

## Shingle Lift Made Out Of Spare Parts

Jody Boyles says, "The shingle lifter I built was born out of necessity, and now I'm using it for other lifting projects to save my back." The project came about because after he agreed to help a contractor shingle his sister-in-law's house, he found out the shingles were unloaded in the front yard. They couldn't find a telescoping lift to move them, and his loader's bucket didn't lift high enough to put them on the roof.

Boyles solved the problem by sketching out a plan to extend the reach of his Massey loader with a boom and modified jib arm. Using scrap metal and old parts from his own yard, he made an 8-ft. long boom out of heavy-walled pipe. At one end, he welded 4-in. channel brackets that he bolts to the floor of the bucket. A slight bend about 1 ft. in from the opposite end of the boom and another bend about 3 ft. in create a slight arc. Those bend points are reinforced with gussets and rebar. A log chain extends from the base of the arc back to the top of the bucket to support the boom.

Boyle welded pieces of angle iron together to produce a metal basket 3 ft. wide, 16 in. deep, and 2 ft. high. "A chain at the end of the boom attaches to metal straps on top of the basket and the loader raises it to 13 ft. high, which put the shingles right on the roof, exactly where we needed them," Boyles says. The arc in the boom keeps the basket away from the front of the tractor. Boyles



**Boyles built a boom lift for his loader to lift shingles to a roof and now uses it for many other jobs that "save his back".**

says, "The boom didn't cost anything out of pocket, just my time, because I had all the metal parts at my place."

Boyles says the boom easily maneuvers the basket up, down, and away from the tractor with the dual-acting lift and tilt cylinders on his loader.

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**Mainero corn head has tungsten carbide self-sharpening opposing knife rolls that create an aggressive crimping action to cut and damage stalks so they easily decompose.**

## Corn Head Cuts In Any Direction

The MDD200 corn head from Mainero is designed for anyone with terraced fields, downed corn, or narrow rows says GBC, the North American distributor. The MDD200 can harvest any row spacing in any direction without adjustments or modifications. Five head sizes ranging from 20 ft. to 33 ft. can be configured to any combine on the market.

GBC says the Mainero works in any direction because the patented stainless-steel snouts gently ease stalks to one side or the other where gathering chains with offset sprockets feed stalks into the head without stress to the corn plant. This third-generation head design has longer and thinner snouts than its predecessors, 60 percent more lugs on the gathering chains, and a new deck plate design. These components reduce grain loss and allow the harvester to work at normal

operating speeds in whichever direction it's traveling. Each snout lifts easily for maintenance and cleaning.

The Mainero head has tungsten carbide self-sharpening opposing knife rolls that create an aggressive crimping action to cut and damage stalks so they easily decompose. Deck plates are hydraulically controlled from the operator's seat for easy adjusting.

Custom mounting kits allow Mainero heads to attach mechanical, electrical, and hydraulic hookups quickly to any model combine. Contact the company for price information.

Contact: FARM SHOW Followup, GBC, P.O. Box 3129, Humboldt, Sask., Canada. S0K 2A0 (ph 306-662-5888; www.gbcdistributors.com).

## Sensors Cut Pivot Costs, Boost Yields

Sensing technology from Autonomous Pivot (AP) is cutting water use and boosting yield. The data-gathering devices can be mounted on existing pivot irrigation systems, according to AP distributor Heartland Soil Services. The system takes gathered data, including 300 soil moisture readings per pivot rotation, and makes recommendations on water use and crop stresses.

"There are no limits on the type of center pivots the system can be mounted to," says Matt Westerhaus, Heartland Soil Services. "In our side-by-side trials here in Kansas, the Autonomous Pivot field used 12 percent less water and had a 10-bushel yield advantage."

Westerhaus has worked with Autonomous Pivot for several years. He likes the idea of a base system with no options or add-ons. The technology package was developed in Israel, a leader in irrigation innovations for many decades.

The AP system consists of pivot-mounted devices, including cameras, a rain gauge/weather station, a water pressure sensor, GPS, and ground penetrating radar. The ground penetrating radar device mounts to an arm that extends ahead of the pivot sprinkler pattern.

A solar panel mounted to the pivot provides localized power, and a data transmitter forwards data to AP's AI (artificial intelligence) agronomist. It alerts the pivot operator to field conditions via the company's dashboard app and makes recommendations on water usage and other field management aspects.

"The main component is the ground penetrating radar," explains Westerhaus. "It determines how much moisture is in the field on a scale of zero to 100, with 100 being field capacity and zero being leaf wilting."

At the same time, views of the crop are gathered every 30 min. by a wide-angle lens camera and a narrow-angle camera. The latter can zoom into a 3-ft. field of view to detect insects and pest-feeding patterns. These images are augmented by two fixed-wing aerial images of each field each season.



**Solar panel and data transmitter attached to pivot boom.**

The rain gauge and weather station send real-time data, which is combined with DTN data to adjust application recommendations.

"The primary use of the sensory data is to track field conditions and the growth stage of the crop and adjust water management accordingly," says Westerhaus.

AP systems are installed by distributors like Heartland Soil Services under a service contract. The company provides hardware (including updates), covers damages, and maintains the AI software and hardware. Pricing is based on the number of pivots, starting at \$2,300 per pivot per year, dropping to \$1,900 to \$2,000 with three or four pivots. Installation charges start at \$400, depending on what needs to be done in terms of sensor placement.

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**Fire Pro uses a non-toxic refillable foam that works well for hot and dry conditions as well as equipment fires.**



## He's Sold On Fire Pro Foam Extinguishers

Arlen Coblentz wanted dependable fire protection when he moved to Pavillion, Wyo., a very dry region. He wanted to be well prepared after experiencing the loss of a Kentucky sawmill operation to a fire. When he discovered Fire Pro LLC extinguishers that feature cooling liquid with foam, he was so impressed he became a distributor for the Western U.S.

Coblentz explains that typical fire extinguishers have powder that settles and becomes compacted, so the extinguisher quits working. The powder is also corrosive, toxic, and ineffective in windy conditions.

The Fire Pro concept, developed by a Wisconsin entrepreneur, uses a formula that is nontoxic, maintenance-free, works in wind, and is always ready to go.

"With one of these, they say you can extinguish and immediately cool down a burning victim, and it can spray over 40 ft.," Coblentz says. "It uses a foaming agent, which is what fire departments use on oil and gas fires. So, it's geared toward farmers and ranchers."

The canister's spray time is about twice as long as comparable powder extinguishers. For example, the largest stainless steel 2.5 gal. extinguisher lasts about a minute compared to a powder-based extinguisher which lasts about 30 seconds. If it's only partially used, the extinguisher can be used

later. Customers can purchase refill kits to refill them on their own.

Besides extinguishers meant for hot, dry conditions and equipment fires, Fire Pro LLC also has an option of freeze protection that works in temperatures as low as -40F. Coblentz sells a range of sizes from a 12-oz. aerosol can (\$19.35) to 1 liter and 4 liters to the 2.5 gal. size (\$231 w/o freeze protection to \$364 with freeze protection). Refill kits start at \$17.

"They have incredible cooling action. This formula penetrates deeply and cools down hot surfaces much faster than water," he says. That's helpful for people who need to weld on equipment. Spray a little foam on a terry cloth and wrap it around as a heat shield for areas that need protection.

Last summer, Coblentz dramatically proved how well the extinguishers work when he noticed a late-night hayfield fire at his neighbor's place. Only one of the three powder extinguishers they had worked to put out the flames on the tractor. But a good portion of the hayfield was on fire and growing rapidly. Coblentz grabbed two of his extinguishers and was getting the fire under control when the first fire truck arrived.

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