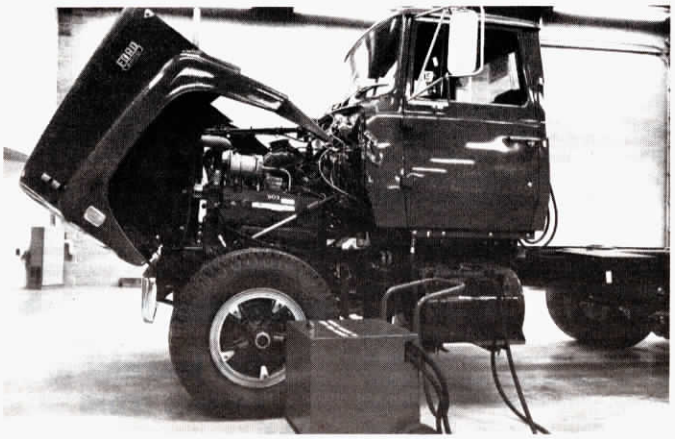

Fuel/Lube Oil Blender pumps used oil from crankcase and blends it with fuel in the truck's diesel supply tank.

NEW DEVICE CONVERTS CRANKCASE OIL INTO FUEL

Run Your Tractors On Crankcase Oil?

A patented new device just introduced by the Cummins Engine Company could pave the way to converting used crankcase oil into fuel for your trucks and tractors.

Called the Fuel/Lube Oil Blender, the self-contained mobile unit blends lubricating oil with diesel fuel. It's designed primarily for use by companies who own large fleets of diesel trucks. However, the Blender's ability to clean used crankcase oil so it can be used as fuel appears to have exciting possibilities for a wide range of applications, including on-farm use.

Here's how the new device is being used by truck companies: The Fuel/Lube Oil Blender has two built in electric pumps and a series of filters. It suctions oil from the crankcase, thoroughly filters it to remove impurities, then blends it with fuel pumped simultaneously from the truck's fuel tank in a 3:1 ratio. The blended oil is then returned to a 90% full fuel tank to create a mixture of 95% regular diesel fuel and 5% reconditioned lube oil.

"The idea behind this machine, designed for large truck fleets, is to eliminate the cost of hauling and disposing used lube oil," explains a spokesman. "It also reduces labor costs by cutting the time required for a complete oil change to about 2 or 3 minutes."

The only truck modifications required are to equip the oil pan of each truck with a quick disconnect hose assembly, and to mount the quick disconnect access end of the assembly line at a convenient location by using a special mounting bracket. To blend the engine's used lubricating oil for use as fuel, the "lube oil suction hose" on the Blender is attached to the quick disconnect fitting. The "fuel oil suction hose" and the "blended fuel hose" are placed in the truck's fuel tank so that blending can begin. The entire operation takes only 2 minutes and nobody has to crawl under the truck to remove and later replace the oil pan plug.

For companies operating a fleet of diesel trucks, the Blender makes it easier to get rid of used oil. Instead of having to pull the drain plug on each truck and then find a place to dispose of the used oil, the Blender automatically pumps it out of the crankcase, purifies it and returns it to the fuel tank where it's burned as fuel. The purpose is not to process a large amount of used oil, stockpile it and then use it to continuously operate trucks on a 95:5 mixture of fuel and waste oil.

Thus, the new Blender as it's initially being used by truck fleets has little or no on-farm application, since getting rid of waste oil isn't that much of a problem. But it does raise some interesting questions on potential future uses. For example, how about using it to clean up waste crankcase oil which could then be stockpiled and used as fuel in a waste oil heater for heating farm shops or other buildings — including maybe even the farm home? Or, how about blending in a mixture of preconditioned crankcase oil with every gallon of diesel fuel pumped into the tractor to help reduce fuel costs?

We're betting that enterprising farmers will find ways to use the Blender in turning large amounts of waste crankcase oil into money.

The new device has been so popular in the industrial market since its introduction that the manufacturer hasn't had time to fully explore its on-farm potential. Its suggested retail cost is $1,200.

For more details, contact: FARM SHOW Followup, Cummins Engine Co., Service Tools Center, 20610, Columbus, Ind. 47201 (ph 812-379-8233).

Photo courtesy of Michigan Farmer

James Achors specializes in tearing down and rebuilding used silos.

MICHIGAN FIRM OFFERS UNIQUE SERVICE OF MOVING AND REBUILDING OLD SILOS

Can You Use A Second Hand Silo?

Need another silo? If so, you may want to consider buying a used one.

Moving and rebuilding used silos is a unique service offered by Tri-State Silo Co., Eaton Rapids, Mich.

"Farmers can generally save 30 to 40% on the cost of a silo by buying one used, rather than new," says James Achors, who heads Tri-State Silo Co. He's been moving and rebuilding second-hand concrete stave silos for about 10 years as part of his silo business. The silos have varied in size from 12 to 30 ft. in dia., and from 60 to 90 ft. high.

Achors sends out crews who tear down the used silo, a stave at a time as the hoops are loosened. The staves are grasped by a special set of tongs and let down with a motor-driven boom. The ground around the silo is padded with straw to give the staves a soft landing.

"There are other methods to tear down silos and we've tried them all," says Achors. "This is the hard way but it's the best way. You can't drop them. And, if you stack them wrong, you'll break them or chip the corners."

After tearing down a silo, the staves are moved by truck to the new location. Transportation costs get to be an important factor since a 20 x 60 ft. silo, for example, will make up 3 semi loads. Most of the silos Tri-State Silo has moved were relocated within 100 miles of their original site. Beyond that distance, cost of buying, moving and rebuilding a used silo begins to approach that of a new structure, Achors points out. In some cases, farmers have had a "misplaced" silo moved from one site to another on the farm.

At the new stie, the used silo is put up just the way it was taken down — a stave at a time. Rebuilt silos can be made slightly smaller or larger in diameter. The staves are beveled to fit together in a circle and, if the silo is rebuilt smaller, there will be a bigger crack at each point.

After a silo is rebuilt, Achors coats the interior with epoxy resin which resists the action of silage acids. Other finishing touches often include the addition of a fiberglass or steel roof.

Should a farmer buy a used silo and rebuild and move it himself?

Achors doesn't advise it because there are a lot of tricks in doing the job right. "Unless you know how to do it, you'll probably have trouble," he warns.

For silo-moving jobs beyond the area of Southern Michigan, Indiana and Illinois which Tri-State Silo serves, Achors says he would consider acting as a consultant on how, based on his experience, to best handle a specific silo-moving job.

For more information on tearing down, moving and rebuilding used silos, contact: FARM SHOW Followup, Jim Achors, Tri-State Silo Co., Box 84, Eaton Rapids, Mich. 48827 (ph 517-663-8587).