

A Crowning Achievement

ROBINE TRUCKS ASCENDS TO THE PINNACLE OF FRENCH LPG-TRANSPORT MANUFACTURING WITH THE ASSISTANCE OF BLACKMER® LGL SERIES SLIDING VANE PUMPS, WHICH ARE STANDARD EQUIPMENT ON ITS BOBTAILS

By Jean-Marc Bernard



As one of the top producers of LPG bobtails and semi-trailers for the French market, Robine Trucks knows that it needs to choose reliable equipment if it wants to have continued success in the LPG world. That's why Robine has chosen to exclusively outfit the vehicles it produces with LGL Series Sliding Vane Pumps from Blackmer®.

Introduction

Who could have known that the small town of Saint-Amand-les-Eaux, France, which boasts a population of around 17,000 and is tucked away in the northern part of the country, a short drive from the Belgian border, would become a historic focal point for LPG bobtail and semi-trailer manufacturing activities? But since it is the home of Robine Trucks, a manufacturer of rolling stock designed to transport liquid, compressed or dissolved petroleum products, in particular LPG, that's exactly what it is.

You see, this year Robine Trucks will manufacture about four out of every five new LPG bobtails and semi-trailers that will hit France's roads in time for the winter heating season.

"Robine Trucks is the leading builder of LPG bobtail trucks in all of France," explained Anselme Danthois, Managing Director of Robine Trucks. "This year, we will manufacture

around 80% of the new LPG bobtails and semi-trailers for the French market."

While that is a testament to the company's reputation and status in the industry, along with its ability to reliably produce LPG transports that meet the needs of a very demanding market, as they say, "with great power comes great responsibility."

QUICK FACTS

- Company:** Robine Trucks
- Location:** Saint-Amand-les-Eaux, France
- Market:** LPG Transport
- Distributor:** Pernin Equipements, Montreuil, France
- Challenge:** Optimize metering operations and loading/unloading times and safety for LPG bobtails and semi-trailers
- Solution:** Blackmer® LGL Series Sliding Vane Pumps





LPG delivery equipment requires finely calibrated systems that not only ensure the LPG is delivered in precisely the volume that is required, but that it is done so in the safest manner possible.

“As Managing Director of Robine, it’s important for me to find equipment for our Robine trucks that is reliable and has a good level of quality,” said Danthois. “We are always looking for products that will be in accordance with our quality standards when we build our bobtails. And we’re always trying to make the customer happy.”

Taking Control

The loading and delivery of LPG requires finely calibrated systems that will ensure that not only is the LPG delivered in precisely the volume that is required, but that it is done in the safest manner for the customer, truck driver and environment. To that end, recent technical advancements now allow all operations of the bobtail – which Robine builds to have capacities of 13,000 to 19,000 liters (3,400 to 5,000 gallons) and the ability to hold up to 8.5 tons of LPG – to be controlled during loading and unloading by a remote control.

“The remote controls every aspect of the delivery process,” said Danthois. “The driver doesn’t have to touch any other devices when he has the remote control. This allows the trucks to be safer. In case of an emergency, push the red button and everything stops, including the engine of the truck shutting off.”

While ensuring the ultimate safety of the delivery process is No. 1 on the must-do list for the bobtail builder, a close second is deploying a metering system that ensures accurate delivery volumes at every stop and for every customer. This requires a metering system with unquestioned reliability – both in performance and volumetric accuracy.

For many years, the preferred metering system featured a turbine meter that would measure and record LPG flow from the bobtail to the customer’s storage tank. In recent years, however, LPG-transport builders have been installing a

different technology – the mass flowmeter – to measure delivery volumes.

“The advantage of the mass flowmeter is that there are no pieces that move, it’s an electronic system that calculates the vibrations of a microtube inside it to measure the amount of liquid that is being pumped,” said Christian Marzin, Regional Manager for Pernin Equipements, Montreuil, France, a systems and equipment manufacturer and distributor dedicated to the French LPG, diesel fuel and heating oil markets. “One of the problems in the past was the need to replace parts on meters. With the mass flowmeter, there is no maintenance. You just test it every year to see that the flow-measurement system is correct. In addition, with the mass flowmeter there are no problems with repeatability, it is perfect.”

The Perfect Pump

A critical component in the delivery system is the pump through which the LPG passes before making its way to the meter. Only pumps that can reliably deliver specific, steady, non-pulsing flow rates in sometimes severe operating conditions and through thousands of delivery cycles can be used for this crucial task. That’s why Robine Trucks has chosen to outfit its LPG bobtails and semi-trailers with 3-inch LGL Series Sliding Vane Pumps from Blackmer®, Grand Rapids, MI, USA, a product brand of PSG®, Oakbrook Terrace, IL, USA, a Dover company.



In order to ensure the safety of customers, drivers and the environment, Robine utilizes the most recent technical advancements, including a remote that allows the operator to control all operations of the bobtail from the palm of his hand.



While the metering system for many years for LPG-delivery vehicles was the positive displacement, recently, LPG-transport builders have moved to a newer technology – the mass flowmeter – to measure delivery volumes.

“With the Blackmer pumps, it’s a perfect system,” said Marzin, who sells and distributes Blackmer pumps to the French LPG market for Pernin. “The Blackmer pump is completely adaptable to the system, no matter what type of meter is being used.”

LGL Series pumps are ideal for the task because they are equipped with standard features that include cavitation suppression liners that reduce noise, vibration and wear; replaceable casing liners and end discs that allow for easy rebuilding of the pumping chamber to like-new condition; ductile-iron construction with internal relief valves; self-priming and dry-run capabilities; a double-ended drive-shaft arrangement that allows for clockwise or counter-clockwise shaft rotation; vanes that can be replaced without removing the pump from the piping system, which eliminates maintenance concerns and costly downtime; the ability to be powered by the vehicle’s PTO drive or an hydraulic or electric motor; and, perhaps most importantly, they are ATEX-certified for use in explosive, hazardous or dangerous operating atmospheres.

The specific 3-inch LGLD3 models that Robine uses can deliver flow rates up to 1,325 liters per minute (350 gallons per minute) at maximum differential pressures of 10.3 bar (150 psi) and maximum working pressures of 24.1 bar (350 psi).

“For all of our trucks, we use only Blackmer pumps because they can be used with every type of metering system,” said Danthois. “It’s good for our customers to have only one kind of pump so they only have one kind of pump to maintain, and if they have to change a pump, they know it will be a Blackmer. If it works properly with different meters, there are no problems, and if they are happy, they will want to use the Blackmer pumps.”



Only pumps that can reliably offer specific, steady, non-pulsing flow rates should be used on LPG delivery systems. For Robine Trucks, LGL Series Sliding Vane Pumps from Blackmer® meet these requirements.

Conclusion

Being the top producer of LPG bobtails and semi-trailers for the French market comes with a certain pressure to retain that lofty status. Robine Trucks knows that it will only continue to have success if it partners with companies that are as committed to its success as they are. Early indications are that by partnering with Pernin Equipements and Blackmer, Robine Trucks has laid the foundation for many successful years.

“Robine Trucks also sells parts, but it makes it easier if there is only one kind of pump, and we only use Blackmer pumps,” said Danthois. “We want to sell trucks, we don’t want to repair trucks. We don’t want to have trouble with the trucks we build, so we choose reliable equipment, such as the Blackmer pump. As a manufacturer, we are also quite happy with the support we get from Blackmer and our collaboration with Pernin. Our customers also benefit from the support we get from these good and reliable partners.”

About the Author:

Jean-Marc Bernard is the EMEA – Senior Market Manager LPG Europe for Blackmer® and PSG® and can be reached at +33 1 55 39 07 40 or Jean-Marc.Bernard@psgdover.com. For more information on the full line of innovative and high-quality Blackmer rotary vane and centrifugal pump, and reciprocating compressor technologies, please go to blackmer.com or call +1 616 241-1611. Blackmer is part of PSG®, a Dover company, Oakbrook Terrace, IL, USA. PSG is comprised of several leading pump brands, including Abaque®, Almatec®, Blackmer®, Ebsray®, EnviroGear®, Griswold™, Mouvex®, Neptune™, Quattroflow™, RedScrew™ and Wilden®. You can find more information on PSG at psgdover.com.



In addition to the standard features that make them ideal for this type of application, Blackmer® LGL Series pumps are also completely adaptable to the vehicle's LPG-delivery system no matter what type of meter is being used.

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