The Bryan Furnace



"The Bryan Furnace" is a self-contained hot air system that operates similar to a window air conditioning unit. Combustion is contained in a fireproof enclosure located outside the building thus eliminating ashes, fumes, and the possibility of accidential contact with a hot surface inside the home. It removes air from the building, heats it to a predetermined temperature, and returns the heated air back into the building. The unit takes up to 30" logs and will burn 8 to 12 hours with one filling.

Contact: FARM SHOW Followup, Rik-Mar, Inc., P.O. Box 4232, Bryan, Texas 77805 (ph 800-927-9947 or 979-779-1616; email: info@rik-mar.com; website: thebryanfurnace.com).

Reader Inquiry No. 62

His Super M Has 11 Hp., 30 Speeds

"I saw a story in a recent FARM SHOW where a fellow repowered an H with small engine power, so I thought I would share my Super M with an 11-hp. Honda motor," says Oliver Lindemer, who added a Crosley transmission to the tractor, all of which resulted in a low-power 30-speed Super M.

Lindemer's grandfather Richard gifted him the Super M in exchange for help during harvest. The tractor was missing an engine and had flat tires. The exchange included a box full of parts, but not all that was needed.

"I wanted something functional that would use all the gears," says Lindemer. "I looked around my shop and saw an old Honda GX340 I'd received for payment after cleaning gutters when I was in high school. I had rebuilt it with a new carburetor, but it had been sitting unused for about 10 years."

Lindemer mounted it to a steel plate he bolted to the Super M frame. He recognized he needed a gear reducer to hook it up to the Super M's transmission.

"Most repowers with smaller engines involve large chain drives or belt drives, but a neighbor had used another transmission," says Lindemer.

The tractor had previously been modified with an M&W adapter kit. It acted as a 2-speed for the first four gears. Combined with the OEM 5-speed, the Super M had nine forward gears, plus reverse.

Initially, Lindemer planned to use a 4-speed out of a Jeep Cherokee as a gear reducer. "My grandfather mentioned having an old Borg Warner 3-speed from an old Crosley," he says. "It had been sitting in his shop for years, and he thought it would fit better than the Jeep transmission."

Crosleys, built from 1939 to 1952, were subcompact cars bordering on microcars. The transmission was compact as well, half the size of the Jeep 4-speed. Fitting it in was no problem. He did move the engine about



Lindemer's 1948 Farmall M uses an 11-hp. Honda engine and transmission from an old Crosley car.

3 in. forward. The challenge was making the connections.

"I didn't want to ruin any of the original parts, so I needed to machine pulleys to fit the output and input shafts," says Lindemer.

He mounted the Crosley on the input shaft of the IH transmission. The engine's mounting plate served as a mount for a pillow block bearing for the pulley shaft on the Crosley.

Lindemer uses the factory clutch pedal linked to a belt tensioner to change gears, just as the stock tractor would. The Crosley is underdriven by a belt and pulley setup from the Honda.

While technically the tractor does have 27 forward gears and three reverse, Lindemer admits he has yet to get it out of the Crosley's first gear. That hasn't stopped him from using it.

"I recently installed a Freeman 200 hydraulic loader, which is powered by the stock hydraulics on the Super M," says Lindemer. "It works fantastic."

Lindemer is an engineering technician at a local transportation research center, where he performs crash test simulations. When he gets home, he heads for the shop to build stuff. Often, he does so with the counsel of his grandfather before sharing the project on @Scrap Fab, his YouTube channel.

"My grandfather and I share the idea that everything around us is capable of being something with a little work," says Lindemer. "We believe in making do with a bit of ingenuity."

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