Truck Hoist Makes Good Shop Door Hoist

For the past 20 years or so, 90-year-old Neil Thomson has been enjoying the use of a shop door hoist he made from a dump hoist taken off a 2 1/2-ton Ford grain truck.

He adapted it to open and close a 16 by 16-ft. shop door. The fully insulated shop is 24 by 36 ft.

"There's a 2 1/2-ft. by 8-in. dia. hydraulic oil storage tank directly below the 4-ft. long ram. A 3/4 hp electric motor powers the hydraulic pump," says Thomson.

The 4-ft. long ram is able to open the 16-ft. door because Thomson used cables and pulleys to quadruple its reach. He positioned two pulleys at the bottom, on each side of the ram, and two pulleys up by the ceiling. A steel cable runs through the pulleys and up over the ram. The end of the cable attaches to the door.

The insulated door consists of two 16 by 8-ft. sections (hinged horizontally across the middle with five homemade hinges). The end of the cable attaches to the door.

The door moves up and down in a track made from two pieces of 1 1/4-in. angle iron welded together, making it a 2 1/2 by 1 1/4-in. track on each side of the door that goes up and across the ceiling. Thomson used three roller bearings on each side.

"There are three little 1/8-in. jigs on each side, positioned in the last few inches where each roller stops when the door is fully closed. This forces the door tight against the framework of the wall."

Between the set of tracks that sit on the shop ceiling, Thomson mounted two rods with adjustable, threaded ends. These rods ensure the track width stays constant.

"To lower the door, there's a bleeder valve built right into the hoist that you open," he says. "It feeds the oil back into the reservoir from the ram. By adjusting the valve, you can adjust the speed of door movement in either direction."

Thomson says he prefers the hydraulic system over an air system because "air has a bad habit of leaking out. Hydraulics will only leak extremely slowly," he adds.

Thanks to the oversized door, Thomson can drive the biggest combine or dual 4-WD tractor into the shop.

Contact: FARM SHOW Followup, Neil Thomson, P. O. Box 1130, Eston, Sask., Canada S0L 1A0 (ph 306 962-3963).

Thomson made this shop door hoist from a dump hoist taken off a grain truck.

Cables and pulleys (above and below) quadruple the reach of truck's 44-ft. long ram.

Shop's insulated door consists of two 16 by 8-ft. sections hinged across the middle.

He Repowers Tractors With Ford Flathead Car Engines

"They draw a lot of attention at shows and parades," says Richard Lyman, Mount Gilead, Ohio, about the Silver King and Oliver tractors he repowered with Ford flathead V-8 car engines made from 1932 to 1953.

The Silver King tractor was originally equipped with a Continental 4-cyl. 30 hp gas engine that was worn out. Lyman replaced it with a flathead 85 hp car engine that he painted blue. To make room for the new engine he cut the tractor frame and welded in some new material, lengthening the tractor by 10 in. The tractor came with 28-in. high rear wheels which "looked odd" after the tractor was stretched out, so he replaced them with 36-in. wheels. He also added a pair of homemade straight pipes, one on each side of the hood, that give the tractor a distinctive, rumbling sound.

"It really looks nice. The tractor's main body is painted silver but I painted the motor blue and the wheel rims red," says Lyman. "It has a streamlined look. In fact, some people tell me it looks factory-built. You don't even notice the tractor is too long unless a standard Silver King is parked alongside it.

"I made the conversion because I've always liked Henry Ford flathead engines and wanted to see if they would work in tractors. The Ford flathead has low compression and makes a sound that's all by itself. Henry Ford engines are hard to come by - I got mine at a public sale and paid $200 for it.

"Everyone wants to know how fast it will go. I tell them that at my age speed isn't a factor, but I expect it would probably go 50 to 60 mph. However, I only drive the tractor in second gear."

Silver King tractors were made from 1934 to 1954. "Most Silver King tractors were made in Plymouth, Ohio, and came with an engine that was part of the tractor's frame. However, my Silver King was built in West Virginia. It had an engine that was separate from the tractor's frame, which made it much easier to repower it. Only 78 Silver Kings were ever built in West Virginia, and I don't know how many are still around."

Lyman had to make an adapter plate to connect the clutch on the Ford engine to the tractor's original bell housing. "The flathead engine had two inlets and two outlets leading to the radiator, whereas the Silver King's radiator had only one inlet and outlet, so I had to make two more inlets and outlets."

The Oliver tractor was originally equipped with a 4-cyl., 18 hp engine which Lyman replaced with a Ford flathead 60 hp, V-8 engine. He didn't have to lengthen the tractor, but he did have to downsize the gas tank, making it 2 in. narrower and 3 in. shorter, in order to make room for it. He also made a pair of straight pipes.

The tractor was originally started by cranking a lever. Lyman got tired of doing that, so he mounted a flywheel and pto shaft on back of the tractor as well as a starter. The system allows him to start the tractor from the rear instead of the front. "To start the tractor I put the gearshift in neutral, engage the pto, and press the starter button. Then once the pto starts whirling, I let off on the clutch and shut off the pto, which disengages the starter so that it doesn't have to run all the time," says Lyman.

Richard Lyman restored this 1955 Silver King tractor, built in West Virginia, with a Ford flathead V-8 100 hp engine.

The new engine resulted in a gear reduction so the pto shaft wouldn't turn over fast enough. To solve the problem he switched the tractor from 6-volt to 12-volt.

Contact: FARM SHOW Followup, Richard Lyman 4325 Co. Rd. 20, Mount Gilead, Ohio 43338 (ph 419 946-6932).

Air Filter Adapted To Fit Shop Vac

Old air filters from tractors and skid steer loaders can be used as "no-cost" replacement filters for shop vacs, says Lowell Blakely, Dunning, Neb. He removed the air filter from a Bobcat 642B skid loader and adapted it to fit his 20-year-old Sears shop vac.

"It saved the cost of a new filter. Also, it has a much more refined design so it does a better job of filtering out dirt and therefore reduces the amount of dust blowing around when I use the shop vac. It's built for heavy duty use so it should last much longer than the shop vac's original filter. Another advantage is that sometimes replacement filters for old shop vacs are no longer available," says Blakely.

The replacement filter fits into the top part of the shop vac just like the original filter and extends down into the canister. It measures 5 in. in diameter and 1 ft. long - slightly longer than the shop vac filter but about the same width. To secure the replacement filter, Blakely used two 1/4-in. dia. metal rods to make a bracket and then drilled two 1/4-in. dia. holes into the top part of the shop vac. The rods are held on by two nuts at the bottom of the filter. Another bracket - a 1 1/2-in. wide metal plate - extends across the bottom of the air filter to hold it tightly in place.

Contact: FARM SHOW Followup, Lowell Blakely, P.O. Box 63, Dunning, Neb. 68833 (ph 308 538-2256).

Lowell Blakely adapted an old air filter from his skid loader to fit his Sears shop vac.

100 Percent Veggie Oil Tractor

While all tractor brands are approving some percentage of crop-based fuel in their engines, nobody is suggesting using 100 percent veggie oil. That hasn't stopped Glenn Cauffman, manager of farms and facilities at Penn State University.

Three New Holland diesel tractors have been running for months on nothing but B100 made from soybean oil with zero petroleum content. Other tractors occasionally run on the pure veggie oil. The reason he's using New Holland tractors is that it's the only company that has approved the experiment and offered to back the warranty while Cauffman experiments.

"We have about 500 hours on each of the first two, and this spring we added a 150 hp New Holland T7040 with a Tier III emissions approved engine," he reports. "We have about 100 hours on it. We can't detect any difference in power or fuel use between them and similar tractors on straight diesel fuel. We don't see a power difference even when they are on the dynamometer."

Cauffman credits high quality fuel for the results. They required the vendor to supply analysis of the biodiesel, proving that it meets industry standard ASTM6751. Cauffman says the vendor claims to be analyzing every tanker truck of fuel when it is delivered.

"The biggest concern of the industry is fuel quality," says Cauffman. "Fendt endorses the use of B100 in Europe, but not in this country. It all boils down to quality. There is no enforcement system of fuel quality in this country. We as customers have to insist on high quality fuel. The government will never do it for us."

Contact: FARM SHOW Followup, Manager of Farms and Facilities, College of Agricultural Sciences, Farm Services, University Park, Penn. 16802 (ph 814 865-4433; grc1@psu.edu).