

# “One-Lunger” Garden Tractor

“It’s definitely one of a kind,” says Loren Etter, Mora, Minn., about the one-lunger garden tractor that he built by stretching out an old Wheelhorse garden tractor and mounting a 1912 vintage Cushman model C 4 hp engine on it.

The Cushman “black binder” engine was originally designed to operate horse-drawn grain binders. It’s equipped with a flat belt pulley on one side and a big flywheel on the other. A big, screened water tank is used to cool the engine. As the water drips down the screen it’s cooled, and a water pump cycles the water back through the engine.

Etter cut through the tractor behind the front axle, then lengthened the frame by 12 in. and built a metal platform to mount the Cushman engine on. He then remounted the Wheelhorse’s nose cone and front axle. The engine’s clutch pulley is used to belt-drive the tractor’s transmission gearshift lever via a chain-driven jackshaft.

He relocated the tractor’s battery box behind the nose and replaced the original seat, which was worn out, with a cast iron seat off an old McCormick Deering implement.

“I often take it to antique farm equipment shows and drive it in parades. It’s a real attention getter,” says Etter. “Top speed is 15 to 20 mph, but I usually go in first or second gear at a slower speed. It looks so good that some people think it’s a commercial model. One guy told me it was the oldest Wheel Horse tractor he had ever seen.

“I bought the Cushman engine from a collector. The engine rotates at only 400 to 600 rpm’s and makes a ‘putt putt’ sound. It’s not a hit and miss engine but is throttle governed so it runs steady and fairly quiet. There’s no muffler on it.

“I added a kill switch on the dash that’s used to disconnect the battery. To start the tractor, I connect the battery to make contact



**Loren Etter built this “one-lunger” garden tractor by stretching out a Wheelhorse garden tractor and mounting a Cushman engine on it.**

and put the transmission in neutral. Then I get off the tractor, turn the gas on and then turn the flywheel by hand,” says Etter. “Once the engine is running, I get back on the tractor and put it in gear by pulling on a long lever that’s connected to a clutch lever that was already on the engine.”

According to Etter, the Cushman engine was built from 1910 to the mid 1930’s. “The Cushman model C engine was designed to replace the grain binder’s bull wheel and operate all the binder’s mechanical systems. All the horses had to do was pull the binder. The same engine was also sold as a stationary model mounted on a small cart for operating a feed grinder. It could also be used to power a butter churn, cream separator, old washing machine, and other tools and implements.”

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**At farm shows, Jim Berry drives a Deere garden tractor and his wife Debbie rides behind in a 2-wheeled Deere poly cart, with a seat and umbrella added to it.**

## “Ride-On” Poly Cart

Jim Berry and his wife Debbie of Andover, Minn., ride in comfort at antique tractor shows. Jim drives a Deere garden tractor, and his wife rides behind in a 2-wheeled Deere poly cart with a seat and umbrella added to it. The rider has access to stainless steel cup holders and a beer bottle opener with cap catcher.

The seat is off an old Deere 212 riding mower and mounts on spring-loaded brackets that are lag bolted to a frame that Jim made from 2 by 3-in. wood and painted Deere green. The frame screws onto the cart’s sides.

“By removing 4 screws I can lift the seat and the frame out in one piece,” says Jim.

A Deere golf umbrella fits into the back side of the frame. The umbrella’s handle slides into a length of pvc conduit and screws into a threaded flange plate mounted on the bottom of the wooden dashboard.

Jim put O-rings on the handle of the umbrella to help make a tight fit inside the conduit, and a screw and wing nut are passed alongside the umbrella handle, once it’s inside the conduit, to keep it from being



**Seat is off a Deere 212 riding mower and mounts on spring-loaded brackets that are lag bolted to a wooden frame.**

pulled out by a sudden gust of wind.

A wooden “dashboard” – knotty pine finished with clear urethane – added to front of the cart is used to hold the cup holders and bottle opener.

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**Miniature wagon holds up to 3 easily removable seats. Seat on front sets on a pair of leaf springs that cushion the ride.**

## “Mini Wagon” Show-Rig

Getting around antique tractor shows is easy with this miniature wagon built by Don Sparks of Coon Rapids, Minn. The wagon, which measures 40 in. wide by 7 ft. long, can hold up to 3 easily removable seats. It rides on 12-in. wheels.

At a recent show we found Sparks’ grandson Kyle using a rare 1965 Minneapolis Moline garden tractor to pull the wagon. “Kyle has been going to antique tractor shows with me since he was three years old. He likes driving me around,” says Sparks.

Sparks had 2 seats on the wagon at the show. The seat on front sat on a pair of leaf

springs that cushion the ride. The springs bolt onto slotted wooden blocks that slip over the wagon’s sideboards. The seat on back simply rests on top of the sideboards.

The wagon’s 1 by 12-in. sideboards are bolted to metal posts that can be removed from stake pockets, allowing the wagon to be used as a hay rack.

Sparks says that over the past 19 years he has built 5 other mini wagons, all designed to be pulled by garden tractors.

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**Ralph Altenweg built this pedal-driven “mini truck” to look like a 1917 IH shovel nose truck.**



## Pedal-Driven “Mini Truck”

Ralph Altenweg seldom throws anything away. The semi-retired electrician recently proved that by building a 2-seater, pedal-driven “mini truck” out of old bicycle parts and other salvaged materials. It’s equipped with headlights and taillights.

“I built it to look like a 1917 International Harvester shovel nose truck, which has a front end that slopes down and a radiator that’s set way back toward the driver. I have a small model truck and used it as a guide,” says Altenweg.

The mini truck is equipped with a bicycle pedal and sprockets on each side that are used to drive the vehicle’s rear wheels. An electric motor, backed up by a 24-volt battery, can be used to drive the wheels when going up hills and when backing up.

“Either rider can pedal, or both of them can pedal together,” says Altenweg. “Each rider has a choice of 10 forward speeds. It doesn’t matter which speed the other person chooses because the truck has a common driveshaft.”

The machine’s differential is off an old

riding mower, and the flywheel that drives the wheels is off a Nordic track exercise machine. “The clutch disc off a Snapper riding mower is used with an overcenter clutch, so whenever I shift out of gear there’s no drag – I’m just relying on pedal power,” says Altenweg.

The front axle uses heavy-duty door hinges as king pins. The riders sit on boat seats that are adjustable forward and back. The vehicle’s frame rails were made from surplus aluminum channels that were originally used in a rack to hold electronic gear. The rest of the frame was made from salvaged electrical conduit and small rectangular tubing salvaged from a wind-destroyed, pop-up sun canopy.

Altenweg is vice president of the Historic Vintage Truck Association. He often takes the pedal truck to a big truck show in Walcott, Iowa, to promote the organization.

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