

“Shear Bolt Monitor” For Ripper And Knife Shanks

“Our new monitoring system automatically detects broken shear bolts on tillage shanks. It lets you know right away when a shear bolt is broken so you can immediately get it working again,” says Adam Bjerketvedt, Precision Ag 360, Hancock, Minn. The company introduced its Shank Patrol monitor at the recent Iowa Power Farming Show in Des Moines.

The patent pending system consists of an in-cab LED monitor, wire harnesses, mounting brackets, sensors and magnets. It can be installed on conventional tillage rippers or any tillage or manure application system that has a shear bolt-style shank or knife. A bracket bolts onto each shank and protects a sensor, magnet and wiring. The sensor detects when the shank is out of its correct position and shows the broken shank on the in-cab monitor.

“As soon as a bolt breaks, the sensor trips and an audible alarm goes off. A glance at the LED monitor will show you which shank is

broken. Once you install a new shear bolt, the system automatically resets itself,” says Bjerketvedt.

The Shank Patrol can be used on Case 870 and 875 rippers, Deere 2700 and 2730 rippers, DMI 530 Ecolo-Tiger and 730, Case 530 and 730, Wil-Rich Soil Pro 513, Dietrich 70 and Sunflower 4600 series shanks. The company also hopes to develop the system for strip-till equipment and anhydrous applicators.

“Our goal was to keep the system as simple as possible. Everything bolts on, with no welding or drilling required,” says Bjerketvedt.

According to Bjerketvedt, many farmers break ripper shanks in the field without knowing it and don’t find out until much later. “As soon as a shear bolt breaks, you’re losing money because a broken shank won’t penetrate the hardpan. One farmer went into a 40-acre field with a 5-shank ripper and didn’t discover until he finished the field

that a shank was broken. He walked all the way back across the field to see where the shank broke, and found that it happened on the first pass so 20 percent of his field never got ripped.”

The shear bolt monitor also benefits liquid manure injection equipment, says Bjerketvedt. “With liquid manure injection the manure is exposed to the air, so you’re losing nitrogen due to volatilization. Also, there’s a greater chance for runoff if the manure doesn’t get covered up with soil.”

He says the Shank Patrol’s price is specific to the model and number of rows. “Our goal is to keep the price for an 11-shank ripper or narrower at less than \$5,000. Anything bigger than an 11-shank model would cost a little more based on size,” says Bjerketvedt.

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“Shear bolt monitor” lets you know right away when a shear bolt is broken so you can get that shank working again.

Electronic Depth Control Kit Offers Wireless Control

“Our new electronic depth control kit for planters, combines an electric actuator with a self-contained hydraulic chamber. It offers spontaneous down pressure with user-friendly wireless control. Also, it eliminates the headaches of hydraulic hoses and is more responsive than pneumatic down pressure,” says Marty Graham, Graham Equipment, Sterling, Colo.

The units work on any planter, replacing the existing down pressure springs. They contain 4-in. electric actuators that pressurize a hydraulic cylinder to create down pressure.

The system offers wireless control through the company’s Command Pro touch screen monitor. “The system results in more planting accuracy and less maintenance. It’s much faster than pneumatic down pressure systems, and just as fast as hydraulic systems,” says Graham. “There are no hydraulic hoses or wire harnesses going to every row to worry about.

“We designed the system to interface with our wireless electric planter drive kit using the same power supply. Each actuator has a control board that communicates with the Command Pro and tells it what to do while providing a feedback display in the cab.”

According to Graham, the system offers more than 1,000 lbs. of down pressure. “The actuator has only a 4-in. stroke which makes



Electronic depth control kit for planters combines an electric actuator with a self-contained hydraulic chamber.

it very responsive - it has to move only 1/4 to 1/2 in. to change the pressure 100 lbs.”

The company is releasing the wireless electronic depth control kit this spring. It sells for \$1,200 per row, or \$2,300 per row if purchased with the company’s electric planter drive kit.

Contact: FARM SHOW Followup, Graham Equipment, 216 Oak St., Sterling, Colo. 80751 (ph 844 464-7242; sales@grahamelectricplanter.com; www.grahamelectricplanter.com).



Telescopic gates can be hung so they close off more than one opening.

Telescopic Gates Adjust To Multiple Openings

Using square tubing, Sturdy Built Mfg. builds gates that telescope for multiple opening widths so one gate can close more than one opening.

“All our telescopic gates are built to order,” says Kevin Sensenig at the Denver, Penn., business. Gates are available in widths up to 20 ft. and built to different heights.

Sturdy Built uses galvanized square tubing because it has a higher strength-to-weight

ratio. They mount like standard gates and can be hung so that they swing to close off multiple openings.

Contact the company for pricing information for specific sizes, he says. The gates are also sold through dealers throughout the country.

Contact: FARM SHOW Followup, Sturdy Built Mfg. LLC, 260 S. Muddy Creek Rd., Denver, Penn. 17517 (ph 717 335-3030)

Trucks Converted From War Zone To Work Zones

Acela Truck Company in Belgrade, Mont., specializes in converting military trucks into affordable workhorses for the farm, as well as for logging, mining, and construction.

“The FMTV (Family of Medium Tactical Vehicles) is the most reliable wheeled vehicle the U.S. Army has ever operated, earning the U.S. Army’s coveted Ultra-Reliable status. Every system is over-engineered,” says David Ronsen, Acela’s president.

The 7-speed automatic trucks are available in 4-WD or 6-WD with up to 330 hp. turbo-charged Caterpillar 7.2L diesel engines. They have 46-in. tires, 14 in. of ground clearance and can go through up to 50 in. of water and climb a 60 percent grade at full load. With a central tire inflation system, the tires can be pumped up for travel up to 74 mph on paved roads, then reduced to a lower tire pressure for travel on rough terrain and soft ground.

The Army is eliminating its “soft skin

vehicles” and building a 100 percent armored vehicle fleet, which makes the FMTV trucks available for the private market, Ronsen explains. He notes the FMTV’s his company purchases are low mileage and low hour vehicles.

“It is a fully mechanically reconditioned vehicle (all wear parts are replaced). It looks and rides like a well-maintained military vehicle. It’s very utilitarian, put through a mechanical process so it is reliable and safe,” Ronsen says.

The vehicles were built in 1993 and later and sell for just under \$30,000.

“Our trucks are customizable,” notes Ross Feenstra, Acela’s ag sales manager. From a ranching family, he appreciates how its pto-capable transmission can be used with ag-related equipment such as a bale bed, bale processor or TMR to feed livestock in remote, rugged and otherwise inaccessible or

impassable areas.

With up to a 15,300-lb. payload, the truck can be used to haul feed and water for livestock or as a fire protection rig.

“It can be a multiple use truck,” Feenstra adds. “The flatbed can be taken off so implements can be used.”

Acela introduced the truck to the ag market as a bale hauler (three large round bales can be comfortably hauled at high speeds from hay yard to feeding area), but Feenstra anticipates additional interest from the potato and sugar beet industry as well as other ag-related operations.

The second version is the Monterra line which comes in 4-WD or 6-WD and is the top of the line – complete teardown to the frame of the truck, sandblasted, painted and 650 parts replaced with new parts and delivered with a one-year warranty.

They start at \$95,000, about half the cost



Acela Truck Co. specializes in converting military trucks into affordable farm workhorses.



of a comparable new truck.

Contact: FARM SHOW Followup, Acela Truck Co., 540 Business Hub Drive, Belgrade, Mont. 59714 (ph 406 924-3535; www.acelatruck.com; info@acelatruck.com).