Money-Saving Repairs & Maintenance Shortcuts



Home-Built, Electric-Powered Sheet Metal Roller

"We saved a lot of money by building our own portable, electric-powered sheet metal roller that works as well or better than a commercial unit," says Joel Waldner, Lethbridge, Alberta.

The unit is equipped with three 8-in. dia., 50-in. long steel rollers – two at the bottom that are chain-driven by a 2 hp electric motor, and one on top that can be adjusted up or down by turning a handle attached to a threaded rod at either end of the unit. The motor is equipped with a forward and reverse switch, allowing the two bottom rollers to be reversed. Three shorter rollers extend out one side of the unit. The two bottom ones

are grooved which makes it easy to bend steel rods into a circle. The short rollers can be slipped on and off the shafts that support each roller.

The metal bender mounts on four caster wheels so it can be rolled around the shop.

"It works great for bending panels of 48in. wide sheet metal," says Waldner. "To make the rollers we bought 3 1/2-in. dia. solid steel shafts and lathed them down to a 3-in. diameter. We used sq. tubing to make the frame."

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"Lazy Susan" Iron Rack

"My 'Lazy Susan' iron rack is a real time and space saver in our welding shop," says Richard Imhof, Ruthton, Minn., who uses the rack to store lengths of angle iron and steel pipe up to 10 ft. long. The unit consists of a round rotating base divided into four sections. Imhof can access any piece of steel by simply swiveling the rack.

To make the rack he used the rear wheel hub and axle from a Chevy 3/4-ton pickup and the flywheel off a Gehl silage chopper. He cut off the axle about 1 in. from the hub and welded it to a 2-ft. sq., 3/8-in. thick steel plate that bolts to the floor. Then he bolted the flywheel to the hub, using 4 bolts. Then he bolted the axle upside down to the flywheel. He placed a long steel pipe over the axle and welded 12-ga. sheet metal uprights from the flywheel to the pipe to divide the rack into six sections. He also used bent steel rod to make a circular top support and short lengths of steel rod to make a middle support.

"It works great for storing scrap steel less



than 10 ft. long. I used to throw such pieces up against a corner of the building and ended up with such a mess that I often couldn't get at the piece I wanted. Now to get the piece of steel I want I just swivel the rack."

Imhof used the same type of swivel base to build a 6-ft. high, 3-ft. sq. "honeycomb" storage rack with 8 by 6-in. compartments. There are four compartments per row on each

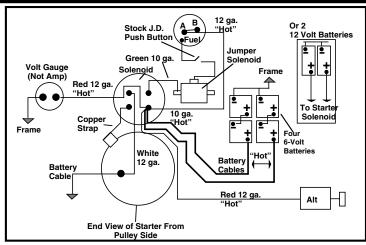


Diagram shows 12-volt wiring for Deere 720, 730, 3010, 4010, 3020, and 4020 diesels.

More On Starting Older Deere Diesels

"I read with interest the story on starter problems with Deere 2-cyl. diesels in the last issue of FARM SHOW," says Mike Hanley, Cashton, Wis.

"We have two Deere 730 diesels. The problem I had was with the internal ground on the 24-volt system. Any nick in any wiring would fry the whole system.

"The guy in your story was offering an addon starter kit for \$835 that converted the tractors to 12-volt. I had my 24-volt starters rebuilt to 12 volt at a cost of \$270 each and added rebuilt GM 12-volt alternators wired for single wire for \$65 each.

"As I understand it, there's a Deere 12-volt starter built for a piece of industrial equipment which has an armature and fields that fit into the late style starter motor casing of the 730. Deere had two starters for the 720 and 730. This conversion only works for the later style (JD#11073R – Delco Remy #1113830).

"The key is how to wire it. One of my 730's still has the four 6-volt batteries. The other has two 12-volt batteries. I wired in a "jumper

solenoid" at the main solenoid. It came off an old Ford truck but a new one costs just \$5. By doing this, the hot juice goes the shortest way possible from batteries to starter instead of batteries to dash to starter.

"The 24-volt system has two battery cables running from battery to starter. One's hot, the other is the internal ground. On the 12-volt system you leave both cables but wire them both hot and add a short ground to the frame. The two cables double the carrying capacity from batteries to starter.

"The only problem with this system is that if the tractor is laid up for a month or so, you should disconnect the ground at the batteries as the single wire alternator system will drain the batteries over time.

"I worked with J.G. Rebuilder & Supply, 1039 Czech Ave., Friendship, Wis. 53934 (ph 608 339-6580). They did the rebuilding on the starters."

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Homemade "Shovel Rack" Keeps Tillage Shovels Organized

"Our homemade 'shovel racks' work great to store shovels off field cultivators and plows. The racks keep the shovels up off the floor so they stay clean and out of the way," says Joel Waldner, Lethbridge, Alberta.

Waldner is a member of a Hutterite colony with a large farm operation. Since they farm several thousand acres they go through a lot of shovels, buying about 600 new ones every year. Each rack can store up to 150 shovels so they made four of the racks.

Each 6 1/2-ft. high rack consists of a drill stem pipe welded onto a disc blade that serves as the base. A series of 16-in. long, 3/4-in. dia. rods spaced 1 ft. apart are welded to the sides of the pipe. The shovels simply slip over the rods.

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side of the rack. The rows are staggered, allowing the "north-south" and "east-west" compartments to go all the way through on alternating levels. "I've got at least three tons of iron stored in this rack, including about

1,000 lbs. of welding rods inside boxes that I keep on top of the rack," says Imhof.

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