Money-Saving Repairs & Maintenance Shortcuts

24-Toolbox Workbench **Ready For Any Task**

Dan Mooney's organized "Super Bench" has shelves that hold 24 toolboxes — each containing tools for specific tasks such as electrical, metal or general repair - so Mooney can grab the box he needs for whatever job he's doing on his Carson City, Nevada, acreage.

At the top of the bench are 26 slide-out drawers that hold a variety of small parts, screws, bolts, nuts, etc. Each drawer has a big handle so it's easy to pull out and take to a job.

But his bench is more than just a storage area. At 5 ft. long by 30 in. deep with a 38in. tall work surface, the compact design is packed with handy features. An air compressor hose (with a gauge mounted next to it) and trouble light cord are on spring-wound rollers that pull out for easy use when needed. Likewise, the suction hose of a vacuum system nests in a coiling cage.

Mooney built the compact workbench to fit in his two-car garage. It's made out of angle iron, plate steel and sheet metal, and mounted on heavy-duty wheels for mobility.

He can add to the size of the bench top by pulling out a sliding shelf. The bench is well lit with fluorescent tube lights under the 1/4in. plate steel hood above the bench. He has a magnification lamp available when needed.

Finally, Mooney can work comfortably, seated on an attached mobile dentist stool that he obtained when his dentist remodeled.

If he were to build it again, Mooney says he would use larger wheels and lighter materials, such as aluminum alloy, to make the bench easier to move around. He would also use LED lighting.

"The unit has been in constant use for over 25 years," Mooney says. "I have found it to be invaluable as a systemic solution to increasing the efficiency of various jobs



Photo at left showing "toolbox work bench" with bench top removed. Photo below shows extension and air pressure cords mounted below bench top.

around the farm and household. It also may be of use in schools, manufacturing and other settings that require a more efficient and consistent maintenance schedule.'

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Old Olivers Start Faster With Gear Reduction Starters

Get a gear reduction starter from Maple Springs Farm and your Oliver won't grind down the battery on a cold morning. The modern style starter gives the extra cranking speed needed to turn over the engine without running down the battery.

"In the winter we rely on our Olivers to plow our driveway and periodically move equipment in the dead of winter," explains Eric Rego, Maple Springs Farms. "We don't always have the luxury of waiting for a block heater to warm an engine. We began looking for a solution to provide better all around

What Rego and his dad Bob found was a gear reduction starter that fits their older Olivers. After posting a video about it on YouTube, orders began coming in, and now they offer starters for all Waukesha and Perkins-powered Olivers and Whites. That includes the Fleetlines (77's and 88's) up to the early Whites. They offer both 10-tooth and 13-tooth starters.

Rego explains that gear reduction starters create more pinion shaft torque for a given amount of energy input. A faster spin-up can be achieved since the armature mass and inertia are smaller than direct drive starters. They also weigh less.

Not all gear reduction starters are the same. warns Rego. Even the same company can have different grades of starters.

"What separates our product from others is that each starter is bench-tested for performance here at our company," he says.

Maple Springs Farm has also done back-toback, on-vehicle application testing and has benchmarked a 10 to 20 percent increase in cranking speed with their starters. Rego says their starters really shine with diesels and engines that have been over-bored or have high compression.

"A 20 percent difference in speed can make a tremendous difference in generating a higher in-cylinder, light-off temperature during the compression stroke on a diesel,' says Rego. "This means a diesel engine will fire faster at a given temperature and will start without a starting aid at a lower ambient air

He adds that small displacement gas engines benefit as well from gear reduction starters. Faster cranking speeds improve fuel atomization for easier ignition and even choke-free starts in some situations.

The Oliver Gear Reduction Starter is priced at \$224.95, including shipping. Maple Springs Farm also carries remanufactured



Gear reduction starter provides the extra cranking speed needed to turn over a tractor's engine without running down the battery Photo shows stock starter at left.

starters and other parts for Olivers, as well as gasket sets and overhaul kits for Ford tractors, including a spin-on filter adapter for 2N, 8N and 9N Fords.

"In addition, we do urethane castings to reproduce plastic and rubber parts for Olivers," says Rego. "We also do hard-to-find Oliver sheet metal parts, including hoods, side panels and more, as well as other parts

and products."

A video at www.farmshow.com compares a stock starter to the gear reduction starter.

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Pressurized Lube Pump Sandell says,

Poor access to gear lube ports isn't a problem for Don Sandell since he built a pressurized container out of 4-in. dia. pvc pipe. It's handy and the right size for people who don't like hauling around the big 5-gal. buckets with pumps.

The 2-ft. tall container holds about 4 quarts of lube and works great to fill the side ports on the row unit gear boxes on his corn head, Sandell says. He drilled and tapped the top pvc cap for a pressure gauge, sprayer camlock fitting and tire valve stem, then used pvc glue to seal the fittings and the caps at both ends. A section of sprayer hose is fitted to the bottom and connected to a ball valve attached to one leg of a wire stand. Sandell clamped a piece of brake line to the hose and bent the line slightly to access the gear lube ports

To use it, remove the plug in the camlock fitting, fill with oil, close it and pressurize the container with a compressor connected to the valve stem.

"I keep the pressure at only 40 lbs.."

then he opens the ball valve to get the lube flowing. Too much pressure could blow it apart, he warns.

He notes that he first made a unit with threaded caps, but it leaked air, so



Pressurized container works great to fill the gearbox side ports on Sandell's cornhead.

he recommends securely gluing caps instead. "It's just a quick, easy way for filling gearboxes with a side port," he says, and cost him less than \$30 to make, buying new fittings and using scraps he had on hand.

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Rolling 12-Volt Power Provider If you need portable 12-volt power, Glendale

Repair has a simple solution with their handy 2-wheel power unit. Owner Steven Zook married a 4-hp. Honda engine to an alternator and mounted it on a 2-wheel push cart. Although they sell it as a portable battery charger, it finds lots of uses, says Zook.

'A welding shop in the area uses theirs for welding," he says. "A tractor repair shop has one just to jump-start tractors. A lot of our customers just use them around the farm, in the woods when logging, or at construction sites.'

Zook built his first one for use in his own shop. After 7 years and multiple redesigns, he is pleased with what has evolved. He uses larger pulleys to run the alternator at a good rate of speed so the unit always runs cool

The heavy-duty unit is priced at \$1,080. A 12-volt carry unit is available for the same price. Glendale also offers a carry-style 12/24-volt unit with a 6 1/2 hp. Honda engine. Zook asks customers to call for pricing on



To provide portable 12-volt power, Steven Zook married a 4 hp. Honda engine to an alternator and mounted it on a 2-wheel push cart.

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