



POLAR HELPS KANE TRANSPORT MEET THE CHALLENGES OF HAULING BIODIESEL YEAR-ROUND

When Peter Kane's grandfather bought a truck for hauling gasoline in 1949, the idea of making reliable fuel from vegetable oils—let alone selling and distributing it—was still in the germination stage.

Two generations later, the family business, Kane Transport, has biodiesel transportation down to a science. One way it achieves this is with custom-engineered DOT 406 aluminum tank trailers from Polar Tank.

Based in Sauk Centre, Minn., Kane Transport is one of the largest liquid bulk carriers in the Upper Midwest and is a leading hauler of gasoline, diesel, biodiesel, ethanol, and other petroleum-based fuels. It established a biofuels division in 2005 to coincide with a mandate in Minnesota requiring virtually all diesel sold there to be blended with 2% biodiesel (B2).

The market was poised to take off.

"We saw an opportunity to offer customers the specialized service and handling that biodiesel requires," says Peter Kane, the company's vice president of operations. "It's a product that does not flow well at low temperatures. When your territory includes Minnesota, Iowa, Illinois, Indiana, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin, as well as Manitoba and Saskatchewan, you have to be ready for cold weather if you want to haul biodiesel year round."

Biodiesel tends to gel (freeze) at higher temperatures than does conventional diesel.

"Our customers invest a lot in ways to protect the product and reduce the likelihood that the fuel will gel," Kane says. "They want people to feel confident about biodiesel as a fuel they can use all year." Especially in Minnesota, where the mandated percentage of biodiesel blend was raised to 5% in 2009 and will increase to 20% in 2015. Product quality is critical.

In 2005, Kane Transport's biofuels division had six insulated aluminum tank trailers. In extreme cold, fuel would gel in the exposed piping on the belly of the trailers. "It can harden like a stick of butter," says Kane. There's no easy way to deal with frozen fuel in the pipes except to wait for it to thaw.

Acquiring highly specialized equipment for a seasonal problem was far from satisfactory.

With 180 tractors and more than 250 tank trailers operating throughout the upper Midwest, Kane Transport prides itself on being able to deliver a variety of products because its fleet is not dedicated solely to one type of commodity. "Versatility within the fleet is important to our business," Kane says. "It's very difficult to have an equipment that's tied to one commodity, particularly when there are big seasonal fluctuations in demand."

On the other hand, the company wanted something custom-engineered to help customers maintain the quality and integrity of their biodiesel products in the winter months.

Greg Graves, sales manager responsible for transportation of renewable fuels, gas, diesel, and compressed gases at Kane Transport, took the lead. He worked with Polar Tank to develop a way to insulate and warm the bottom pipes on Polar's 8,500-gallon DOT 406 aluminum tank trailer.



Whatever we did had to be simple and effective, Graves says. We're sensitive about adding weight, cost, or complexity, and Polar understood that.

Like an electric blanket, the pipes are kept warm by a heated, insulated wrap to ensure an even temperature throughout. Graves visited the Polar plant in Opolo, Minn., as the design was developed and worked with Polar engineers to fine-tune it during testing.

It's a low-maintenance solution that should last the life of the trailer, which for us is 30 years, Graves says.

The company performs routine preventative maintenance itself at its own shops but uses Polar Service Centers for HM-183 and D.O.T. inspections, as well as full service and tank repair work.

Service is great, says Graves. They have locations in many areas where we travel, so if necessary the trailers can get the attention and service they need if they're away from our own shops. It minimizes downtime while making sure our equipment is properly repaired or maintained on schedule.

To date, Kane Transport has bought 17 Polar tank trailers equipped with the custom-designed pipe-heating system.

It's completely changed our expectations of product quality and on-time delivery in severe cold, Graves says. We've had no issues whatsoever with the product gelling or freezing, and we've been hauling biodiesel in 30 or 40 below-zero temperatures.

Productivity gains and internal cost savings can pay off fast, notes Peter Kane.

Few carriers in this part of the country can say that they have the experience and the equipment to transport biodiesel year round. Fewer still can do it with equipment that's versatile enough to be productive hauling a wide range of fuels, Kane says. The expertise and cooperation we got working with Polar has helped us deliver a quality product, on time, all season.