

Wood Planer Blows Chips, Dust Into Wheelbarrow

John Houston, Davidsonville, Md., was left with a big mess in his shop whenever he used his DeWalt wood planer equipped with a built-in chip blower. To solve the problem, he hooked up a 7-ft. long plastic hose to a port on the planer and ran the hose into a wheelbarrow that he covered with landscape fabric.

"I use the planer for surfacing roughcut wood. The blower on it directs chips outside the machine through a 4-in. port. However, the blower is so strong I can't use the planer inside my shop without making a mess

and having to breathe in a lot of dust. I tried parking the planer in the shop's doorway and blowing the chips out into my yard, but that made a mess, too."

He clamped one end of the 4-in. dia. hose onto the blower port and placed the other end into the wheelbarrow. Then he laid the landscape fabric over the wheelbarrow and clamped it onto the sides.

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John Houston uses a wood planer equipped with a built-in chip blower inside his shop. He hooked up a plastic hose to a port on the planer and ran the hose into a wheelbarrow covered with landscape fabric.

Hose Clamps Handy For Fixing Roller Chain

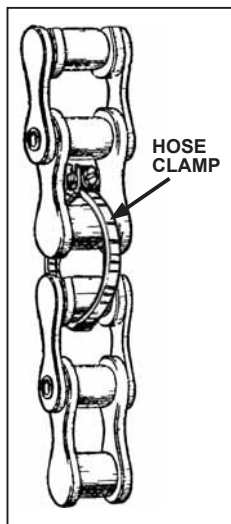
Anyone who has ever had to fix a broken roller chain will appreciate FARM SHOW reader Monty Rathie's tip.

"Use a hose clamp between two sections of roller chain. The bigger the chain, the bigger the hose clamp," he says, noting he's fixed chains as big as no. 140.

By tightening the clamp as tightly as you can, the two ends of the roller chain pull close enough together to repair the chain with a new link.

Rathie came up with the idea in the 1980's when he worked as a millwright at a big sawmill and dealt with miles of roller chain. It was common for two to four links to break in an 8-hour shift. He recently used a clamp to fix the no. 120 chain on his ranch employer's swather. Two men tried to fix it for 3 hrs., before Rathie showed up with a hose clamp.

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Hose clamp pulls 2 sections of roller chain close enough together to repair the chain with a new link.

Got Cast Iron To Weld?

Welding cast iron is easy with Magna 777 rod. Starting at \$130/lb., the electrodes aren't cheap but they do what other electrodes can't. They provide perfect machinable welds on nearly all types of cast iron without preheating. The welds have a higher tensile strength than most types of cast iron so they won't crack. It even works on oily and dirty cast iron.

"A customer welded one edge of a steel engine valve to a dirty old cast iron water pump," relates Jimmy Morris, Brecko Corporation, the U.S. distributor for Magna welding rods. "We repeatedly hit the valve stem with a sledge hammer and even dropped it from a 2-story building. The valve stem bent, but we couldn't break the weld."

The rod is popular for repairing any type of cast iron that is not easily replaceable. Morris points to one customer who manufactures racing car engines and uses the 777 rod to repair cylinder heads. It easily handles the extremely high rpm's and compression.

"The 777 also can be used as a transition rod between cast iron and steel," says Morris. "If there is a large gap, the welder can build up a layer of the more expensive 777 and then weld lower cost steel rod on top of it."

The 777 comes in three sizes, 3/32-in., 1/8-in., and 5/32-in. It can be used with either AC or DC machines and doesn't require high amperage.

"The 3/32 and 1/8-in. rods especially work with any cracker box AC welder, even the smallest," says Morris. "The 3/32 requires only 40 to 85 amps, and the 1/8 requires 60 to 100 amps. Even the 5/32-in. rod requires only 90 to 140 amps."

Magna makes other welding rods that are equally unique. Magna 303 steel rods will weld any steel to any steel with tensile strength as great as 128,000 psi. If work hardened, tensile strength can reach 180,000 psi.

Magna 307 rod can be used in wet (non-flammable) environments. It can be used to weld pipes with fluid still in them. Morris says the contact rod is easy to work with in any situation, as the operator doesn't need to maintain an arc distance.

"It is so easy to work with that I could go to any elementary school and in 5 min. any student in the school could be trained to work with it," says Morris. "It is almost like caulking a seam. If you need to weld in a difficult to reach spot, you can even bend the rod to a 90-degree angle without the flex breaking."

Magna 51 is even easier to work with and can be used to attach nearly any type of metal. The low heat rod can be worked like solder with a blowtorch or less.

"We once set a piece of aluminum and



Magna 777 rod provides machinable welds that won't crack on most types of cast iron. Photo shows a steel valve welded to a cast iron pump.

one of copper at 90 degrees to each other on a cookie sheet with a length of Magna 51 at the seam," says Morris. "We put it in an oven set at 400°F and shut off the heat when it melted. As it cooled, it hardened, attaching the 2 pieces."

Morris warns that welds with Magna 51 rod have only 16,000-psi tensile strength. It also doesn't flow easily or suck into a joint. Even the flux (required for anything other than aluminum) looks and flows like honey.

"It isn't designed to have much structural integrity, but it works very well where that isn't needed," says Morris.

Brecko sells nearly all Magna electrodes out of open stock. They are available by the piece or the pound. A standard \$15 shipping charge is added to orders whether for a single rod or 10 lbs.

Morris explains that Magna welding rod and supplies is a subsidiary of Illinois Tool Works. The special-use welding rods have been around for years; however, marketing has largely been word of mouth, with all sales direct from the distributor.

"Call for prices and to discuss the job," says Morris. "We can help you pick the rod that is best for your needs. If we don't have the answer, we can access Magna corporate engineers."

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Torque Multiplier Made From Truck Planetary Gears

"The lug nuts on my Kawasaki payload were so tight and rusted I couldn't break them loose with a 1-in. impact wrench using 145 lbs. of air pressure," says North Dakota heavy equipment operator Gene Sickler. "I practically burned out the air wrench and wore out my arms trying to get them loose, but they just wouldn't budge."

Sickler knew that getting the nuts off was a job for a torque multiplier, but with a price tag of \$5,000 to \$10,000, he wasn't about to buy one, and they weren't available to rent. He also knew that a multiplier worked like a system of planetary gears, so he decided to improvise and try to build one himself.

"I looked through my scrap yard and found a transfer case from a 1996 Dodge pickup," Sickler says. "I removed the planetary setup from the case and bolted it inside a large piece of pipe, using bearings on each end to secure the shaft." Sickler ground the input shaft down to fit a 1 3/4-in. socket and ground the output shaft in the shape of a 1-in. arbor. That setup allows him to use any size socket on the device. A metal handle welded to the casing holds the multiplier against the wheel and keeps it from turning.

"The nuts I needed to remove from the 115Z payload were 1 1/2 in. in dia.," Sickler says. "I tried the multiplier on

one of those using a 5-ft. cheater bar on the handle. With that setup I twisted off the output shaft at the socket. I had no idea I was applying that much pressure, but when I did the calculations, I found out the ratio was 2.66 to 1. I was applying more than 2 1/2 times my normal strength."

Sickler repaired the output shaft, then tried turning the same nut again with an 8-ft. cheater bar. This time it came loose. "It was still a tough pull, but I put all my weight into it and it broke loose," says Sickler. "With success on that first one I was able to use my homemade multiplier to remove the 31 lug nuts on each wheel."

Sickler says removing a wheel on the 100,000-lb. payload is a far cry from changing a tire on a truck or even a farm tractor. "Each wheel weighs 5,000 lbs or more, so it's a 3-person job. We use a W14 payload to lift and move the wheels. Without the torque multiplier we wouldn't be doing any of this and I'd be paying someone a lot of money to fix the brakes." Sickler built his multiplier, which weighs about 60 lbs, from spare parts in just a few hours. He says the device probably saved him a couple thousand dollars the first time he used it.

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