David Prause, China Spring, Texas: "If you've got leaking transmission gearbox seals on your shredders or flail choppers, take the top off and fill partially with heavy gun grease. Check regularly after that and add the heaviest gear oil you can get just to top it up. It worked for me, avoiding a burnout."

Lynden Jenkins, Freedom, Wyo.: "We put a 5010 Deere tractor front-end under the front of a Deere 4020 to make it a better loader tractor. The 4020 front axles just weren't strong enough. We could never break the 5010 axle."

Dean Weatherly, Clinton, Ark.: "When I buy a new electric drill, grinder or saw, I open up the gearbox and grease it with high temperature grease. Most of these tools are now made in China and they don't put enough grease in at the factory. I started doing this after I burned up an expensive Milwaukee tool."

Keith Ford, Houston, Mo.: "Since I repair a lot of riding mowers, I have a pile of inoperative solenoids. A couple weeks ago I was looking through them carefully and noticed that most every one was of the 4-terminal type with the bottom riveted to the body.

"I used my Dremel tool to carefully open and then disassembled the inside of one. The large coil inside tested good. I looked at the switch legs and saw that the solder joints were badly soldered. I decided to try to fix it and reuse it on my mower.

"I used my solder iron to gently reflow solder on the joints and then reassembled the unit. Since I had cut off the rivets I had to figure out how to close it up. I used some small nuts and bolts, drilling the holes out a bit and sealing up the base cap with silicone. I let it cure overnight and installed the repaired solenoid on my mower the next day. It worked!

"I spent maybe a dollar on silicone, solder, hardware and power, and 30 min. of my time, which I have a lot of in late winter. Those solenoids range in price from $10 to $16 plus a trip to town. If I repaired a bunch of them, it would really add up, and it would keep them out of the landfill.

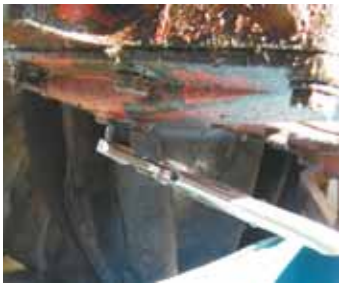
"So if the solenoid on your mower or vehicle goes out, see if you can repair it. After checking 31 'bad' solenoids, I only found 2 that I couldn't fix."

Jay McCaman, Sand Lake, Mich.: "In a recent issue a reader complained about hydraulic oil transferring from the reservoir to the differential on Case 300 and 430 to 630 tractors. I worked at a Case dealership for 16 years and usually leakage of the seals between the two compartments is minimal. The problem comes from hydraulic oil bypassing the 3-pt. hitch piston. It happened on my 300 tractor. Later series tractors had an internal hose that routed oil back to the correct compartment. If that hose broke, the differential could fill with oil.

"Allowing the oil in the transmission/differential to run high will reduce power. It can also cause the differential cross shaft seals to leak, which in turn will coat brake parts with oil."

Bill Smith, Cherokee, N.C.: "Plastic underarm stick deodorant containers can be used to make handy tool oilers. Once all the deodorant is gone, I remove the cap, fold a piece of 1/2-in. thick felt, and push it down inside the container. Then I pour oil on the felt so it works like a big wick.

"This idea works great for applying a coating of oil on very small things such as a drill bit or the edge of a saw blade. I just rub the felt across the object, and when I'm done I put the deodorant container's cap back on. The felt wick applies a nice, even coating of oil. There's no need to spread the oil around with a rag or my hands like with a squirt can so I don't get my hands messy. And I never have to worry about oil leaking inside a toolbox like with an oil can."



Gary Swensen, Yankton, S. Dak.: "When I change oil, I wait until there are just a few threads left before the plug comes out and then I attach a vice grip to the plug to keep my fingers from getting burned. It also helps find the plug later when I'm ready to put it back in. Avoids having the nut fall into a bucket of hot oil."

Larry Fulfs, Winslow, Ill.: Fulfs likes the idea of having shop equipment on wheels. "I don't have a large shop, so having things portable lets me move tools whenever I need the space to work," he says. Fulfs has put heavy-duty casters on storage compartments, his workbench, a planer, a welding table, and a cabinet that holds welding rods. He uses steel wheels or rubber casters depending on how heavy the equipment is.

Robert McMahon, Knoxville, Tenn.: "I needed a large hold-down clamp on my welding bench for fabrication work, so I made one by modifying a 'Stronghand' F-style clamp.

"Start with a 1 by 2-in. piece of channel iron or flat bar and drill a hole for your hold-down bolt. Then weld the channel iron or flat bar to the bottom of the clamp. It'll result in a super strong hold-down clamp that you can still use as a C-clamp or spreader. Other brands of clamps could be modified as well, but I find that Stronghand F-style clamps work the best.

"I also made some cups that fit onto the clamp pads for holding accessories. I started with 1.625-in. ID tubing and 3/8-in. steel plate and drilled and tapped it. The tubing is slit so that it friction-fits the pad."

Steve Nichols, Galesburg, Ill.: "When I wire a trailer, I have learned to wirenut the connector pigtails to the main wiring because the plug-in connector ends get corroded or damaged a lot. This way, I can just disconnect them easily and wirenut a new end onto the front of the trailer.

"I do the same thing at the back of the trailer, wirenutting the lights from the taillights onto the main wiring so if I need to replace a light I can just remove the wirenuts and install a new light.

"To protect the plug-ins when not using the trailer, I fasten an extra female connector (the part that goes on the vehicle) to the tongue of the trailer and plug the connector into it to keep it from corroding or ending up in the dirt."

Photo shows worn sieve wires that Gutschmidt cut off with a Dremel tool. He welded new wire stock in place and then siliconed the ends to stop the wires from shaking.

Smart Modifications To A Deere STS Combine

"I recently went through my 9760 STS Deere combine in my shop. These newer series combines are never going to make it to 5,000 hrs. like their predecessors, the 8820 and 9600. The combine junkyards will soon be full of these 50, 60 and 70 series machines. The sheet metal inside them is made way too light to last very long. I'm sure the engineers designed them this way so there would be more breakage, which means more service and parts," says Roger Gutschmidt, Gackle, N. Dak.

"I recently went through the sieve area on this combine. I took out the top and bottom sieves only to find all kinds of problems in this shaking area. All the damage pretty much starts in the same area on every combine because there's a support ledge that holds the bottom sieve. The sieve lays on a piece of formed 14-ga. angle iron that's spot-welded to the outside frame which is attached to the shaking mechanism arms. The sieve puts a lot of fatigue on this poorly welded ledge. The support ledge is welded along the bottom with no welds on the top. Because there are no welds across the top, it 'peels' away from the surface it is attached to, from the weight of the sieve and the shaking. Once it does that, the sieve drops to where it doesn't belong and causes destruction to the whole back end of the combine. This repair typically costs about $10,000 to $15,000 in just parts, without labor. The solution to the problem is to weld along the top ledge. It's easy to do and will save owners thousands of dollars in repairs.

"I also have a way to prolong the life of sieves. I add silicone rubber with a caulking tube to the sides where the louver wires come through the frame. Over time these louver wires wear thin due to the shaking action of the sieves. A little dab of silicone on each wire cushions the wear point area. Because this silicone rubber is soft and pliable, it still allows the operator to adjust the sieves. My sieves are adjustable from inside the cab with an electric actuator. The rubber gives enough to allow for the sieve to open and close all the way to adjust for any crop being harvested."

Photo above shows damage that occurred when lower sieve broke away from sidewall. Had the angle iron support holding it up been welded on the top side (as shown below), the breakage would not have occurred, says Gutschmidt.

Contact: FARM SHOW Followup, Roger Gutschmidt, Gutschmidt Mfg., LLC, 6651 Hwy. 56, Gackle, N. Dak. 58442 (ph 701 698-2310; shopdoc@drtel.net).

"Extended Jaws" Channel Lock Pliers

Our friend Andy Sewell in England recently sent us photos of a German-made channel lock pliers that he modified for his own use by extending the jaws.

"These pliers are made of good quality metal but only come in one size, and I needed a larger jaw opening. So I used a cutting disc to cut through the jaw and welded in a piece of steel. I modified several pairs of pliers this way so I've got a range of sizes that I can use.

"I use these modified pliers almost every day and find they work great for holding work and for pressing parts together, such as pressing pins into holes. Obviously the extended jaws don't close up, but that's why I have a selection of sizes."

Contact: FARM SHOW Followup, Andy Sewell (classiccombines@aol.co.uk).

Andy Sewell extended the jaws on his channel lock pliers by cutting through jaw and welding in some steel.