

Delivering Efficiencies

ARMED WITH A FLEET OF 7,000-GALLON “BIG BOY” TRUCKS, CHS, INC., DELIVERS FUEL TO ITS CUSTOMERS IN A MORE EFFICIENT AND ENVIRONMENTALLY FRIENDLY MANNER WITH THE HELP OF BLACKMER PUMPS

By Bill Holmes



(Left to right) Mike Hennen, General Manager - Truck and Trailer Division for Westmor; Steve Loge, Truck Sales Representative from Westmor; Ben Renberg Maintenance Administrator - Refined Fuels Distribution with CHS, Inc.; and Bill Holmes Regional Director of Energy & Transfer for PSG™ stand next to the Blackmer® pump featured on one of the new 7,000-gallon “Big Boys” from CHS.

In today’s economy, getting leaner and greener is not just part of your future goals—it’s what leading companies have, and will continue to, implement in order to stay competitive. That is exactly what has taken place in the Upper Midwest where the combined efforts of CHS, Inc., Blackmer®, Westmor Industries, LLC, and Trans-Tech Industries, Inc., have resulted in the creation of a refined-fuel delivery truck that benefits not only their own operations, but also those of their end-user customers, as well as the environment.

CHS, headquartered in Inver Grove Heights, MN, is a diversified energy, grains and foods company committed to providing the essential resources that enrich lives around

the world. A Fortune 200 company, CHS is owned by farmers, ranchers and cooperatives across the United States. In this capacity, CHS supplies, energy, crop nutrients, livestock feed, food and food ingredients, along with business solutions, including insurance, financial and risk management services. CHS also operates petroleum refineries and pipelines, and manufactures, markets and distributes the Cenex® brand of refined fuels, lubricants, propane and renewable-energy products.

As such, CHS—which has a delivery fleet of 42 trucks that operate in nine states—had been looking for a new, more efficient way to supply the Cenex gasoline and diesel fuel that is consumed by its thousands of residential and



farm customers. This unique program features upward of 17,000 gasoline and diesel storage tanks that are located throughout the Midwest. End-users with Cenex accounts are allowed access to these tanks when they need fuel for their operations. The tank's product level is monitored remotely by CHS and when the tank level is reduced to a predetermined point, a CHS fuel-delivery truck is dispatched to refill the supply tank.

"This is a vendor-managed inventory, with a deferred billing plan that prices and bills for the product during the period in which it is used," explained Doug Frasier, Manager of Refined Fuels Distribution for CHS. "We place the product in the 17,000 end-user tanks, some of which are as small as 500 or 1,000 gallons, we monitor them electronically and through the Ethernet, and as a delivery is called for, we dispatch trucks to make the delivery."

The program's original delivery plan called for picking up fuel at a refinery or terminal pipeline location, storing it at an intermediate bulk-storage site and then dispatching trucks from there when the fuel deliveries were needed. Realizing the inefficiencies in this type of operation, CHS began the search for a better, more efficient way to complete this delivery process.

Rolling Along

The hub of the new delivery program would be the rolling stock, namely a new series of 7,000-gallon, four-compartment straight tank trucks featuring bottom-loading, dual meters and a dual pumping system for gasoline and diesel, trucks that would be colloquially called "Big Boys."

"In 2006, we started looking for a new configuration for our trucks," said Frasier. "We had always had big trucks and made direct terminal to end-user deliveries, but we wanted to find a new configuration since the excessive maintenance and expense of running them were killing us. We were looking for a way to haul the maximum amount of gallons with the maximum amount of efficiency."

CHS actually contracted with one tank-truck manufacturer for some initial units, but after finding their operation unsatisfactory, the company turned to Westmor Industries, LLC, Morris, MN, a leading designer, manufacturer, distributor, installer and service provider of parts and equipment in the petroleum, LPG, aviation and liquid-handling industries, which also happens to be located near CHS' headquarters. Working in conjunction with Trans-Tech Industries, Inc., Brewer, ME, a leading manufacturer and supplier of truck tanks for use in the petroleum-delivery industry, Westmor presented CHS with the Big Boy design.

"We felt we could improve on what CHS had previously purchased," said Steve Loge, Regional Sales Manager for Westmor Industries. "With the help of Trans-Tech, we sat down with CHS and said we could really provide them with a better solution."

After seeing Westmor's design, CHS immediately ordered three of the units, and they have performed so well that there will soon be upwards of a dozen of the Big Boy trucks bearing the Cenex logo criss-crossing the roads of the Upper Midwest.



The CHS Big Boy 7,000-gallon, four-compartment straight tank truck pictured here is delivering fuel to one of CHS's 17,000 end-users.

“They’ve performed very well so far, and that includes everything—tanks, pumps, all of the components,” said Frasier.

In addition, like most companies these days, CHS is also concerned with making its operations “greener” as a way to protect the environment. That includes making its truck fleet more environmentally friendly.

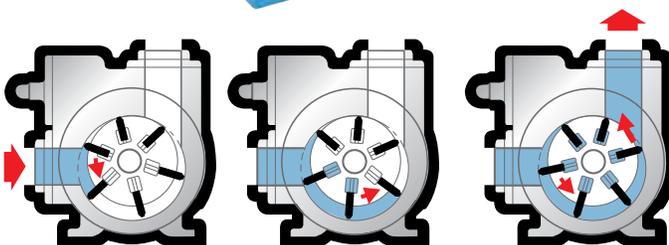
“These trucks allow us to deliver directly from a supply terminal pipeline straight to an end-user tank,” said Frasier, “so these tanks help us reduce our carbon footprint, while they also dramatically reduce the chances for product spills since there are less steps in the delivery process and, finally, we’re also using less fuel to deliver the fuel. All of this fits with our ‘green’ program, which is a huge emphasis for the company.”

Critical Components

If these new trucks were to meet all of the needs of CHS—operationally, environmentally and in terms of increased efficiency—they would need the best components. That’s why CHS demanded that when it came to the pumps



The CHS Big Boy trucks feature a pair of Blackmer 2.5-inch TXD Sliding Vane Pumps.



Blackmer TXD Sliding Vane Pumps provide efficient and reliable delivery thanks to its unique sliding vane design.

that would be used on the trucks, they had to be from Blackmer®, Grand Rapids, MI.

“We’ve been buying Blackmer pumps for a while now, going back to 2006 all of our new trucks have been spec’ed with Blackmer pumps,” said Ben Renberg, who, in his position as CHS’ Refined Fuels Distribution (RFD) Maintenance Administrator, handles and schedules all maintenance for the company’s RFD trucks. “We’ve found that they’re very reliable high-speed pumps. They are the most reliable way to get our trucks out there every day and run an efficient operation. They’re sound, and we haven’t had any issues since we’ve had them in the fleet.”

Specifically, the Big Boy trucks feature a pair of Blackmer 2.5-inch TXD Series Sliding Vane Pumps, one on the gasoline side of the tank and one on the diesel side. The TXD pumps are proudly made in the USA by Blackmer and backed by one of the best warranties in the industry. They are ideal for the CHS operation because they have been designed to handle clean liquids for petroleum products, such as gasoline, fuel oil, diesel, kerosene, avgas and jet fuel. The TXDs feature Blackmer’s unique sliding-vane pump design that self adjusts for wear and to maintain required flow rates, while the vanes can be replaced without having to remove the pump from the truck. These pumps also offer excellent self-priming and dry-run capabilities. Additionally, the adjustable relief valve protects the pump against excessive pressures, while the external ball bearings





CHS monitors all 17,000 end-user tanks electronically and dispatches trucks to make the delivery from its headquarters in Inver Grove Heights, MN. Efficiency, reliability and speed is critical to the success of the CHS operation.

are isolated from the pumpage by mechanical seals that maximize bearing life and minimize contamination risk. The CHS trucks also feature Blackmer's T-type Strainer, which protects the pump from damage that can be caused by foreign matter.

"Paramount for us is daily operation and service reliability; if we don't have service reliability, we can't go out day to day," said Renberg. "If we did not have Blackmer pumps on the trucks that go into these places to deliver on a day-in, day-out basis our operating model would not succeed. Being able to have a reliable pump is key to continuing operations for us. Blackmer pumps give us very reliable, high-speed delivery and we have had no issues in close to three years of service."

Conclusion

In today's tough economy with its razor-thin margins, continuing to improve the way companies operate and provide services to their customers is paramount. By working together with its key suppliers—Westmor, Blackmer and Trans-Tech—CHS has provided reliable delivery, cost savings and a cleaner environment to

its customers thanks to its new fuel-delivery fleet.

Undoubtedly, it's the customers that benefit the most, as these new Big Boy trucks ensure that a full supply of Cenex fuels from CHS will be on hand when they go to fill their own tanks. It's critical components such as Blackmer pumps that assist CHS in delivering on time, every time.

"We deliver seven days a week, 365 days a year and if we don't deliver and stay on top of the situation our business model doesn't work," said Renberg. "So, when we look at equipment, we look at day-to-day reliability. Blackmer pumps deliver the operational efficiencies and reliability that we need to make our business successful."

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