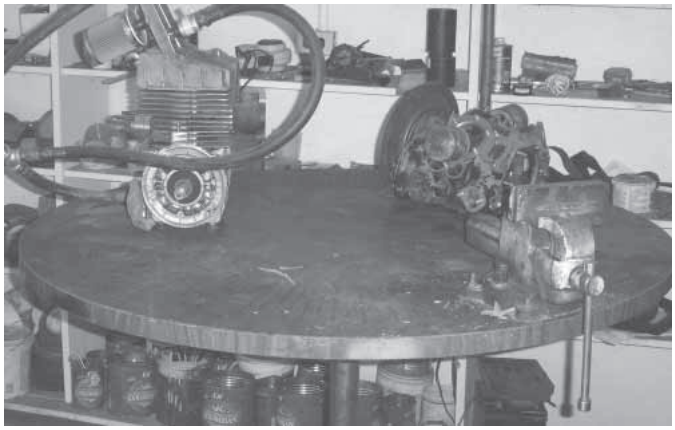


Wess Cornelius converted a 4-ft. dia. wooden kitchen table into this rotating shop table.

"Carousel Shop Table"

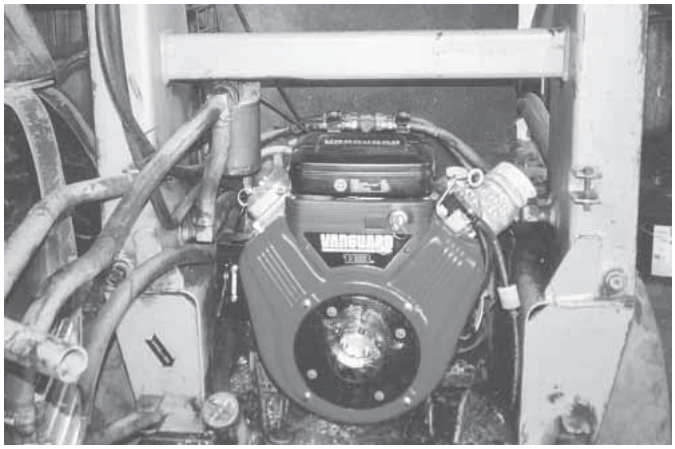
"It puts my shop tools right at my fingertips without having to do any walking," says Wess Cornelius, Winlock, Wash., who converted a round wooden kitchen table into a rotating shop table.

He started with a 4-ft. dia. wooden table with a single leg leading down to a metal base. He cut the pipe off, then slipped another pipe of smaller diameter inside the cut-off pipe, Then he welded the smaller diameter pipe to the base of the table.

He can raise the table to the elevation he wants by adjusting a collar that he mounted on the bottom pipe.

"It's amazing how well it works," says Wess. "Sometimes I line up tools and parts around the entire perimeter of the table. That way I can stand in one place and work on multiple facets of a project. I lay something out, and as I need a tool or part I can grab hold of the table and bring the tool to me. I bolted a vise to the table because a vise comes in handy for many different projects. "

Contact: FARM SHOW Followup, Wess Cornelius, 1312 Ferrier Rd., Winlock, Wash. 98596 (ph 360 785-4178).



When the Tecumseh engine failed on his Case IH skid loader, James Ruopp replaced it with a Briggs & Stratton V-twin, 18 hp Vanguard.

Repowered Skid Steer Runs "Better Than New"

A broken timing gear in the motor of his Case IH skid steer turned out to be good luck for James Ruopp. With no parts to be found, he had no choice but to replace the old Tecumseh motor.

"I had a lot of trouble with the Tecumseh and had been considering replacing it for several years," says Ruopp. "I chose a Briggs and Stratton Vanguard. It can do at an idle what the other engine struggled to do at full power, and it's only two horsepower bigger."

The V-Twin Vanguard engine he went with produces 18 hp to the Tecumseh's 16. Replacing one with the other was fairly simple. In addition to pulling the engine out, Ruopp also eliminated the electric fuel pump and the rectifier that charged the Tecumseh battery, neither of which were needed for the integrated Vanguard.

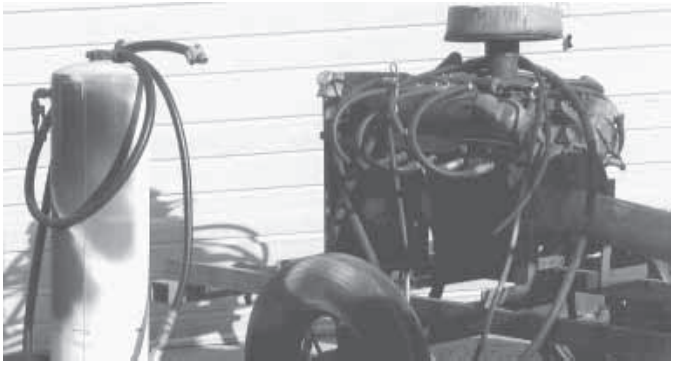
The Vanguard still needed more space to fit the Case skid steer compartment. Ruopp removed the backup rope pull starter to create clearance for the oil cooler at the rear of the engine. Needing still more space, he cut about 1/2 in. off the engine mount. This allowed him to line the engine up with the electric clutch that runs the hydraulics. Bolt holes to secure the engine matched perfectly.

"I thought the biggest problem would be matching the Vanguard's 1-in. crankshaft with the electric clutch that was built for the Tecumseh's 1 1/8-in. crankshaft," says Ruopp. "A machinist in town solved the problem easily with some shims."

Ruopp also rerouted the throttle cable and plans to reroute the starter switch currently on the engine. "It has not been a problem yet, as I can reach back and start it or adjust the choke," he says.

"The Vanguard works great," says Ruopp. "My only regret is not doing it sooner."

Contact: FARM SHOW Followup, James Ruopp, 2730 160th St., Marshalltown, Iowa 50158 (ph 641 753-7048).



Harold Witulski made a sand tank out of an old water softener tank.

Car Motor Makes Good Sandblaster

"I made a sand blaster-compressor from a car motor," says Harold Witulski of Beatrice, Neb. "The sand tank is made from an old water softener tank."

Since he already had the old motor and hydraulic hoses, the only thing he had to buy was the ceramic nozzle and a sandblasting hood to protect his head.

Witulski started his project by removing the valve rocker arms, intake springs and push rods from the motor. Then he installed lightweight springs on the intake valves so when the piston goes down, it can suck air in.

"I removed the carburetor and made an adapter for the air cleaner. Next, I removed the inside of the eight old spark plugs, and welded on the outer ring of a one-way hydraulic ball valve (which lets the air out of the cylinder one way and won't let it back in)," he explains. "These were taken off of hydraulic fittings."

Witulski ran hoses from the valves to an air manifold he'd made from a foot-long section of 2-in. pipe with plugs welded on both ends of it. Then, he drilled holes along the pipe's length, positioning four on each side to go to the spark plugs, and a large hole on one end to go to a T at the bottom of the sand tank. After welding fittings into the holes, he used a 1-in. hose to connect the end of the pipe to the sand tank, and 1/2-in. hoses, which run to the spark plugs, creating eight places for the air to go in.

At the other end of the pipe, he installed a smaller hole and fitting for a 3/8-in hose which allows the air to exit to the top of the sand tank.

He made the sand tank by placing a ball valve at the bottom of an old water softener. Witulski connected this to a T where the air comes in. The T also has a 1-in. dia. hose connected where the air and sand travel out to the ceramic sandblasting nozzle.

"When you open the ball valve, the sand will fall down into the air stream," he explains. "There was already a 3-in. hole at the top of the tank, with an airtight plug that works good to put the sand in. You adjust the ball valve at the bottom to set the amount of sand you want in the air stream."

Witulski mounted a salvaged pto to the engine, allowing him to hook onto the tractor's pto. This turns the compressor engine the same way it did while running on the car. In this way, he says he's able to maintain oil pressure in his motor.

"I also moved the car's radiator and fan to the back end of the motor for cooling." he says. "You have to use dry sand, otherwise it will plug up everything. I usually get fine fill sand ahead of time and shake it through a house screen to make sure it's fine enough - then let it dry in the shed so it's ready to use."

Witulski says he generally uses his sand blaster for only an hour at a time, but cautions that if you're going to use it continuously, you should probably use copper tubing from the spark plugs to the manifold because it gets pretty hot.

Contact: FARM SHOW Followup, Harold Witulski, 8558 W. Lilac Rd., Beatrice, Neb. 68310 (ph 402 228-0633).

An Iowa construction company converted this semi trailer into a shop by cutting a door into the side, and hanging storage racks and large drawers under the bed.

Semi Shop Trailer

By Rex Gogerty

I spotted this converted semi trailer used by a local construction company. I think the idea could also be useful for farmers who are short on shop space, or who want a mobile work space.

Christiansen Brothers Construction in Cherokee, Iowa, used lengths of strap iron and expanded metal to make steps, railing, and an unloading platform on back. The easy-to-setup folding platform has enough room to swing out the big doors on back, and to carry large work in and out of the trailer. There's also a door cut into the side of the trailer, and storage racks and large drawers hanging under the bed of the trailer.

They added steps, railing, and unloading platform on back.