Money-Saving Repairs & Maintenance Shortcuts

well, with very few misses, and the glass handles the heat with no problem. I plan to apply 1/2-in. weather stripping onto the jar's sides to keep it from rolling around."

Ritch Williams, Mishawaka, Ind.; Ka9dvl@comcast.net: "I work as a serviceman on medical equipment that's used in hospitals and surgery centers. I'm also a pilot and an amateur radio operator, and help maintain some of the aircraft that I fly. In addition, I farm and try to keep all that equipment running, too. All this equipment has one thing in common – the use of plastic zip-ties to bundle wires and hoses together in confined spaces.

"The problem is that every time I get my arms down into the equipment to work on something, my hands and forearms get scratched from contacting the sharp edges where the zip-ties were cut off. My hands and arms often end up looking like I've been in a cat fight.

"So here's a great tip on how to avoid the problem. After you've cinched a zip-tie, use side cutters to cut it as close as possible. Then follow up with toenail clippers so you can cut the loose end flush, without leaving any sharp edges. It's a quick and easy way to protect your hands and arms."



John Didde, Greenstore, Overland Park, Kansas (ph 913 832-5001; www. Greenstore.org): "Our Rear Wheel Puller is designed to fit John Deere A, B, G and H tractors. The kit comes with a 1-in. thick round puller plate with elongated holes in it and 4 threaded bolts. You put the nut on the center bolt with 1/2 in. of the bolt sticking out of the plate, then insert the bolt into the turning hole in the end of the axle.

"Screw the other 3 bolts into the hub, making sure the bolt sticks through the back side of the hub. Then put the puller plate on the 3 bolts and screw nuts onto them until the pressure pulls the plate up square with the bolts.

"The Rear Wheel Puller sells for \$150 plus \$14 shipping by USPS Priority Mail. Additional bolt assemblies for other models sell for \$40 plus S&H. Comes with a money-back guarantee."

Dieselcraft Fluid Engineering, Auburn, Calif. (ph 530 613-2150; www.dieselcraft. com): A simple, low-cost Microbe test kit is designed to detect biological contamination in diesel fuel. In less than 48 hrs., the kit will indicate whether you have a chemical or biological problem.

The kit includes a simple dip slide that comes in a plastic tube and is attached to the cap. You take the cap and dip the slide into the fuel, then reinsert the cap and slide it back into the tube. Sells for \$16.95 plus S&H.

Andy Kozłowski, Califon, N.J.: "I don't like shop workstands that make you hold the stand at the desired height and then try to lock it in place at the same time. The problem isn't as bad when working with fixed height surfaces like a table saw, but



it's annoying when you need an adjustable surface such as with a floor drill press.

"I decided to solve the problem by building a workstand from salvaged parts - the base of an old wheeled desk chair, a side-mount trailer tongue jack minus the wheel, and a long metal roller with mounting bracket. I welded the trailer jack upside down on the chair base, bent down the trailer jack's wheel mount sides to form a horizontal surface, and then bolted the roller bracket onto it.

"I welded beads on at the folds where the wheel mount sides had been bent in order to add strength. The chair's wheels make the workstand easy to move around, and I can raise or lower the workstand exactly where I want it by cranking the jack handle. Each turn of the handle raises or lowers the workstand by about 1/16 in. I can also adjust the height by spinning the roller around on its vertical axis. The roller runs smoothly enough that when I roll material the chair wheels don't move at all."



Stephen Kozerowitz, DeSoto, Wis.: "Thanks for the report in a recent issue on WiseWrap LedgerTape, a 12-in. wide adhesive asphalt tape that protects the bottom of wood posts from water and rotting (Vol. 40, No. 5). I recently erected a 60-ft. fence and wanted to protect the posts, but I thought that product was a little pricy for my purposes.

"So I looked around and found a similar product at Menards that sells for much less (www.menards.com). It's called Form Flash 1 and the tape comes in a roll 4 in. wide by 15 ft. long. It sells for \$9.99. This 'peel and stick' product performs similar to WiseWrap LedgerTape, and I consider it to be a viable alternative when you only need to protect a smaller number of posts. Menards also sells Form Flash 2 in a roll that's 6 in. wide by 15 ft. long. It sells for \$14.23."



Eric Rego and his dad machine service tools and parts kits for Oliver tractors, including spanner sockets (left) and alignment tools.

Oliver Tractor Service Tools

New Oliver service tools from Maple Springs Farm make working on old Olivers a lot easier. Increasingly, old service tools are hard to find, and when you do, they cost a small fortune, notes Eric Rego, Maples Springs Farm.

"We have a suite of tools for servicing Oliver tractors and some for old Chrysler transmissions," says Rego. "My dad and I like to work on old Olivers. When we encounter a situation where we need a tool and can't find one that works, I'll make it and some extras to sell."

When not working on old tractors or at his full-time job as a senior engineer with a diesel engine manufacturer, Rego operates Rego Engineering and Machine. There he machines and assembles tools and parts kits that he and his father market online and through a mail order catalog.

"I have the machining equipment needed to make tools to a 1/10,000 of an inch tolerance," says Rego. "Rare specialized tools can sell for several hundred dollars, but we can make them for much less."

Some of the tools the Regos offer include clutch alignment tools and spanner sockets for some of the unique nuts used on Olivers. Alignment tools sell for \$19.98 each, and spanner sockets sell for \$34.98.

"The Oliver auxiliary transmission bolts to the back of the engine, and if you have spare input shafts, you can use them for alignment," says Rego. "If you don't, the alignment tools let you align the clutch so that when you wrestle that several hundred pound transmission back on, it will slide in correctly. We made these tools after finding ourselves battling to get the clutch, pilot bearing and over/under input shaft lined up."

Rego says the alternative to his specialized spanner sockets is often to chisel off the existing nut, make the repairs, and replace the nut with a non-original nut.

"There are some bizarre nuts holding parts on Olivers," says Rego. "When you replace them, you still have to get the torque right. Our spanner nut sockets let you remove the nut and get the right torque when you put it back."

Rego offers several different spanner nut sockets machined out of steel bar stock. Ones for use with a torque wrench have the standard 1/2-in. square drive.

"We are always looking for specialized tools to add to our collection," says Rego.

Rego points to a customer who owned an original spanner socket for the nut that holds the pto together on Oliver 55s and 550s. "He knew guys were struggling to take them apart. He suggested we make some and shared drawings of it.

"If people see a need, we have the engineering and manufacturing capability to make them. We're not tied to Oliver either. I'm working on a suite of tools for Case IH tractors."

Contact: FARM SHOW Followup, Maple Springs Farm, 1828 County Road PB, Verona, Wis. 53593 (ph 608 658-2072; rrego@tds.net; www.msfparts.com).

Reinforced Frame Keeps Old Farmall From Breaking

Gary Swensen saw an old Farmall M snap in two when the loader was overloaded. Equipped with a Dual 345 loader and grapple, the M with its wide front end couldn't handle the 7-ft. bucket loaded with dirt.

"My neighbor had the M loaded with weight on the rear wheels to counterbalance the loader," recalls Swensen. "However, as he backed up with the full loader, the front end dropped in a hole, and the strain found a weak point at the transmission. The M broke in half. Grease and gears fell on the ground. The steering shaft and gas tank were bent. It just made a mess out of the old M."

Luckily for the neighbor, a local dealer had an old M with a blown engine. Both tractors were split and rebuilt with good parts from each.

"I have a 450 Farmall with the same loader," says Swensen. "To make sure I didn't have a similar problem, I added a brace to either side of the transmission."

Swensen used a flat bar of 1/2-in. steel and three 5/8-in. grade 8 bolts with a tensile strength of 150,000 lbs. per sq. in. As the shear strength of a bolt is typically 60 percent of its tensile strength, the brace bars added significant support.

"I was able to use 3 existing bolt holes in the transmission that lined up straight," says Swensen. "Those old tractors have multiple



Gary Swensen bolted a 1/2-in. thick steel bar onto the frame of his Farmall 450 loader tractor to add strength for heavy loader work.

threaded holes for the various attachments that can be mounted, everything from planters to cotton pickers."

All Swensen had to do was drill holes in the flat steel to match the bolt holes and add washers where needed to bring all 3 bolts in line.

He also noted that the support arms on the loader are short and are located about midway near the center of the engine.

"This may be a contributing factor to the M breaking apart," says Swensen. "I lengthened mine so they go all the way to the front of the engine."

Contact: FARM SHOW Followup, Gary Swensen, 1408 Sunrise Dr., Yankton, S. Dak. 57078 (ph 605 660-3489; g_swensen@msn. com).