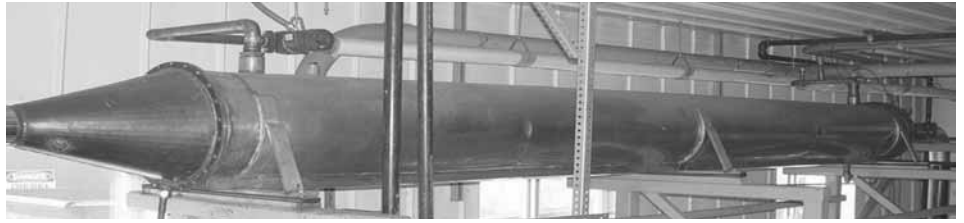


He Uses Diesel Exhaust To Heat His Shop

If you're using a stationery power unit in your shop, you might as well also use it for heat. Paint Valley Parts owner Levi Miller built a heat exchanger for his machining, fabricating and welding shop that uses diesel engine exhaust to heat water that runs through a radiant floor heating system.

"We run a 275-hp Deere diesel engine," Miller explains. "Exhaust temperature entering the exchanger is 550 degrees and it leaves the exchanger at 250 degrees. We produce approximately 650,000 btu's and are presently heating a 12,000 sq. ft. building with heat to spare." Without adding any heat over the weekend, the building only loses 10 to 15 degrees at 0 degrees outside.

"The heat produced is directly related to the horsepower used. Each horsepower will produce approximately 2,540 btu's," Miller says. "These heat exchangers are very efficient and they can be used in many different



Heat exchanger uses diesel engine exhaust to heat water that runs through shop's radiant floor heating system.

ways."

For example, they can be used for paint room and dry kiln heating, as well as heating a home. Miller adds that the heater core is stainless steel and needs to be cleaned every 45 to 60 days for maximum efficiency.

Miller's setup drew enough attention that the company now sells four sizes of heat exchangers. The company customizes units for each location, offering automatic control

boxes for 12, 24 and 110 volts.

Sizes range from the Model 1500 (650 lbs.) for 25 to 80 hp engines to Model 6500 (1,700 lbs.) for 250 to 500 hp engines. Prices range from \$5,300 to \$14,000.

Contact: FARM SHOW Followup, Paint Valley Parts, 10550 Twp. Rd. 262, Millersburg, Ohio 44654 (ph 330 674-0081 or 330 674-4002).

Simple Deflector Controls Spread Of Manure

Adding a homemade deflector to his New Idea 3909 manure spreader helps Jesse Barley concentrate the spread of manure in the field and keeps it from kicking up in the air and blowing forward on windy days. Barley uses the modified spreader to form compost piles.

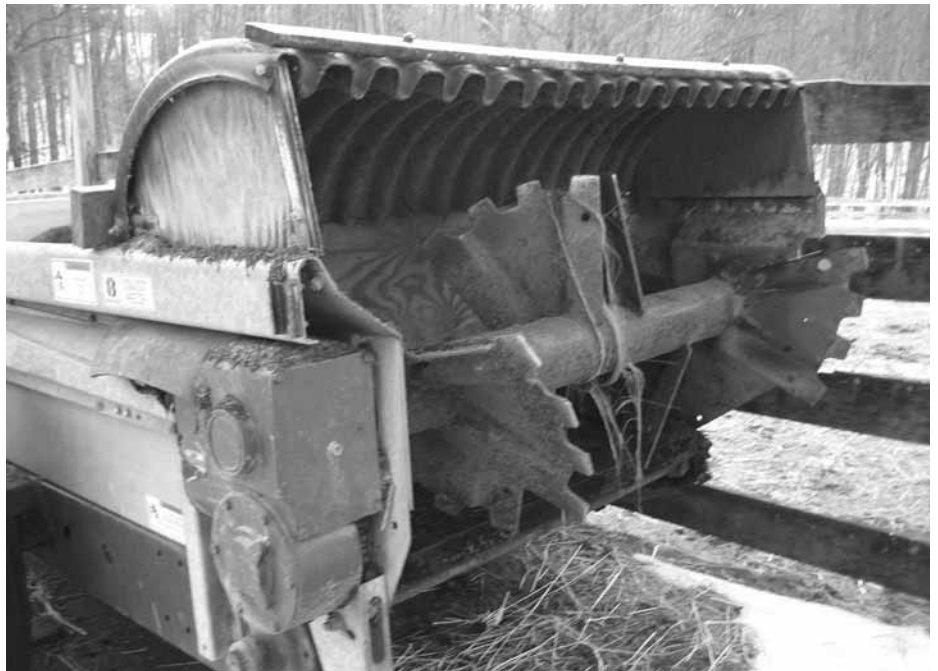
"It worked so well that when I bought a second spreader, I made a deflector for it, too," says Barley. "My brother-in-law saw it and wanted one for his spreader, so I made another."

Each deflector is made from a 1/3 section of a 28-in. dia. plastic pipe. The arc of the pipe just clears the beaters on the spreaders by a couple inches.

To mount the deflectors, Barley first attached 3-in. long pieces of 2 by 3-in. angle iron to the side of the spreader where he wanted the front edge of the deflector to rest. He then attached a 2 by 4 to the lower (front) edge of the deflector, both as reinforcement and as a base to be attached to the angle iron.

Lengths of 1/2-in. bar stock bent into L-shapes support the rear edge of the deflector. The end of the long leg is bolted to existing holes in the body of the spreader, just behind the beaters. The short leg of the L is bolted to the edge of the deflector.

A furring strip attached to the upper (rear) edge of the deflector helps stabilize it. "When the manure is wet, it will stick to the inside of the deflector and the furring strip keeps it from sagging," says Barley. "I mounted pieces of plywood between the spreader sides and the curve of the deflector



on one spreader, but left the spaces open on the other two with no impact on the spread pattern."

Barley and his wife stable horses and remove the manure three times a day to control odor and flies. Manure is carried to a spreader which, when full, is used to mix and stockpile the manure through the winter. Each spring the previous summer's compost is spread on pastures and fields. Barley then uses the spreaders to move the winter stockpile into place for composting throughout the summer. He uses a skid

steer with pallet forks to mix and turn the compost twice. Then he rebuilds the pile using the skid steer bucket. By spring it's ready to spread.

Barley notes it's often hard to see where fine dry compost has been spread. "Thanks to the deflectors, it's easy to see the spread pattern from each pass," he says.

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