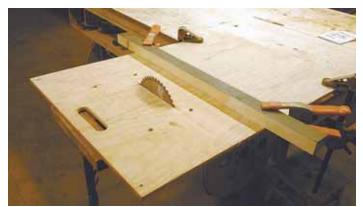
### Money-Saving Repairs & Maintenance Shortcuts



Paul Tierney used his hand-held circular saw to cut a slot into a sheet of plywood, then set the saw over the slot with the blade sticking through it. He bolted the saw's baseplate to the plywood and then flipped the plywood over so the blade extends out the top.



To keep the saw running continuously, he wrapped a metal bracket around the trigger and slipped a small wood wedge under it. To stop the saw, he just pulls out the wedge.

#### By Mark Newhall, Editor

# How To Make A Low Cost Temporary Table Saw

My friend Paul Tierney, Bloomington, Minn., is a jack-of-all-trades who can do everything from artistic metalwork to sculptures to remodeling. He recently took on a rush job helping a client remodel a small restaurant and bar.

The job called for ripping a big pile of cedar planking but he didn't want to haul his table saw down to the job, and he didn't want to haul the cedar back to his shop. So he came up with an idea for a temporary table saw.

He took a sheet of plywood and cut a slot into it with his hand-held circular saw. Then he set the saw flat over the slot with the blade sticking through it and bolted the saw's baseplate to the plywood with four countersunk bolts. Then he flipped the plywood over so the blade extends out

the top.

To keep the saw running continuously, Paul wrapped a metal bracket around the trigger and made a small wood wedge that slips under the bracket to apply pressure to the trigger. When he wants to stop the saw, he just pulls out the wedge.

On top of the table he used spring clamps to hold a saw guide in place. And he drew

measured gauge lines on top of the table so it's easy to rip the cedar at different widths.

"It was a good solution to a short-term problem. The saw held up just fine to a bunch of cutting," says Paul.

Contact: FARM SHOW Followup, Paul Tierney, 10020 Pleasant Ave. S., Bloomington, Minn. 55420 (www.pauletierney.com).

# Where To Buy Custom Radiators, Oil Coolers

Brothers Will and Ryan Garrett followed their father into the business of repairing radiators. Later, it was their desire for working "outside the box" that got them into custom manufacturing. Fifteen years later Radiator Supply House produces custom aluminum and steel radiators, steel tanks, oil coolers and charge air coolers. They also make A/C condensers and shrouds for cars, trucks and commercial equipment.

For ag and commercial customers, RSI builds steel tank radiators to replace plastic models. The Garretts say they can restore just about any radiator including those from ageless iron equipment such as tractors, combines or stationary engines. The metal radiators and heavy-duty constructed cores they make replace short life-span plastic and light construction oil coolers. Charge air coolers and oil coolers are built with a bar and plate design core.

The company also produces Icebox radiator and intercooler direct-fits for Cummins 4BT, 7.3 Powerstroke or popular Willys Jeep, Landcruiser, re-builds or Rat Rods. One of their most unique creations was for a '57 Chevy with a twin turbo LS1. All special order units are hand made to custom specifications.

Contact: FARM SHOW Followup, Radiator Supply House, 1460 47th Ave., Sweet Home, Ore. 97386 (ph 877 365-9602; www.radiatorsupplyhouse.com).



Will and Ryan Garrett operate a radiator repair business and also build custom models. The nearly 8-ft. square radiator shown at right was built for diesel gensets.

## **Shop-Built Boring Tool**

Maryland handyman Brian Lough built his own line-boring machine because he couldn't justify the cost of a commercial model. He needed it to enlarge the bore of the pin holes on his 12-in. used excavator bucket. "I knew I could make something fairly simple that would work just fine using a drill, a scissor jack, and other parts in my shop," says Lough.

The other parts include C-channel, 1 1/2in. bearings, bearing mounting blocks, a bit setting tool, pvc centering cones, a 1 1/2-in. shaft coupler with key stock, and a short shaft turned down for a 1/2-in. drill motor. He fabricated the boring bar from a 1 1/2-in. keyed shaft with 1/2-in. square holes spaced 5-in. apart. Set screws are rotated 90-degrees from the square hole to lock the boring bit.

Lough secured the bearings with pieces of 1-in. square bar 4 1/2-in. long, threaded on the bearing end and welded to the part on the opposite end. He welded one edge of the bar so when boring was complete he could tap on the opposite side of the weld to break it loose. Then he ground the weld flush so he could re-use the bar. Lough says small metal

plates could be welded to a part to extend the reach of the mounting bar.

"I fabricated a bit-setting tool that uses a feller gauge to determine the advance needed for the next cut," Lough says. His lathe tool was made from 1/2-in. square HSS stock shaped with a round nose so it would cut in both directions. The cutting edge height was reduced 1/4-in. so it cuts to the centerline axis of the bore.

Lough's machine can also be used for repairing out-of-round holes. In that application he installs a sleeve with the correct inside diameter, or welds the inside of the bore, then cuts it to the correct diameter. Lough says anyone welding before boring needs to make sure all grease is removed or that area will harden and not cut correctly.

"This setup worked great for what I needed, and although I don't have any formal drawings on building another one, I'll be happy to help anyone who wants to build their own. It took me about 30 hrs. to put the tool together and I spent about \$125 for the bearings, shaft, shaft coupler and screw



Brian Lough needed to enlarge the bore of the pin holes on his 12-in. used excavator bucket, so he built his own line-boring machine. He uses a scissor jack to align it and apply pressure.

jack. A commercial tool would've cost about \$2,000," Lough adds.

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