

Bypass Centrifuge Extends Engine Life

When FARM SHOW first wrote about Dieselcraft bypass centrifuges 5 years ago (Vol. 31, No. 3), they were in high demand for processing vegetable oil and waste oil for burning in diesel engines. But they're also the best way out there to keep engine oil clean.

Centrifuges remove moisture and particles from engine oil. Early units were gravity-fed and had to be mounted above the engine, a problem in today's tightly packed engine compartments.

"We needed a massive drain hole back into the engine," recalls John Nightingale, Dieselcraft Fluid Engineering. "What we needed was air pressure to push the oil back into the engine."

Nightingale attached a small compressor to the centrifuge. This allows the unit to be mounted anywhere under the hood. Air pressure can push the oil up to 3 ft. vertically or up to 7 ft. horizontally.

"You can mount it down on the frame rail if necessary," says Nightingale. "All you need is a 6 by 6 by 6-in. space."

Other factors that are building interest in the centrifuge include the increasing cost of oil changes and the difficulty of filtering new, longer lasting, synthetic oils. "Changing oil in a big front-end loader may have to be done every 250 hrs. at a cost of \$1,500," says Nightingale. "We ran tests on one and demonstrated that by switching to synthetic oil and our centrifuge, the loader could go at least 750 hrs. without changing oil or



Dieselcraft bypass centrifuges come with a small compressor that allows them to be mounted any place under the hood.



Photo above shows a Dieselcraft unit installed on a Deere 9430 tractor. Photo at left shows a unit on a Cat D6H.

filters." Though synthetic oil lasts longer as an effective lubricant, it also prevents the natural clumping of dirt and other particles by molecular attraction necessary for optimal filtering.

Without centrifugal action, it's hard to clean carbon and other particles out of synthetic oil. The best filters only extract down to 7 microns, and regular oil filters only catch particles 25 microns and larger.

"Those small particles can only be removed by a centrifuge," says Nightingale. "Our centrifuges remove particles as small as 1/10 of one micron."

Dieselcraft offers a unit, the OC-25, for cars, pickups and smaller engines. It's priced at \$499. A larger unit, the Magnum Model 180 AP, is recommended for engines with 100-gal. sumps and larger.

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Reader Inquiry No. 191

Powered Wheelbarrow Makes Sweet Corn Harvest Easier

Art Linsenmeyer says his 1-acre sweet corn patch is a lot easier to harvest thanks to the powered wheelbarrow he built. At 74, and with arthritic knees, it was getting more difficult for the Nebraska market gardener to push a wheelbarrow to pick corn for his vegetable stand.

He used an old lawn mower to push a new 6 cu. ft. wheelbarrow tub on a tricycle-style frame. Linsenmeyer sits on a seat on top of the lawn mower's engine and controls the speed with a hydrostatic rear end.

"I wanted a hydrostatic rear end because it has a foot control that adjusts the speed and it stops automatically (when you take your foot off)," he says.

Though the 11 hp engine is more than he needed, it's what he had available and works well. The mower is 32 in. wide so it fits easily between the rows. In order to irrigate two rows at once, Linsenmeyer plants double corn rows, 12 in. apart, on 4-ft. centers.

"The corn pollinates better. It lets more

light in and I get lots of corn on a 1-acre patch," Linsenmeyer says.

The wheelbarrow holds up to 10 dozen ears, and Linsenmeyer takes his load right to his vegetable stand, where he can tilt the tub and dump it.

"It's pretty handy, and now I use it for a lot of other jobs around here," he adds.

The powered wheelbarrow cost about \$300 to build. He's willing to offer tips to anyone who wants to build one.

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