to remove the key. It has saved me from having a dead battery more than once. On older tractors like mine, you have to turn the key, then pull out a rod that controls the injector pump and push a button to start the tractor. However, if I push the rod back to turn off the injection pump and forget to turn off the key, I'll end up with a dead battery. The buzzer I used is off an old school bus and is designed to be hooked up to the oil light - when I shut off the engine, the oil light goes off, breaking the ground which causes the buzzer to go off."

Melvin Carlson, Buffalo, Kan.: "You can convert your A.C. welder to D.C. and enjoy easier welding, smoother welds, a bigger selection of welding rods, less splatter, and other advantages. I have several sets of Bridge diodes mounted on a panel that can be set on top of the welder or hung on its side or on a wall. Some welders have room on the inside. Sells for \$125 plus S&H. The same unit can be mounted in a steel frame that rides on caster wheels, allowing you to set the welder on top of it. Sells for \$225 plus S&H."

Sandy Jackson, Etowah, Tenn.: "I had a problem with my New Idea 456 round baler



Floyd Van Slyke, Red Deer, Alberta: Floyd has a 1983 International 5488 tractor that he equips with duals for pulling a field cultivator and harrows in spring.

The problem, Floyd says, is that the 20.8 by 38-in rear duals are difficult to remove with a 12-point socket wrench.

"It was a two-man job until I came up with this impact wrench-powered device that lets me take them off and put them on by myself. It consists of two long bolts that bolt to the wheel itself and extend out beyond the end

of the axle. A head, made of two short pieces of pipe split down the middle lengthwise, goes over the end of the axle. A crossmember runs in line with the end of the axle on the bolts. At the center, there's a threaded nut, and a 3/4-in. dia. piece of redi rod which serves as a driver. A bolt welded onto the redi rod lines up with the axle to slide the dual on or off depending on the direction you run the impact wrench, which fits over the bolt.

"It makes effortless work of an otherwise big job. Cost only about \$20 to make."

breaking bearings and shafts on the main roller at the bottom. The problem was that the 1 to 1 1/2-in. shaft on the right side (from rear) wasn't long enough. The sheet metal would flex under load and allow the bearing (or bearing shaft) to move to the left out of the bearing holder. I broke 2 or 3 shafts and bearings.

"I solved the problem by making the shaft 4 to 5 in. longer and adding an extra bearing. I installed a plate on the outside of the baler, then transferred the bolt pattern for the bearing holder to the plate and countersunk the bolt heads. Then I added a flange bearing with a bearing lock and set screw. The lock keeps the shaft from moving from side to side while the plate makes the assembly more rigid. Since the shaft was made longer, the sheet metal on the side of the baler had to be slotted vertically, the same as on the other (drive) side. This makes it easy to install with a floor jack.

"I also found out that the belts on the newer 486 balers are the same length as on the older models. I wasn't satisfied with the narrow belts on my old model so I ordered some 11-in. wide belts for the new baler. To install them I removed the bar with the dividers, cut

the dividers off, and welded enough back to locate the wider belts. It now works much better and should last longer."

Robert J. Niederkorn, Chaffee, Mo.: Robert has a fabulous idea for disabled or inexperienced combine operators - foot operated header controls.

"I've been using them since I lost my right arm in a farm accident, and this idea works on any combine with electric-over-hydraulic header controls. I use two push-button starter switches off old Farmall H tractors, wiring them into the toggle switch on the hydrostatic control that raises and lowers the header. One hot and one cold wire lead to each switch, which can be located right beside the foot clutch or on the right side of the brakes. You can install the entire system, which includes two angle iron mounting brackets that bolt to the floor, in 30 minutes or less. Doesn't cost more than \$25 and is a tremendous help."

Albert Patterson, Head Of Millstream, New Brunswick: "Weld pieces of old truck springs onto worn plow shares using 7018 rod. They'll last a lot longer than the original material."

Chipping Hammer Made From Old File

By Curtis Wold

Don't throw out your old, dull files. They can be used to make a dandy chipping hammer. I like them much better than the bought ones because they have a long, thin point that can be used to chip out flux in tight places.

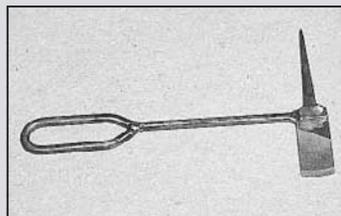
The quality of steel used in a file is good and when the tang is hardened and tempered, it'll hold its shape and stay sharp.

The hammer has a 9-in. long handle and a 5-in. long head. To cut the file, grind a groove across the file and break it off. The handle is made from 5/16-in. mild steel rod.

To make the tang of the file longer and thinner, heat it red and forge it out.

To weld the handle to the hammer head, preheat the head until it is just too hot to touch. Make the weld with low hydrogen or stainless steel electrode. You can use mild steel electrode if the head is heated to 500 degrees F.

To make a good chipping hammer,



harden and temper the tang as follows:

- Heat the complete tang cherry red.
- Quench one inch of the end in water.
- Remove from the water and quickly polish the hardened end.
- Watch the temper colors move from the heated part of the tang down to the point. Quench the complete hammer head in the water when the brownish straw color reaches the tip.

The big end of the hammer is already hard, so it can be used as is.

Portable Light Stand Made From Car Spare Tire

Leonard Seltzer, Manhattan, Ill., made a low-cost portable light stand using a spare donut-type car tire as the base.

The tire supports an 8-ft. length of 1 3/4-in. outside diameter electrical conduit pipe equipped with a pair of 90-watt flood lamps on top. Wire runs from the flood lamps inside the conduit and down to a switch and electric plug-in box mounted at the bottom of the conduit. To move the unit, Seltzer simply grabs the light pole and rolls the tire along on the ground.

To make the base he cut a round 5/8-in. thick steel plate, drilled three holes into it to match three of the five wheel rim holes, and bolted the plate to the rim. He welded the bottom end of a 22-in. length of 2-in. wide channel iron to the plate. The electrical conduit fits inside the channel iron and is secured by a pair of U clamps. The switchbox is secured to the back side of the

channel iron and between the clamps.

To mount the flood lamps he put one end of the conduit in a vise, crunched it flat, then bolted a hex electrical box on top of it.

Contact: FARM SHOW Followup, Leonard Seltzer, 16040 W. Elwood-Manhattan Rd., Manhattan, Ill. 60442 (ph 815 478-3578).

