



Power cord consists of 17-ft. long cord (30 ft. for trucks) wound onto a retractable reel mounted under the hood.

## MOUNTS ON REEL UNDER THE HOOD

# Retractable Cord For Engine Block Heaters

Here's a new product that can solve a common "north country" winter problem: not having your extension cord when you need it to operate your vehicle's head-bolt heater.

The new Power-Cord is a retractable extension cord on a reel mounted under the hood of your car or pickup. You plug it into the vehicle's head-bolt heater.

Power-Cord consists of a reel and 17 ft. long cord encased in a metal housing and mounted on a fender well under the hood. The cord, which stays flexible in sub-zero weather, extends through the grille. A small ball stop behind the plug keeps it outside the grille.

"You can install the device in less than 15 minutes," says Bruce Christenson, of Bottineau, N. Dak., the inventor. "It doesn't take any special wiring. You simply plug the engine block heater cord into the reel. With the cord under the hood, it's always there when you need it and it's less apt to get stolen."

Sells for \$34.95. A larger model for trucks with 30 ft. of heavier cord will be available soon.

For more information, contact: FARM SHOW Followup, Northland Products, Box 196, Bottineau, N. Dak. 58316 (ph 701 263-44506).

## 'TWICE AS MUCH CAPACITY FOR ABOUT HALF THE COST'

# New "Air Auger" Moves Grain Faster, Cheaper

A new low-cost pneumatic grain conveying system with "twice the capacity of conventional systems for about half the cost" has been invented by Iowa farmer Roger Montag, of Rodman.

The key difference in his new-style "Air Auger" is the acceleration chamber, which allows greater efficiency, less wear and maintenance, and less grain damage than either conventional augers or pneumatic grain conveying systems, says Montag.

"Many farmers would like to own a vacuum system but they won't spend the \$15,000 these conventional systems cost," says Montag. "Centrifugal motion gives this rig the capacity of a vacuum system but at far greater efficiency. It uses less cubic feet of air and compresses it to a static pressure of only 23 lbs., compared to 80 lbs. for some vacuum systems. Also, most vacuum systems need 1 lb. of air to carry 1 lb. of material. But, with centrifugal motion, you need only 1/4 lb. of air."

The result, says Montag, is lower horsepower requirements. In testing, he has moved 2,400 bu./hr. of corn with a 25 hp model. "Over a given distance, this air conveyor has twice the capacity of a similar hp conventional auger," says Montag who has used his Air Auger to move corn, wheat, small grains, corn cobs and even fertilizer.

It consists of a fan and acceleration

chamber. The fan, which can be driven by pto or an electric motor, conveys air to the acceleration chamber.

"Air swirls around the chamber similar to the way it swirls inside a tornado, at 13,000 ft./sec., creating centrifugal force which causes a vacuum to form in the middle of the chamber. Grain enters by gravity through a hole in one side of the chamber and is held in suspension by a high pressure column of air as it exits through a tube at speeds up to 300 mph.

"With only one moving part (the fan) there's very little maintenance and wear," says Montag. "Conventional vacuum systems have a rotary compressor and air lock, which are expensive, require maintenance, and wear out."

The Air Auger system also stirs up far less dust than either augers or conventional vacuum systems, and it's quieter, says Montag who notes that "the tractor makes more noise than the air conveyor. What's more, the system is gentle on grain since there are no blades or vanes to slug grain along at high speed."

Montag feels his new Air Auger could be used in a variety of ways: under a drive-over pit, to unload continuous batch dryers or bins, or to blow grain into silos. He plans to build the unit so the acceleration chamber and fan are detachable.



Half-tire scrapers fit chore tractors and skid steer loaders. Optional scraper bar drags manure out of corners.

## CLEANS LIKE A SQUEE-GEE

# "No Wear" Tire Scraper

"These rubber scrapers will outlast steel blades 5 to 1 and they'll do a better job," says inventor Don Mensch, manufacturer of quick-tach scrapers made from big industrial-size rubber tires.

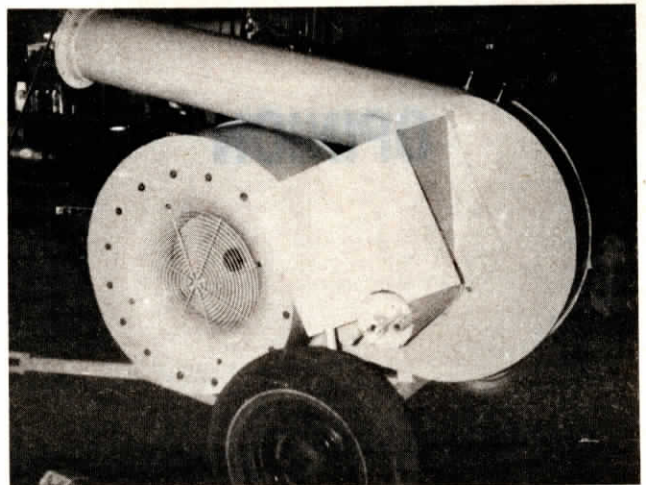
Mensch says his scrapers have several advantages over steel blades. "They're gentler on the concrete so you don't wear it down smooth. Also, the rubber works like a squee-gee to more easily move liquids, and yet the rubber won't rust. Rubber scrapers also vibrate less, which makes them easier on the operator, and you can use them around cows with less chance of causing injury," he says, adding that the resiliency of the rubber scrapers also causes less wear and tear on the tractor or skid-steer loader.

Mensch makes several models - from 6 to 8 1/2 ft. wide - to fit both tractors and skid-

steer loaders. Mounts are available to fit tractor buckets (the lip of the bucket simply slips between a pair of mounting plates), tractor 3-pts., and quick-tach 3-pts. When mounted on the rear, the scraper can be positioned to either pull or push and a straight-across scraper bar can be attached along with the curved scraper for cleaning out corners.

"The industrial tires that we use to make these scrapers are built so tough they're virtually impossible to damage or wear out. We've never worn one out so we don't know how long they will last," Mensch told FARM SHOW. Rubber scrapers range in price from \$550 to \$950.

For more information, contact: FARM SHOW Followup, Mensch Manufacturing, 2721 Bauer Road, Jenison, Mich. 49428 (ph 616 669-2816).



Air auger uses a 25 hp. fan and an "acceleration" chamber to create high speed air flow to move grain. Auger has only one moving part (the fan).

The conveyor's efficiency allows it to move heavy materials, such as granular fertilizer which weighs close to 65 lbs. per cu. ft. "Big farmers could use this air conveyor to efficiently handle bulk fertilizer. Moving fertilizer from semis to buildings, and from buildings to farm trucks, would be no problem with this unit, which is the only vacuum system capable of han-

dling fertilizer."

Montag plans to build a 70 hp pto-driven production model capable of moving up to 4,000 bu./hr. "It'll unload a 250 bu. wagon in 3 to 4 min.," he says.

For more information, contact: FARM SHOW Followup, Roger Montag, Rt., 1, Box 26, Rodman, Iowa 50580 (ph 515 887-4752).