

Hydraulic Ladder Reaches 35 Ft. High

By Cindy Ladage

"I didn't want to spend the money for a big crane or cherry picker," says Bill Fluhrer, an 83-year-old retired farmer who built this hydraulic-operated ladder that will reach the top of almost any building or shed on his farm. He uses his tractor to pull it around and also to operate the hydraulics.

"It's nothing real fancy but it works great," says Fluhrer. "It's easy to raise and lower and reaches up to 35 ft. high. It even has an outrigger on top, which I use along with a hydraulic-operated winch and cable to lift heavy objects up. I mounted the ladder on the frame of an old auger that I had laying around, so it didn't cost much to build."

Fluhrer says he has used the big ladder to do everything from trimming trees to changing yardlight bulbs, to taking down windmills and putting siding on his barn.

The ladder consists of 2 sections that connect together and fold down for transport. The bottom ladder bolts to the auger transport frame and is fitted with a hand-cranked boat winch that Fluhrer uses to raise or lower the top ladder.

The top ladder slides up or down on a vertical length of 4-in. sq. tubing bolted to the top of the auger transport frame. The top of the ladder is fitted with an 8-ft. long, angle iron outrigger operated by a hydraulic-operated winch placed at ground level. Cable from the winch leads up over a pulley on the ladder's top rung to another pulley on the

outrigger.

A pair of hydraulic cylinders attached to the auger frame are used to raise or lower the auger transport frame to which the entire ladder is attached.

To take the ladder down for transport, Fluhrer uses the boat winch to lower the top ladder all the way down, then uses the hydraulic cylinders to lower the auger transport frame.

The entire ladder is held in place by steel cables and pipe braces anchored to the ground.

"I built it primarily to take down old farm windmills. I've probably taken 6 or more windmills down with it," says Fluhrer. "The outrigger lets me lay the windmill down without damaging anything."

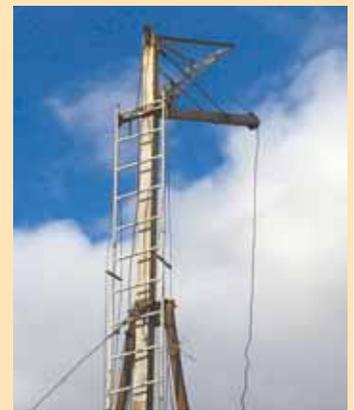
Fluhrer says he plans to mount a hydraulic motor on the boat winch and to make a basket that will let him use the ladder's outrigger to work on top of a silo, which he's converting into a reading room, game room, and observatory.

He has even used the outrigger to lift 4 by 9-ft., 1/4-in. thick sheets of fiber cement siding which he installed row by row on his barn.

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Bill Fluhrer built this hydraulic-operated ladder that reaches up to 35 ft. high. He uses his tractor to pull it around and also to operate the hydraulics.



Ladder has an outrigger on top, which is used along with a hydraulic-operated winch and cable to lift heavy objects. Ladder is mounted on frame of an old auger.



"Smart" Way To Control Slides On Trucks, Wagons

Shur-Co's new electric gate and hoist system remotely controls the box hoist and rear slide gate on grain trucks or wagon bodies.

Dauna Ogden says Shur-Co designs its products in house so they're American-made and proud of it. Ogden says their new SMART mini-modules can control any 12-volt accessory with electronic actuation. A rear slide gate, for example, can be controlled by remote operation from the top of a grain bin. Using the remote, a farmer can open the gate to allow just the right amount of grain into an auger to top off the bin. No need to climb down off the bin, open the gate, then climb back up while it's dumping to see how much is needed.

A second mini-module with an electric-over-air solenoid valve gives an operator control of a grain truck hoist. In combination,

the two devices allow controlled unloading with one remote. The actuating devices can be mounted on the side, the rear, or wherever is most convenient to control product flow.

Connections on the mini-modules use weather-pack insulation on the hoist controls and DOT-certified air fittings to protect against moisture, dust, extreme temperatures and corrosive road elements. Ogden says if the package is ordered with a Shur-Co electric tarp, a smart wire system allows plug-and-play operation. The tarp, gate and hoist can be controlled by the same mini-module, and other electronic accessories such as an electric hopper opener, an electric swingaway, and work light packages can also be added. Depending on the products used the installation will take anywhere from a few hours to a day.

The recommended retail price for the Gate and Hoist system with the SMART1+ remote is \$1,320. Other options and configurations are available.

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You can remotely control the box hoist and rear slide gate on grain trucks with Shur-Co's new SMART mini-module.



Giant Bucket Fills Semi Trailers Fast

When a local elevator mentioned to Brian Ayre that they needed something big to load a half-million bushels of corn piled on a street, Ayre jumped at the challenge. Within a few weeks he and his employees at Ayre Excavating had built a massive 10-yard grain bucket to mount on an 80,000-lb. tracked excavator.

"The design we came up with holds about 210 bushels," says Ayre. "It's a bucket 11 ft. wide and about 6 ft. across at the top, narrowing to 4 ft. wide at the bottom. It dumps out the bottom through a slide controlled by two large hydraulic cylinders. The operator fills the bucket by sliding it into the pile, just like a front-end loader, lifts and rotates it over the truck, then opens the slide and empties it in just a few seconds. The long arm of the excavator easily maneuvers over the top of the trailer and can fill the hopper compartments to whatever level the driver wants. A typical 850 to 900-bu. trailer holds 5 buckets and can be filled in 1 1/2 minutes. Ayre says the secret of fast loading is the

design of the bucket. "It has a flat edge on the top front so it can scrape a flat surface and not damage the grain," Ayre says. "The operator can scoop from the bottom of a pile on a concrete surface, or dig into a pile. When the bucket is tipped back and raised up, the slide to unload it is on the bottom."

The success of the first bucket had Ayre's phone ringing. He's since built other sizes including 6 yds. (127 bu.), 8 yds. (175 bu.), 9 yds. (190 bu.) and 11 yds. (250 bu). Prices range from \$20,000 to \$25,000 depending on size. Each bucket has a standard direct pin coupler mounting, is spray arc welded, and can be painted to match the color of the excavator it will mount on.

"We've had great response to the idea, because it's just so efficient," says Ayre. "One elevator in Missouri used our biggest bucket to load a 1,000,000 bu. pile in 60 hrs., filling trucks at the rate of 18,000 bu. an hour."

Ayre says a good excavator operator is the key to efficiency, and truckers learn quickly where to park so the operator can dump



Massive 10-yard grain bucket mounts on an 80,000-lb. tracked excavator. It was built for a local elevator needing something big to load a half-million bu. of corn piled on a street.

quickly without spilling. "We've got about 20 of these in use around the country and are getting calls fairly often from elevators who anticipate having to pile a big crop of corn and beans on the ground." Ayre says the

bucket also works well for lime and fertilizer loading.

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