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## Cutaway Tractor Shows How It Works

North Carolina tractor collectors are educating new generations with their show-it-all Farmall Cub. The tractor has 27 viewing ports from air intake to exhaust. Rapid-fire LED lights imitate ignition as the valves lift and lower, pistons rise and fall, and camshafts, crankshaft, gears and axles turn. Creating the unique tractor was the work of the Appalachian Mountain Region IH Collectors Club.

"International Harvester did 13 similar cutaway Farmall Cubs in 1950 and provided them to several colleges," says James Dickson, club member. "Our club decided to replicate the effort after some of our members saw an original in Florida. We wanted something we could haul around to teach young people."

In addition to Dickson, about 10 of the 90 plus members worked on the project. Member Dale Green donated a 1951 Cub to the effort. One member did the precise cutting needed, while another sandblasted and repainted the tractor. Others contributed tires and parts. One member had contacts with a professional video production company. The result was an informative video about the project that included young professional actors asking members questions about the tractor.

"We mounted a heavy-duty electric motor with a 57 to 1 ratio gearbox on the rear end," says Dickson. "It powered a large pulley on the pto shaft to further reduce the speed to 20 rpm's. Everything functions as it ought to at that speed."

## "Go Anywhere" Hot Water Heater

This Triton water heater makes it easy to have hot water in the barn, out in the yard, on a camping trip, or anywhere else.

This 5-liter device is manufactured by Camp Chef and measures just over a foot square and makes it possible to heat water straight from a garden hose for a flow rate between 0.5 to 1.5 gals. of hot water per min.

All that's necessary is to hook the heater to a garden hose and propane tank, turn it on, and grab the showerhead. The Triton lets you adjust the water flow and temperature from 80 to 150 degrees, with three spray settings: mist, shower, and jet. Depending on the water temperature and pressure, you can expect up to 11 hrs. of continuous use from one standard LP tank.

The water heater comes with an 8-ft. water hose, an easy-turn brass garden hose connector, a regulator hose for connection to the propane tank, and carry handles that fold down for easier storage. You'll need to provide two D-size batteries for ignition, and the heater requires at least 25 psi water pressure from the input hose to maintain proper flow.

The water heater is priced at \$160 (plus S&H) and includes a one-year warranty.

Contact: FARM SHOW Followup, Camp

Club members raised the tractor hood about 6 in. for a clear view of upper parts. When on display, the tractor's rear end is raised off the ground, allowing the wheels to turn.

"It's fun to watch parents and grandparents trying to teach a 12-year-old about how an engine works," says Dickson. "For some like myself who struggled to understand how a differential works, this Cub allows you to just look down into it and see."

Dickson says the project has been a learning experience for members as well. He notes that sometimes the questions from the people seeing the moving parts can be difficult to answer.

The tractor was completed in 2020 and has been taken to schools and local shows. It's starting to build a reputation beyond the area. The timing couldn't have been better, as 2022 is the 75th anniversary of the introduction of the Farmall Cub.

"We took it to a farm show in Georgia where hundreds stopped to see it," says Dickson. "This spring it'll be at the IH Collectors Club National Winter Convention in Tennessee (March 24-26). It'll also be at the Red Power Roundup in Ohio (June 23-25), where the Farmall Cub will be the featured tractor."

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Hot water in the barn or garage can be a reality with a Triton portable propane water heater.



Chef, 3985 N 75 W, Hyde Park, Utah 84318 (ph 800-650-2433; support@campchef.com).

## Bale Monitor Helps Adjust On The Fly

The Baler Performance Monitor BPM-101 from AgXcellence helps make perfect bales. The stroke/flake counter helps ensure bales are uniform in length and weight. First introduced in 2014, it's been updated with new options. However, it still works with any small square baler, old or new.



AgXcellence Baler Performance Monitor

"We've gone to a custom-made monitor for easier viewing, even if wearing sunglasses," says Greg Hutchinson, AgXcellence. "We also added an optional moisture sensor and a GPS ground speed sensor for use with older tractors or self-propelled balers without GPS. The ground speed sensor lets the operator know how fast to go for current conditions and the correct speed to return to after turning at the end of a windrow."

The Baler Performance Monitor counts flakes as they are made - flakes per minute and flakes per bale. Unlike competitive after-market bale monitors, it also displays the flake count for the last four bales made.

"Competitive stroke counters will tell you the number of strokes in the last bale," explains Hutchinson. "Seeing the past four bales provides the operator a window to see how conditions in the field are changing so they can adjust ground speed accordingly."

He notes that the monitor makes it easier and faster to train new operators. Uniform bale length and weight are vital for hay exporters, and the BPM-101 helps even an inexperienced operator make them right.

Hutchinson designed his first bale monitor after working as an OEM technician. He knew he could build a simpler and more dependable system than either OEM or other existing after-market units.

## Freeze-Dried Cheese Curds Catching On

As a freeze-dried dairy product that doesn't require refrigeration, Cheddar Curd Crunchers offers a new option in the snack market. Don't expect them to taste like fresh cheese curds, says Paul Bauer, CEO/Manager of Ellsworth Cooperative Creamery in Wisconsin, which is well known for its cheese curds.

"Our marketing team would describe Crunchers as a salty, crunchy snack, similar to a cheese cracker. For me, it's like an explosion of Pop Rocks in dairy form," Bauer says.

Working with a freeze-drying processor, Ellsworth Creamery spent seven years experimenting with the best way to turn fresh cheese curds into a consistent, shelf-stable product that will last for up to a year. With just five ingredients, Crunchers are healthy and low carb. After extreme chilling and then drying, the crunchy curds are packed in air-tight 2.11 oz. packages, which have just over two servings.

"The low-carb, Keto crowd and sports enthusiasts seem to particularly love these crunchy snacks. Since they don't require refrigeration, they are great for when you're on the go, and conditions don't allow for refrigerated snacks," Bauer says. "We've seen growing interest from high-end delis, specialty snack stores and convenience stores."

The impetus for developing Crunchers was a request from an Asian market broker



Stroke count sensor on knotted chain handle.

"Competing after-market suppliers all require mounting magnets for their sensors," says Hutchinson. "We bolt sensors in place that measure the ferrous material passing by, with one at a sprocket gear of the knotted to get strokes per minute and another over the needle yoke to catch completion of the bale."

The optional moisture sensor was at the request of past customers. Staying within an optimal moisture range is as important to hay producers in high humidity areas as it is low.

"We offer pads for use on either or both sides of the bale chamber," says Hutchinson.

Each pad adds \$119.99 to the \$1,299.99 price of the standard Baler Performance Monitor. The GPS ground speed sensor is \$299.99. With all options, the monitor tops out at \$1,720.

"The monitor is designed so the user can buy it without any options and add them later," says Hutchinson. "We've sold them throughout the U.S. and shipped some to Canada and Australia."

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Ellsworth Creamery spent seven years developing their Crunchers product.

for shelf-stable cheese in the Far East where there is a lack of refrigeration. The creamery is now testing additional flavors such as dill pickle, ranch and jalapeno, and could include the Crunchers in snack mixes in the future.

Crunchers are available at Ellsworth Creamery stores and online. Prices are \$4.59/2.11 oz. package or \$50 for a case of 20 packages (plus S&H).

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