

Repairs & Maintenance Shortcuts

(Continued from previous page)

meter to start the recharging process. The 70-amp alternator has a built-in regulator that limits output to 30 amps. It takes only about 10 minutes to start up a dead battery. The centrifugal clutch makes the engine easy to start."

Alan MacLean, Kingston, Ontario: "Large holes can be bored on a lathe without having to use a time-consuming face plate mounting. A 1 1/2-in. long piece of pipe, faced square, and with an inside diameter slightly larger than the outside diameter of the desired hole, is accurately positioned on the plate. Attach to the plate with 3 1/2-in. long welds positioned 120 degrees apart. Put the pipe in a 3-jaw universal chuck and bore the hole. Use a disc grinder to carefully remove the tach welds."

Lane Damberger, Box 133, Donalda, Alberta, Canada T0B 1H0 (ph 403 883-2362 or 2400): "I work for an oilfield manufacturing plant and made a small motorized cutting machine which I use on my job. I use it every day. It lets me make perfect cuts in carbon steel using an acetylene torch or stain-



less steel torch equipped with a plasma cutter. It'll cut straight or beveled. I've used it to cut steel from 1/8 to 4 in. thick with no problems as long as the proper tip and pressure settings are used. I call it the RD100 Tracmac. I've got plans and a video tape I'd be willing to sell if there's interest."

Herb Klassen, Kendall, Kan.: "When I built my machine shed and shop I included an oil-changing pit in the floor at one corner, complete with electric outlets in the walls. I just drive the vehicle over it. Lets me work on the underside of vehicles without having to lay on my back. It's very handy."

Larry Wiebe, Whitewater, Kan.: "I had problems with the 454 cu. in. engine overheating on my 1977 Chevrolet pickup. The problem was that hot water that comes off the heater was being pumped back into the cool water side of the radiator. I put a shut-off on the heater hose to prevent hot water from going into the cool water side of the radiator. I cut the heater hose and mounted a clamp on each side of it."

Alan Russell, Eckville, Alberta: "I removed the generator on my Deere 4010 tractor and replaced it with an alternator. However, when all the tractor lights were on, the alternator stator got so hot that it would 'spit' whenever I touched it with a wet finger. I checked with those 'in the know' to confirm that my wiring was correct. Then the problem became clear and obvious - the alternator fan was mounted in front of the tractor's radiator fan, which kept the alternator fan from pulling air forward toward the tractor radiator."

"Against advise I was given by 'text book' mechanics, I removed the alternator fan and let the radiator fan cool the alternator. Now the alternator runs cool with no problems at all."

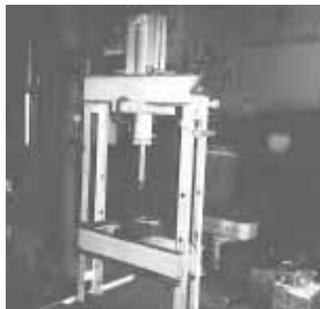
"How many tractor-mounted alternators out there are positioned next to the radiator fan so they can't cool down properly?"

Bert Rosenbalm, Luttrell, Tenn.: "When putting a new metal roof on a building I clamp a vise grip locking pliers onto one end of each sheet of tin, then tie a rope onto the pliers. One person is on top of the building and pulls up on the rope while another person on the ground clamps the pliers to the tin. Lets you pull up the sheets one at a time all the way to the top of the building. The person on the ground has to watch as the tin goes up because the vise grips could get hung up on something and come unlatched, allowing the tin to fall to the ground."

"Here's an easy way to unload round bales from a pickup. Put a rope with a loop in it around the bottom of the bale, about knee-high, and tie the other end to a tractor, fence post, building, tree, or anything solid. Then just pull the pickup forward to unload the bale. My neighbor, who doesn't own a tractor, has used this idea for many years."

Henry E. Perrin, Barre, Vt.: Regarding the story on a hammer with a magnetized nail holding slot at the top that makes it easy to start nails (Vol. 20, No. 3), it sounds like someone is reinventing the wheel. Back in the 1940's my father had a carpenter's hammer that could hold nails to start them. It had a slot in the head with a pair of spring-loaded balls that held the nail."

Terry Theriksen, Comfrey, Minn.: "I saved money by building my own open bed press which I use for general straightening work. It's equipped with a 5-in. dia., 30-in.



long cylinder that I can move on a carriage from side to side, allowing me to use different size dies and pushers for pushing out bearings, flat stock, etc. I use a selector valve to switch between the press brake and open bed press."



"I used flat stock and steel rods to make a high capacity air hose reel for 1/2 in. dia. or larger hoses. The reel mounts on a swivel made from stainless steel components and turns by grabbing a knob mounted on a handle. I sell them for \$90 without the hose."

Cary Urka, Brethren, Mich.: "As a farmer and multi-trade mechanic I do a lot of welding, wiring, and piping work. To make it easier to carry my tools I converted a Rubbermaid basket - originally designed to



hold kitchen cleaning supplies - into a toolbox. The 2-ft. long, 15-in. wide basket comes with a compartment on each side and a handle in the middle. One problem was that when I laid the tools flat in the compartments everything was cluttered and I couldn't find the tool I needed."

"To solve the problem I drilled small holes into the handle to hold screwdrivers and pliers. I also riveted lengths of conduit and flat metal into the compartments to make a lot of small pockets that keep various tools and accessories separate. There's even a pocket for my notebook. I keep a utility knife in a pocket that was already in the handle. I also pop riveted a metal tray on front of the basket that serves as a "catchall" for screws, nuts, wire connectors, etc. Everything stays organized and all the tools are upright which makes them easy to see. I carry the toolbox with me in my pickup. I also screwed a length of conduit onto the dash in order to make a handy flashlight holder."

"I screwed a Rubbermaid paper towel rack at the back of the pickup cab, just above



the rear window on the passenger side. It's handy to have a clean towel whenever you need one."

"I cut off part of an anti-freeze jug and screwed it onto the liner on the side of my pickup bed. It's really handy for keeping spray cans of WD-40 lubricating oil. I screwed metal straps onto the liner next to the jug where I keep a crowbar and iron worker sleeve."



"A set of mobile home steps makes it easy for me to access truck engines. I use a 2-wheel hand cart to move the steps."

Skipper Dodd, Sunflower, Miss.: "If you have a worn-out bearing with a race that's hard to drive out, here's an easy way to remove the race. Weld a bead at two places on opposite sides of the race. The beads should be 1 to 3 in. depending on the size of the race. As the welded beads cool they contract the race to drive it out."

Eugene M. Banning, Columbia City, Ind.: "I converted the narrow front end on my Oliver 1650 to a wide front by fitting it



with the steering axle off an old Massey Ferguson 205 combine. It worked well and cost very little since the combine was junked. The tractor's front pedestal bolts onto the tractor frame and was equipped with a power steering cylinder that was connected to the front wheels by a steel shaft. I cut off the part of the pedestal containing the shaft and bolted and welded an 8-in. sq., 1 1/4-in. thick steel plate onto the bottom side. To this plate I bolted and welded a pair of 8-in. wide, 9 1/2-in. long, 1-in. thick steel plates and drilled a 1 1/4-in. dia. hole to make room for the front axle bolt."

"I disconnected the hydraulic hoses that were originally hooked up to the power steer-



ing cylinder and hooked them up to the combine's power steering cylinder, adding 14 in. of 3/8-in. dia. hose. I used the axle from a Massey-Ferguson 205 but I think any combine model would work. I reinforced the combine axle, but it probably wasn't necessary."

"I use the tractor's front wheels instead of the combine's steering wheels because the tractor tires were wider and provided more flotation. The Oliver tractor is powered by a turbocharged diesel engine which makes the front end heavy."

Jack Griffith, Arlington, Texas: "I needed an extension cord for my 50-amp, 220-volt welder. I knew the thick cable would



be unwieldy. To make it easy to handle, I bought a waterhose reel at the local Walmart and threw away all of the hose connection fittings. It even has wheels for rolling in and out of the garage."