Money-Saving Repairs & Maintenance Shortcuts



Keith Fisher, New Palestine, Ind.: "We use a lot of wood screws, sorted and reclaimed from various projects. We throw them into a catch-all box but to eliminate the headache of confusing a Torx drive with a Phillips screw, we spray paint the Torx screws red.

"My high lift jack always seemed to be in the way out in the shop. So, I made a little shelf for it that's sized to fit the base of the jack and put a spring clip on the wall that grabs onto the handle of the jack. It's easily accessible but out of the way."



Eric Petrevich, Glen Gardner, N.J.: Eric sent in pictures showing how he keeps the tools in his portable tool case straight. When putting back sockets or wrenches, instead of having to read the sizes on the tools and the inside of the tool case, he spray paints the most common sizes so both the tools and the slots they fit into are marked. That way, he can tell at a glance where they go when putting things back.



Gary Swensen, Yankton, S.D.: "After decades of use and handling millions of gallons of oil, the suction hose on my hydraulic loader pump broke off, and I lost the oil. It broke at the point where the hose bends and rubs. I went into town to buy hydraulic oil and stopped to fuel up my pickup. When I grabbed the fuel pump handle, I realized that if I used a swivel like they have on gas pump handles, it would lessen the wear and tear on the new hose I was going to install. So, I bought one, installed it, and it works great."

Clarence Maupin, Scottsbluff, Neb.: "I'm 89 years old and I've been welding since I was 14 when the REA brought electricity to our farm. I don't know what took me so long, but I recently discovered a handy hint that helps a lot. I fastened two pieces of heavy plastic pipe to the side of my welding table. Now I don't have to look for a suitable place to lay down the rod holder so as not to spark. I just stick the rod in one of the pipes, and it's real handy to pick it up again."



Karl Spees, MD, Port Angeles, Wash.: "Recently, our 40-year-old Maytag dryer quit working. I needed to replace the thermostat, which required using a 1/4-in. wrench in a very tight space. I had several 1/4-in. nut drivers, but they were all too long to fit into the area. I solved the problem by taking the oldest nut driver and cutting the shaft off, then inserting it into a drilled golf ball. I applied JB Weld to the hole and the nut driver shaft and let it cure overnight. It made a dandy tool, and I got the screws removed. Installation after the part arrived was a snap. Our dependable old dryer is back in action."

David L. Kimmel, Rochester, Ind.: "If you ever find that your welding cables are too short on a stationary welder, you can temporarily extend them with a set of good battery cables."

Don Rakosnik, Lombard, III.: "I installed a 3,000-lb. capacity 44 by 52-in. scissor lift in my shop. It raises to 36 in. high. Many things I work on in the shop can be raised to make repairs easier. It retracts down to the floor when not in use. Very handy."



Mark S. Yax, Solon, Ohio: "My Simplicity bandsaw mill uses tires for the drive wheels on the mill. Sometimes when cutting through knots or hard dense spots on logs, the band blade will tend to pull down, causing wavy cuts. To help eliminate this, I added some small roller bearings to support the blade under the existing bearings. The bearings are mounted so that they don't turn with the blade all the time. But when the cut tends to cause the blade to travel down, the bearings will hold the blade straight in the cut. The small size lets me cut boards down to 3/4 of an inch thick over the bunks."

Don Burt, Anchor Point, Alaska.: "I needed more windows in my shop to lighten it up, so I went to a local recycling center and got some used sliding glass doors. I just framed them into the walls. Works great, and it was cheap."

Steve Lane, Springville, Iowa: "I replace the hand grips on 5-gal. buckets with pieces of split rubber gas line hose that's taped in place. Much easier on your hands."

Vern Platt, Prior Lake, Minn.: "I had a rotted round fence post that broke off at ground level. I wanted to put a new post in the same spot, so I screwed an 8-in. long, 1/2-in. lag bolt into the top of it and pulled it out with my loader."

Easy-To-Store Collapsible Trailer

"When you think about it, what people do most with their trailers is store them," says Christophe Goffoz, owner and co-founder of Apogee Trailers.

Apogee created their Adapt-X folding trailer in five sizes from 4 by 8 ft. up to 6 by 12 ft. Each model is built to be easily and quickly folded into a compact unit by a single person.

The trailers are built completely from aluminum except for stainless steel hardware and connections. Standard features include 13-in. wheels, anti-skid floor surfaces, and internal wiring.

Options include a storage cover, a spare wheel with covering, high-side kit, canoe racks, front deflectors, jack, Spyder ramps, floor liner and side steps.

"Our challenge was to build it strong and still be able to fold it," says Goffoz, noting that the Adapt-X is rated for 2,990 lbs. GVWR.

"Our customers mainly use them to carry ATVs, UTVs, motorcycles, golf carts, firewood and snowmobiles. But they can be used to haul sand and gravel and for many other chores on the farm."

The most unique feature is the lateral transport wheel kit which can be added to maneuver the closed-up trailer through gates or into tight storage spaces.

"When the trailer is collapsed, you can easily push it around, even sideways. If a



Trailer folds for easy storage and is rated for 2,990 lbs. GVWR.

gate or a corner is at least 42 in., it will fit." The Adapt-X trailers are manufactured in

Canada and are available throughout North America via a network of distributors. MSRP costs range from \$4,000 to \$6,900

(CAD) plus S&H depending on sizes.

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Metal stitching can repair cracked or broken cast iron, creating a part that's stronger than the original.

"Stitching" Process Repairs Cracked Cast Iron

A "metal stitching" technique invented in the 1930's to successfully repair cracked or broken cast metals without welding has been widely used in many industries for over 90 years.

Metalock Engineering in the U.S. and Herculock in Canada use the technique to repair old steam engines, commercial boilers, industrial equipment, ships, and oil field equipment.

Gerald Cyr at Herculock says the cold cast technique known as metal locking repairs a crack without adding extra stress to the part. Cyr says the process has been used effectively to repair broken crankcases and other parts on century-old engines.

The cracked area is thoroughly cleaned, and the repair design is determined by magna flux or dye penetrant testing. The stitching process requires drilling small holes and adjoining shoulders along the fractured area. Metal dowel key strips and lacing bolts are inserted into the holes and peened (driven) into place with pneumatic tools. Peening expands the surface of the cold metal into the area of the fissure and relieves tensile stresses to strain-harden the surface metal. The process adds rigidity to the repaired area and creates an extremely strong joint. The exposed metal pieces are then ground smooth to the surface revealing only the stitch lines extending into the solid metal adjacent to the crack.

Cyr says repaired areas have excellent shear load resistance and hydraulic pressure levels of up to 10,000 psi can be achieved. The native metal isn't damaged or distorted because heat isn't used in the repair. Metal locking is an ideal alternative to welding on metals where using heat isn't possible or recommended. Search Google.com for "metal stitching cast iron" for more information on the technique.

Contact: FARM SHOW Followup, Metalock Engineering (www.metalockengineering.us) or Herculock Ltd. (herculock@duny.ca).



Metal locking provides excellent shear load resistance.