

# Go with the flow

*Blackmer sliding vane pumps help a French LPG trailer maker keep its customers happy*

**T**ucked away in northern France, a short drive from the Belgian border, the small town of Saint-Amandles-Eaux – population 17,000 – is home to Robine Trucks, a manufacturer of rolling stock designed to transport liquid, compressed or dissolved petroleum products, in particular LPG.

Robine manufactures about four out of every five new LPG bobtail and semi-trailers that hit France's roads each year in time for the winter heating season.

"Robine Trucks is the leading builder of LPG bobtail trucks in all of France," explains Anselme Danthois, managing director. "This year, we will manufacture around 80 percent 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 produce LPG transport equipment reliably that meets the needs of a very demanding market, as they say, "with great power comes great responsibility."

"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," says 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."



Robine Trucks chose to outfit the vehicles it produces with LGL series sliding vane pumps from Blackmer. L-r: Christian Marzin, Anselme Danthois, and Jean-Marc Bernard, EMEA – senior market manager LPG Europe for Blackmer

## Taking control

The loading and delivery of LPG requires finely calibrated systems to ensure that not only is the LPG delivered in precisely the volume 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 13-19,000 litres (3,400-5,000 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 first 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



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

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," he states.

## 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-



Only pumps that can reliably offer specific, steady, non-pulsing flow rates should be used on LPG delivery systems. For Robine Trucks, Blackmer's LGL sliding vane pumps meet these requirements

trailers with 3-ins LGL series sliding vane pumps from Blackmer.

"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 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-ins LGLD3 models that Robine uses can deliver flow rates up to 1,325 litres a minute (350 gallons a 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."

Being the top producer of LPG bobtails and semi-trailers for the French market comes with a certain pressure to retain that 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."

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