

Money-Saving Repairs & Maintenance Shortcuts

This makes the diesel I have to buy last twice as long. When you're broke, you find interesting ways to save money.

"I added a waste oil burner to my wood stove in my shop. It consists of a holding tank removed from a faulty water heater, some scrap galvanized pipe, and a hole cut in the top of the stove, into which the pipe is welded. This runs waste oil down onto the wood fire and really cranks up the heat from the stove. I'm also able to get rid of all the nastiest oil (including sludge, oil with water in it, or milky oil) and have no oil waste. I also drain filters into my holding tank and burn what comes out of the filters."



Fritz Groszkruger, Dumont, Iowa: "This is a knob from a space heater. The side of the tube busted out. I used J-B Weld reinforced with dental floss to make it better than new."



Andrew Jossund, Hendrum, Minn.: "We needed a better way to store planter plates, so we built this simple wall-mounted rack. Longtime friend and employee Mardy Dosland came up with the idea of using conduit and lids from 5-gal. pails.

"I used 2 by 4s for the uprights and 1 by 3s for the support arms. I notched them to hold the conduit lengths and drilled them to accommodate small retention bolts.

"The bucket lids that sandwich each set of planter plates are a little larger than the plates. They let us set groups of plates on the ground with the conduit vertical, making it easy to lift the plates off the conduit and return them."

Ben Parks, Austin, Texas: "For servicing a push mower, I use a tree with a low branch. I simply pull a rope over the branch, tie it around the front wheels and the push handle on the ground, then lift the front of the mower vertically and tie it off. I can sit on a stool to change a blade or clean under the deck."

Colin Smith, Franklinville, N.J.: "The ends of my landing gear handles on my trailers and equipment rust, then destroy my gloves and hands. Replacing the entire handle is costly, and finding the correct length can be difficult. I thought covering

the ends might help. I had scraps of PVC Schedule 40 or 80 (I'm not sure which, but it's thick) that I cut to length. I used a portable propane torch to carefully heat the inside of the handle, then slid the PVC onto it as it cooled. It formed to the rusted part and stayed tight."



John Rochester, Charlotte, N.C.: "Two 5-gal. buckets, plywood and foam from a seat cushion make a quick, comfortable bench for working while lying on your back.



"If you're looking for more stable storage, glue a piece of wood to a jar or can. A larger piece of wood (maybe 2 by 6) works better for heavier items.



"A toothpick trimmed square is really good for fine-touch glue application."



"Putting a cable tie on a pen or pencil makes it easier to pick up with gloves on or with arthritic hands."



Casey Ertz, Weaverville, N.C.: "An easy way to manage zip ties is to store them in a scrap piece of pipe and hold them in place with a rubber band or, for better durability, a piece of shock cord. Individual ties can easily be added or removed as needed."



Front view of weights, mirrors and LEDs Freeman added to his mower.

Zero-Turn Add-Ons Make Mowing Safer

A weighted front end was just one of several upgrades Dale Freeman made to his zero-turn mower. He also added 8-in. dia. mirrors to each side and a bank of high-visibility LEDs.

"I have hilly terrain and decided to add front-end weights for increased stability," says Freeman.

Freeman mounted a 1/2-in. thick steel weight-support plate between the front caster wheels. He beveled the front corners of the plate to remove sharp edges. The plate is supported by two 1/2 by 3-in. steel plates, bolted at one end to the mower deck and at the other to the weight-support plate.

Additional support is provided by what Freeman calls tangs. They're short lengths of round stock, tack-welded between slotted fixtures bolted to the mower's I-beam frame and similar slotted fixtures on the weight support plate.

"I drilled a hole in the support plate, as well as cutting a slot for mounting bolts for each set of tractor weights I planned to use," says Freeman. "I used the hole to align the weight, and the slot ensured the second bolt would align, even if my dimensions were off a bit."

He added 1-in. square tubing posts at either

end of the support plate, with T-joint welds and round-stock braces. Mirrors were added to the top of each post, and a steel plate to hold Freeman's cell phone was added to the right-hand post.

"I mow along a road, and the mirrors help me watch traffic coming up behind," says Freeman. "The braces at the bottom of the posts reduce vibration. My cell phone holder is a 5-in. deep plastic drink holder. A pin through the mounting plate keeps the phone from bouncing out."

A square-tubing crosspiece adds stability and reduces mirror vibration. It also provides a base for LED lights that enhance visibility and ensure safer operation.

The vertical tubes are capped to keep out rain.

"I always plug vertical tubing with a cap," says Freeman. "I love plastic caps for steel tubing. I bought a couple hundred online, so I always have some handy. I also cut half-circles out of tubing welded to a horizontal piece. It leaves an opening for moisture to drain out."

Contact: FARM SHOW Followup, Dale Freeman, Monroe, Va.

Air-Water Mix Cleans Radiators Better

TrueLine Manufacturing specializes in custom fabrication for others, but it also uses that expertise to meet its own needs. When Walter and Albert Hofer see market potential, they add the item to their product line. That was the case with their Radiator Cleaning Wand.

"We came up with it a few years ago," says Albert. "We were trying to figure out how to clean a radiator properly without damaging the fins, which is easy to do with a pressure washer. Air does a good job, but we thought mixing water with it would be even better."

The Hofers first considered a mixing valve but abandoned the idea as overly complicated. They developed a system comparable to an acetylene torch, with two 3-ft. long pipes, each controlled by a ball valve, in a single wand. One pipe is connected to a standard garden hose, while the other is connected to an air compressor line. They suggest using 120 to 180 psi of air and normal tap water pressure.

"We squished them together to get added pressure," says Albert. "The 1/4-in. thick design also makes it easy to slip into tight spaces. It'll blow water 30 ft."

The air and water exit the wand at a right angle. The mixture of water and air pressure creates turbulence at the radiator. As the water builds up, the air pressure pushes through



One pipe is connected to a standard garden hose, and the other to an air compressor line.

the fins more.

The Radiator Cleaning Wand is priced at \$325 USD and available directly from the company.

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