Money-Saving Repairs & Maintenance Shortcuts

(Continued from previous page) Clifford Krause, Preston, Minn.: When Clifford picked up a bunch of old school lockers, he put them to use for storage in his shop and garage. He says you can use them to store a variety of items and, best of all, they're mouse-proof.

David Millsap, Abingdon, Va.: "To have air for cleaning radiators and filling tires, I installed a ball valve and female air chuck on all our trucks equipped with air brakes. Then I purchased air hoses fitted with male and female chucks to keep in each truck along with blow nozzles and tire chucks. Very handy."

Paul Wadeson, Hancock, N.Y.: "I use a shovel under tires when I change my studded snow tires. I just slip it under the tire and



put a foot on the handle to raise the tire enough to catch the lug nuts. Simple and saves your back."

Charles M. Hord, Kenton, Ohio: "I put used oil in a 1-gal. garden sprayer and use it to lubricate chains and other parts, and also on rusty parts on implements."

Zeke Robinson, Ventura, Calif.: "I've read in FARM SHOW recently about readers having trouble starting small Tecumseh engines with less than 10 hp. I added a cup of wood alcohol or methanol, to each gallon of gas. Engines will start and keep running strong. I think the reason is that moisture gets into the fiber carburetor gaskets and causes trouble. The alcohol pulls out the moisture. I don't know how it would work in cold weather since I live in California."

Charles Poole, Ottawa, Ill.: "If you have a stationary engine that you only use in warm weather and is in a dusty area where keeping the radiator clean is a problem, here's an idea. Take an empty steel drum and weld two fittings onto the drum – one at the bottom and the other towards the top. Connect one fitting the the radiator hose off the top of the engine and the other to the water intake at the bottom of the engine. Then fill the barrel with water. The water will boil as the engine heats up and you'll have to add more now and then. But it'll help keep the engine running cool and there's less danger of running out of fluid and overheating."

James Welch, D.V.M., Clinton, Wis.: "T m a retired veterinarian who now volunteers at a local conference center. Del Christiansen, the manager of the center, has a unique method of recycling oil from the grinding machines. He places a clean brown paper bag on a rack in a 5-gal. plastic pail. He then pours the oil into the bag. It takes 8 to 12 hrs. for the oil to filter through and be come reeuseable. I tried it on used motor oil and found it also works well with that."

Bob Batteen, Urbana, Iowa: "In a recent FARM SHOW issue there was an article on problems with Super 'M' and Super 'MTA' disc brakes. The problem was they didn't last very long. Maybe this will help. When repairing brakes, be sure to clean all rust, etc. The brake housing butts against the brake drum, which butts against the transmission housing. Make sure these surfaces are super clean. Then apply a thin coat of gasket maker to all these surfaces and reassemble, set brakes according to the owner's manual, and install new boots.

"My Super 'MTA' is a loader tractor and sets outside all year long. The last brakes were installed four years ago."

Portable Welding Shop Mounts On Old Garbage Truck

Brian Esser, Minnesota Lake, Minnesota, operates a portable welding service that serves farmers and truckers, among others.

Over the years, he's put together six different rigs to haul tools and power to welding sites. "T've put them on trailers and smaller trucks, but I never had one that would handle everything I might need. I was always running back to the shop for something," he says.

So for his newest portable welding rig, Esser found a 1981 C70 2-ton Chevrolet truck cab and chassis and went to work. "The truck had been a single axle garbage truck, so it already had a good set of springs under it," he says.

"The first thing I did was to extend the frame, making it 30 ft. long from bumper to bumper," he says.

Then he built a utility bed on it that's only a 20-in. step up between the wheels. "I made shelves and compartments all around it that are accessible from the ground, as is all," he says.

With the exception of one tool cabinet, he made all the cabinets on the truck from aluminum deckplating. All have hinged, locking doors.

Besides welding tools and supplies, his cabinets hold the equivalent of a small hardware store. "I have large quantities of the most common sizes of screws, bolts, nuts, steel rod, flat steel, angle iron, etc., on the truck," he says. "It's often a 20-mile round trip or more to the closest hardware store, so having the truck stocked saves a lot of time and expense. A trip to the hardware for four or five bolts costs the customer an hour of my time or more."

Most of the welding equipment and storage is centered around a 50-ton iron worker that he uses to cut and shape steel on site.

Then there's an 8,000-watt gasoline engine-powered generator, a 250-amp stick welder and a 250-amp wire feed welder. He mounted oxygen and acetylene tanks on one

Brian Esser extended the frame of a 1981 2-ton Chevrolet truck to 30 ft. before installing his home-built utility bed.

side, with 100 ft. of hose that lets him get his torch into just about any place where he needs it

The generator provides power for the welders, and several other power shop tools, including a drill press. Tucked into one of the cabinets is 200 ft. of 220-volt power cord, so he can take the welders off the truck if he needs to.

Other components include portable and fixed lighting, so he can work any time of day or night. Some of his portable lighting draws power from the generator. For the truck mounted lights, though, he replaced the stock alternator with a heavy-duty 100 amp model, which keeps the truck battery and a bank of back up batteries well charged.

Tucked into one cabinet is a 220-volt air compressor with 150 ft. of hose. The compressor is plumbed into outlets on both sides of the truck, so he doesn't have to run the hose over or under the truck to get to his work. "I had another smaller compressor on the truck at first, but it didn't put out enough air for my plasma cutter," he says.

There wasn't room for the plasma cutter on the truck and Esser says he doesn't usually need it. When he does, he takes it along on a pallet that fits into the receiver hitch on back of the truck.

While he spent a lot of time designing the truck, he says he had to make some changes and it took quite a bit of on-the-spot engineering to get it all to fit together. One of the main concerns in the design was that the truck fit inside his shop, which has a 96-in. doorway.

He figures he has more than \$50,000 invested in the portable welding shop, including his small rolling hardware store.

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"Oil Caddy" Made From Office Chair

Gord Stein likes the fact that he doesn't have to fumble with a funnel or have to lift up his transmission oil or gear oil pails when doing maintenance to his trucks. The Barrhead, Alberta, farmer made a two-pail oil holder using the castor wheels off an old of fice chair.

Using flat iron, he fashioned a platform for the pails to sit on. This is welded under the castor leg assembly. Strap iron side brackets hold the pails in place.

The 5-gal. pails are fitted with hand pumps and hoses on the lids so that no lifting is required at any time. The rig can be rolled around the shop or out onto the gravel outside, according to Stein. The castors are extremely stable, and the unit is well balanced. It doesn't even tip over when one pail is removed, so varying levels of lubricant in the pails have no effect.

The cost to Stein for the "oil caddy," was negligible, since materials were all salvaged and it took only an afternoon to build.

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Two-pail oil holder was made using the bottom of an old office chair. Pails are fitted with hand pumps so no lifting is required.



Dodge 4-WD Transmission Fix

If you drive a Dodge 4x4 diesel pickup madeplace conin 1994 or later equipped with a standard 5-shows upspeed transmission, or if you're thinkingmiles, buabout buying a used one, you may need toas 35,000talk with Dan the Gear Man.on trucks

The Gear Man, known to his friends as Dan Guarino, says as many as 25 percent of these transmissions will fail due to wear on the fifth gear main shaft.

"The main shaft is 2 in. long, but has splines only on the outer 3/4 in. of the shaft. Under heavy loads, the gear wears into the shaft past the splines," he says. "That lets the shaft work loose and the nut that holds it in place comes off."Guarino says this usually shows up on trucks with more than 100,000 miles, but notes he's seen it happen as soon as 35,000 miles. It's more likely to show up on trucks that are used extensively for pulling heavy trailers at highway speeds.

Guarino fixes the problem with his own version of the main shaft. "Once the shaft is worn, it's shot and has to be replaced. The dealer fix is to replace it with the stock shaft, so the problem will likely occur again. Our Extreme Duty Mainshaft will fix it permanently," he says.

"Our shaft has splines the full length, so

the gear is always fully supported. This way, it can't work loose and wear out," he explains.

The Gear Man's transmission fix usually costs around \$1,600. "By the time the owner gets it to us, the truck usually has a fair number of miles on it and we have to rebuild the transmission. If it comes in before it's shot, we can fix the transmission for less than that," he says.

Contact: Farm Show Followup, Dan Guarino, Quad 4X4, RR 1, Box 2059, Roberts, Montana 59070 (ph 406 446-2427; website: www.quad4x4.com).