

# Bi-Rotor Combine Updates, Field Tests Underway

The innovative and nearly lost Bi-Rotor combine is getting some updated features before hitting the fields next fall, notes Dave Hockemeyer, Davaus, LLC. It was Hockemeyer and company co-founder Austin Ehle who bought the machine at an auction a couple years ago when it looked like it was headed for the scrap pile (See “Did Deere Bury The Bi-Rotor Combine?” Vol. 42, No. 6).

“The XBR-2 is our test machine,” says Hockemeyer. “We took it to the field this past fall and harvested some soybeans and corn. We will be back in the field again this fall after updating some features for functionality.”

One of the first updates made was to replace the engine, as well as touching up the electrical and hydraulic systems. In addition to the tracks and steering, the company is also evaluating the feeder housing and how the rotor is fed. One change being made for the coming season is to update the feeder housing to accept different OEM and after-market heads.

Steering and track systems are on the list for upgrades, although they will remain unchanged for the 2020 season. While the flotation and maneuverability of the full-track system remains a key feature of the combine,

Hockemeyer points out that it is 20 years old. “A lot of improvements have been made in track technology,” he says.

Weight loss is a major goal. Other changes that are expected include a new skin/look to the outside and substantial updating of communications technology. The latter includes adding an ISOBUS system for everything from engine/transmission communications to tracking yields and other data.

Two things the co-founders promise to maintain are its inherent simplicity (only 3 drive belts) and its grain storage and handling. As Ehle described it in a company video, “It is a 1994 combine with the grain handling capacity of a modern combine.”

“We love the huge grain tank up on top,” says Hockemeyer. “Our key thrust is to maintain the prototype’s efficiency. It won’t have a lot of the creature comforts found on today’s combines that require extra horsepower and add to the cost and weight of the machine.”

A major focus of work this summer and in the field next fall will be a better understanding of the bi-rotor.

“We have to pull the rotor out for some maintenance and will be testing it in both heavy and light crop conditions,” says



Dave Hockemeyer bought this Bi-Rotor combine at an auction a couple years ago and is in the process of updating it. He hopes to eventually bring the Bi-Rotor to market.

Hockemeyer.

Fans of the XBR2 have been clamoring for its availability since news that Davaus was planning to bring it to market. Hockemeyer and Ehle stress that the process is expected to take several prototypes and multiple years.

“As improvements are made, we will have to protect them with patents,” says Hockemeyer. “We think some of the improvements we make may be quite disruptive to the market as we try to make growers more productive and efficient.”

The company also has to develop a dealership network with parts and service capability. Ehle points out that service may

be different from conventional OEM systems, given the nature of overnight delivery. It also may be affected by the simplicity the company hopes to maintain.

The company is using social media, in particular the Davaus Facebook page, to keep interested growers up to date. Check out the video at [www.farmshow.com](http://www.farmshow.com) of the Bi-Rotor in action.

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## He Built Two Unique Horse Feeders

“My daughter asked me to build her this portable horse feeder. We think it works perfect, because it keeps the hay dry and greatly reduces waste,” says Nick Van Wingerden. “It’s made mostly from scrap materials and is clean, neat, efficient, and affordable.”

Designed for 6 by 8-ft. bales, the feeder is built entirely from steel and used rubber belting. Bales wrapped in Hay Chix netting are dropped onto a porous floor made from thick rubber mats stacked on top of each other. “The hay stays dry because it’s covered by a roof and also stays off the ground,” says Van Wingerden.

He got the rubber belting from a local construction company, cut it to size, and used self-tapping screws with big washers to attach it to the feeder’s 4 steel corner posts. “Horses have access to all 4 sides of the feeder, and

the rubber walls keep them from hurting themselves,” says Van Wingerden.

He uses bale spears on his skid loader to pick up the feeder. “The spears fit into a pair of 4-in. dia. metal tubes that run from one side of the feeder to the other, allowing me to pick up the feeder from either side,” says Van Wingerden. “I made a skid loader mounting plate and bolted spear adapters onto it. The bales we feed weigh 900 lbs. Our skid loader has no problem lifting a loaded feeder and moving it to another location.”

Van Wingerden says the Hay Chix big bale netting they use ([www.haychix.com](http://www.haychix.com); ph 651 277-2449) is “the best invention in years. It reduces our hay losses by 30 to 40 percent because horses can pull out only one piece of hay at a time, in chewable bites so they don’t waste it or overeat.”



Portable big bale feeder is built entirely from steel and used rubber belting. Skid loader’s bale spears fit into a pair of metal tubes to pick up feeder.



Two-sided feeding station was built by cutting out two 6-ft. high openings in the corner of horse barn.

## “Horse Bar” Built Into Corner Of Barn

Van Wingerden converted a corner of their horse barn into a 2-sided feeding station. It replaces the last horse stall in the barn.

“I call it a horse bar,” he says. “We cut out two 6-ft. high openings in the metal sides, one 15 ft. long and the other 6 ft., and left the building’s corner post intact. We also installed sections of plywood to form a back wall and laid down pallets for the floor. We use a skid loader to drop net wrapped big

square bales onto the floor. It’s a good way to use a corner of the building that we weren’t using anyway, because it lets the horses stay outside in the fresh air while keeping the hay dry.”

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U-shaped steel plate bolts onto 3-pt. lower lift arm, making it safer to climb up onto tractor.

## 3-Pt. Step A Useful Add-On

“For years I stepped on one of the 3-pt. lift arms to climb up onto my tractor. When it’s wet or frozen you tend to slip around and either fall or bang your shins. I finally came up with an easy way to add a step that doesn’t interfere with use of the 3-pt.,” says Gary Swensen, Yankton, S. Dak.

“I used a U-shaped chunk of heavy steel

that goes over the lift arm and 4 bolts that lock it down securely in place. The step is about 4 by 8 in. and is plenty solid to stand on as I step up onto the tractor.”

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