

20-Spline Pto Shaft Fits Older Deere Tractors

"If you've got an older Deere tractor that you want to hook up to a manure spreader or a mower or some other tool with a 20 spline pto shaft, this insert shaft makes it real easy," says Curt Goeckner, co-owner of R and G Machine in Effingham, Ill. Goeckner and his partner, Mike Rieman, made the specialty shaft after Dave Behrns, a Dieterich, Ill., farmer showed them a mockup that he had welded together.

Goeckner says, "Mike and I looked at what Dave had in mind and we drew it up on AutoCAD. We used the dimensions from a 20 series Deere tractor pto shaft so our shaft would fit into the tractor just like the OEM shaft. Before we built it I talked to a metallurgist to make sure we had the right grade of steel to handle the stress that a tractor pto shaft encounters."

The 1 3/4-in. 20-spline tractor shaft that R and G built is the same length as an OEM tractor shaft. An implement pto connects to the R and G shaft just like it does on the OEM model, sliding on easily and locking securely in place.

Goeckner says their insert shaft is easy to install. "Just remove the snap ring that holds

the OEM shaft in place, pull that one out and put ours in." He recommends that the rear of the tractor be elevated slightly during the process so oil doesn't run out when the shafts are switched. "If a person is really fast you can do it on level ground," Goeckner says, "but if you fumble around a cup or more of oil can run out fairly quickly." The R and G insert fits on Deere series 20, 30, 40 and 50 series tractors.

Behrns says there are thousands of older tractors out there now being used with newer implements that have 20-spline, 1,000 rpm shafts. He doesn't like the idea of using a bolt on adapter because it adds 4 in. or more to the tractor shaft. That creates stress on the tractor and the implement pto. "I know of a couple people who have either bent the implement shaft or have broken the knuckle because the angle with that shaft extension was too harsh. In both cases it was expensive to repair the implement shaft, and the problem at the tractor didn't go away," Behrns says. "This design works a lot better than a bolt-on extender and it's easier on the tractor and the implement."

R and G has built a dozen of the insert



Insert shaft makes it easy to hook up an older Deere tractor to a mower or some other tool with a 20-spline pto shaft.

shafts and had farmers test them on different tractors. "They're running in Kansas, Arkansas, Nebraska and Illinois," Goeckner says, "and they're all working well."

R and G has applied for a patent on its insert shaft and thinks there's a market for the product. Goeckner says the price for their

insert will be comparable to bolt-on adapters.

Contact: FARM SHOW Followup, Dave Behrns, P.O. Box 14, Dieterich, Ill. 62424 (ph 217 925-5257) or Curt Goeckner, R and G Machine, 1303 Parker Ave., Effingham, Ill. 62401 (ph 217 342-6622; r&g@effingham.net; randgmachine.com).

Easy Way To Change Broken Teeth On Wheel Rakes

"This photos show how I can change the broken teeth on my wheel hay rake. The clamps free up my hands to replace the teeth, as well as to replace the brackets and bolts," says Jim Brashears, Olathe, Kan.

"I start by cutting four 1 by 2's about 6 in. long. I put a block on either side of the good tooth, in front of and behind the bad tooth. Then I use 4-in. C-clamps to tighten the blocks against the teeth, positioned under

the last ring on the wheel.

"This idea is really handy and saves a lot of time, because I don't have to fight several teeth for alignment with one hand while putting the brackets and bolts together with the other."

Contact: FARM SHOW Followup, Jim Brashears, 11035 S. Waverly St., Olathe, Kan. 66061 (ph 913 909-1347; rubyreds111@yahoo.com).



Jim Brashears says using 4-in. C-clamps and wooden blocks makes it easy to replace broken teeth on his wheel hay rake.



Gas-powered circular saw is easy to use and completely eliminates the need for electrical cords and generators, says Cooper Saws.

Gas-Powered Circular Saw

"It's compact, lightweight, easy to use and completely eliminates the need for electrical cords and generators," says Andrew Stoltzfus, Cooper Saws, Inc., about his company's new gas-powered circular saw.

The first-of-its-kind saw is powered by a 1.7 hp, 1.8 cu. in. gas engine and equipped with a specially-designed gearbox that drives the blade.

"We basically remove the electric motor from a DeWalt DW364 circular saw and then make the gearbox to get the right speed ratios," says Stoltzfus. "As a result, our gas-powered circular saw weighs only 7 oz. more than the electric-operated models."

The saw is designed for easy starts in tough situations and has a centrifugal clutch so when the engine is idling the blade doesn't turn. It comes with a single top handle that has a built-in throttle, which makes it easy to



use with one hand.

The concept of a gas-powered circular saw isn't completely new, says Stoltzfus. "Years ago Homelite offered a gas-powered circular saw, but it was much heavier at 22 lbs. compared to 14 lbs. for our saw. One company still offers an attachment for a chainsaw that replaces the saw's bar and chain, but it's much heavier than our model. The only limitation to our model is that you don't want to use it inside a building for very long because of the exhaust fumes."

Stoltzfus is setting up dealers and service centers. "The customer typically purchases a new chainsaw and we convert it at their request, or we can convert a chainsaw that you already own. The conversion is only available for specific chainsaw models, which can be obtained by calling Cooper Saws, and involves modifying the engine so it can be

Chopsaw Powered By Weedeater Engine

Elmer Fisher is in the business to provide customers – mostly Amish – with power tools that don't require electricity. But his chopsaw powered by a weedeater motor may attract a wider variety of customers. The owner of Midwest Power Tools in Oak Grove, Ky., he came up with the idea when a customer requested a chopsaw that could run off something besides an air compressor.

"It's easy to move around and very portable," Fisher says.

He designed an attachment for two models of DeWalt chopsaws (DW718 and DWS780) out of aluminum and stainless steel (for the drive shaft). The customer buys a Stihl FS130 weedeater (bike handle style works the best), removes the shaft, and slips the engine on Fisher's attachment shaft. It's fast and easy to make the switch so the weedeater can still be taken out and used for its intended purpose as well.

Fisher's customers include professional carpenters, but farmers and fence installers like it also. The weedeater engine is lightweight, easy to start as it uses the weedeater's throttle and switch, and it uses less gas than a 13 hp air compressor. There



Kit lets you use a lightweight weedeater motor to power DeWalt chopsaws.

is also no vibration, because of the rubber shock in the weedeater's mounting plate.

Fisher sells the attachment kit for \$225. A DeWalt chopsaw with the attachment sells for \$799. An optional exhaust port is available for using the weedeater engine indoors. The weedeater is not included.

Contact: FARM SHOW Followup, Midwest Power Tools, 3837 Millers Mill Rd., Oak Grove, Ky. 42262 (ph 270 885-8584; 270 348-1951 for voicemail).

adapted to our gearbox. After the conversion we provide a new warranty for the saw."

The turn-around time for the saw conversion is usually 2 weeks. "You can buy a saw at a local Stihl dealer and send it to us, or you can buy one from a Stihl dealer close to our manufacturing facility and we'll make the conversion before shipping the saw to you,"

says Stoltzfus.

Two models are available – one has a 7 1/4-in. blade and sells for \$995 plus S&H; or you can purchase an upgrade to an 8 1/4-in. blade for \$50.

Contact: FARM SHOW Followup, Andrew Stoltzfus, Cooper Saws, 245 Cooper Dr., Kirkwood, Penn. 17536 (ph 717 529-6155).