

CASE STUDY: S.A. WHITE OIL COMPANY

July 2018

It's A Family Tradition

THIRD-GENERATION OWNED S.A. WHITE OIL COMPANY OVERCOMES DEF-TRANSPORT PUMP RELIABILITY AND LONGEVITY CHALLENGES WITH THE INSTALLATION OF BLACKMER® SX1B-DEF SERIES SLIDING VANE PUMPS

By Scott Jackson



From humble beginnings delivering fuel by horse and wagon in 1926, S.A. White Oil Company has grown into one of the largest fuel and DEF distribution centers in the state of Georgia thanks to its ability to provide unparalleled customer service. Helping the company along the way have been reliable and efficient SX1B-DEF Series and TXD Series Sliding Vane Pumps from Blackmer.

Introduction

For S.A. White Oil Company, “providing unparalleled customer service” is more than just a company mantra. It’s a family tradition and a way of life. In fact, it’s one of the main reasons why S.A. White Oil Company has grown from its humble beginnings – delivering fuel by horse and wagon – into one of the largest fuel and Diesel Exhaust Fluid (DEF) distribution centers in the state of Georgia.

Headquartered in Marietta, GA, USA, S.A. White Oil Company was founded in 1926 thanks to the big dreams and endless dedication of its founder, S.A. White. With his wife “Willie” doing the books, White started the business with a grocery store and a few gas pumps, and quickly expanded the operation to include a fuel-distribution center located on a modest thoroughfare known as Atlanta Road.

In 1955, when White’s daughter, Suse Ann, and son-in-law, Wally Gresh, picked up the reins of the business, the company transformed from a commissioned agent business to a

distributor business, and first began delivering fuel straight to customers. The company also expanded its operations to include the delivery of heating fuel for homes, and began specializing in providing fuel for commercial customers onsite, a focus the company has kept ever since.

Today, the company is still located in its original headquarters on Atlanta Road with sister company Mobilized Fuels, Inc. Currently operated by S.A. White’s granddaughter, Kim Gresh,

QUICK FACTS

Company: S.A. White Oil Company, Inc.

Location: Marietta, GA, USA

Market: DEF Transport

Distributor: Werts Welding & Tank Service, Inc., Doraville, GA, USA

Challenge: Identify a pumping technology to replace underperforming competitive transfer pumps that can efficiently and reliably transport DEF while providing a long pump life

Solution: Blackmer® SX1B-DEF Series Sliding Vane Pump



or “Boss Lady” as her employees so fondly call her, the company operates 24 hours a day, 6 days a week, primarily serving customers within a 150-mile radius around Atlanta, GA, with jobbers in South Georgia, Alabama and Tennessee. Between the two sister companies, they operate 25 fuel trucks that deliver 80 million gallons of fuel a year. Additionally, the two companies utilize four refueler tank trucks that provide fleet refueling deliveries of both diesel fuel and DEF. In total, these trucks deliver more than 5,000 gallons of DEF product each week directly to customer sites and equipment, supplying between 5-20 gallons of DEF per truck.

Three Strikes And You’re Out

Not only is S.A. White Oil Company a truly family-owned and operated business, but even the mechanics responsible for keeping the company’s mobile delivery fleet in top working condition are a father-son team: Earl (the father) and Evan “Little Man” (the son) Noble.

“It’s mine and Little Man’s job to keep the delivery trucks and transport trailers running for Boss Lady,” said Earl Noble. “Without these trucks, we can’t do what’s right by our customers, and for us, it’s all about customer service and exceeding expectations. So whether it’s delivering fuel or topping off a truck with DEF, it’s our responsibility to make sure our customers’ trucks are ready to go when the drivers show up in the morning to make their deliveries.”

To help ensure that its mobile tankers continue to run smoothly day after day, S.A. White Oil Company believes in utilizing only the best equipment available. And the responsibility of finding this equipment falls on the shoulders of the father-son team, ensuring that every piece of equipment that goes on one of their tankers is ideally suited for the company’s needs. This includes the pumps the company uses to transfer DEF.

“DEF is so important these days; it’s a huge part of our business,” said Evan Noble. “It’s needed for almost every truck – everything from landscaping equipment to produce haulers. It’s everywhere. So, we need to make sure we are using good DEF equipment, especially the pumps. If you use the wrong kind of pump and the DEF gets contaminated, it will shut down the truck and ruin the engine.”

While extremely necessary, delivering DEF can be very challenging, and needs to be handled by equipment and transports specially designed for hauling DEF. DEF is incompatible with materials such as copper and brass, and can lead to corrosion of these materials. This means that any transport used to haul DEF, as well as its wetted components, needs to be made of stainless steel or approved plastics. This ensures the fluid won’t become contaminated during its handling and transfer. By extension, the pumps required to load DEF onto the transport and off again into a storage vessel or truck, must also be compatible with DEF’s unique characteristics.

However, not all DEF-compatible pumps are created equal. Many DEF pumps are categorized as low-cost, short-service “throwaway” pumps, which utilize inadequate designs and, in many cases, are constructed of cheaper plastic materials. Improper pump design can cause the equipment to lock up, shut down or leak, resulting in costly downtime or a messy cleanup.

This is a lesson that Earl and Little Man had to find out the hard way. You see, prior to finding their current pump solution, the two-man team was using a brand name 12-volt transfer pump to deliver DEF. While the pumps are suitable for DEF applications, they can be extremely noisy, and their design and method of operation can cause the pump to shutdown and overheat when used continuously. In addition, the pumps usually can’t provide the flow rates most DEF haulers need.

“Before, we were using whatever pump fit our application because we just didn’t know that there was a better quality pump out there,” said Earl Noble. “The pumps we originally installed seemed to work fine for the smaller tanks when they didn’t have to pump that much. But when it came time to make more consistent deliveries, the pumps couldn’t handle that much pumping. If we ran the pumps too long, the 12-volt motor on the pumps would overheat and not turn back on until they were cooled down, especially in the summertime when it was hot. These are time-sensitive deliveries and our drivers can’t be waiting for the pumps to cool down or be replaced.”

In addition to material compatibility, another important consideration is pump reliability and longevity. Pumps that



Along with sister company Mobilized Fuels, Inc., S.A. White Oil Company delivers 80 million gallons of fuel a year and more than 5,000 gallons of DEF product each week.



With a small, compact design that meets the strict handling requirements of DEF, Blackmer SX1B-DEF Series pumps are ideal for truck mounting and for use in fleet refueling and tote applications.

utilize parts that are not as robust as the industry standard are more likely to wear out or break down faster. When these operational problems occur, the result is higher costs for maintenance, repair, replacement parts and, in the worst-case scenario, the purchase of a new pump. The hidden cost in these situations is the downtime incurred as a truck sits idle. And an offshoot of the downtime that can stall the delivery schedule is something that can be just as costly for the delivery company: a loss of reputation.

"We were going through three or four pumps a year on each truck," said Earl Noble. "It's frustrating when we have the product but we can't deliver it because a pump broke down. It not only makes our company look bad, but it makes Little Man and me look bad because we're the ones maintaining the trucks. So with me, it's three strikes and you're out. When a pump shuts off or breaks down a few times, I just want to take it off and replace it. So, when the pumps we were using hit three strikes, it was time to find something more reliable."

A New Member of the Family

When in search of a new DEF pump, the Nobles knew that they needed a pump that would not only meet the material compatibility concerns of DEF, but one that would also provide them with the reliability they needed to keep their operation up and running. To help find this solution, the pair turned to Werts Welding & Tank Service, Inc., Doraville, GA, USA, a distributor of tank-trailer parts and equipment. Specifically, the father-son team contacted Elliot Noble for a pump recommendation. In addition to being the branch manager at Werts Welding, Elliot is also Earl's brother.

"My brother called me and said he was looking for a more reliable pump," said Elliot Noble. "I could tell he was frustrated and just couldn't take the breakdowns anymore. I knew I had to find him the best possible solution."

After discussing the application parameters and the shortcomings associated with the current pumps, Elliot Noble was convinced that a SX1B-DEF Series Sliding Vane Pump from Blackmer®, Grand Rapids, MI, USA, was the perfect answer for the company's DEF applications. Blackmer is a product brand

A Perfect Partner

S.A. White Oil Company has come a long way since its early days of delivering fuel via horse and wagon. The company currently operates 25 fuel trucks that deliver 80 million gallons of fuel a year. That's a large amount of fuel by anyone's standards, and delivering such a load can take a toll on the pumping equipment. That's why S.A. White Oil Company specifies Blackmer® TXD Series Sliding Vane pumps for all of its trucks.

"We only use TXD Blackmer pumps on our fuel trucks; two on each truck to be exact," explained Earl Noble. "We know that when we hit the switch they are just going to turn on and pump. We never have issues with them; they are just so reliable. Simply put, these pumps are perfectly designed."

TXD Series pumps are perfect for S.A. White Oil Company's operations because they have been specifically engineered for use in truck-mounted applications for the delivery and transfer of a wide array of petroleum-based products. They feature Blackmer's unique self-adjusting nonmetallic composite vanes that allow them to maintain near-original volumetric performance during the life of the pump—meaning these pumps are not subject to efficiency-robbing slip that occurs from wear in gear pumps. Additionally, the TXD Series pumps were designed around the bearing and seals, so they offer longer life and greater product loss prevention than other technologies. The sliding vane design compensates for normal wear in the pumping chamber, ensuring like-new performance throughout the life of the product, while the higher pumping capacities at lower speeds increase service life.

The TXD pump can be easily serviced without having to remove it from the truck or piping. The pumps can be completely rebuilt with piping attached, allowing for quick and easy maintenance. If a vane ever becomes damaged, replacing it can be accomplished by simply removing the outboard head assembly, sliding out the old vane, inserting the new vane, and reinstalling the head. In a matter of minutes, the pump can be back in operation. Simple vane replacement requires no special tools.

"These pumps help us sleep better at night," said Noble. "Because they are running at night, we feel good we aren't going to get a phone call about the pumps. It avoids so many problems on the customer side and with dispatch. It's definitely the best pump out there."

Blackmer is so confident in the performance and reliability of its TXD Series pumps that it offers the best standard warranty in the market. The warranty covers defects in materials and workmanship under normal use and service for 60 months after installation, or 66 months after shipment, whichever comes first. Blackmer also offers a two-year Pump Assurance Program in which the company will replace any part (including wear parts) in a pump over the first two years of pump operation.

For more about Blackmer TXD Sliding Vane Pumps, please visit blackmer.com/txstrong.



S.A. White Oil Company employs only Blackmer TXD Series Sliding Vane Pumps on its fleet of 25 fuel trucks to help deliver 80 million gallons of fuel a year.



of PSG®, Oakbrook Terrace, IL, USA, a Dover company, and Werts Welding is a distributor of Blackmer pumps in Georgia.

“I told Earl and Evan to go with a Blackmer because it provides them with the correct flow rates and pressures, and it’s able to clear the tank lines quickly, which speeds up the delivery time for the drivers,” said Elliot Noble. “And best of all, they are reliable. With the Blackmer, it’s all about constant pumping. You never have to worry about the pump shutting down, and they are not affected by the weather. Hot or cold, they just keep on pumping.”

Blackmer SX1B-DEF Series pumps have been specifically designed to meet the strict handling requirements of DEF – all of the pump’s materials are either DEF-approved or have been tested to ensure there is no fluid contamination or leeching. This allows the pumps to meet the ISO 22241-3 material standards and cleanliness specifications required for DEF-handling applications. With a small, compact design, SX1B-DEF Series pumps are ideal for truck mounting and for use in fleet refueling or tote applications. What further differentiates the SX1B-DEF model from competitive models is a choice of 12-volt and 110-volt motor options. The 110-volt version is available with a 50- and 60-Hz dual-rated motor.

An additional unique feature of the SX1B-DEF pump is the incorporation of a 316 stainless-steel motor shaft as the pump shaft. Other features include C-face pump mounting, commercial mechanical seal, and 1" NPT or 1" BSPPP tapped-port options. SX1B-DEF pumps offer a flow rates up to 10 gpm (37.9 L/min) with differential pressures to 25 psi (1.7 bar) and motor-speed capabilities up to 1,750 rpm. With those parameters, S.A. White Oil Company’s DEF tanks can be offloaded in as little as 15 minutes.

The reliability of the SX1B-DEF pump can be attributed to pump’s easily maintained and replaceable Duravanes® that self-adjust for wear in order to maintain flow rate, while minimizing shear and agitation. An internal relief valve protects the pump from excessive pressures. The pump also has excellent self-priming and dry-run capabilities and maintenance is reduced because internal wear is almost completely limited to the easily replaced sliding vanes, which can be accomplished without needing to take the pump out of line.

“You have two options: you can either buy two or three competitor pumps a year, or you can buy one Blackmer, put it on, and let it run,” explained Elliot Noble. “The initial price might be a little higher for a Blackmer, but it’s a much better

pump when it comes to longevity. So when you factor in the labor and time it takes to replace a failed pump, the Blackmer pumps are actually saving you money.”

S.A White has been running the current SX1B-DEF pump to deliver DEF since March 2016 without one stoppage. The company plans to outfit all of its trucks with Blackmer pumps.

“The Blackmer is simply the best pump out there,” said Evan Noble. “That’s why we are replacing all of our DEF pumps with Blackmers; at least three more. And when we build our new DEF tanker, you can bet that will have a Blackmer on it, too.”

Conclusion

While much has changed over the past century, S.A. White Oil Company’s dedication to customer service has not. And because of this dedication, S.A. White Oil Company believes in only using quality equipment like Blackmer SX1B-DEF Series pumps, and partnering with quality companies like Werts Welding. By doing these two things, there’s no doubt that the Nobles and S.A. White Oil Company will continue to make providing unparalleled customer service a family tradition.

“Our customers rely on us and we rely on Blackmer,” said Earl Noble. “If our equipment fails, we are letting our drivers and customers down. We can’t have that. That’s why we aren’t interested in trying to save a dollar; trying to do that always ends up harming you on the customer service side. We want the best, and Blackmer is the best. You put on a pump that’s not going to last, it’s going to come back and bite you. Which is putting our name and reputation on the line. That’s why we choose Blackmer. They just take the weight off of our shoulders and make life better by giving us peace of mind.”

About the Author:

Scott Jackson is the Inside Technical Sales Manager for Blackmer® and PSG® and can be reached at +1 616-248-9218 or Scott.Jackson@psgdover.com. For more information on the full line of innovative and high-quality Blackmer sliding vane and centrifugal pump, and reciprocating compressor technologies, please go to blackmer.com or call +1 616 241-1611. Blackmer is a product brand of PSG®, Oakbrook Terrace, IL, USA, a Dover company. PSG is composed of several leading pump brands, including Abaque®, Almatec®, Blackmer®, Ebsray®, EnviroGear®, Finder, Griswold™, Movex®, Neptune™, Quattroflow™, RedScrew™ and Wilden®. You can find more information about PSG at psgdover.com.

The logo for Blackmer, featuring the word "Blackmer" in a stylized, blue, cursive font with a registered trademark symbol.

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