

Deere Tractor Tanks Built For War

Though John Deere has a deserved reputation for building quality tractors and implements, the company's 1940 tractor tank was not one of them.

Two prototypes of steel-encased Model A's equipped with a pair of turrets and machine guns never made it past the Army's testing grounds in Aberdeen, Md. That was a wise decision, says Brian Anderson, who knows exactly what the tractor tank was like because he had one made in 2005.

Raised on an Iowa farm and a Marine veteran of the Vietnam War, he was fascinated by the tractor/military tie when he read an article about the Deere tank. Friends Leo Milleman and Curt Clark, both physicians, shared his interest, and as tractor collectors and members of the Two-Cylinder Club decided to have replicas built – Anderson's with a narrow front and his friends' model with a wide front. The one condition was that they first find the authentic era machine guns.

After locating and buying (disabled) 1919 A4 .30 caliber machine guns, Anderson hired machinist Lynn Jorgenson and restorer Paul Lehman to start with a 1940 Deere A tractor and build a replica of a tank based on a short description and nine B&W photos. The project took 8 mos. of full time work, and Anderson's narrow front tractor tank was completed in November 2005. Then Jorgenson and Lehman had the wide front

model built in 2006.

"It's not just a tractor with a lot of steel," Anderson says. "It has hydraulics with 125 working pieces that were all made by hand."

The replicas were built as accurately as possible – right down to finding the original paint to match the prototypes.

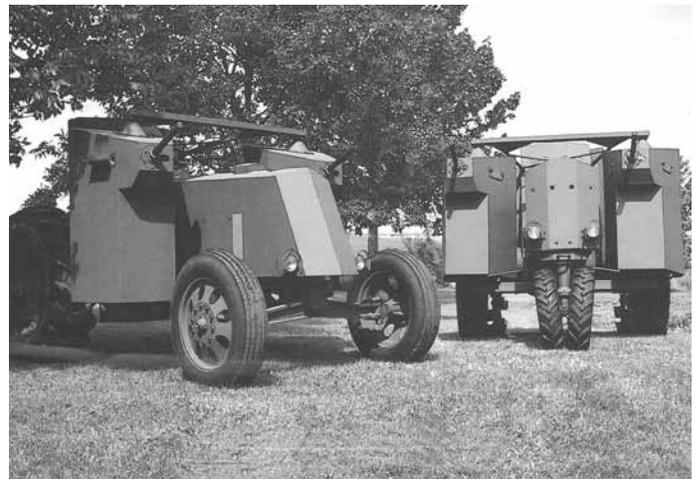
"The original versions had 3/8-in. steel, on the 4,200-lb. tractor," Anderson says, which was too much weight for the 28 hp tractors. The replicas are built with 3/16-in. steel (weighing 5,500 lbs.), and the restorers ground edges smooth unlike the jagged edges on the original prototypes.

Anderson and the physicians have copies of the original Aberdeen Army test results, which indicated many flaws in the design. Besides poor visibility, the turrets didn't have enough room for ammo boxes and when machine gunners shot, the hot casings fell back on them.

"The gunners had to be real small to fit, and it had to be deafening in those steel turrets," Anderson adds. When they cut a hole in the floor for the casings to fall through, the snow and mud flew up inside the turrets.

According to an elderly farmer who said he helped build the prototypes, gunners also had to be careful not to shoot the rear tires.

The driver between the gunners had visibility challenges too, along with poor maneuverability because of the front axle



Brian Anderson was fascinated by the armored tractor tanks John Deere built in 1940. So he and his friends built their own replicas, complete with machine gun turrets.

castor and a steering wheel that went out of control when the tank hit a pothole.

From the little information he could find, Anderson says the original prototypes were built within a few months at the direction of C.D. Wiman, the great-grandson of John Deere. Wiman thought the tractor tanks could be built at low cost (\$6,500 to \$8,000) and quickly (100/day) to help the military with training and secondary campaigns, and they could pull equipment to the battlefield.

Officials quickly rejected the tractor tanks when they were tested in February 1941.

Despite, or perhaps because of, their short-lived history, the replicas draw plenty of attention when taken to events and tractor shows.

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The first powered road grader ever was built by Adolph Ronning in 1924. Arnold Zempel found it disassembled in Ronning's daughter's shed and put it back together.

Minnesota Inventor Built First Powered Road Grader

Whenever you see a power road grader moving dirt, gravel or snow, Arnold Zempel of Montevideo, Minn., would like you to credit Adolph Ronning, a prolific inventor who was born in 1893 and grew up on a Boyd, Minn., farm.

He created and patented a one-operator powered road grader at a time when other manufacturers made township graders pulled by horses that required two men – one to drive the horses and one to operate the grader. Ronning didn't have the money to manufacture it himself, and companies weren't interested in investing to retool for Ronning's design.

So, Ronning hired Central Machinery in Minneapolis to build a few of the graders, and he demonstrated one of them at the Minnesota State Fair in 1924. Instead of manufacturing it, he sold licenses to 22 companies, who paid him \$12.50 for every grader they sold. Suddenly Ronning's design was everywhere with different names on it. Townships appreciated the power unit because of the labor savings.

In 2003, Zempel became part of Ronning's history when he reassembled the grader that debuted at the fair. He discovered it disassembled in Ronning's daughter's shed near Montevideo. Adair Ronning Kelley readily agreed to Zempel restoring part of

her father's history. A 2003 photo shows her driving it for the first time.

"Ronning didn't reinvent the wheel. He just rearranged everything and improved on things," Zempel says. He used a Fordson tractor and Russell Junior Grader and mounted it on a channel frame that rested on a yoke on the front axle.

Zempel couldn't find all the parts so he made some of them based on photos from the Ronning archives.

The grader is just one of a multitude of inventions and patents Ronning developed to make work easier, Zempel says. Ronning initiated one of his most significant pieces of equipment with his brother, Andrean, before he graduated from high school. The horse-drawn silage harvester later developed into several patents for a motorized silage harvester, which reduced labor by 50 percent or more and is the origin of silage equipment used today.

Zempel adds that Ronning had hundreds of patents including World War II inventions, such as a wobble-stick control in the M46 General Patton tank that earned Ronning a citation for his valuable contributions to the war effort.

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Bill Buck got started breeding mini Longhorn cattle about 20 years ago, when there was only one other breeder in the U.S. Now more than 50 people raise them.

Mini Longhorn Breeder Still Going Strong After 20 Years

FARM SHOW last spoke with Bill Buck 11 years ago about breeding mini Longhorn cattle for small acreage farmers (Vol. 26, No. 4). He had gotten started about 10 years earlier on a hobby farm he owned near Dallas, Texas. Buck and another person in Louisiana were the only miniature Longhorn breeders in the country at the time.

"There's been a lot of progress since then," Buck says, noting that, "we've gone from two miniature Longhorn breeders 20 years ago to more than 50 people raising registered animals today. We've got an industry association, show events, official breed registration, people promoting the breed and a steady market for the offspring."

Buck expanded his herd through line breeding, which required three generations to produce male and female offspring that would in turn produce miniature cattle. Those progeny, along with offspring from other breeders, have grown into a thriving association of producers. "People who raise miniature Longhorns just love them," says Buck. "They're small, docile, cute as can

be when they're babies, and very people friendly. We've had schools and day care kids out to see the herd and the kids can't stop petting them."

The calves weigh about 25 lbs. at birth and stand about 18 in. tall. Mature females weigh about 300 to 400 lbs. and bulls weigh just under 500 lbs. Both stand about 3 ft. tall when fully grown.

Most people who buy animals from Buck and others raise them as pets. Heifer calves at 6 mos. sell for about \$3,000 and bull calves bring \$2,000. "I've sold very special bulls for \$5,000 and a heifer for as much as \$8,000," Buck says, noting that even though the miniature Longhorns are about half the size of full-size animals, they eat about two thirds as much feed.

"In 20 years I've sold animals in probably 20 states, including northern states," says Buck. "They like the cold."

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