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## First Ford Tractor Wasn't Henry's

When Henry Ford started building tractors in 1915, he couldn't call them Ford. A fast-thinking fraudster from Minneapolis beat him to the punch by forming The Ford Tractor Company.

William Baer Ewing formed the Ford Tractor Company in 1915, sold stock in the company, and took deposits from farmers. Some speculate that he planned to sell the company name to Henry Ford, but Ford had another idea. He called his tractors Fordson. By 1918 Ford had sold 6,000 Fordson tractors. Ewing had sold 30, and The Ford Tractor Company was bankrupt and with good reason. The Ford was a faulty design and the company a fraud.

In 1914 Ewing had purchased a tractor design from Lion Traction Company, also of Minnesota. That company had promoted its tractors and taken payments but never delivered. It produced only three actual tractors before being shut down by the courts in 1915.

To justify using the famous Ford name, Ewing hired Paul B. Ford and made him a director in the company. He also hired Robert Kinkead to modify the Lion tractor and submit patent applications on it. Kinkead insisted the design was flawed and left the company rather than be associated with it.

Ewing collected \$75 payments from farmers eager to have a "Ford" tractor. His 1916 advertised price was \$350, fully equipped with magneto, carburetor, governor, and coil. He also sold stock.

As farmers demanded their promised tractors and stockholders demanded dividends, the scheme unraveled. The company soon went bankrupt.

The silver lining in the cloud is the Nebraska Tractor Tests. The gold standard in motive farm equipment for the past 100 years, the testing regime resulted from the failure of The Ford Tractor Company.

One of the frustrated farmers was a Nebraska legislator. He proposed legislation requiring any tractor sold in the state to be tested by the University of Nebraska.

Today you can see one of those 30 first Ford tractors at Jack's Urban Meeting Place (J.U.M.P) in Boise, Idaho. It's part of the J.U.M.P. tractor collection and a major part of the reason farmers can buy tractors with confidence.

Contact: FARM SHOW Followup, Jack's Urban Meeting Place, 1000 W. Myrtle St., Boise, Idaho 83702 (ph 208-639-6610; assist@jumpboise.org; www.jumpboise.org/vintage-tractors) or www.farmcollector.com/tractors/minnesota-machines/.



Berkoski originally made the trailer to haul his riding mower but repurposed it for the brush grabber.

## Trailer Winch Helps Moves Brush

Cleaning up storm-tossed branches is easy with Marshall Berkoski's brush grabber. It uses parts salvaged from an old engine hoist, a homemade trailer, and a cable winch.

"I lay the cable down on the ground, pile brush on it, and hook the cable end to the engine hoist boom," says Berkoski. "As I crank the winch cable in, it tightens on the brush, forming a bundle before it lifts it off the ground. It makes it easy to move branches large and small to the burn pile."

He made the trailer to haul his riding mower but repurposed it for the brush grabber. "I used two pieces of 3-in. channel iron to make a box beam for the axle and mounted hubs from the front axle of an old car to it," says Berkoski. "Front hubs are easier to work with than rear axle hubs."

After pricing tires and inner tubes, Berkoski decided to go with steel tires. He simply welded metal bands to the rims. A 10-ft. long pipe serves as the tongue.

To attach the engine hoist, he bolted flat stock to the bottom of the hoist and the trailer frame and then bolted them together.

"I didn't want to weld anything in case I wanted to make changes," says Berkoski. "I saw an engine hoist at Harbor Freight with a winch on top, so I mounted one similarly on the near end of the boom."

A vertical brace from the boom housing to the axle frame, combined with an angled brace from the housing to the trailer hitch, reinforces the engine hoist.

In addition to gathering bundles of brush, Berkoski has used the trailer-mounted winch for house repairs. He attached a straight ladder to the end of the boom and winched it tight when he needed to put rain guards on the eaves.

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The aerator weighs in at around 14,000 lbs. Erdman estimates it could hold an additional 12,000 lbs. of water.

## "Made-It-Myself" Field Aerator

After seeing what an aerator did for neighbors' fields, Dan Erdman built his own. He soon saw similar results, even during a drought.

"One neighbor had a hay field that was seeded in 1994, and when a government assessor looked at it, he said it looked like a 4-year-old stand," recalls Erdman. "Another said fields where he aerated grew hay twice the height of unaerated fields, and the soil was alive with earthworms and other bugs."

Even with testimony like that, Erdman couldn't justify the \$45,000 price tag of a commercial unit. A long-time journeyman welder with experience in heavy equipment, he had access to low-cost, high-quality steel.

"I've had contracts to go in and clean up an oil lease, and all they wanted was to get rid of the steel," he says.

Erdman went to work on a 12 1/2-ft. long, 4-ft. dia., 1 1/4-in. thick pipe. For the cutting surfaces, he used worn-out Caterpillar track pads.

To make the cutting plates, he cut a template out of tin for use with a plasma cutter. He cut the leading edge that has the grouser bar off the pad and set it aside. The rear edge of the pad has a 1-in. slant that he mounted pointing away from the pipe.

"The cutting plates are 7 in. wide with the angled edge 6 in. high on one side and 5 in. high on the other," says Erdman. "They cut into the ground like a knife."

He used 11018 welding rod designed for high tensile strength joints to weld the hardened and wear-resistant steel to the mild steel pipe. "I expect the track pads are around 100,000 tensile strength," says Erdman.

He welded 1-in. steel plate ends to the pipe to make the aerator drum, reinforcing them with four 1-in. by 4-in. steel bars from the

rim to the spindle. He centered a 3-in. steel pipe in the drum for an axle.

Erdman built the frame for the aerator drum out of 3 by 6-in. heavy wall steel tubing and 6-in. steel pipe. To mount the drum axle on the frame, he first mounted oil-impregnated brass bushings on it.

"A lot of guys use bearings, but I didn't know what kind of impact the aerator might have to take," says Erdman. "The bushings are like the ones used on rail cars."

Erdman machined a steel shaft into a spindle to fit the bushing and fit the 3-in. pipe. He welded it into place in the pipe to secure the drum to the frame.

For transit purposes, Erdman added an axle off a tandem high-boy. A set of hydraulic cylinders pull the axle in to lift the aerator drum. If he plans to pull it behind a Cat to knock down brush or trees, he can pull two pins and detach the hoist assembly, hoses, and wheels. That allows him to back the aerator up without damaging the wheels.

The aerator weighs in at around 14,000 lbs. Erdman estimates it could hold an additional 12,000 lbs. of water.

"I over-engineered it, building it really strong," says Erdman. "In a couple of hundred years, it'll still be in use."

If it is, his fields should be in extremely good shape. "While the drought hasn't been as bad as last year, it's been very dry," says Erdman. "On a field with a 30-year-old grass mix, I'm seeing alfalfa for the first time in 20 years. I believe if you can keep your soil alive, it's a win-win situation."

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Merkley reinforced the bucket with steel plate, then attached the bale spear.

## Bale Spear Bolted To Excavator Bucket

Ernest Merkley found a way to handle big round bales with his 4-ton excavator by attaching a bale spear to the back of the bucket.

He first welded an 8 by 8-in., 1/4-in. thick steel plate to the side of the bucket to reinforce it and then attached the bale spear with two bolts.

The attachment lets Merkley easily pick up round bales off his bale wagon and pile them five bales high under cover. When he's finished moving bales, he can easily unbolt the spear from the bucket, so it won't interfere with normal digging.

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