



Bobby Burgin kept the cost down on his home-built, 4-WD tractor by making use of materials he already had.

Home-Built 4-WD Loader Tractor

"I built my own 4-WD loader tractor and it only cost about \$3,000," says Bobby Burgin, Groom, Texas.

The tractor's axles and transfer case are from a World War II Army truck, the engine is a Chevy 350 equipped with a Power-Glide transmission, and the frame, cab, and loader were built from scratch with scrap metal. The tractor rides on 40-in. tall tires.

Burgin used 3 by 4-in. rectangular tubing to build the loader arms and built the 7-ft. wide bucket by welding new material onto a Deere 5-ft. bucket. The bucket raises 11 ft. high and is designed with a patented, self-

leveling mechanism that holds the bucket's angle as the loader is raised. "Some commercial loaders have self-leveling buckets, but mine holds its angle at more degrees of operation from bottom to top."

The cab is built with a door on each side, and big windows all the way around. The dash inside the cab has numerous truck-style gauges, and there are 7 control levers with red plastic handles. "I'm a retired truck driver, so I wanted the controls and the dash to look as much like a truck as possible," says Burgin. The steering column and seat are off a forklift. The windows behind the doors and on



Engine is a Chevy 350 equipped with a Power-Glide transmission.

back of the cab can be opened.

He says he worked on the tractor for four years in his spare time, and kept the cost down by making use of materials he already had. "My grandpa had the Army truck, and the engine and transmission came out of my mom's old car. The heater came out of a 1969 Chevy. I bought a new hydraulic pump and new cylinders for the loader."

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Cab has big windows all the way around and truck-style gauges.

Cedar posts are protected from ground rot by an oil reservoir around the base of post.



Do-It-Yourself Treated Posts

Ralph Jennings had a need for pole shed posts and also had lots of cedar trees going to waste. Cedar trees don't get used as much as other wood for posts because the outside portion of the tree deteriorates faster than the red center. Jennings had an idea for treating his own posts with oil.

"I've only tried it on cedars, but it should work just as well on other types of wood," says Jennings. "I've been using the process for about three years, and they seem to be holding up fine."

Since he knew just dipping the trunks in oil for a few days wouldn't do the job, Jennings came up with a more involved, yet relatively simple, process. He created an oil reservoir around the post that protects it from ground rot and allows him to retreat as needed.

The first step is to pour a 4-in. concrete footing below the frost line and insert a plastic pipe a couple inches wider than the diameter of the post that will follow. Once it's dry, he sets the post inside the pipe.

"I debark the post at least to the top of the pipe," says Jennings. "I also bevel the bottom edges of the post so the oil has easy access."

With the post in place, he fills the pipe with pea or dime-sized gravel and then pours cement around the outside of the pipe up to ground level.



Every few months Jennings pours oil in through a concrete cap to soak the post.

He leaves a few inches between the top of the pea gravel and the top of the pipe and then pours a concrete cap over the top with a filler cap inserted into it.

"I place thin boards over the top of the pipe to pour the concrete cover," he explains. Every few months he pours oil in through the cap to soak the post.

"I can see on the sides of the posts how the oil is wicking up through it," he says. "It seems to be working fine."

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Vertical, 6-in. dia. perforated pipe installs up the center of bin to cool, dry and ventilate grain. Eliminates the need to use fans or outside energy.

Low-Cost Way To Keep Grain Dry, Cool

You don't need to use fans or outside energy to do a good job of removing heat and moisture from stored grain. Farmer-inventor Gary Schreiner found a way to use the power of natural convection instead.

Schreiner installs vertical perforated pipes up the center of bins to cool, dry and ventilate grain.

"Initially, I got the idea from the old practice of installing cedar posts in grain piles to wick heat and moisture up to the top of the pile where it vented to the atmosphere," he explains. "Because cold air is heavier than hot air, the heat rises and will naturally follow the path of least resistance. I figured that we could capitalize on this principle in all types of grain storage facilities."

Schreiner started a business called "GrainAirTubes." His 6-in. dia. perforated pipes condition grain without having to depend on electricity, extra manpower, or wait for the right weather. The air channel at the

center of the bin also eliminates hot spots and reduces insect problems.

"I have customers who no longer use fans on any of the grain bins on their farms," he points out. "GrainAirTubes work equally well with Quonsets, grain rings and other flat storage methods."

GrainAirTubes are suspended from the bin roof, and held in place by adjustable floor stands. The weight of the pipe keeps it from moving around.

The company can supply any length of tube needed. Prices depend on the length of pipe but range from \$500 to \$1,000 (Can.) per kit. According to Schreiner, installation is quite straight forward.

Dealer inquiries are welcome.

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