

Happy Farmer tractor will be moving to a new tractor museum and restoration center at the site of the former J.R. Simplot mansion in Idaho.



## Happy Farmer Tractor Move And Restoration

Introduced in 1915, the Happy Farmer tractor may have been the most misnamed tractor of its time. It quickly earned a sad reputation, as critics proclaimed, "The two happiest days in a Happy Farmer owner's life: the day he got the tractor and the day he got rid of it."

While a few Happy Farmers remain in private collections, at least two are on public display. One is at Country Heritage Park in Milton, Ontario. The second is among 55 vintage tractors at Jack's Urban Meeting Place (JUMP) in Boise, Idaho (Vol. 46, No. 6). It's featured in the museum's Vintage

Tractor Collection book.

"We have a 1920 Model G," says Rob Beardon, JUMP tractor doctor and curator. "It turns over well and seems to have compression, although it isn't running at this point. Someone added a 4-cyl. distributor, so it was running at one time."

Wendell Kelch had the privilege and challenge of restoring a line-drive Model G. He notes that the restoration required extensive fabrication.

"You can't just run down to the La Crosse Tractor parts store," says Kelch. "There were

a lot of rusted-out parts, including spokes on the wheels. I had to go through everything and do a lot of rebuilding."

The company was founded in 1915 in Minneapolis, Minn. A year later, it merged with the La Crosse Implement Co. in La Crosse, Wis. Initially, the brand offered two models, the 8-16 (drawbar/belt horsepower) Model A and the 12-24 Model B. In 1919, both were replaced by the 12-24 Model F and the 4-wheel 12-24 Model G. The A, B and F were offset 3-wheel designs.

According to an article in Farm Collector, the Model G was the only line-drive tractor tested at the Nebraska Tractor Tests. It had two steering lines (reins), one for starting and one for stopping.

A 7-12 Model M line drive was released in 1921, with an improved Model G marketed as a 12-24 Model H introduced in 1922. All but the Model M featured 6 by 7-in., 2-cyl. engines.

In 1922, the company attempted to move to Oshkosh, Wis., and take that city's name. When that move failed, the tractor company failed as well. According to an April 2009 Farm Collector article, nearly 20,000 Happy Farmer tractors were built between 1916 and 1922. They've been found in France, South America and Great Britain. One is even on

display at a tractor museum in Germany.

Early Happy Farmer tractors ranged from \$585 to \$735, with the Model G topping out at \$1,250. In 2025, a 1916 Model A Happy Farmer sold for \$20,900 at a Montana auction.

JUMP's Happy Farmer may run once more, and vintage tractor fans may even be able to drive it. While it has been on static display at the original JUMP site, the Happy Farmer will be moving to a new tractor museum and restoration center at the site of the former J.R. Simplot mansion in Idaho.

"We'll have an area for driving smaller tractors, as well as displays and restoration facilities," says Beardon. "Where our current displays are static, the new site will be operational."

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Similar output axial flux (left) and radial flux (right) electric motors.

## Compact E-Motor Maxes Out At 1,000 HP

A new/old electric motor design from YASA is breaking output records in a compact size. Using axial flux technology, the 28-lb., yokeless and segmented armature motor can produce 1,000 hp.

The novel design has previously demon-

strated its ability to double the power output of conventional radial flux motors. Even better, YASA achieves this at half the weight and spatial volume for greater torque density.

To date, use has been limited to extreme, high-performance cars and racing boats, in

part due to limited production. However, the combination of power and torque suggests rapid adoption potential in industrial and off-road applications. The company is actively exploring marine and military applications, as well as other uses, such as generators and pumps on superyachts.

While axial flux motors were invented by Michael Faraday in 1821, the radial flux design, which came a few years later, was easier to manufacture and offered better cooling. In 2005, Tim Woome, a PhD student at Oxford, had fresh insights into the old design.

He realized that by removing the motor's stator yoke and splitting it into segments, he could reduce the motor's weight and size. It also allowed the motor to be manufactured using Soft Magnetic Composite material. At the same time, the new design would improve torque, power density, efficiency and manufacturability.

Woome founded YASA in 2009 to develop, build and promote what he describes as a torus axial flux motor. It can deliver up to four times the torque density of radial machines. In addition, it uses less copper, iron and permanent magnets, lowering production costs and mak-

ing it easier to manufacture. A sealed-for-life design simplifies maintenance.

Because axial flux motors have direct oil cooling, they can run continuously without losing peak power. As a radial flux motor is driven hard, its windings heat up, reducing available power. This feature makes axial flux motors ideal for electric vehicles.

The company opened its production facility in 2018 and became a Mercedes-Benz subsidiary in 2021. In 2025, it opened a large-scale production factory with a capacity of 25,000 units per year.

YASA is exploring an extremely lightweight, 1,000-hp design for in-wheel use. A prototype has a continuous rated output of 536 hp and a peak output of 1,005 hp. According to the company, regenerative braking with the powerful in-wheel motor has the potential to eliminate the need for rear brakes. It would also eliminate the need for driveshafts, shaving about 440 lbs. from current-generation electric vehicles.

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## Dairy Wife Creates Emergency Kits

Katie Hammock, a southern Virginia ER nurse, has created portable emergency kits tailored for agricultural workers. Having spent her medical career at a level one trauma center, Hammock has seen firsthand how devastating farm accidents can be.

"My farm emergency kits began as a need for our own farm," says Hammock. "When the guys built a new parlor, we knew we needed a first-aid kit. My husband tasked me with finding one that would be helpful in an accident."

That task proved harder than expected.

"I found myself stuck between a cheap kit that didn't have the items we needed in a true emergency or a kit that was expensive and stuffed with more items than we'd ever use. We didn't need so many duplicates within one kit, so I created my own."

The rest is history.

"This project has really snowballed. I've had wonderful opportunities to speak and to sell my farm emergency kits to farmers across the country."

These medical kits are designed for the first five minutes after an emergency. The goal is to save lives before professional help

arrives. Each waterproof bag contains a tourniquet, QuickClot, Coban, CPR materials, a whistle, an emergency weather blanket, trauma shears, gauze, Band-Aids, burn cream and a comprehensive guide on how to use each item.

Hammock chose everything for the kits based on her real-life experiences as a nurse.

"I really wanted to put together a kit that was truly for emergencies," she says. "I've witnessed the benefit that each item has had on patients prior to their arrival at the hospital."

Whistles, for example, were not originally included.

"Then I met a farmer who had fallen out of a tractor. He was too injured to get up, but he happened to have a whistle on him. That's ultimately how his family was able to find him."

She's collected many stories from farmers who have used her emergency kits, each with a good outcome.

"These injuries have been very similar," she says. "Each was a significant cut to the hand or fingers on various items around the farm. The farmers all utilized the QuickClot

within the kit to get the bleeding to stop."

For Hammock, one big challenge is convincing agricultural workers of the importance of being prepared before something happens.

"No one wants to think about worst-case scenarios, especially in an industry where risk is part of everyday life. Unfortunately, statistics and my own personal experience tell us that farm accidents happen frequently."

Hammock shares that the joys of the business come from the people.

"Being able to combine my experience in emergency medicine with our life in agriculture and create something that truly helps farm families is incredibly meaningful," Hammock says.

She's grateful for the positive feedback from farmers who find the kits give them peace of mind.

"Farm accidents happen fast, often in remote places. What happens in those first few minutes can make all the difference," Hammock says. "My goal isn't to scare people. It's to equip them for the worst-case scenario."

Kits are available for \$69.99 through Hammock's website or the Virginia Farm Bureau.



Each waterproof bag contains a tourniquet, QuickClot, Coban, CPR materials, a whistle, an emergency weather blanket, trauma shears, gauze, Band-Aids, burn cream and a comprehensive guide.

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