

## Reworked Deere Carburetor Burns Cleaner

Gary Hoefling says he can clean up the black smoke and fouled spark plugs common to Deere 3010/3020 and 4010/4020 tractors with his modified Zenith carburetor. He says his carburetor also makes the gas-fueled tractors more attractive to collectors.

"Diesels in those models can't be found," he says. "They've all been grabbed by collectors. If we can make the gas models burn cleaner and burn less fuel, we can add value to them, too."

Hoefling reworks the original Zenith cast iron carburetors. After seeing his improvements, Zenith agreed to make the changes and let him sell them.

"I've sold about 30 of them, and the customers can't believe their tractors run so well," says Hoefling. "If the spark plugs foul in two years, I'll replace them."

Hoefling and Zenith do some additional machining of the original carburetor and add Viton fuel seals. In addition to the new Zenith carburetors, Hoefling is also reworking original, existing carburetors for owners of the 3010/3020, 4010/4020 and other tractors.

"I also get a lot of people sending in non-Deere carburetors," he says. "If it's made out of cast or brass and burns gas, I can fix it."

Hoefling uses a local machine shop to make 5 or 6 replacement parts at a time. If one

person needs one, he knows others will too.

The new replacement Zenith carburetor is currently priced at \$795. Hoefling says the price will increase by \$50 in 2011. Old carburetor repair is priced at a flat rate plus parts. Depending on the work required, repairs could take up to 8 weeks, though Hoefling says most average four weeks.

Contact: FARM SHOW Followup, Robert's Carburetor Repair, 1601 35th Ave. W., P.O. Box 624, Spencer, Iowa 51301 (ph 712 262-5311; robertscarb@smunet.net; www.robertscarbrepair.com).



Gary Hoefling says his modified Zenith carburetor cleans up the black smoke and fouled spark plugs common to Deere 3010/3020 and 4010/4020 tractors.

## Truck Wheel Forge Fitted With Antique Blower

Alvin Oien remembers watching his uncle make knives on a forge in his blacksmith shop. That memory inspired him to make his own forge recently out of a truck wheel rim and an antique hand-cranked blower he picked up at an auction sale that was manufactured by Champion Bower & Forge in Lancaster, Penn.

"It was challenging just planning how to put it together," says Oien, a retired Bagley, Minn., farmer and road construction worker. He figured out a way to install the blower on the side and get the air to blow in from the bottom of the rim. He used a torch to cut a hole in the rim for a pipe to connect the blower. The air blows up through a layer of sand to burning briquettes. Oien notes regular barbecue briquettes work, but says there are briquettes designed for forges that burn hotter and longer.

He built the forge on a wheeled cart so it's portable.

He plans to use it to make knives and parts for farm repairs. His wife has ideas for decorative door handles and plant hangers. But Oien admits he really built it for another reason.



Alvin Oien made this forge out of a truck wheel rim and an antique hand-cranked blower. He uses it to make knives and parts for farm repairs.

"I built it mostly to show off the old blower," he says.

Contact: FARM SHOW Followup, Alvin Oien, P.O. Box 21407 340<sup>th</sup> St., Bagley, Minn. 56621 (ph 218 785-2319).

## How To Remove Spot Welds Fast

You can quickly remove spotwelds on sheet metal or steel up to 1/4 in. thick with this attachment for handheld drills.

The Blair Premium spotweld cutter consists of an arbor with a pilot on it that helps line up the hole, and a cutter that screws onto the arbor. The cutters look somewhat like a drill bit except they're hollow and have teeth with multiple angles on them. Both the pilot and cutter are replaceable, and different size cutters and pilots are available.

"It works somewhat like a hole saw, only it works much better. It's almost like having a hole saw on steroids," says Greg Londrigan, Blair Equipment Co., Flint, Mich. "It works great for car restoration or auto body repair work, where you want to remove spotwelds from body panels. You can also use it to drill plug holes, where you drill a hole through one piece of sheet metal and then lay another piece on top of it and then weld in that hole."

Premium spotweld cutters are available individually (\$27.95 plus S&H) or in kits with 3 cutters (\$46.35 plus S&H) or 7 different sizes of cutters from 5/16 to 3/4 in. in dia. (\$84 plus S&H).

Contact: FARM SHOW Followup, Blair Equipment Co., P.O. Box 2005, Flint, Mich. 48501 (ph 810 635-7111; info@



Spotweld cutter consists of an arbor with a pilot on it that helps line up the hole, and a cutter that screws onto arbor.

blairequipment.com; www.blairequipment.com).

## "Notcher" Helps Make Precise Pipe Welds

By Jim Ruen, Contributing Editor

"Fish mouthing" the end of a pipe in preparation for welding it to another pipe can be tricky and time consuming. The Tube Notcher gets the job done fast, easy and relatively inexpensively. Best of all, it prepares the tubing in a way that makes for a better weld than fancier, more expensive tools do.

"You can notch two sides of a pipe in about five seconds," says Dave Williams of Williams Lowbuck Tools. "A good weld is one that has been 'V'd' out to a slight gap and then filled in with weld. My notcher produces a proper V-gap in the notch."

Williams is a hands-on hot rod builder and fabricator. Over the years, he's developed a number of impressive tools that do jobs in simple ways, replacing more expensive and complicated equipment.

He came up with the Tube Notcher to build roll cages but it has many other uses. It will notch 0.134-wall mild steel, 0.095-wall 4130 (chromoly) and schedule 40 pipe. Angles can be easily adjusted by the size of the "bite" removed. A full bite to each side of a pipe creates a perfect 90° fit. A smaller bite to one side and a larger bite to the other create an angled fit.

The notcher is simplicity at its best, rugged and easy to install and adjust. Williams ships the notcher with male and female cutters. Angle iron supports that can be bolted down

to a workbench are \$20 extra. When FARM SHOW received one to photograph and try, we bolted the irons through a steel plate to a wooden workbench.

The "shearing/punch" style notcher consists of a steel plate that is bolted to the supports and held vertical to the work surface. A male cutter is mounted to a drive mechanism, while a female cutter serves as a rest for tubing being cut.

The male cutters consist of rounded cutting edges, case hardened to 62 Rockwell. They are available in four sizes to cut tubing from 1 in. to 2 1/2 in. diameter. Set #1 does 1 in. to 1 1/4 in. O.D. tubing. Set #2 does 1 1/4 in. to 1 7/8 in. O.D. tubing. Set # 3 does 2 in. to 2 1/2 in. O.D. tubing or fence pipe, and set #4 does 1 3/8 in., 1 5/8 in., and 1 7/8 in. fence pipe, including schedule 40. Male cutters also can be milled down for smaller sizes.

To use the unit, a cutter head to match the pipe diameter is threaded in place with a lock nut securing it. The female cutter is adjusted to leave a gap of .050 to .060 thousandths of an inch and secured.

A lever action assembly provides down pressure to the driver mechanism. With the aid of a 4-ft. pipe extender to the driver lever, the operator can quickly punch through steel pipe to create a perfect fish mouth notch. The simple "extended" lever action does the work with arm muscle. A competitive punch



Tube Notcher (left) is designed to "V" out the end of a pipe in preparation for welding it to another pipe.

style notcher requires a 4-ton press to do the same job.

Trying it out on steel pipe proved as easy as Williams promised. Adjusting the gap solved initial problems. The notcher was quick and decisive, leaving a smooth cut behind. Changing male cutter heads and adjusting the female cutter also lived up to claims.

"Just jam the pipe against the male cutter head and pull down on the lever pipe," he advises. "You don't have to hold the pipe being cut. The action holds it in place."

Williams says male and female cutter heads can be used thousands of times.

The tube notcher with the buyer's choice of male and female cutter size is priced at \$335. Additional cutter sets consisting of a male and female cutter are priced at \$130 each.

Contact: FARM SHOW Followup, Williams Lowbuck Tools, Inc., 4175 California Ave., Norco, Calif. 92860 (ph 951 735-7848; toll free 800 735-7844; wlowbuck@aol.com; www.lowbucktools.com).