

## Drawbar Controller Stabilizes Tracked Tractor Hitch

"It eliminates the undesirable side effects of the free-swinging drawbar on 9T Deere tracked tractors," says Audrey Hadler of AJ Equipment in Goodhue, Minn., about the company's Wide Swing Drawbar Controller. "It offers real benefits for anyone who pulls heavy draft implements, especially on hillsides where equipment drift can be a problem."

Hadler came up with the idea after spending 10 years working for a machine test facility. "We were field-testing tractors in Arizona and I realized that the free-swinging drawbar on tracked tractors was a problem," Hadler says. "I also learned that tracked tractor owners in California were experiencing jackknifing problems while doing hillside tillage." The controller was built to minimize those problems, and also benefit typical Midwest farmers with easier turning and reduced stress on the implement hitches when the drawbar is allowed to swing free.

The controller is a heavy-duty, 600-lb. device that mounts on the undercarriage of any 9T tracked tractor. It bolts to existing holes on new 9RT series tractors and into holes that the installer needs to drill on older model machines. The controller has two cylinders that connect at an angle back to each side of the drawbar and stabilize it as the tractor is pulling an implement. Activating the industrial grade 4-in. cylinders moves the hitch from one side of the drawbar carriage to the other at a smooth, even pace. The operator

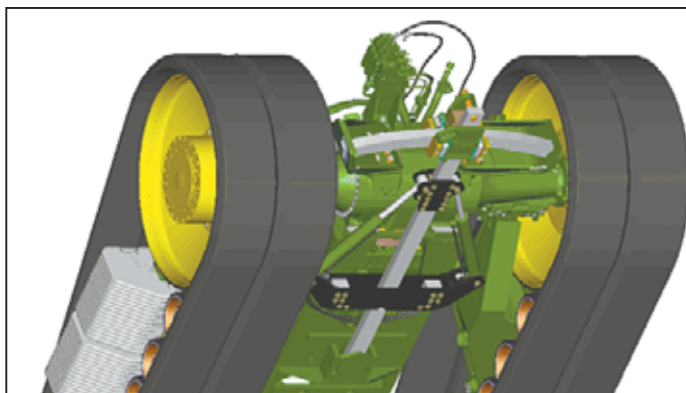
controls the movement from the cab. Wear parts for the device are available from Deere tractor dealers.

"Without the controller, when the tractor is operating with the hitch locks removed, the hitch swings freely and often rapidly from right to left, hitting the stops and eventually wears out several parts," Hadley says, adding that the device controls 3 modes of drawbar operation.

In the damping mode, when the drawbar is allowed to float from side-to-side, the controller reduces excessive lateral back and forth drawbar motion called "dancing". "Uncontrolled drawbar swing can be quite violent, resulting in poor tractor and implement control," Hadler says. Damping is accomplished with sized orifices on the cylinder inlets and outlets.

The lateral push feature of the controller allows a forced bias on the drawbar tongue in both left and right directions. Hadler says farmers use this feature to lock the drawbar in the uphill side of the tractor as they're working on hillsides to keep the implement inline. She's also had farmers tell her they've been able to use this feature to avoid getting stuck in wet spots because the implement can quickly be moved from one side of the hitch to the other.

The lock feature stabilizes the hitch in the center position for road travel. For safety purposes the drawbar should always be pinned in position by the drawbar locks



**Drawbar controller mounts on the undercarriage of any Deere 9T track tractor. Two cylinders connect to each side of drawbar and stabilize it as tractor pulls implement.**

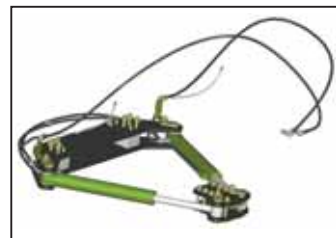
during road transport.

Recently a supplier in Iowa began linking the controller to a guidance system. That component will automatically swing the hitch at field ends so equipment follows in the tractor tracks.

The controller kit comes pre-assembled, palletted and ready to install. Mounting can be done in a few hours by 2 men. It sells for \$5,400 with shipping extra.

"I've had many customers tell me they wouldn't operate a tracked tractor without our controller," says Hadler. "They say the equipment drafts so much better and the tractor handles so much easier, even on flat or gently rolling fields."

Contact: FARM SHOW Followup, Audrey Hadler, AJ Equipment, 35089 205<sup>th</sup>



**Activating the cylinders moves the hitch from one side of drawbar carriage to the other at a smooth, even pace.**

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## They Built Their Own Bridge

"Back in 1977 my 3 cousins and I built a 14-ft. wide by 48-ft. long bridge across a creek on my cousin's farm near Paradise, Penn.," says Sam Stoltzfus, Gordonville, Penn. "It was a summer-long project and allowed access to a township road, so we wouldn't have to use an existing lane that connects with heavy traffic on U.S. Route 30.

"The first job was to dig footers for the piers and wing walls below the water level. Then forms were set and concrete poured. Now we could work on dry land. Forms were made for the piers and wing walls, and more concrete was poured. Next, we hired a local crane operator to set three long steel beams in place. Then we bolted on a series of steel

crossbeams and added an 8-in. thick deck. Later on, railings were installed on both sides of the bridge.

"We bought all the steel at a scrap yard and did most of the work ourselves, which kept the total cost down to about \$15,000. The scrap yard said they thought the bridge could be rated to carry 15 tons, but a 35-ton milk truck went over the bridge with no problems. The bridge has carried a lot of traffic and survived 3 major floods. It looks like it'll serve our family for many generations to come."

Contact: FARM SHOW Followup, Sam Stoltzfus, Gordonville, Penn.



**Sam Stoltzfus and his cousins built this 14-ft. wide by 48-ft. long bridge across a creek, allowing access to a township road with little traffic.**



**Phillip Poston took advantage of reinforcing steel bars on the downstream side of this bridge to build a "breakaway" fence across the creek that runs through his pasture.**



**A series of tin panels pivot backward when the water rises, and then fall back in place as the water recedes. Brush and debris wash on through.**

## Bridge-Mounted "Fence" Rises, Falls With Water

Phillip Poston, Watertown, Tenn., used cable and tin panels to run a "breakaway" fence across a creek that runs through his pasture.

"It solves the problem of trash catching in wire and other types of fencing," he says.

He took advantage of reinforcing steel

bars that project out of concrete on the downstream side of a state bridge over the creek. He stretched a 1/2-in. steel cable across the creek with turnbuckles at each end for tensioning. The cable runs through lengths of 1 1/2-in. dia. steel pipe. A series of 1-in.

angle irons are welded vertically to the pipes and support pressure-treated 2 by 4's cut to the same length as the pipes.

Tin panels are attached to the 2 by 4's and cut to length so the bottom ends hang just above the normal water level. The panels

pivot backward when the water rises, and then fall back in place as the water recedes. Brush and debris wash on through.

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