

**John Grady, Northern Ohio Truck Center, Inc., Norwalk, Ohio** ph 419 668-4826 or cell ph 419 577-1408: He offers 12-volt gear reduction starters for Deere 70, 720, and 730 diesel 2-cyl. tractors as well as Deere 80, 820, and 830 models. Prices start at \$995 to replace a pony start motor. A 12-volt starter for an electric start engine starts at \$795. The customer supplies the starter; the flange and gear sell for \$399 freight included.

The starters are a 12-volt planetary gear reduction starter. It will bolt up to the original starter bracket with no modifications needed. Reliable and powerful, the starter has no problem turning over in cold weather.

**Doug Clark, Ilderton, Ontario:** "A reader in your last issue said his Kubota L3130 diesel would not start on a real cold day if it had already been warmed up and then shut off – unless he leaves it long enough for the entire tractor to get cold again.

"I had a similar problem with a Deere tractor and here's what I finally figured out. I'm not too familiar with Kubotas but I assume it has glow plugs and a thermostat in a housing above the head of the motor and just below are two wires coming out of the housing. One wire will go to a temperature gauge on the dash, and the other to the front glow plug on the engine.

"So try this: First, start up the tractor on a real cold day and run it long enough to heat up to operating temperature. Then shut it off and wait a couple minutes before trying to start it. If it doesn't start, reach in under the hood and pull the wire off the sensor plug that leads to the glow plugs. Then try to start the engine and it likely will start right up.

"Here's why this solves the problem. The water below the thermostat stays warm so when you turn the key back on, the sensor below the thermostat senses the heat and assumes the tractor will start easily, therefore it cuts the power to the glow plugs. When you start to crank the engine, it draws in the very cold air so the engine can't start without help from the glow plugs. By disconnecting the wire to the sensor, the glow plugs will heat up normally. Once the engine starts, you can

plug the wire back in.

"It's likely you can fix the problem permanently by replacing the sensor but if this only happens occasionally, you can just disconnect that wire manually when necessary and live with it."

**Paint Can Idea:** Here's an idea we spotted online recently. To wipe excess paint off your brush without filling the lip of the can, stretch a large rubber band – or a piece of narrow tape – across the middle of the can opening. When you're done for the day, just peel it off and throw it away.



**Milton T. Webster, Taylor, Texas:** "I could write a book about problems with starting air-cooled engines after storing them with old fuel. I was a small engine specialist for 30 years after retiring from the Air Force and I tell everyone whose equipment I work on, 'Don't ever leave old fuel in the carburetor when storing. Run it dry and drain the carb bowl. This will solve many of the problems on air-cooled engines. Also, don't use more than 89 octane gas in 2-stroke engines.'"

**Frank Schafer, River Falls, Wis.:** "Romex electrical wire works great to tie up anything that needs to be tied down. I use it to tie livestock gates and panels together when moving them, among many other things. It holds its shape and is easy to use. Can be used over and over again. I have pieces of romex hanging all around my place so it's available when needed. I use 14-2 wire most of the time because it's the easiest to work with, but 12-2 wire is stronger."

**David Furnas, Louisville, Ky.:** "I recommend using the new T25 star screws that work great with an impact tool when working with wood. Lowes and other big hardware stores sell them."

**Stephen Zonies, DMD, Fayston, Vt.:** "There's been a lot of hullabaloo in recent years about poorly designed fuel cans with only one outlet. Even as a kid I knew you

**FARM SHOW**

## Money-Saving Repairs & Maintenance Shortcuts

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, email us at: editor@farmshow.com, or text to ph 952 465-5019.

Mark Newhall, Editor



need two holes in a container to empty it properly.

"Since I'm a dentist and know how to drill holes, I installed electrical finials as vents in my fuel cans by drilling holes, tapering the finials, and cutting 'anti-rotational' slots in them so they won't come loose. Then I used JB Weld to hold the parts in place. You can cover the vents with wire nuts but, being a dentist, I used a toothpaste tube cap."

**Bud N. Vogelzang, Sioux Center, Iowa:** "I took the hay carrier railing out of the hay mow in our old dairy barn and mounted it on the ceiling of my new shop and use it to move things. Very handy.

"I made a guard to go over the cutting edge on my skid loader so I don't dig up the



crushed rock in our yard and driveway when clearing snow. I took a 1 1/2-in. dia. pipe and cut a 1/2-in. dia. opening in the side with my chop saw and welded some strips of strap iron onto it that bolt to the bucket. The pipe simply slips over the edge. It's easy to put on and take off each year."

**Stephen Zonies, Fayston, Vt.:** "The gearbox on my bushhog mower started leaking gear oil. It would have been an expensive repair if I had tried to fix it. Instead, I just filled the gearbox with high-quality grease. That solved the problem.

"I had a rusty bumper that wouldn't pass Vermont's vehicle inspection. Instead of buying an expensive replacement bumper, I filled it in with body putty and hardware cloth. The repair has lasted for years."

**Dennis Howell, Vernon Center, Minn.:** "I had a problem that many people with grain bins experience. There's a hole in the ground where the unload auger comes out at the base

of the bin to hold the load-out auger's hopper. The problem is that during the winter, due to freezing and thawing, that hole often fills up with ice. When you want to load out grain from the bin, you end up chopping ice out of the hole with an ax. I recently solved the problem more easily by simply laying an old fashioned stock tank heater on top of the ice for a day or two. It melts the ice away with no effort on my part."

**Robin Burkey, Kingsland, Texas:**

"When the back door latch won't work on your 1991-2010 Ford E-Series van, it's likely because the plastic end on the activating cable has broken off. Rather than buy a whole new assembly from Ford for \$100 or more, just buy a split-bolt cable adjuster available at bike shops for adjusting brakes. It fits right over the end and won't break off."



Spring-loaded drill bit is JB Welded to arbor inside hole saw.



## Hole Saw Fitted With Spring-Loaded Drill Bit

"I like to build purple martin birdhouses and recently came up with a time-saving idea – a spring-loaded drill bit – to use on my hole saw," says Larry Symynuk, Denholm, Sask.

He uses the hole saw to cut out 10 to 12 2-in. dia. holes in each house, but says removing all the wooden "donuts" from the hole saw after each cut became a tiresome job.

"Every time I drilled a hole I had to use a screwdriver to pry the wood out. So I used JB Weld to attach a spring to the arbor inside the hole saw. Now every time I release the pressure on the drill press, the spring automatically pushes the wooden spool out," says Symynuk.

Contact: FARM SHOW Followup, Larry Symynuk, Box 5, Denholm, Sask. Canada S0M 0R0 (ph 306 445- 4817; larsym01@sasktel.net).



Releasing pressure on drill press causes spring to automatically push donut out.