



Participants used over 150 1/32 scale model tractors in an attempt to pull a full-size Claas AXOS 240 tractor.

German Farm Toy Show Attempts World Record

By Dee Goerge, Contributing Editor

Despite a failed attempt last year, Gerd Mohr and other engineers are convinced they can pull a 4,100-kg (9,039-lb.) tractor with about 150 1/32-scale model tractors. Organizers made their world record attempt in October 2023, at Traktorado, one of Germany's largest agricultural model-building events.

Tests and calculations before the event indicated that the 156 models' combined pulling force totaled 105 kg (230 lbs.), which was enough to pull the 103-hp. Claas AXOS 240 tractor with 75 kg (165 lbs.) of torque required to make it roll.

Participants were asked to put three brand new AA batteries in each Siku Claas Xerion 5000 Trac VC model that's Bluetooth enabled. It quickly became apparent that some batteries were weak. Batteries were changed and each model was connected to the remote control one at a time. But models kept losing connection, likely due to low batteries in the remote controls.

"In the end, we had around 110 to 120 models online and gave the start signal as quickly as possible so that no more models were lost. We lacked the pulling power of around 40 models, and the rolling resistance

of these models naturally made things more difficult," Mohr says. "There were 156 models that caused a lot of radio traffic in a small space. Several hundred spectators stood directly around the action and most had a cell phone with Bluetooth, which led to even more radio traffic."

The Claas tractor moved slightly, but not enough to get it rolling.

The large crowd that gathered for the event was encouraging, so plans are to try it again at the 2025 Traktorado.

"In the next attempt, we will not first hang the models in the tow frame and connect them individually but rather connect the models in small groups of five to six people in each corner of the exhibition hall and then go to the tow frame to get them into position ready for use. If some models lose connection, the drivers can go back to a corner of the hall where they start and register the model again," Mohr says.

And they'll make certain fresh batteries are put in all the models and remote controls.

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Rollerpoles Offer Full Body Workout

Tim Affield introduced his patented Rollerpoles walking invention to FARM SHOW readers in 2003 (Vol. 27, No. 1) with the goal of finding a manufacturer. Two decades later, he's offering the same opportunity and has evidence that production is worth pursuing.

After back surgery, Affield designed his Nordic Walking Rollerpoles to help him get a full-body workout during his daily walks, which were prescribed to him to tone his muscles.

"The handle is a rolling rung hand grip," he says. "It sits on the top of the walking stick. At the other end of the stick is a wheel. As you swing the stick forward, the wheel runs free on the ground. As you push down on the stick, a jackknifing design locks the wheel in place, giving you something to push down and against." It's easy on the joints while strengthening upper back and shoulder muscles and working the heart.

As evidence that his invention has merit, a German manufacturer started marketing a similar item in 2016, 14 years after Affield's patent. A letter from his attorney made the company aware of Affield's patent and that they shouldn't market it in the U.S. The German design is more complicated and costly than his, Affield says.

"I'm in complete disagreement with



Rollerpoles run free on the ground, but when pressure is applied moving forward, the wheels lock in place.

their handle design. The wrist structure is oriented latitudinally rather than horizontally, defeating most of the purpose of their use," he says. "My wish is to find a serious manufacturer who recognizes the value, health, and well-being of this idea and an obvious proven market."

He has written up details about his product and created an instructional brochure for Rollerpoles.

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Miller's design allows him to start his hit-and-miss engines by himself.

Third Hand Starts Hit-And-Miss Engines

With a couple of home-built devices, Jay Miller can start his McCormick M (or any other 3 or 6-hp.) hit-and-miss engine all by himself.

"The 1 1/2-hp. engines can be started with a crank," Miller says. "But the 3 to 6-hp. engines often need two people, especially if they're over 17!"

Like many hit-and-miss engine enthusiasts, he first built a "starter stick" that spins the flywheels for an easier start. Miller's version includes a 12-volt starter motor, solenoid, battery cables and battery, rubber boat trailer roller, and a metal shaft. A video and instructions can be seen on his YouTube channel. Search for "Make a Starter Stick for Hit and Miss Engines."

But Miller took it a step further and built a "Third Hand" that pushes the intake valve while turning the flywheels to get the engine spinning. He mounted it on a wood frame that can be adjusted to different heights to work on all engines.

"I made a mockup. It took a little figuring to get the motion," Miller says. By pulling a parachute cord connected to it, the 3-bar

linkage arm presses a shaft against the intake valve.

He used 1/4-in. by 1-in. aluminum for the arms and machined pivot bearings, spacers, a shaft, and shaft guides.

Make sure to keep the cord well away from the flywheels, Miller emphasizes, as you pull the cord to hold the intake valve while using the starter stick to spin the flywheels.

He includes detailed drawings and a video of his McCormick M starting on his YouTube channel. Search for "Us Old Guys Need a Third Hand to Start Big Hit and Miss Engines!"

Miller debuted the Third Hand at the Texas Early Day Tractor & Engine Show in Temple, Texas, last fall, and everyone was interested to see it work, Miller says.

Miller invites hit-and-miss collectors to check out his YouTube channel for other how-tos and a series following his McCormick M restoration process.

Contact: FARM SHOW Followup, Jay Miller, Crawford, Texas (jay@kk5im.com; YouTube: @Radiotexas).



A trained industrial mechanic, Petrowsky started building models at the age of 10. At first, he modified available equipment. That eventually led to building functioning models.

He Makes Miniature RC Farm Equipment

Imagine cutting your lawn with a 1/16-scale tractor equipped with a front-cutting head and rear-batwing mowers. Or you could spread compost on your garden with a similar-sized manure spreader, equipped with working rear vertical beaters, an apron, and a push gate. Unfortunately, the equipment is only available in Germany.

"We don't sell in the U.S., but thanks for your interest," responded Mario Petrowsky, founder of RC Prio functional modeling.

The high-quality, functional, radio-controlled (RC) models' prices reflect the workmanship that goes into them. The front cutting head on the mower has a price tag of €1,099 or just under \$1,200 (USD). The folding rear cutting heads are priced at €2,200 or just over \$2,400. The 1:14 scale manure spreader is priced at €3,600, just under \$4,000.

When it comes to detail, think of welding the chains to crossbars at 1:14 scale or welding the pieces to form a 3-pt. hitch. The equipment has working ptos as well as

actuator lifts.

All of Petrowsky's scale attachments are designed to work with equally high-quality European toy tractors. These are power units, like the Fendt 930 V2 from RC Favorit Functional Model Building.

A trained industrial mechanic, Petrowsky started building models at the age of 10. At first, he modified available equipment. That eventually led to building functioning models. That led to working with RC models, and in 2021, he founded RC Prio to make functioning attachments and trailers for use with RC functioning tractors.

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