Old Elevator Preserved In Indiana

Restoring century-old grain elevators wasn't part of Earl's Exteriors usual work. Owner Travis Earl and his crew build new pole barns and shops. But last year he couldn't pass up a job no other contractor wanted to tackle.

Ron Brown wanted to preserve an elevator that has been on his family's farm for at least three generations. The farm was started by Brown's great-great-grandfather, John Brown, who fought in the Civil War and bought 10,000 acres of land – much of it wetlands – in the Grand Kankakee Marsh near Lowell, Ind. A good portion of the area (called the Everglades of the North) was drained, and by 1923, 250 miles of the Kankakee River were straightened to create a ditch, leaving fertile land for agriculture.

In retrospect, perhaps humans shouldn't have changed nature so drastically, but it's part of the area's farming history, as is Brown's elevator.

"The farm was unique because it was a big farm in its day. It had 2,000 head of cattle, so they fed a lot of grain," Brown says. "I don't know exactly how old the elevator is, but we have a photo of it in the background with a wagon with wooden wheels in front."

The elevator was built to handle corn and included a scale to buy grain from other farmers and a mill. Brown quit farming in 1990 and rents out the 1,725 acres that are left of the family farm.

The idle years took its toll, and when Earl inspected the elevator it was apparent that all exterior wood, windows and doors were rotted. But he didn't back down from the challenge.

"To be part of something historical like that, I wanted to do that job," Earl recalls. "The Brown elevator was known as the best one around."

Earl was intrigued how the walls were built by stacking 2 by 10's and 2 by 8's on top of each other. He was impressed by the elevator inside that uses counterweights, ropes and pulleys and rises to the top in 20 seconds.

Ron Brown says he's glad he hired a local contractor to preserve the century-old grain elevator on his farm.

The exterior steel siding was in fair condition, except for about 10 percent, which Earl replaced.

"We replaced all the windows, doors, overhang and exterior wood with treated lumber so it won't rot again," he explains. "The scale was made with 3-in. oak planking that was rotten, so we replaced it with treated 2 by 12's.

"The biggest challenge was the roof," Earl says. "The tallest roof section was 80 ft. in the air with power lines all around it."

His crew used a manlift to resurface the concrete roof with asphalt.

With a new coat of white paint and "John Brown & Sons Farms" in black paint, Brown says he's glad he paid to have the old elevator restored instead of paying to have it demolished.

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FARM SHOW® Ag World®

Steel tractor rim "chandeliers" hang 30 ft. overhead, adding character to a Michigan company's high-tech headquarters.

Tractor Rims Add Character To High-Tech Headquarters

By Dee Goerge, Contributing Editor

While taking a tour of Agro-Culture Liquid Fertilizers' new facility in St. Johns, Mich., I spotted these tractor rim "chandeliers" 30 ft. overhead.

The company's 53,000 sq. ft. headquarters is the talk of the area. Residents have watched as tall cranes and dozens of workers erected a glass silo on the front of the steel and timber frame structure.

But along with the recycled content in the floors, walls and carpeting, there are obvious pieces right from the farm.

"A local barn about a quarter of a mile away owned by a good customer blew down last fall, and the owner said 'Help yourself'," says Nick Bancroft, VP of Operations and Organizational Planning. Sections of red barn siding are mounted on the walls, while other barn wood was assembled into counters and bars with glass tops.

The tire rims fitted with lighting were Bancroft's idea. The original plan included a large diameter aluminum wheel to hold the lights. But it was expensive and not realistic.

"I told the architect that I could get tractor rims and that people will recognize them and think they're cool," Bancroft says. The rims came from a variety of tractor models: Deere, Farmall, Allis-Chalmers and Fords.

Agro-Culture Liquid Fertilizers, a family-owned company that started as a research farm in 1983, has grown by at least 20 percent each year since 1999.

"What we do is we take a conventional fertilizer program, but pull the rates back, so what you put down gets into the plant and has a result. We stretch those fertilizer pounds farther," Bancroft says.

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Max Kelland and his grandfather Bob Kelland retrofitted Bob's Kubota tractor with this mounted, rapid-fueling potato cannon.

Tractor-Mounted Potato Cannon

"When Max is down here, we keep the neighbors pretty excited," says Bob Kelland about his 11-year-old grandson, Max Kelland. Last summer the two "partners in crime" retrofitted Bob's Kubota tractor with a mounted, rapid-fueling potato cannon.

Thanks to Bob's hobby of filming everything he invents for his YouTube site, anyone in the world can quickly find out how to make the cannon. Max starred in the video and helped provide all the details.

Max is in a science club and previously sent up a small capsule that rose to 100,000 ft. and landed in Vermont with a camera recording the flight.

After researching how to build a potato cannon, they decided to add their own twist and improve the fueling system. Instead of opening and closing a cap each time to spray in fuel for ignition, they bolted a piece of Venetian blind inside the barrel. A small hole allows them to spray directly into the barrel, and the blind seals the hole.

The Kellands used 3-in. ABS pipe to build the combustion chamber and 36-in. barrel, attaching it to a cradle on the Kubota's bucket. They inserted the end of a spark plug in the combustion chamber and wired it to a BBQ grill igniter mounted on a wood block held by magnets to the tractor's hood.

Max ground the end of the barrel so the sharpened plastic edge would cut potatoes to fit when hit with a wooden mallet and rammed.

Between getting supplies, drying time and building time, the project took about five days to complete. It shoots potatoes about 300 ft. The process is to ram in a potato, spray in the combustion chamber hole, stand back, aim and push the igniter button.

"The physical design was good, but we were disappointed in the success rate with the ignition," Bob says. He and Max experimented with WD-40, deicer fluid and hairspray – and spraying the right amount. Too much spray caused flooding and no ignition. Max says that WD-40 worked the best. On his next visit, the Kellands plan to figure out the precise amount of spray to use.

Max points out that mounting it on the Kubota made the experience feel like shooting from a tank. And it was safer too.

"The bucket was like a blast protector, and we had ear protection," Max says.

To see the cannon in action, go to FARMSHOW.com

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