



Mobile welding table with hoist, vises and under frame storage.

## Welding Table Moves With The Job

Anthony Spiering takes his welding table where it's needed. He no longer carries the work to the table. The mounted shop hoist makes handling heavy projects even easier.

"My dad came up with the welding table idea, and it was one of my first projects when I started working with him in the farm shop," says Spiering. "I learned how to weld making it."

Spiering used 3-in. oil field pipe for the 3 by 7-ft. frame and a sheet of 4 by 8-ft., 3/4-in. thick steel plate for the top. The top by itself weighs almost 1,000 lbs.

"The top has a 6-in. overhang on all sides for clamping work to it," says Spiering. "I'm tall, so I made the table 44-in. high."

To avoid possible warping of the top if he welded it to the pipes, Spiering attached it using four 1/2-in. bolts. "I drilled up through the pipe and tabletop, threading the tabletop holes," he says. "Once the bolts were installed, I ground the ends down flush. It hasn't moved."

An expanded metal shelf mounted to the under frame provides storage for a Miller Multimatic 200 welder, an Argon/CO2 tank and brackets for the torch and gas hose.

A heavy-duty extension cord feeds outlets mounted to the table for grinders and other electric tools in addition to the welder. Cross members on the under frame store C-clamps and other tools. At one end, Spiering mounted heavy-duty vises at the corners, one that swivels and a second that is stationary. The next add-on was born out of frustration, rather than planned.

"We got tired of tripping over our old 2,000-lb. shop hoist," says Spiering. "It always seemed to be in the way, so I decided to mount it on the table."

He cut off the wheeled base and mounted it to a cut-down pivot axle from an old 600 Case combine. He welded a piece of flat steel to one side of the axle and bolted the hoist's main frame to it. The vertical supports were bolted to the other side of the pivot axle.

Spiering attached the male post on which the axle swivels to the side of the table using a 2-in. sq. tube and a receiver hitch. Braces bolt to the top of the table for added support. To secure it in position, he simply drops a bolt through the respective, matching faceplates.

"I can spin it around as needed, yet quickly lock it in place," says Spiering. "If I need the hoist in the field, I can pull the pin on the receiver hitch, unbolt it and mount it on my pickup receiver hitch."

Initially, Spiering mounted the table with 8-in. steel caster wheels at one end and fixed wheels at the other, but they made it hard to move. After seeing the motorized, electric farm cart from Kramble Industries in



Combine pivot axle mount for hoist.



Electric drive support base with pivot point and drive wheels.

FARM SHOW (Vol. 45, No. 1) he considered mounting the table on the cart.

"It was impractical, but they sent me components that I was able to use," says Spiering. "I got their high torque motor, the controller that hooks to a 12-volt battery, and the throttle grip that mounts on a steering handle."

Spiering fabricated a support base for the drive wheels and motor, to replace the caster wheels. He used square steel tubing, heavy angle iron and a pipe-in-pipe pivot that mounts to the table end frame. A T-handle with the throttle grip is mounted to the front of the motorized support base.

A pair of lawn mower wheels met his height needs, but they were not strong enough to support the table.

"The tires squatted under the weight so much that the table was no longer level," says Spiering. "I switched to a higher ply rating and filled them with foam, and they were fine."

Spiering also geared down the motor. He connected the Kramble drive sprocket to one twice its size, which he mounted to a 1-in. shaft for the axle.

"I made the table 10-12 years ago and we've used it ever since," says Spiering. "The motorized drive made it even more versatile."

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## Rerouted Gator Duct Takes In Cleaner Air

Troy Hall says his father Ken's Deere XUV835 Gator is a great utility vehicle that does all sorts of work, but until recently it had one big drawback. "The engine air intake was close to the rear wheel where it drew in a lot of dust and dirt when the vehicle was used on gravel roads and dusty fields," Hall says. "He was constantly cleaning the air filter because the engine was losing power."

After thinking the problem through, Ken Hall came up with a solution. He loosened the clamp on the air filter housing and rotated it 125 degrees in the opposite direction toward the cab. Then he made a new duct that connects to the air intake tube on the engine and extends up about 18 in. between the cab and the box. The top opening draws in cleaner air from just below the cab's rear window. A horizontal cap prevents moisture from entering the duct.

The duct, made from galvanized sheet metal and painted black, fastens to the back of the cab with two self-drilling TEK screws. Hall says the flat rectangular device fits snugly between the cab and the box and isn't affected when the box is raised and lowered.

"We made changes to the prototype over a couple of months to perfect the design and the version we're producing now incorporates those improvements," Hall says. "It worked so well that it's on the market now as the Air Intake Relocation Kit (AIR Kit). We've sold them to several Gator owners who've been happy with them." Hall adds that newer



Ken Hall made a new duct that connects to the air intake tube on the engine and extends up about 18 in. between the cab and the box.

Gator models require an additional bracket to rotate the air intake tubes and he includes that with his kit.

"Drawing air from behind the cab is a lot better than from the underside of the vehicle. Now I don't have to change the air filter nearly as often," Hall adds.

Troy Hall says the AIR Kit currently sells for \$50 plus shipping and can be ordered by calling or emailing him. "Pricing may change if metal costs continue to go up," Troy adds.

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## Double Bench Grinder Saves Space

"When I was setting up my shop, I knew I needed at least three different grinding wheels," says FARM SHOW contributor Tony Bunniss. "I had two electric grinders but wanted to make them a little more compact so that they didn't take up valuable room."

He knew he needed a silicon carbide wheel, wire brush wheel, and a general-purpose wheel to shape a high-speed steel cutter and drill bits.

Bunniss' solution was a rotating mount for the two grinders.

He explains, "I have the silicon carbide and a regular wheel on one of the grinders, and they take care of any grinding I need to do on a carbide cutter or a high-speed steel, lathe cutters."

The other grinder is set up with the wire brush and a regular wheel for general grinding.

"To rotate the grinders, I loosen the set screw with the welded 'tee' handle, back it out of the hole in the shaft, and rotate it 180 degrees," says Bunniss. "The mount has a built-in stop which will only allow the platform to turn 180 degrees to the stop and back, which prevents the cords from wrapping up on the post."

Bunniss built the entire system out of scrap metal. That includes two pieces of pipe, with one machined to fit within the other. As he explains, "I used a 6-in. long by 3-in. OD pipe for the inside pipe that is welded to a 10-in. by 3/16-in. by 18-in. long channel iron for the platform. The outside pipe was machined to a loose fit for the 3-in. OD pipe and then welded to an 8-in. by 10-in. by 1/4-in. wall plate."

Since the walls of his shop are poured concrete, getting a secure mount was a relatively easy process.

He made the stop by drilling two holes a little over 180 degrees from each other around the circumference of the side pump and then cutting out the metal between them with a metal saw.



Bunniss made a rotating mount for two grinders to save space.



Says Bunniss, "I could have accomplished the same thing with the milling machine and the rotary table, but I didn't think it needed to be that accurate."

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