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## Allis Chalmers D21 "Rat Rod"

"I've always wanted an Allis Chalmers D21 tractor, but I couldn't find one at an affordable price. So I built my own D21 'rat rod' out of a 1994 Dodge pickup," says John Millar, Smiths Falls, Ontario. "It actually has very few tractor parts on it, but I wanted to build something different and I think I succeeded," says Millar.

His rat rod is painted Allis Chalmers orange and looks like a tractor in front. However, the back end looks nothing like a tractor because it's 6 ft. 8 in. wide and is made entirely from aluminum diamond plate panels and sheet metal. Millar sits above the fuel tank and underneath a homemade canopy. Behind him there's another, higher seat for his 10-year-old grandson to ride in, and a big storage area for a cooler and refreshments.

"Everyone who sees it for the first time says they can't believe it," says Millar. "I go to car shows all over the U.S. and Canada and plan to bring my D21 rat rod with me this year. And I've already booked it to tow floats in parades and at fairs for next summer."

Millar already owns three Allis Chalmers D series models, but says the D21 is a special model.

"The D Series were made from 1957 to 1969, and the D21 was introduced in 1963," says Millar. "It was the largest of the D Series, as well as the first Allis-Chalmers tractor to exceed 100 horsepower. It was also the largest row crop tractor available at the time, rated at 103 hp. The D21 had full fenders, a large platform, and a big rear-mounted, 52-gal. fuel tank."

"The D21 wasn't turbocharged until 1965, which pushed its horsepower up to about 128, and it remained the largest row crop tractor available. The turbocharger gave the D21 more than 15,000 lbs. of pull, making

it the largest tractor Allis-Chalmers had ever made, as well as the most expensive at around \$10,000. Many people are still using D21's as pulling tractors."

He stripped the pickup down to its 5.9-liter turbo diesel engine, 4:10 Dana 70 automatic transmission, frame, driveshaft, rear end, and disc brakes. He cut 7 ft. out of the frame and also shortened the driveshaft.

He had a local fabrication shop roll the hood and he made his own grill. "The entire hood assembly is hinged at the bottom and tilts forward for access to the engine," says Millar.

He used 3-in. dia. stainless steel to build the exhaust muffler and added a 4-in. dia. air intake off another tractor. The rig's steering wheel is off another Allis Chalmers tractor. The headlights and taillights are mounted on the tractor's rear fenders, just like on a real D21 except that without big rear wheels they're not as high.

"I started building it about a year ago and finished building it last October," says Millar. "I kept the back end as light as possible so I can easily burn rubber with the rear wheels and make them smoke. There's no real weight on back so I used air shocks as suspension, and the universal tractor seats have their own suspension system which results in a perfect ride. I built my own traction bars like the ones found on drag cars to keep the differential from twisting."

"It's street legal and is licensed as a pickup. It'll go as fast as a pickup. I've driven it at speeds up to 60 mph, but most of the time I drive it much slower."

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Rat rod's entire hood assembly tilts forward for access to the engine.



Photo courtesy Dairy Star

Turning an old grain elevator into a giant water slide was a project Gene Gatewood and family took on last summer on their Willmar, Minn., dairy farm. Slide is 150 ft. long, thanks to the addition of a 40-ft. trough built out of plywood.

## Fast Water Slide Made From Old Elevator

Instead of junking an old 60-ft. Case grain elevator, Gene Gatewood and his family turned it into a giant water slide that provided a lot of family fun last summer on their Willmar, Minn., dairy farm.

Like the barn dance and Halloween haunted trail they host every year, the Gatewoods brainstormed the idea while milking cows.

"We took the flights, chain and hopper off the elevator and redid the ends to make them smoother," Gatewood explains. The finished slide is about 150 ft. long, thanks to the addition of another 40 ft. of trough built out of plywood.

They built a 12-ft. tall platform out of wood and attached the elevator with carriage bolts that also secure the 3-ft. wide poly silo liner fitted into the elevator.

A hose with a nozzle at the top of the slide provides plenty of water to make it fast and slippery, Gatewood says.

"The biggest problem is you end up going further than you thought you would. We set

up an 80-ft. long water-filled pond at the end with bales and more plastic. The more water in the pond, the better. Ideally, a person could set up a pump to circulate the water."

To keep the pond clean, the Gatewoods pull away the end bales of their "pond" to drain the water and scrub the plastic clean and rinse it off.

The Gatewoods and their three adult children invited friends and church members to use the slide several times this summer. The slide was solid enough for a 375-lb. person to enjoy.

"It's just fun to get family, neighbors and friends together," Gatewood says. He adds, that like the dance and haunted trail, it appears the slide will be an annual attraction and one more way to have fun on the farm.

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## Steel-Wheeled Garden Tractor

Arlen Fowler has been collecting and restoring garden tractors, tillers and riding lawn mowers for more than 40 years. Most restorations he brings back close to original new condition. Back in the 1980's, he found a 1967 Wheel Horse riding mower with a rusted-out frame. "It was a sorry looking tractor, especially since it didn't have a motor," says Fowler. "Still I paid \$20 for it and brought it home and put it in my barn, alongside a lot of other old iron that needed restoring."

In 2009 Fowler's 19-year-old grandson was looking at the old tractors in his barn one summer day and suggested that his grandfather do something really unique with the Wheel Horse frame. "Why don't you put steel wheels on it?" he said to his grandpa. Fowler says he thought about the idea for about 10 seconds and agreed to give it a try if his grandson would help. The two of them went to the scrap yard where they found two 24-in. wheels from an old walk behind tractor. They brought them home and adapted the hubs to fit the rear of the Wheel Horse frame. They found smaller steel wheels from an old utility cart frame and adapted those to the front axle.

Fowler says he and his grandson spent a few weekends mounting an 8 hp Briggs & Stratton engine on the Wheel Horse chassis. "It has a 3-speed transmission and plenty of



Arlen Fowler rides the old Wheel Horse riding mower he converted to a steel-wheeled rider.

power," Fowler says. Although the tractor runs fine in its current state of restoration, Fowler says he and the grandson intend to install new motor controls, sandblast the frame and wheels, and paint it.

"This is definitely a retrograde restoration," says Fowler. "Most people want garden tractors to look like new, with original wheels and new rubber tires, but we decided to give this one a real unique look with the steel wheels. It will definitely turn heads when we get it parade ready, hopefully sometime early in 2015."

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