

He Built His Own Adjustable Tire Pressure System

When Jake Kraayenbrink couldn't find an adjustable tire pressure system he liked, he built his own system. Kraayenbrink understood that deflating tire pressure in the field reduces compaction, saves fuel and reduces wear on tires, but existing retrofit systems worked too slow. The AgriBrink system he helped develop can deflate tires in 25 seconds.

"At the time I was looking, European companies weren't prepared to service the Canadian market," says Kraayenbrink. "We looked at a truck inflation system from western Canada, but truck tires are high pressure, low volume. Ag tires are low pressure, high volume."

Maurice Veldhuis, an engineer in the area, suggested building a system just for ag. With his help and that of truck mechanic Steve Bailey, the three of them designed a new system from scratch.

"We got deflation down to 20 sec., and we can inflate in 30 sec., about the time it takes to turn in or leave a field," says Kraayenbrink. "The European concept is to deflate from one central point. Ours deflates at the valve of each tire."

The system includes a controller that is easily programmed to desired high, low and medium pressure. It tracks air pressure in the system's stainless steel pressure tank. If pressure to inflate is insufficient, the controller prevents deflation. The system for inflation and deflation is automated to the flick of a switch by the operator. However, should it fail, the operator can switch to a manual override.

"We built the system from the operator's perspective," says Kraayenbrink. "We know

that the equipment can't break down. If something stops working in our system, the operator can keep going."

The AgriBrink system has been adopted by more than 80 customers, with a total of 50 sales expected this year alone. Systems are being installed on self-propelled sprayers and spreaders, grain tanks, manure spreaders, and other heavy-duty equipment.

The company has around 28 dealers in Ontario and is expanding with new dealerships in the western provinces as well as the Midwest.

"We have 2 systems in Iowa and a couple in Ohio," says Kraayenbrink. "We hope to establish a dealer network, but we also sell direct. Nuhn Industries now offers installation as an option on new tanks."

A complete system for 4 tires has a base price of \$20,000 (Canadian). Equipped with a quick-attach table, the tank and high-pressure pump can be quickly moved from one piece of equipment to another.

Kraayenbrink points out that farmers will pay a lot of money to outfit equipment with tracks. "If you outfit tires with adjustable pressure, it will compete well with tracks for reducing compaction," says Kraayenbrink. "We can't continue to go into fields with heavy pieces of equipment and lose yields and soil due to compaction. Big tires won't reduce compaction. You need to relieve pressure to do that. Ours is a high quality system that is made to do that and made to last."

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Jake Kraayenbrink says the AgriBrink tire pressure system he helped develop can deflate tires in just 25 seconds.



Systems have been installed on everything from self-propelled sprayers to big manure spreaders.



Bewley bolted a used Sears Craftsman vacuum blower on back of his garden tractor to build this manually-operated "grass catcher".

"Made It Myself" Lawn Vac

"It saves me a lot of time and was fun to build," says Edward Bewley, Greensburg, Ind., who built a manually-operated "grass catcher" and trailer box for his 1987 Sears SS garden tractor equipped with a 40-in. mower deck. It lets him mow his 5-acre lawn and collect grass clippings fast.

He bought a used Sears Craftsman vacuum blower at a sale for \$25 and mounted it on a homemade steel platform that he bolted on back of the tractor. The impeller is belt-driven by a 5 hp. gas engine. A length of 6 1/2-in. dia. flexible hose runs from the mower deck to the blower and then back to the box, where it hooks onto a welded-on auger pipe welded on front of the box.

Bewley built the 4 ft. long, 26 in. wide, 4-ft. high box from salvaged angle iron and sheet metal. The back side of the box hinges at the top and has a wooden door at the bottom, which rides inside 2 pieces of angle iron. When the box is full, Bewley lifts the top

hinged door out of the way and then raises the lower door. He uses a long antique silage fork to remove the grass clippings.

A tongue made of 1-in. square tubing on front of the box hooks up to a drawbar on back of the riding mower. The top of the box is covered by a wire mesh door screen that allows exhaust air to escape.

"It has more capacity than most pull-behind lawn vacs," says Bewley. "The vacuum blower came off some kind of old leaf chopper. I found it setting on a skid with the engine and blower all built together as one piece. I got the flexible hose from the Cummins Engine company where I worked for 30 years. It had been used as the air intake pipe for a test block where the company tested their diesel engines."

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"Teeter Totter" mouse trap comes with a 13-in. long pivoting "plank". You put peanut butter at end of plank and put something next to bucket to climb on.

"Teeter Totter" Mouse Trap

This new "Teeter Totter" mouse trap fits on the lip of a 5-gal. bucket.

The patent pending trap is made of high-impact polystyrene plastic and comes with a 1 3/8-in. wide, 13-in. long pivoting beam. You simply put a dab of peanut butter on the end "plank" and crumple up a paper sack or other easy-to-climb material next to the bucket. Mice will "walk the plank" to get to the bait and fall into the bucket. The trap then resets itself.

The bucket can be partially filled with water to drown the mice.

"We know this trap works," says Tracy Matzen. "We placed our final prototype in a massive poultry barn in Arkansas and caught more than 390 mice over one weekend. We set the trap on a Friday night, and on our first trip back to check it, the bucket was so full of mice they were crawling over each other to escape. It looked like something from a



Mice will "walk the plank" to get to bait and fall into bucket. Trap then resets itself. horror movie. That's when we realized we might be on to something."

The Teeter Totter trap sells for \$14.95 plus \$3.55 S&H. Call for bulk order pricing.

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