

## Filtering fuel costs

### New H.P. company hopes technology behind oil filter is a hit with truckers

By Mike Noneman

THE BUSINESS JOURNAL

**HIGH POINT** — With fuel prices hitting record highs, many Triad trucking companies are considering new strategies to keep profit margins from being further eroded. One of those ideas is coming from a High Point company that has the North American marketing rights for a new oil filter designed to save truckers 2 cents a mile on diesel fuel and oil costs.

Bruce Thomas, a former Thomas Built Buses executive, recently founded CleanTechnics International Inc. to pitch its new European-designed bypass filter. If it is a hit with area truckers, Thomas already has plans — and the rights — to manufacture the product in the Triad. The filter saves on oil and fuel costs by helping reduce friction in the engine, thereby reducing the amount of fuel needed to power the truck. The filter is also designed to extend oil life. While 2 cents a mile may not sound like much, for the average trucker, that could amount to thousands of dollars in savings each year.

The concept has caught the attention of Gary Harold, president of H&W Trucking Co. Inc. of Mount Airy, who's struggling to find ways

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ALEX VANDORT, THE BUSINESS JOURNAL  
Bruce R. Thomas, president and CEO of CleanTechnics International Inc. in High Point, holds a fuel filter his company is marketing to truck firms. If successful, the filter could eventually be produced in the Triad.

to cut his company's fuel and oil costs.

"It's not a good time to be a trucker," Harold said. "The (new filter) idea would have a tremendous impact on the trucking industry." Most of the 50 trucks in Harold's fleet make a 5,500-mile round-trip run between North Carolina and California each week. At a projected savings of 2 cents a mile, the new filters could cut \$110 in costs per truck each week. That's enough to get Harold interested in investing the thousand dollars per truck needed to install the new filters.

**Selling fuel efficiency**  
Thomas says the filter not only cuts fuel and oil costs, but can extend the life of a truck's engine by reducing friction. While a normal oil filter is able to trap particles as small as 35 microns (a human hair is 25 microns wide), the CleanTechnics bypass filter can trap particles as small as 1 micron. That extra cleaning means engines reduce internal friction, thus requiring less fuel and oil.

A bypass filter works in conjunction with an existing oil filter. The bypass filter takes only some of the oil in an engine and cleans it to a fine degree. Over a three-hour period, all the oil in an engine would go through the bypass filter, Thomas said. The concept of the bypass filter is more than a decade old, and versions of it have been used in Europe, where fuel costs are more than twice as high as in the United States. Until recently, fuel prices haven't justified the filter's extra costs, claims.

But with oil prices hitting all-time highs of \$88.28 a barrel this month, claims of improved fuel efficiency and longer engine life are catching the attention of trucking companies and engineers.

David Klett, a mechanical engineering professor at N.C. A&T State University, said a bypass filter used with a normal "flow" filter could improve the performance and life of an engine, but he'd like to see scientific test results.

"It sounds like a good idea to remove those fine particles, but I'd like to see evidence of the effects," Klett said. "Thomas' great grandfather founded Thomas Built Buses in 1916, and he's spent his life in the big truck business. Thomas and his family sold their interest in Thomas Built Buses to Freightliner LLC in 1998. Thomas and his Triad partners recently acquired the licensing rights to sell the bypass filter in most of the world. They are approaching potential investors in North Carolina to raise \$3 million so CleanTechnics can pay for independent U.S. tests and launch a North American marketing effort.

If Thomas and his team can reach \$2 million in annual sales they'll also get the rights to manufacture the bypass filter. Thomas said he plans to meet that goal and set up manufacturing operations in the High Point area within five years.

"We're looking to sell fuel efficiency," said Thomas, who is selling direct to customers from his office in High Point.

**Other fuel-saving strategies**  
Meanwhile, Triad trucking companies are already experimenting with other fuel economy strategies. Drivers for J.L. Rothrock Inc. in Greensboro are no longer allowed to run their engines while they catch a nap at a truck stop. It's the latest fuel savings strategy by W.D. Bondurant Jr., Rothrock president. As a smaller carrier with 100 trucks, he said he doesn't have much leverage to pass on fuel

## FUEL: Record oil prices driving fuel-efficiency push

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### CLEANTECHNICS INTERNATIONAL INC.

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costs to his larger clients, who are on long-term contracts. So he's trying to line up new customers who will agree to fuel surcharges that can be adjusted weekly while continuing to experiment with different diesel-saving techniques.

"I've tried anything," Bondurant said. "I've tried running them at 55 miles per hour, but they were getting run off the road."

While he said the idea of bypass filters is intriguing, he's experimenting with bolting air "foils" onto trucks to improve their aerodynamics and increase fuel efficiency.

Bondurant and other truck fleet owners should not expect oil prices to come down this year or possibly for a long time, said Riaz Ajami, an economist who follows global oil trends at UNC-Greensboro.

"We are an energy intensive economy," Ajami said. "We say we're an information economy, but it will offer a toy over the Internet you still need UPS to drive it to you."

He points out that global demand for oil is growing, particularly from Asia. China's oil consumption is growing by about 7 percent a year while U.S. consumption is growing less than 1 percent annually. Based on that growth, oil companies are locating new oil refineries in Asia rather than the United States, he said.

And it's those rising oil prices and the threat of prices going higher that have carriers panicking as their profits are spent at the fuel pumps, said Fred Stephenson, trucking industry professor at the University of Georgia. He expects trucking companies will either have to find ways to cut costs or simply cut capacity.

**EPA regs could boost demand**

Bypass filters have been around for more than a decade, but primarily have been promoted to prolong engine life or allow more time between oil changes, said Robert Brasswell, technical director for the American Trucking Associations in Alexandria, Va.

He points out that keeping truck engines cleaner is becoming a growing issue. Federal environmental regulations enacted in late 2002 required highway trucks to keep more of their exhaust inside the engine, the result being that more soot is remaining in the motor rather than getting blown out into the air. So a normal highway truck that would get an oil change after an average of 40,000 miles now needs an oil change after about 25,000 miles, he said.

And trucking companies are feeling the costs of an oil change in many ways, primarily in the labor costs of draining and replacing 40 to 55 quarts of oil along with the time that truck isn't on the road working, Brasswell said.

For Thomas, he hopes the idea of using a CleanTechnics bypass filter to make truck engines run cleaner and more efficiently can help his new company capture a sliver of the \$7 billion U.S. filter market.

Only about 2 percent of that market goes to various kinds of bypass filters.

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