Bud Falkenstein, Mono, Ontario: "To add oil to mowers, rototillers, generators and other small engines, just pour the oil into a squeeze ketchup bottle. The oil won't flow until you squeeze the bottle, which means no more oil spills."

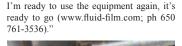
Darrell Cooper, Chillicothe, Mo.: "Here's an easy way to repair a rusted area on a grain bin - use foam insulation in a can to seal it. We've used this idea on bins that rusted down where the bin's metal sides meet the concrete and the foam lasts a long time, in some cases more than 20 years.'

John Torrance, Rocanville, Sask .: "This is in response to the reader who has a 2010 Deere 3005 4-WD compact utility tractor equipped with a Yanmar 3-cyl. diesel engine that keeps shutting down (Vol. 39, No. 6). Unfortunately, replacing the fuel filters or the solenoids in the injector pump won't help, and I have no idea what the timer behind the dash is for or why he replaced it. I think the problem is a poor ground, and the place to start trouble shooting for that is with the battery. After that, you can work your way to the engine solenoid. The problem could be a ground wire at the switch. Poor grounds can cause a lot of problems.'

David Nordhus, Seneca, Kansas: "I couldn't add front weights on my tractor because the bolt hole in the mounting bracket was plugged with dirt, and I couldn't screw the mounting bolt in tight. Using a screwdriver, I was able to clean some dirt out of the bolt hole and casting nut but not the threads. I could have used a commercial thread-cutting die to clean out the threads, but my newer-style tractor uses metric bolts and there's no store in my area that carries metric dies.

"To solve the problem, I used my circular saw to cut 1-in. long grooves into the bolt threads at three different places, cutting the grooves slightly deeper than the threads. As a result, any dirt will stay in the grooves and not in the threads. The grooves don't affect the performance of the bolt at all and they give the dirt somewhere to go.

John Slater, Olin, Iowa: "I spray Fluid Film onto disc openers, shanks, and corn head gathering chains, etc. - anything metal that might rust during the off season. When





Kurt Hofmeister, Woodburn, Oregon: "Trying to assemble anything with loose washers often can be a frustrating experience. So if the washer is loose, I just roll a small O-ring onto the bolt and use it to hold the washer in place."

Robert Lounsberry, Bordentown, N.J.: 'The wooden block bearing on the feed auger of my Deere square baler dried out and was chattering so much that the noise was driving me nuts. To solve the problem, I added a grease fitting to the bearing in order to keep it from drying out. Adding just a little grease this way has helped me keep my sanity."



Bill Halstead, Lacey, Mich. (269 758-3232): "I couldn't justify spending money for new LED light fixtures in my shop, so I came up with a cheap way to install LED bulbs. I removed the ballast from my fluorescent lights and used the existing wiring to install the bulbs. My only cost was for new LED bulb sockets which I bought for \$1.46 apiece.

"Each fluorescent light fixture originally contained two long bulbs, which I replaced with three LED bulbs. I cut a small square hole into each fixture to accommodate the outlet on back of the LED bulb socket. I used two different kinds of LED bulbs - some white and some yellow - because that's what I already had.



Tool consists of 7 riveted-together "sizers" that you fit over pipes to be measured.

Handy Pipe Sizer Tool

identify the correct pipe size and can help prevent costly mistakes," says Sam Bakke, Global Span Products, White Sulphur Springs, Mont.

The patented stainless steel tool is designed to work on copper, steel, and pvc pipe. It measures 7 different sizes, from 1/2 to 2 1/2 in.

The tool works similar to feeler gauges that are used for checking valve tolerances, point gaps and other critical measurements. It consists of 7 riveted-together perfect half circles with pointed ends. The pipe size is marked on each one.

"This tool is especially handy when

"Our new pipe sizer tool makes it easy to you're working down in a hole where you can't see the pipe very well," says Bakke. "When you pull the tool back out it will show you the pipe size. We came up with the idea because we've been involved in the landscape irrigation industry for a long time and spend a lot of time installing pipes. By inscribing the tool and then flipping it over to make a complete circle, the tool also can be used as a drilling template for making circles.

Sells for \$12.95 plus S&H.

Contact: FARM SHOW Followup, Global Span Products, P.O. Box 934, White Sulphur Springs, Mont. 59645 (ph 406 547-3827; www.globalspanproducts.com).



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, Editor

"This idea works great. A big advantage of LED lights over fluorescent is that they're brighter and less expensive to operate. Also, they start right up in cold weather without having to warm up first."

Wayne Bryan, Conesus, N.Y.: "We have a 100-ft. extension cord laying on our gravel driveway that leads to a fuel island. The cord was losing insulation from being driven over all the time.

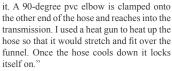
To solve the problem, I cut the plug off one end of the cord and used steel electrical conduit fish tape to pull the cord through a 100-ft. garden hose. Then I installed a new plug end on the cord. The hose provides the cord with a protective heavy second 'skin', which adds a lot more life to the cord and also keeps it from kinking and tangling up. Now the cord always lays flat and straight."



Donald Jaster, Bruce, Wis .: "I needed an adjustable clevis that would let me adjust both brake pedals on my Allis Chalmers B tractor. I don't have an Allis dealer close by for parts, so I bought an aluminum turnbuckle with an open frame and converted it into a big clevis. I cut the turnbuckle off on the left thread end, and then I cut off the tractor's left brake link and used a die to make a 5/16 thread. The brake link is slightly bigger than 5/16 so I had to grind it down some to allow the die to work. I paid about \$3 for the turnbuckle."

Ron Paustian, Eau Claire, Mich.: "I put together this long hose funnel to

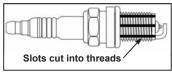
pour oil into hardto-reach vehicle transmissions. I cut the bottom off a 1-pint plastic fuel additive container and turned it upside down, then frictionfitted one end of a transparent hose to



Lee Tolliver, Tok, Alaska: A mechanic accidentally put one pint too much oil in the transmission on one of my vehicles. Crawling under the vehicle and draining the surplus oil would have been a messy job.

"Instead, I bought a 1/4-in. dia. clear plastic tube at WalMart - the kind used to keep aquarium tanks clean - and shoved it down into the fill hole. I started sucking on the tube with my mouth, and once I saw the oil coming out of the hose I put my thumb over the end of the hose and let the surplus oil drain into a marked container. I was able to remove exactly a pint of oil this way. I keep the hose under the hood of my car in case I ever need to use it again.'

John Youngdahl, Green Isle, Minn .: "My wife has a Toro Groundmaster mower with a 4-cyl. aluminum head. One day one of the spark plugs blew right out. After taking a look, I realized the last mechanic who worked on the tractor put short-reach plugs into the long-reach holes, so only about half the threads were used. The tractor had been running for quite a while like that so that the lower, exposed threads were filled up with carbon



"I didn't dare just screw in new full-sized plugs because turning through the carbon might damage the threads. So I took an old plug and cut vertical slots across the length of the threads so that when I screwed the plug into each hole, the carbon would have somewhere to go - into those slots. When I pulled the plug out of each hole, the slots were full of carbon. The idea worked perfectly.

"This idea would work anytime you're using a plug or bolt to clean out a threaded hole. Rather than grind the dirt or rust into the threads, it allows you to pull out whatever is plugging them up.