



"Building it was a fun challenge," says Harold Naragon, who turned a Cub Cadet tractor into a 4-WD articulated model.

4-WD Articulated "Cub Cadet" Loader Tractor

"I built it after reading stories in FARM SHOW about other rebuilt Cub Cadets," says Harold Naragon, Pen Yan, N.Y.

A lot of head scratching went into turning this Cub Cadet tractor into a special-built 4-WD articulated model equipped with a front-mount blade and dual wheels all around.

The yellow-and-white rig was built almost entirely from Cub Cadet 1450 and 145 tractor parts. It's powered by an 18 hp Honda twin cylinder gas engine that's mounted on front and powers a pair of hydrostatic drive transmissions.

"Building it was a fun challenge. I used all the parts that I could from Cub Cadets except for the Honda engine and an Allis Chalmers steering valve," says Naragon.

He bought the two tractors at a junkyard for \$175 apiece. He cut off the back half of the 1450, keeping the rear axle and hydrostatic transmission, and mounted it facing backward. The rear axle and hydrostatic transmission off the 145 mounts behind. A homemade driveshaft runs from the engine back to the two hydrostat transmissions and there are front and rear brakes.

Naragon reversed the ring gears on both rear ends and also reversed the flow in one of the hydrostatic pumps, allowing everything to run in sync.

The tractor has two pivot points, each consisting of a swiveling ball joint. To make the pivot point he copied the pivot point on a Versatile 4-WD articulated tractor, scaling it down to fit. "The pivot point oscillates enough to allow any tire to raise 8 in. above level, which keeps all four wheels on the ground, even on rough terrain," says Naragon.

He didn't like the hood and grill on the 1450 so he made his own hood, which is 4 in. longer than the original hood to make room for the engine. The grill and the frame surrounding it are off a 125 Cub Cadet.

Naragon fitted the tractor with 12-in. turf tires all the way around and also made spacers to mount duals.



The tractor still has the original dash, seat, and gearshift lever from the 1450. Naragon added an aftermarket muffler designed for a Ford 8N tractor that's equipped with a stainless steel stack.

The homemade 5 1/2-ft. blade lifts up about 10 in. high and is controlled by a hydraulic pump that's driven off the front hydrostatic transmission. A pair of hydraulic cylinders originally designed to raise the deck on Cub Cadet tractors are now used to raise and lower the blade. A single joystick lever controls up, down and angle. Two more cylinders are used for hydraulic steering. Another lever controls hydraulics to the rear for a 3-pt. hitch I'm making.

Naragon fitted the tractor with 12-in. turf tires all the way around and made spacers to mount duals. He modified the outside wheel rims to make the wheels look like a big tractor. He cut out the center part of each wheel rim, leaving four holes in the center that were originally designed to mount weights. Long bolts run through a homemade bracket to connect the inner and outer wheels.

"It took about eight months to build on nights and weekends, with the help of a couple friends, but I get a lot of compliments on it," says Naragon. "Special thanks to Danns Roadside Repair for engineering and design help."

Naragon says he built the tractor for work, not just for show. "Some people say the tractor looks too nice to put it to use. They think I'm crazy when I tell them I plan to use the tractor to plow snow and to operate a lawn roller and rototiller. I made provisions for an electric clutch on front of the engine to drive any accessories that I put on front of the tractor."

Contact: FARM SHOW Followup, Harold's Welding Shop, Harold S. Naragon, 1164 E. Swamp Road, Penn Yan, N.Y. 14527 (ph 585 554-5178).



Deane and Dan Sarber built two different "winches on wheels" to pull out stuck machines. Model shown above rides on four big flotation tires off a Big A self-propelled sprayer.

"Winches On Wheels" Pull Out Stuck Tractors, Sprayers

"We can pull out just about any farm machine that gets stuck, including the biggest 4-WD tractors and self-propelled sprayers," say Deane and Dan Sarber of Plymouth, Ind.

The father and son team recently sent FARM SHOW photos of two heavy duty "winches" they built to pull behind their Farmall 450 tractor. They're built almost entirely from junkyard material.

"We use the rigs to help out our neighbors," says Deane. "Many times they've already tried to pull out a tractor, self-propelled sprayer, or combine but couldn't, and we're their last resort. We don't charge them anything because it makes us feel good that we can help. Our toughest job of all was the time we pulled out a 52,000-lb. Poclair excavator buried 6 ft. deep in the ground."

One winch is built on a tri-axle semi trailer frame that measures 21 ft. long. The Sarbers cut off about one third of the trailer frame and added a hitch. The rig is equipped with an old gravel mining winch (old-timers called it a high-line) that measures 4 ft. wide and is equipped with 7/8-in. dia. cable that rides on a 3-in. dia. shaft. The cable rides up and over a snatch block that's mounted on a steel frame 4 ft. off the trailer floor, and then over a steel "anchor" on back of the trailer. The anchor is lowered to the ground to stabilize the rig as it pulls.

The winch is hooked up to two transmissions and three gearcases that are chain-driven off the tractor's pto. The transmissions are off an old Ford Model A car and are used together as a gear reverser and also to control the winch's speed. The transmissions are backed up to each other, with one set in a forward gear and the other in reverse. A gearshift lever extends up from each transmission and is used to control speed and direction. The three gearcases further reduce the winch's speed.

"We needed a gear reverser because the tractor pto can't be reversed," says Deane. "They make gearcase reversers for wreckers that are controlled by moving a lever back and forth, but we couldn't find one."

The big tri-axle winch works great on solid ground but weighs about 20,000 lbs., so it can't get close to a stuck machine if the ground is very muddy. So the two men came up with a second winch that rides on four big 67 by 43 by 25 flotation tires off a Big A self-propelled sprayer.

The self-propelled, 4-WD tandem axle unit is built on a twin-screw International semi tractor. A Farmall tractor's hydraulics are used to operate a pair of hydraulic motors. One motor chain-drives the winch and



Self-propelled, 4-WD tandem axle winch is designed to lift stuck machine straight up and then pull it out. Cable rides up and over winch on tower at back of machine.

the other motor chain and shaft-drives the wheels. The winch is designed to lift the machine straight up and then pull it out. "This winch works especially well on self-propelled sprayers, which have a hitch that's about 6 ft. off the ground. You need lifting power to pull the machine up before you can pull it out," says Deane.

To make room for the big flotation tires, the Sarbers had to cut off the driveshaft between the semi tractor's two rear ends, then move the front rear end forward and also lengthen the driveshaft. They also bolted two gearcases onto the driveshaft to reduce its speed.

And they beefed up the driveshaft. "We welded a 4-in. dia., thick-walled pipe onto the original driveshaft and onto the rear end's U-joints. It has no trouble driving the rear ends no matter how big the machine is that we're pulling out," says Deane.

"At first we tried using the tractor's pto to drive a truck transmission, but the transmission couldn't handle the torque. The sides of the gearcase split out, and the driveshaft got bent so bad it almost looked like a pretzel. So we switched to hydraulics."

To go on the road they first pull a pin to unhook the driveshaft from the front rear end. Once they get to the field they hook up the driveshaft to the gearcase to lock the wheels.

Contact: FARM SHOW Followup, Deane Sarber, 18568 6th Road, Plymouth, Ind. 46563 (ph 574 936-8551; djsarber@kconline.com).