

“Robot Washer” Automatically Cleans Confinement Buildings

A new 4-WD robot automatically washes down livestock confinement buildings.

The 4-WD Swedish-built robot is designed to work its way through a barn by itself so no operator needs to get soaked washing walls and ceilings. The machine is equipped with four stainless steel booms with eight spray nozzles that can be set to remain stationary or to rotate back and forth. With the arms fully extended total boom width is 20 ft. A chain and sprocket system is used to adjust boom angle and height. Each nozzle is fed by a separate rubber hose. A hand screw knob is used to adjust nozzle setting.

The machine automatically steers itself, going up and down the aisles and washing floors, walls, and ceilings. The steering system uses four horizontal guide wheels, one at each corner of the machine, that contact the sides of walls, crates, or pens. The wheels also serve to stop the robot once it reaches the end of the building. The machine pauses, then the motor reverses direction and the machine goes down the aisle in the opposite direction. Once the machine reaches the end of the aisle you manually pull it over to the next aisle.

The robot is equipped with two electric motors. One motor drives the pump that delivers the water, and the other chain-drives the wheels. A standard hose hooks up to the back of the unit. The unit's electro server steering system is operated by plugging a cord into any 220-volt, 3-phase outlet.

“It won't call in sick, complain or sue for workmen's compensation,” says Rodney Adkins, Adkins-Werntoft of North America, Inc., Fayetteville, N.C. “It has been used suc-



“It won't call in sick, complain, or sue for workmen's compensation,” says robot's U.S. distributor.

cessfully in Europe for the past five or six years. The booms fold down against the side of the machine for transport. The narrowest overall width is only 31 in. so it'll go through a standard 32-in. wide door.”

Adkins has a business distributing pressure washers for hog buildings. Based on that experience he's convinced there's a need for this machine.

Sells for about \$32,000.

Contact: FARM SHOW Followup, Adkins-Werntoft of North America, Inc., 2185 Angelia M St., Fayetteville, N.C. 28301 (ph 800 476-9274; fax 910 483-2175; E-mail: sales@robotwasher.com; Website: www.robotwasher.com).

Tipped-Up Row Dividers Reduce Corn Header Width

When Ronald Boehm bought a new Case-IH combine equipped with a 6-row corn header, he built a trailer to transport the header. However, he lives in an area with narrow and winding roads so he felt the 9-ft. transport width was dangerous. His solution was to tip the snouts up and secure the tips in “pockets” welded onto a 12-ft. length of 5/8-in. rebar. The rod rests in the channels on the header that support the dividers when they're in harvest position.

“It reduced the transport width to 6 ft. 8 in., which makes transporting the header a lot easier and safer,” says Boehm.

He bent five 9-in. lengths of 1/2-in. dia. rebar into “U”-shaped pockets.

To transport the header, Boehm raises the dividers, places their prop rods under them, and inserts the 12-ft. rod into the channels. Then he unhooks the height adjustment chain on each divider, removes the prop rods, and lowers the divider tips into the pockets. To keep the dividers from bouncing out of the pockets, he attaches one end of a tarp strap to the divider height adjustment chain and the other end to the header frame where it supports the snapping roll.

Since the header's left and right end dividers don't raise up like the center units do, he unbolts them at their hinge point and then removes them and places them beneath the center dividers. A tarp strap is used to hold them securely on the trailer.

“It takes only about 10 minutes to set the header up for transport,” says Boehm. “When I raised the dividers and placed the prop rods under them to hold them up, I used touch-up



Snouts are secured in “pockets” welded onto a 12-ft. length of 5/8-in. rebar.



Transport width is reduced to 6 ft. 8 in., which makes road travel easier and safer: paint to mark the chain link that's used to hold each divider at the desired height during harvest. That way, when I arrive at the field I have no problem setting the right height for each row divider.

“To help hold the divider tips in the pockets, I made slits in lengths of 5/8-in. dia. garden hose and slid them over the 5/8-in. dia. rebar. I use wire tie straps to secure the hose.”

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Ladder mover holds ladder in place, with legs resting on ground. Top end of ladder fitted with a pair of small wheels that roll up and down side of buildings.

Loader-Mounted Extension Ladder Mover

Big extension ladders are clumsy and difficult to handle if only one person is available to move them.

Charles H. Erickson, Battle Lake, Minn., used scrap metal to build an inexpensive, loader-mounted ladder mover that's used to transport the ladder and also to hold it in place when in use, with the legs resting on the ground. The top end of the ladder is fitted with a pair of small wheels that roll up and down the side of buildings.

“It lets me pick up an extension ladder flat from the ground and place it against a building. I just drive the ladder to wherever it's needed, with no strain to my body,” says Erickson. “I can paint a building without needing any extra help to move the ladder at all. Once in place, the ladder can't slide or tip unless the tractor moves. The wheels at

the top of the ladder allow it to be easily extended up the building. It fits all sizes of extension ladders that have hollow rungs.”

The ladder mover consists of two 4-ft. lengths of 3-in. angle iron. Two 4-in. long, 1-in. dia. steel pins are welded to each side. The pins slip into the ladder's hollow rungs to keep the bottom portion of the ladder from going up or down. The angle iron brackets slide in tight against the side of the ladder, held in place by set screws.

“It takes only about 30 seconds to mount the ladder mover on the loader and one minute to attach the ladder to it,” notes Erickson. “It can be used with any ladder that has hollow rungs no matter what its width.”

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Octagon-shaped roof frame is covered by a snap-on marine-grade poly canvas and attaches with four legs to top and bottom rings of feeder.

“No-Waste” Domed Round Bale Feeder

“It worked so well I started making them for others,” says Dale Gauck, Greensburg, Ind., about his hay-saving “domes” for bale feeders.

He used 1 3/8-in. dia. galvanized chain-link fence pipe to make four legs that attach with jam bolts to the top and bottom rings of the feeder. The octagon-shaped roof frame is also made from pipe. The roof is covered by a snap-on marine-grade poly canvas. Gauck buys the material in 5-ft. wide rolls and stitches two rolls together and then cuts pieces to fit 8-ft. dia. feeders. To attach the poly he drilled 24 small holes in the pipe, then attaches threaded snap screws to the poly and inserts them into the holes.

“I've made about ten domes for other farmers. I sell them for about \$300 but am trying to get the price down by using a less expensive roofing material. Roof height can be adjusted by loosening the jam bolts and raising the four legs up or down. I bend the pipe legs so they can be rotated to accommodate feeder rings that aren't quite round or are slightly bigger or smaller than 8 ft. in diameter.

“To load the bale you tip the feeder on its side, place the bale on the ground, and then tip the feeder back up and over the bale.”

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