



**JIM WINSOR**  
EXECUTIVE EDITOR

## 200,000-Mile Oil Changes?

**Y**es, the figure you see in the headline above is correct. Dallas-based Stevens Transport, a refrigerated truckload carrier with 1,600 tractors, is now approaching 200,000 miles between oil changes and saving millions of dollars in labor, oil and filters. The fleet's maintenance management folks are confident these super-long oil drains are safe and not harming engine life.

The Stevens fleet is mostly Kenworths and a few Peterbilts, all with Cat C15 engines. A 6-ounce oil sample is taken every 30,000 miles or so and sent to Holt Caterpillar's lab in San Antonio. The

before oil analysis signaled time for a change. Based on these results after more than a year of tests, Smith decided to change the entire fleet over to the new system, doing about 50 engines per month. More than 700 installations have been completed to date.

As the fleet is outfitted with the new filter system, Stevens is projecting an 80 percent oil maintenance cost savings per truck per year. Total savings expected for the fleet is at least \$1 million annually.

The filter is sold directly by the manufacturer, Oil Purification Systems Inc., with headquarters in Shelton, Conn., and production facilities in Bradenton, Fla. For details, call OPS at (866) 645-7873 or visit [www.oilpursys.com](http://www.oilpursys.com).

Karl Klein, Stevens' service manager, said the OPS-1 bypass system takes

### STEVENS TRANSPORT IS CLOSING IN ON 200,000-MILE OIL CHANGES, USING OIL ANALYSIS AND AN ON-BOARD OIL REFINER SYSTEM.

oil analysis on each engine identifies parts per million of brass, copper, aluminum and other wear materials. It also shows if there's any antifreeze or fuel dilution in the oil. There's a lifelong database on each engine, and if any sample shows out of the norm, that engine is flagged as soon as possible for an oil and filter change.

Stevens had been changing oil and filters about every 30,000 miles, which is five or six times a year in this extremely high-mileage fleet. Fleet management is technology oriented and always on the lookout for better and more economical ways of doing things.

What got them on the road to super-long drains was a test program started in March 2003 when Eric Smith, the company's director of maintenance, began evaluating a new type of bypass oil filter that filters oil down to the 1-2 micron level and also removes and boils off non-solid contaminants before returning the oil to the crankcase.

The first truck in the test ran 70,000 miles – over twice Stevens' regular drain interval – before its first drain. Playing it conservatively, even with the positive oil analysis, Stevens then moved the second test truck to 140,000 miles with good results. The third test truck went to 192,000 miles

an oil line off the pressurized side of the engine, going directly to the filter. It has a low flow rate – only 4-5 gallons per hour – which allows the oil to be filtered down to 1-2 microns through a small cellulose bonded filter. Oil then passes into an evaporation chamber heated by an 89-watt 7-amp heater that heats the oil to 195-210 degrees in order to evaporate off any liquids. Cleaned oil is then returned to the crankcase virtually soot- and glycol-free. The OPS units are about the size of a coffee pot, I'm told, and can be mounted wherever it's convenient, typically on the firewall.

Stevens changes the bypass filter at each oil analysis sampling. The engines' full-flow 20-40 micron filters are changed every other time. There's a valve on the filter housing for drawing off oil for analysis. The OPS-1 filter adds only 1½ quarts to the engine's oil capacity. The two-piece system takes about an hour to install, according to Stevens' Eric Smith.

Based on its experience to date, Stevens' management is already saying it might be able to extend vehicle life one to two years and do it without overhauling engines. Only time and miles will tell. ■