

Mark Crampton, Staples, Minn.: "I was installing a clothesline and didn't want to spend the time to install braces to make the post level. So I got the idea of using a step ladder to brace the posts and make them plumb. Simple, easy and worked great."

Gordon Betts, WCT Magazine: Professional pest animal trapper Gordon recently told a story in WCT Magazine about a time he forgot to tie down an extension ladder on top of his truck and it slid off on the freeway. Fortunately, no one was hurt but it caused him to remember an idea he'd once read about using good quality dog collars to tie ladders to roof racks. He leaves the heavy-duty nylon collars on the ladders now to make sure they always get anchored down tightly, along with bungee cords.

Rex Gogerty, Hubbard, Iowa: "We extend the life of wood posts by fastening light in to the top with large-head nails, bending the tin over the edges. Reduces rotting from snow and rain. Just takes minutes to do."



Ben Haldeman, Greencastle, Penn.: "In the last issue, reader Bob Lassila's problem with his Morris 8900 cultivator – his chisel plow shanks were breaking – could be solved by shot-peening. Metal surfaces have small cracks which turn into fractures when stressed. Shot-peening compresses the surface so that stresses are transferred deeper into the metal where there are no imperfections. In this way, parts can be strengthened without a design change, a material change, or an increase of material. Pangborn Corp. makes shot-peening machines (www.pangborn.com)."



Loren Plett, Turpin, Okla.: "Ever try to drain a Honda engine with a pump mounted on it and not make a big oil spill? I used duct tape to make a channel for the oil to flow off to the side. Makes it easy to direct the oil where I want it to go and there's not much to clean up afterwards.

"I've also used duct tape to change oil in the front hubs on a Cat 140 M3 grader. Lets me change the oil without getting the entire hub coated with oil.

"I've been doing this with duct tape on several machines where some engineer didn't think to create a proper way to drain oil."

## A Simpler Way To Heat A Shop Or Barn

Hydronics simply means pumping heated water through tubes in a floor to warm a building. When compared to hydronic systems currently on the market, the Hunt Utilities Group says it has designed a much simpler system by using an on-demand water heater.

In a typical hydronic system, it's a complicated closed-loop system pumping heated water through the loops in the floor. The Hunt system includes an accessible 10-gallon tank that contains submersible, variable-speed pumps inside the tank.

"The pumps have flexible silicone rubber tubing between them and the plastic pipes that make loops in the floor," says Ryan Hunt, president of Hunt Utilities Group. "The tubes on the pumps plug right onto the plastic pipes in the floor, and you put a little clamp on the junction, and that's all the plumbing there is with our system."

The number of pumps in each tank depends on how much floor a customer needs to heat. "We include a control board in the system that takes input from up to four different thermostats," Hunt says. "You can heat up to four zones in one location, and they can all be heated to different temperatures."

On a typical hydronic system, Hunt says customers have to add a pressure tank, something to take the bubbles out, a fill valve, and an overpressure valve in case the water expands too much.

"You would also need the right drain valves," he said. "Also, that system might need different pumps for different zones. There's a lot of components we don't need with our system."

Hunt says the company has installed several systems in farm shops across Minn. The systems are also in buildings ranging from garages to 5,000-sq. ft. workshops.



HUG Hydronics system can be adapted to different sizes and utilize multiple thermostats and zones.

"If you have more than 5,000 sq. ft., you might want two units to efficiently heat that much room," Hunt said.

"The important thing to note for farmers is we can integrate three heat sources simultaneously." Hunt said. "If they have a corn burner, biomass burner, or wood stove, we can do that. Plus, we can do a propane heater or an electric backup.

"This is our first year offering our HUG Hydronics System," he said. "We've been working on this for five years, starting when my dad put this in his house."

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Have you come up with any unusual money-saving repair methods for fixing farm equipment? What maintenance shortcuts have you found? Have you had any equipment recalled by the factory? Name a particularly tough mechanical problem you've had with a piece of equipment and how you solved it.

These are a few of the questions we asked randomly selected FARM SHOW readers. If you have a repair tip, maintenance shortcut, or other mechanical experience you'd like to share, send details to: FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 or email us at: editor@farmshow.com.

Mark Newhall, Managing Editor

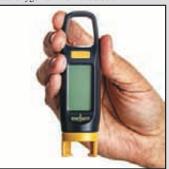
Albert Schoby, Dublin, Ohio: "I use white paint to mark the front wheel hubs on my older 4-WD so I can tell at a glance if the hubs are locked or unlocked."

**Donald J. O'Hara, Auburn, N.Y.:** "When the tines on my roto-tiller wore out, I cut pieces out of worn lawn mower blades and welded them onto the tines to make new ends. They wear as good or better than new."

Randall Gay, Garfield, Ga.: "I had generator problems on my 1965 Ford 4000. I replaced it with a one-wire alternator conversion kit from Amazon. Solved the problem

"To get hot water in my shop, I replaced the 240-volt elements in an old water heater from the house. I rewired it to 110-volt elements."

Steve Thompson, Progressive Farmer Magazine: "Each time I finish with my fertilizer spreader, I wash it down with water and, after it dries, I spray a mix of 4-to-1 diesel fuel and motor oil over all steel parts, including the frame. This blend, plus greasing all fittings, seems to work well to seal oxygen off from the steel."



Benzomatic at www.Amazon.com: To avoid running out of propane when using a camp stove or small propane tank, the Bernzomatic Digital Fuel Gauge works with most 14 and 16 oz. canisters and gives a digial read on how much fuel is left. It has an LED display, and is available online or at outodoor stores for around \$12.

Gary Ahlbrecht, Brownton, Minn.: "When storing coolers or insulated boxes, to hold the cover open slightly and prevent mold, I cut 2 to 3-in. strips from foam pipe insulation strips. I use the ones for 3/4-in. copper pipe. I use two spaced evenly on the edge to hold the cover open about 1/2-in. or

so to prevent mold and let the air flow

"I also use a remote controlled plug-in made for outdoor christmas lights for my diesel-powered lawn tractor that I use for snow blowing. I can turn the engine block heater on an hour or so before I go out to blow snow. It saves making another trip outside in the cold. I've also used this for my pickup engine heater."



Family Handyman Magazine: To mark a straight line around a pipe for cutting, wrap a flat piece of cardboard around it and trace the edge. An empty cereal box works well.



A large carabiner makes a good caddy to hold a set of wrenches together in a toolbox. Individual wrenches are easy to remove as peeded.



An upgrade to the traditional clip on a tape measure is to remove the clip from the tape measure and replace it with a round magnet. You can then put the clip on your jeans or belt stick the tape to it with the magnet.