Homemade Tire Chain Installer

FARM SHOW contributor Tony Bunniss has invented a tool to streamline the process of putting tractor chains on his Deere 60 and 3010.

"Putting chains on my tractors for winter used to be a job and a half," says Bunniss. "Now, I let the tractor and the tools do all the work."

He found inspiration for his project at a sale featuring milling machines, lathes, and tooling, along with new and used repair parts. Bunniss purchased several cutters and the lead screw from a milling machine, which is a long bolt that moves the table of a milling machine. With these supplies, he created his custom chain installer.

The chain installer consists of two tools: the puller and a latching device.

"Setup is simple," explains Bunniss. "I lay the chains on the ground, stretched out nice and straight. Then I drive the tractor onto the chains and tie one end to the tire. I then drive the tractor forward, pulling the chain up and over the wheel. When the end is on the top of the tire, I hook the inside chains together without clinching them tight and install my chain installer on the outside chain by hooking onto each end of the chain. Then I pull the ends of the chain together by tightening the lead screw with my impact wrench. When it gets close enough together, I then hook up the outside link. Then I put the installer on the inside chain and tighten that."

The latch tool is made from a piece of flat steel with two bolts, drilled and tapped, with the heads cut off, that stick through it. He positioned it so the bolts stick through to ensure the device works on both sides of the tire. The latches on his chains did not have a hook initially, so he welded a small hook onto the latch.

Bunniss always starts the latching process with the inside chain because latching the last lock can be a challenge, depending on the tension on the chain. Any pressure will ease once you drive the tractor and let the chain cross links find their placement, but the process can be disconcerting in the middle of installation when it seems the chains won't come together correctly.

Bunniss' chain installer uses a puller and a latching device.

You can learn more about this project by contacting Bunniss directly.

Contact: FARM SHOW Followup, Tony Bunniss, Webster, Minn. (glennlee1964@gofast.am).

Pivot tires made from high-density white polyethlene resin last longer than rubber tires.

Pivot Tires That Can't Go Flat

The Mach2 Company of Lake Mills, Wisc., wants farmers to start thinking about putting plastic tires on their center pivots.

The two Nebraska farmers began making their center pivot tires using fiberglass material, and the tires got rotationally molded in two halves.

The tires are made from a high-density white polyethylene resin. The company found that if they added any pigment to the white poly, it would break down the material's rigidity, and the tires wouldn't last as long.

The tires come in various sizes ranging from 11.2 by 24 in. to 13.6 by 38 in. The tires also have three different tread sizes available to best fit different types of terrain.

Plastic tires have several advantages over the rubber competition. First and foremost, the tires won't go flat. They come with a 10-year prorated warranty, and the pricing is very comparable.

Mark McCormick of Floydada, Texas, says, "We first began replacing rubber tires with Mach2 tires about five years ago. Those five-year-old tires still look brand new."

The tires come with a traction plate to help keep them from slipping on the rims.

The tires cost from $450 to $595 depending on size.

Contact: FARM SHOW Followup, Chris Meng, Mach2 Company, 100 South CP Avenue, Lake Mills, Wis., 53551 (ph 920-767-1212; cmeng@seljan.com; www.mach2tires.com).

Each rotor is driven by its own gearbox without any belts or pulleys. It provides consistency of cut, even in the most challenging conditions.

Stubble Shredder Spreads Residue Better

Existing flail mowers cut stubble too cleanly and don't solve a parasite problem. Major Equipment International's newly designed Cyclone Shredder bridges the gap between conventional batwing mowers and flail shredders, ridding stubble of the pest and leaving behind evenly spread material.

Eoin Murphy, export sales manager and Major Equipment co-owner, says the product and blade system has been refined over the last 10 years with blade options available depending on customer crops. The equipment has become popular with cotton, vegetable and orchard farmers.

"Blades act like a household blender," says Murphy. "They're produced from 2/5-in. sprung steel and ground edged parallel hardened and tempered. They have an overlap of 2 1/2 in. to eliminate windrowing and are small diameter so there's less stress and power required."

The 20-ft. model features nine rotor systems totaling 36 blades, requiring only 140 hp. to drive. A similar-sized flail mower would need significantly more horsepower.

"The cutting heads of four blades per rotor deliver powerful mulching," Murphy says. "Each rotor is driven by its own gearbox without any belts or pulleys. It provides consistency of cut, even in the most challenging conditions. Sections are fitted with 1 1/2-in. rubber couplings, to absorb shocks and protect gearboxes."

Rotor head systems are equipped with a high tensile bushing assembly to allow pivoting. Blades are designed to move out and upwards from impact zones above a Hardox® 450 abrasion-resistant steel disc.

The Cyclone Shredder is manufactured in Ireland by Major Equipment Intl. Ltd., a family business in operation since 1976.

Five models ranging in size from the MJ31-280 to the MJ30-920 deliver cutting widths of 10 to 31 ft. and are available in the U.S. through their sales networks.

Murphy recommends contacting a local dealer for pricing and shipping details.

Contact: FARM SHOW Followup, Eoin Murphy, Major Equipment Intl., Ltd., Ballyhaunis, Co. Mayo, F35 C891, Ireland (ph 353 (0) 9496 30572; info@major-usa.com; www.major-usa.com).

"Bin Full" Sensors Work Wet Or Dry

Moore Automation's MA-135 proximity sensor is a waterproof sensor that can be installed on any bin or storage tank to set off an alarm when material reaches its level. It requires a 1-in. hole to be drilled for the sensor and plate mount.

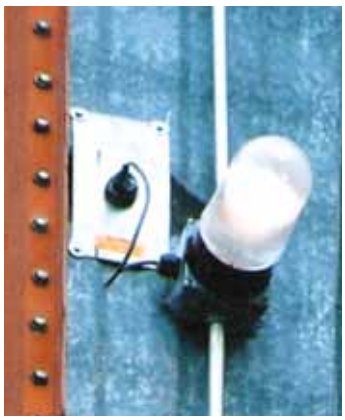
"It comes with everything needed," says Moore. "It even has a 110-volt cord tail that you can plug into an extension cord if you want to use it somewhere temporarily for the season."

When installed on the exterior of a tank or bin, an alarm light can be placed nearby or in another area. The sensor box contains a relay switch to sound a horn, activate a light, or turn machinery on or off depending on how it's set up.

"It has no moving parts, plus it's not affected by the cold or dust. Any bulk material just needs to come close for it to work. It senses the product, activates and does what it's programmed to do."

The MA-135 sensor can be used on dry products like grain, sawdust, or sand. Since it's completely watertight, it can also be used on any liquid.

The units are produced in Trimont, Minn., and shipped through 350 nationwide dealers to operations as diverse as hog farms and sawdust mills.



Sensor box contains a relay switch to activate a horn or light.

Individual sensors sell for $199 plus S&H.

Contact: FARM SHOW Followup, Kevin Moore, Moore Automation Inc., 411 Main St. E., Trimont, Minn. 56176 (ph 877-767-6897; mooreaut@frontiernet.net; www.mooreautomation.com).