

Money-Saving Repairs & Maintenance Shortcuts

head end of the cylinder so if a hose breaks or a valve leaks, the cylinder stays put.

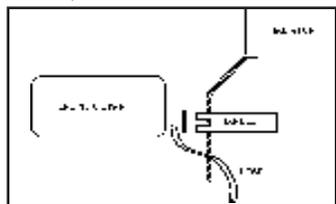


"I made my own wood burning stove and mounted a heat exchanger inside the stove pipe. I use it to heat my 32 by 28-ft. shop building which has an 11-ft. high ceiling, as well as a 12-ft. wide, 28-ft. long area where ductwork from the furnace goes. The stove is hooked up to a 100,000 btu fuel oil furnace in my shop and automatically shuts the furnace off to save on fuel bills.

"The heat exchanger was made from an old freon tank which I got from a neighbor. I cut the tank down and lined it with firebrick to make it airtight, then mounted the milk cooler fan on the back side of it. I put a nipple on the bottom and top of the unit. Heat coming up from the stove goes around inside the freon tank and out the stove pipe. A thermostat switch is wired to the smokestack so as soon as the smokestack gets hot it turns the milk cooler fan on.

"To heat up my shop, first I start up the fuel oil furnace. Then I start building up a fire in the wood stove. Once the fire gets going good, it'll automatically shut off the furnace."

David Dowling, Lohrville, Iowa: "To drain the engine oil on my Case 1640 combine, I cut a 1 1/2-in. dia. hole in the sheet



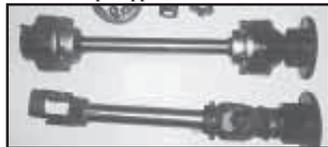
metal guard under the radiator. Then, while standing on the ground, I insert a slotted hydraulic jack handle onto the drain plug."

Eldon Wait, Seaside, Ore.: "Here's an idea I use to store drop cords, hoses or anything else that can be coiled up. It takes up very little space. On a post or wall, drive nails every 8 or 10 inches vertically. Make an 8 or 10-in. loop of baling twine and fasten it to each nail. Then just loop the twine around the coil and hang it back on the nail. Different types of coiled products can be mingled together."



Kevin Yutani, Constant Velocity of Ocala, Inc., 1706 N. Magnolia Ave., Suite 304, Ocala, Fla. 34475 ph 800 889-2953 or 352 351-9557; E-mail: cvo@cvaxles.com; Website: www.cvaxles.com: "My company specializes in making, repairing, and rebuilding specialized drivetrain components

for a wide variety of industrial applications. We think farmers might benefit from our services, too. In particular we specialize in Constant Velocity (CV) driveshafts, which are ideal for pto applications. CV driveshafts



reduce the loping effect that happens with universal joint shafts while delivering more power to the driven end.

"CV shafts can be designed to work in areas where conventional pto shafts can't be used because they can handle extreme angles without binding up. We can make shafts sized to work with most agricultural equipment, including tractors, mowers, etc. We can design CV shafts for individuals who need just one shaft or for companies needing shafts for production units."

Bud A. Beaston II, Skiatook, Okla.: "When I purchased my Mig welder, it didn't have any wheels. To solve the problem, I mounted four lawn mower wheels on a



homemade metal frame equipped with a swivel tongue. I mounted my Hobart welder on top of the frame and added an extra 100 ft. of extension cord to the welder. The cart allows me to use the welder anywhere inside my 56 by 80-ft. shop as well as in an adjoining barn. The wheels roll right over extension cords, air hoses, or welding leads.

"I had problems in my small shop area with dust. To solve the problem, I built a cover for my bench grinder that goes around the entire grinder except for on front. There's enough room for me to access both ends of the grinder. At the back bottom part of the cover, I drilled a hole and mounted a muffler pipe that goes down through the bench that the grinder sits on. I hooked up a shop



vacuum on back of the muffler pipe and wired a pigtail into the switch on the grinder. Then I plugged the vacuum into the switch so that whenever the grinder is being used, dust is automatically drawn into the vacuum canister. If I need to disconnect the vacuum for other uses, I can easily remove it from the muffler pipe."

Dale Conrady, Hettick, Ill.: "I needed to pull a pilot bearing out of the engine in my Deere 2020 tractor, but I didn't have the

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Top Cylinder Lubricator Adds Life To Engines

The concept of top cylinder lubrication has been around for years, but for older engines, it may be more important now than ever, says Floyd Andrus, Florence, Mass., who sells an add-on lubrication kit.

"Today's gasoline fuels don't contain the amount of lubrication that fuels had prior to the days of unleaded gasoline," he says. Couple that with the growing interest in vintage cars, truck, tractors and farm equipment. "All of those older engines can benefit from top cylinder lubrication," he says.

Andrus got into the lube business when he bought out the remaining inventory of Ampco Automotive and Marine.

The lubricators work by atomizing small quantities of oil into the fuel-air mix in the intake manifold.

"The oil has a higher flash point than fuel, so it doesn't burn," he explains. "Instead, it rides into the cylinder with the fuel and clings to the valves, valve guides, valve seats and rings."

In cars, pickups and trucks, the lubricator mounts under the hood on the firewall. It consists of a reservoir to hold the oil, a copper line from the reservoir to the intake manifold, and an atomizer to inject oil into the manifold. There's also a needle valve to regulate the flow of oil.

Most of his customers install them on restored vehicles and tractors. "I sell a lot of lubricators to farm people in the far North who need engines to turn over easier and start in very cold conditions. Also, I find that the antique and collectible engines do better with them. Flat head Fords, in particular, really



Ampco auxiliary lubricator works by atomizing small quantities of oil at the engine's intake manifold.

need the extra lubrication. During WWII, Ford Motor Company endorsed it. In fact, it was one of the few aftermarket add-ons that Ford ever allowed," he says.

Andrus says besides vintage car, truck and tractor owners, he also sells top cylinder lubricators for engines fueled with LP or compressed natural gas (CNG). "These fuels burn cleaner than gasoline, but they burn hotter, too. They have a lot of valve problems as a result.

In a car, top cylinder lubricators will use about a quart of oil for every 1,000 miles driven, depending on how one drives and how much of the time the engine is idling.

Andrus still has about 26,000 top cylinder lubricators for sale, in three sizes. The 1-quart model sells for \$49.95. A 2-quart model sells for \$59.95.

Contact: FARM SHOW Follow-up, Floyd Andrus, Ampco Top Cylinder Lubricators, Box 60006, Florence, Mass. 01062 (ph 413 586-0978; fax 413 586-1020; E-mail: ampcolubes@rcn.com; Website: www.ampcolubes.com).

Jig Makes Pipe Welding Easier

Anyone who has ever tried to tack weld a nipple fitting onto a steel pipe or tank knows it can be tricky. You have to hold the fitting with one hand and at the same time tack weld it into place with the other, all the time keeping the fitting level. A new welding jig makes the job a lot easier. The Align-O-Let can be used on pipe from 1/2 to 2 in. in diameter.

"It lets you work with your hands free and takes all the guesswork out of welding on pipe," says inventor John Davio, Whitecourt, Alberta.

The tool is shaped like a small sawhorse. There's a 2-in. dia. opening in the middle, with a thumb screw on one side and a leveling bubble on the other side. You insert the fitting you want to weld through the opening and use the thumb screw to tighten it down. Then you adjust the jig as needed and make a couple of tack welds to hold it in place.

"It makes a very tedious fitting job much easier," says Davio. "It works just as well on flat surfaces as it does on pipes, so you can also use it to weld fittings and spigots onto fuel tanks, water tanks, etc. It also works great for welding threaded fittings onto hydraulic cylinders where the hose hooks onto the cylinder.

"The tool is made of a composite material with a melting temperature of 500 degrees F, so as you tack weld the electrical current can't go through the tool and cause it to weld itself



Align-O-Let welding jig can be used on pipe from 1/2 to 2 in. in diameter.

to the pipe. Sparks from the welder will just bounce off the tool without sticking to it."

Davio says the Align-O-Let can also be used to help you cut out the hole in the pipe where you plan to install the fitting. "The tool makes it much easier to find top dead center and mark where to cut the hole," he says.

Sells for \$59 (U.S.) including S&H. Contact: FARM SHOW Followup, John Davio Welding Ltd., 16 Chickadee Drive, Whitecourt, Alberta, Canada T7S 1G3 (ph 780 778-3597).