

Booms configured The Quad Seal using an off-the-shelf global bearing with a stationary seal clip. It's held in place with an anti-lock washer that supersedes the axle with a locking nut and roll-in torque.



## Seal Replaces OEM Part On Quadtrac Tractors

After experiencing downtime and excessive expenses replacing seals on CIH Quadtrac tractors, Dale Booms took matters into his own hands. Using skills he learned as a machinist, Booms designed and manufactured a more reliable and more effective seal and preload system.

Booms configured The Quad Seal using an off-the-shelf global seal with two stationary steel rings. The rings change the axle and hub size to accommodate the replacement seal.

"The Quad Seal is engineered with four built-in rubber wipers on the inside of the seal that allows movement of up to .020 of an inch, so even if the bearing preload is lost, it maintains an effective seal," Booms says. "It's more forgiving than OEM seals, wears well and extends the life of axles and hubs. It works on mid-rollers and idler wheels of Quadtrac, Rowtrac and Quadtrac Scraper Tractors built since 2001. CIH combine tracks, CR New Holland and New Holland SmartTrax can also be fitted with The Quad Seal and Quad Preload System."

"Once it's in place, it's good to go and will outlast the OEM seal," Booms says. He adds that "The Quad Seal is easy to install, even in the field, in just about any terrain and any weather, so farmers can be up and running quickly."

The Quad Seal also replaces the mid-roller and idler wheel seals on all Quadtracs built since 2001. Additionally, it can replace the STX Quadtrac mid-rollers, idler wheel seals and dirt cups. "Our system even allows an owner to put mid-roller big bore wheels on the original small-bore axle, which is a big

savings," Booms says.

The Preload system that Booms designed applies preload to the mid rollers and idler wheels. It replaces the Quad Preload System 20-mm bolt and washer with a stud that's installed into the end of the existing shaft with an anti-rotate washer and a locking tab that effectively locks the preload nut. The preload nut has a torque spec that provides the proper preload tension and alignment to the bearings, wheels, seals and axle for long life with minimal wear. The Quad Preload System can be used with The Quad Seal or the OEM seal.

A Michigan farmer installed the seals and preload system on CIH 550 and 600 tractors and an STX440. He says, "They're longer lasting and a better design with more forgiveness than OEM seals."

Booms says, "The effectiveness of The Quad Seals with properly adjusted preload can save hundreds of dollars in maintenance, wear and downtime on every tractor, allowing mid-rollers and idler wheels to wear evenly and bearings to last longer."

Booms says other systems on the market may not be as effective, so customers who want his original design products that have been widely tested and proven successful should look for The Quad Seal and The Quad Seal Preload System at his company's website.

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## Long Fork Helps Clean Out Lambing Pens

With 90 ewes, Timothy Yoder's lambing pens build up a thick layer of manure and bedding. Cleaning them out at the end of the season takes a lot of time and labor. Yoder's skid steer bucket wouldn't fit in the 4-ft. wide pens.

"I don't want to do it by hand if I don't have to," says Yoder. "I don't mind hard work, but if it's not necessary and you can get the job done faster another way, why not do it?"

The faster way involved fabricating a long fork with a 6-ft., 2 by 6-in. "handle". The handle slips over a forklift fork on his skid steer. The business end of the fork is a 2-ft. wide spread of 1 1/4-in. wide, 28-in. long tines on 8-in. centers. The tines were left over from a front-end loader manure bucket.

"I cut holes for them in a 3/8-in. thick, 3 by 3-in. angle iron and welded them to it," says Yoder. "Then I welded the angle iron and the ends of the tines to a 24-in. long, 1/2-in. thick 1 by 5-in. base plate."



2-ft. wide fork is perfect for cleaning out 4-ft. wide lambing pens, says Yoder.

The angle iron and base plate were then welded to the end of the steel handle.

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Curved leg of a pvc Y joint is attached beneath a hole in the bottom of the bucket. The straight leg of the joint is attached to the leaf blower tube with a flexible connector.

## He Moves Grain With A Leaf Blower

We ran across a neat way to blow corn into an elevated deer feeder. A YouTube video posted by Brian Schroder demonstrated how it worked. Although we couldn't reach Schroder, we wanted to share the concept with our readers.

Schroder used a gas-powered leaf blower connected to pvc pipes. A gravity feed injects the corn into the air stream.

The gravity feed is a 5-gal. bucket on 2 by 4-in. legs on the outside screwed to matching wood blocks on the inside.

The curved leg of a pvc Y joint is attached beneath a hole in the bottom of the bucket. The straight leg of the joint is attached to the leaf blower tube with a flexible connector. A second flexible transparent connector attaches the Y joint to a 45-degree angle joint. It's connected in turn to a pvc pipe long

enough to reach the top of the feeder.

With the leaf blower running, Schroder drops corn into the bucket, where it passes to the Y joint and then into the air stream and eventually to the feeder. The transparent connector lets him check the flow visually. At the feeder, the pvc pipe ends with a 45-degree and a 90-degree connector dropping the corn into the chamber.

Schroder noted in a reply to a viewer that the blower could move about 40 lbs. of corn per minute.

When FARM SHOW looked at the video, it had more than 60,000 views. One viewer planned to use the concept to move grain into an overhead bin instead of buying a conventional conveyor. If you come up with a different use or a variation of the system, let us know.

## Small Refrigerators Designed To Hit The Road

Indel B is a leading provider of 12/24V mobile refrigeration units for vehicles. The company cooperates directly with European and American truck builders, including Iveco, Volvo, Renault, Daf, Scania, Leiland, Kenworth, Peterbilt, Daimler, Irisbus, and Irizar.

Beyond standard industrial vehicles and long-haul buses, Indel B also designs refrigerators for farm equipment, trains, and specialty vehicles like ambulances and fire trucks.

The company started in 1967 intending to utilize the then-new technology of semi-hermetic compressors to generate cold temperatures in small spaces. The brand built small 12/24V refrigerators that could operate while moving, making them ideal for use in trucks, vans, and boats.

Indel B gained international attention in 1982 when the company was selected by NASA to create a refrigerator for use on the space shuttle Columbia. At the time, it was the only company with products that could function in a weightless environment.

Travel Boxes are a line of portable compressor-operated refrigerators for after-market use. They work for a variety of services, including within industrial vehicles as well as for leisure vehicles and even boats. The company currently offers more than four dozen of various sizes.

The brand's Cruise refrigerators are built in direct current units. They offer versatility with 12 or 24 DC Volt power requirements, making it possible to power them off a battery, DC transformer, or photovoltaic solar panel. From an environmental standpoint,



Mobile refrigeration units can replace coolers in vehicles and eliminate the need for ice.

they are made with components that are entirely free of CFCs and offer excellent energy efficiency for low power consumption while in use. Most models also feature the brand's patented design of automatic door latches and magnetic door seals.

Indel B offers other automotive-based products, including "Sleeping Well" air conditioning systems that can run when vehicles are turned off, and "Lab" isothermal containers for use in ambulances that have heating and cooling systems.

Travel boxes such as the 41-liter model sell for around \$630 online. Contact the company directly for further information about pricing, delivery times, and quotes for custom units for your vehicles.

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