

Fan Clutch Boosts Horsepower On Deere 8440

When Mitch Vanness rebuilt the water pump on his Deere 8440 last spring, he decided to try installing a clutch kit on the engine's direct-drive cooling fan.

"I knew there was a clutch for the fan on other models, so I bought one of those and adapted it to fit my tractor," says the Latimer, Iowa farmer.

"Originally, the fan bolted directly to the water pump drive pulley on the engine," Vanness says. "It didn't take much to make the clutch work on this tractor. I had to drill out the holes in the clutch where the fan mounted, and I had to put some studs in the pulley to mount the fan clutch on the pulley. After that, it was just a simple matter of putting it back together. I also replaced the old fan with a newer style fan."

When he had it all back together, the new fan stuck out too far to fit the fan shroud. The shroud is in two pieces. He put the front piece inside the back piece, which allowed him to slide the front piece forward enough to go around the fan.

"The engine warms up quicker now with the fan off and there's less wear and tear on the fan belt, even when it's running," he says. He says there's less fan noise, too.

But the best part is that the change increased both available horsepower and overall fuel economy.

"Normally, power output from this tractor has been right at 210 pto hp," he says. "I checked it on a dynamometer after adding the clutch and found it was right at 235 hp."

Besides farming, Vanness also runs a machinery repair service. The clutch he modified was designed for 50 series and newer



"It increased both available horsepower and overall fuel economy," says Mitch Vanness, who installed a clutch kit on his Deere 8440's direct-drive cooling fan.

Deere tractors. Now that he's successfully added the fan clutch to his 8440, he says he'd be willing to make the modifications for others. "I'll be working on a conversion for 4640, 4840 and 8640 models," he says.

"It would be best to do this conversion while rebuilding the water pump," he says. "I think I could probably rebuild the water pump and install the fan clutch and new fan for under \$700."

A lockout kit, which keeps the fan running full time, is also available for tractors with fan clutches installed. Vanness says these are only helpful in extreme conditions, though, and shouldn't be needed if the radiator is kept clean and the cooling system is working properly.

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Belt-driven extension for chop saw can also be used to power a drill chuck.

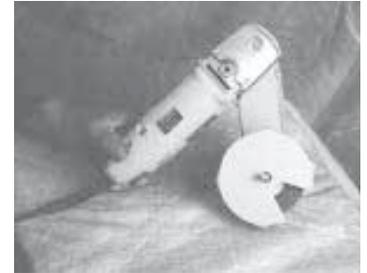
Chop Saw Cutting Head Rotates 280°

James Wambeke can cut tubing within 1/8-in. of a wall and know the wall will go unmarred thanks to his Universal Chop Saw. Tired of nicking walls or not being able to get in and cut a pipe at all due to the tight space where he was working, Wambeke put together an extension for his DeWalt Chop Saw.

"It lets me rotate the cutter back as far as my hands," says the professional plumber. "It only took me a couple of weeks to put it together, and then nearly 2 years to get a patent on it."

Wambeke disconnected the chop saw head from the power shaft of the DeWalt and replaced it with a belt drive mounted a metal cover. The belt drive pulley on the drive shaft allows the arm to rotate 280°.

"The 10-in. long arm can also be used for mounting a drill," suggests Wambeke. "Simply remove the end cover head shield, take off the nut that holds the cutting wheel shaft, and slide it out. The shaft is then replaced with a chuck and tightened down."



Extension lets Wambeke rotate cutter head back as far as his hands.

He says the drill has proven handy for hard to reach spots and angle drilling. While it could also be used as a sander with the appropriate bit adapter, it would be extremely high speed as the DeWalt operates at 10,000 rpm's.

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Restore Damaged Threads Without a Die

Damaged bolt threads no longer mean a trip to the store, not if you have the Universal Thread Restorer in your toolbox. Two hardened steel blades on the restorer head are guided by undamaged thread to regroove damaged areas.

"It works slick and can pay for itself in time saved alone," says Fleming Lauridsen, owner of Flema Products Ltd., Kelowna, BC. "I had a customer with a special fitting on a race car that had been damaged. Without the Thread Restorer, it would have required a special die," recalls Lauridsen, who markets the tools. "We fixed it in five minutes and saved him \$500."

The tool has three different head sizes for bolts ranging in size from 1/4 to 3/4 in., 1/16 to 1.5 in. and 11/4 to 5 in. Each tool has optional bits for fine or coarse threads, but otherwise works on metric, inch, right hand or left hand threads interchangeably. Lauridsen claims the tool with its three heads can replace about 1,000 dies.

Lauridsen demonstrates the Restorer's effectiveness by flattening thread on a bolt with a hammer and then applying the tool.

Two or three turns should return the bolt to proper shape and allow a nut to be screwed on by hand," says Lauridsen. "If the bolt is severely damaged or if safety is a concern, it should be replaced. You do lose some of the integrity of the thread once it has been damaged."

Clogged internal threads can be just as frustrating as damaged external threads. The Internal Thread Cleaner, also offered by



Two hardened steel blade on restorer head are guided by undamaged thread to regroove damaged areas.

Flema, cleans and restores grooves in nuts, pipe couplings and threaded holes. It works great for removing burrs and cleaning out old sealer, adhesives, paint and rust. The Cleaner can be locked or allowed to rotate freely.

The Universal Thread Restorer sells as a kit with three heads, a set of spare blades and the Internal Thread Cleaner for \$349. You can also buy the tools separately. The 1/4 to 3/4-in. tool and heads sell for \$49. The Internal Thread Cleaner tool sells for \$15.

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Authentic Dash Decals For "New Generation" Deeres

Rebuilding a Deere 3020 or 4020? If so, you'll want to get in touch with Roger Ballstadt. The Goodhue, Minnesota farmer has become a decal specialist, one whose work is more authentic than replacements ordered from John Deere itself. Decals have become a profitable sideline for the dairy farmer, one he discovered by accident two years ago.

"I was restoring a tractor that had burned up and couldn't find the decals I needed for it," he recalls. "When John Deere changes models, they only continue to make one decal that fits all the models in a line over a 13-14 year period. As a result, a 3010 that had three reverses will only show two if you use the dash decal offered by John Deere."

When he couldn't find what he wanted, Ballstadt created his own decals, following the original design. They looked so good he made up additional ones and began selling them. Today, he specializes in the New Generation 1010 through 5020 series of tractors. He has 9 different decal sets. His dash decal set, consisting of two dash decals and one hydraulic lift decal, sells for \$8/set.

Creating a decal is not a simple task. When Ballstadt identifies a decal that is in short supply, he contacts collectors to find an original. Based on the original, Ballstadt painstakingly creates new artwork that he can take to a printer. The entire process can take six months or better. Little differences stand out between the decals, such as line and type variations. The John Deere generic has a dismounting warning on it that didn't appear on the original.



Decal at far left is sold by Deere for all tractors from 1960 to 1975. The three decals on right are made by Ballstadt for specific tractors during the same period.

"If I get a request for one I don't have, I try to decide if it is one that will have much demand," explains Ballstadt. "If it's a real low production model, such as a 2020 orchard where there were only 200 produced, it may be easier to help them find an original rather than develop a new one. In one case, a person wanted a particular decal, and I had two sets, so I sold him one."

While Ballstadt enjoys his hobby and plans to expand eventually to include 1970's vintage John Deere tractors, the real payoff is in the people he meets. "I get to talk to people all over the country about tractors and farming," he explains.

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