

# XTL<sup>®</sup> Engine Oil Technology for Commercial Vehicles



**XTL<sup>®</sup>**  
TECHNOLOGY

# LUBRICANTS. TECHNOLOGY. PEOPLE.

We concentrate solely on high-quality lubricants and related specialties.

We develop innovative and holistic solutions for a wide variety of applications.

We value the high level of commitment of our employees and their trusting interaction with one another.



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## Facts and figures

**Company:** FUCHS SCHMIERSTOFFE GMBH, a company of the FUCHS Group

**Headquarters:** Mannheim

**Product range:** A full range of more than 2,000 products and 6,000 articles

**Certifications:** DIN EN ISO 9001:2008, ISO/TS 16949:2009, DIN EN ISO 14001:2004 BS OHSAS 18001:2007, KTA 1401

**References:** One of the leading lubricants OEM for the German automotive industry

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FUCHS has developed, produced and sold high-quality lubricants and related specialties for more than 85 years – for virtually all areas of application and sectors. With over 100,000 customers and 60 companies worldwide, the FUCHS Group is the leading independent supplier of lubricants.

A team of more than 800 specialists across Germany works to guarantee the satisfaction of our customers. Whatever their requirements, we have the ideal lubricant for their specific applications and processes. In our technology center we link interdisciplinary expertise in a quick and efficient way – and work on innovative lubricant solutions to meet the demands of today and tomorrow every single day.

FUCHS lubricants stand for performance and sustainability, for safety and reliability, for efficiency and cost savings. They represent a promise: technology that pays off.



## MAXIMIZE AVAILABILITY – AND MINIMIZE COSTS

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Two aspects are of key importance for a truck fleet operator: optimum availability of the vehicles at any time and the lowest possible operating costs. In addition, downtime and high fuel costs adversely affect competitiveness over the long term.

Lubricants from FUCHS, the world's largest independent lubricants specialist, help your company achieve better results in these two sensitive areas.

The latest product of our research and development is the innovative XTL<sup>®</sup> engine oil technology for commercial vehicles, which offers particularly interesting savings potential for your business. A comprehensive range of tests – both on the test bench and in field tests – impressively demonstrate that XTL<sup>®</sup> from FUCHS enables you to achieve significantly improved values in four areas: fuel consumption, turbocharger protection, low-temperature performance and oil consumption.

# XTL<sup>®</sup> engine oil from FUCHS – it pays off for you

For a truck operator, fuel consumption is a crucial factor in the operating costs. This is where the new XTL<sup>®</sup> engine oils from FUCHS open up new dimensions. For the first time, the fuel saving brought about by a newly developed engine oil was not only checked when the engine oil was fresh, but also when it had aged.

## XTL<sup>®</sup> engine oils deliver a lasting reduction in operating costs.

The aspect of fuel consumption impressively underlines the effectiveness of the XTL<sup>®</sup> technology from FUCHS. With XTL<sup>®</sup> engine oils, consumption was reduced by up to 1.8%. This represents a lasting reduction of fuel costs, enabling you to save money every day and for every mile driven.

### First test result

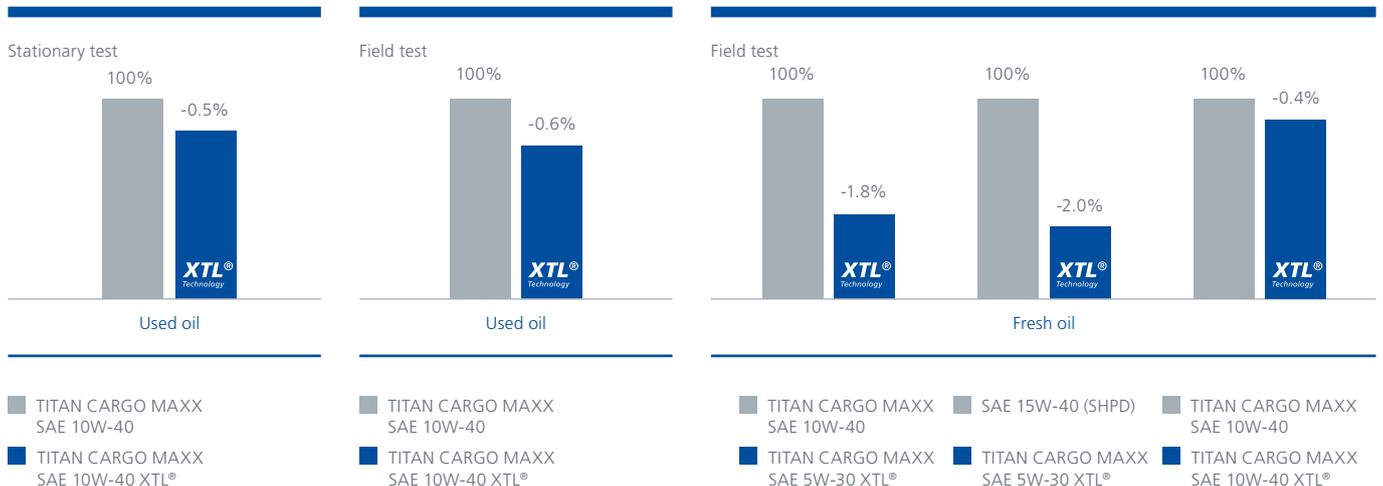
1.8%

lower fuel consumption  
(comparison SAE 5W-30 XTL<sup>®</sup> / SAE 10W-40)

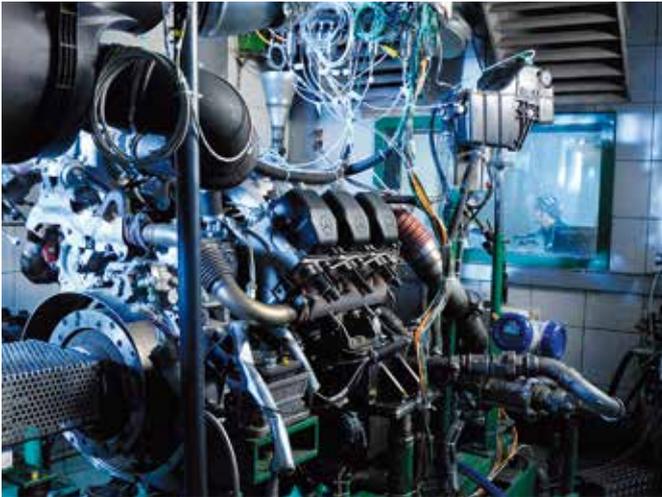
0.5%

lower fuel consumption  
(comparison SAE 10W-40 XTL<sup>®</sup> / SAE 10W-40)

### Fuel consumption: TITAN CARGO MAXX XTL<sup>®</sup> compared to conventional TITAN CARGO MAXX or to conventional 15W-40 engine oils



## Get off to a flying start – and hit the gas for longer



Without XTL® engine oil

With XTL® engine oil

Many truck fleet operators specify the turbocharger as one of the parts of a truck that is most susceptible to damage and that requires the most maintenance. Deposits can often build up here. This reduces the efficiency of the turbochargers, causing them to wear continuously and ultimately fail.

### Excellent: XTL® in the deposits test

FUCHS XTL® engine oils for commercial vehicles have undergone a special deposits test recognized by the automotive industry. This simulates turbocharger deposits and proves that deposits are reduced by 11% when XTL® is used. This is a highly convincing argument – after all, when turbocharger deposits are reduced, you can also benefit from reduced wear, improved engine performance and lower costs.

### Second test result

# 11%

less turbocharger deposits

### Reduction of turbocharger deposits: TITAN CARGO MAXX SAE 10W-40 (XTL®) compared to conventional TITAN CARGO MAXX SAE 10W-40

Deposits tests



- TITAN CARGO MAXX SAE 10W-40
- TITAN CARGO MAXX SAE 10W-40 XTL®

# Highest availability – even at the lowest temperatures



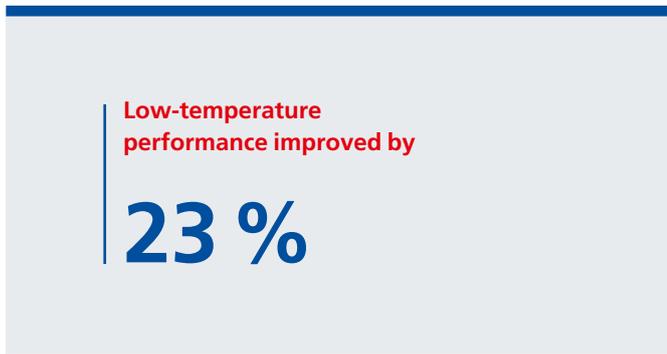
Optimal at every temperature: XTL® engine oils protect the engine.

XTL® engine oils offer outstanding low-temperature performance, thus delivering ideal pumpability even at low temperatures. After all, engines need to be quickly and thoroughly oiled, especially at low temperatures, in order to ensure reliable protection.

### XTL® convinces in MRV test

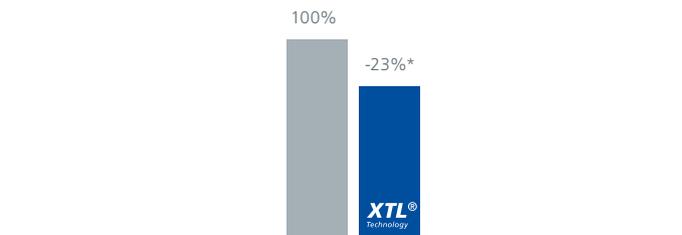
Our XTL® products also deliver outstanding results in the MRV (mini-rotary viscometer) test. For instance, the test results achieved by FUCHS demonstrate that pumpability at low temperatures is improved by an impressive 23%. This makes low-temperature start-up easier and reduces cold start wear – and not only at -30°C.

### Third test result



### Improved low-temperature performance: TITAN CARGO MAXX SAE 10W-40 (XTL®) compared to conventional TITAN CARGO MAXX SAE 10W-40

MRV test (-30°C)



- TITAN CARGO MAXX SAE 10W-40
- TITAN CARGO MAXX SAE 10W-40 XTL®

\* Lower dynamic viscosity in mPas = better low-temperature performance.

## XTL® enables significantly reduced oil consumption



In terms of oil consumption, too, the new XTL® engine oils boast very convincing properties. This area is also of key importance to fleet operators. After all, oil consumption is a direct cost factor over long change intervals. In addition, there are also indirect follow-up costs for damaged catalytic converters or blocked filters.

### Large savings potential with XTL®

The new XTL® engine oils from FUCHS have been subjected to intensive series of tests, where it was established that they can reduce oil consumption by up to 27%. The investment therefore pays off quickly.

**This lower oil consumption makes the new XTL® engine oils ideal for EURO 6 engines.**

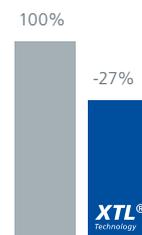
### Fourth test result

# 27%

lower oil  
consumption

### Lower oil consumption: TITAN CARGO MAXX SAE 10W-40 (XTL®) compared to conventional TITAN CARGO MAXX SAE 10W-40

Engine test



- TITAN CARGO MAXX SAE 10W-40
- TITAN CARGO MAXX SAE 10W-40 XTL®

## Products you can count on

Brand name	Description	Specifications Approvals	FUCHS Recommendations
<b>TITAN CARGO MAXX SAE 5W-30</b>  	Premium MAXX Performance Engine Oil with new XTL® technology. Specially developed for vehicles with modern exhaust after treatment and turbocharger. Optimum cold starting properties and ageing stability for extreme fuel-economy over the whole drain-interval.	ACEA E9/E7/E6/E4 API CJ-4 CAT ECF-3  DEUTZ DQC IV-10 LA DETROIT DIESEL 93K218 MACK EO-O PREMIUM PLUS MAN M 3271-1, MAN M 3477 MAN M 3677, MAN M 3575 MB-APPROVAL 228.31 MB-APPROVAL 228.51 MTU DDC TYP 2.1, MTU DDC TYP 3.1 RENAULT RLD-3 SCANIA LA VOLVO VDS-4	CUMMINS CES 20081 IVECO 18-1804 CLASSE TLS E6
<b>TITAN CARGO MAXX SAE 10W-40</b>  	Premium MAXX Performance Engine Oil with new XTL® technology. Specially developed for vehicles with modern exhaust after treatment and turbocharger. Good cold starting properties and ageing stability for fuel-economy over the whole drain-interval.	ACEA E9/E7/E6/E4 API CJ-4 JASO DH-2 CAT ECF-3  DEUTZ DQC IV-10 LA DETROIT DIESEL 93K218 MACK EO-O PREMIUM PLUS MAN M 3271-1, MAN M 3477 MAN M 3575 MB-APPROVAL 228.31 MB-APPROVAL 228.51 MTU DDC TYP 2.1, MTU DDC TYP 3.1 RENAULT RLD-3 SCANIA LA VOLVO VDS-4	CUMMINS CES 20081 IVECO 18-1804 CLASSE TLS E9 IVECO 18-1809 CLASSE NG2 VOITH-RETARDER „B“

### Note

The information contained in this product information is based on the experience and know-how of FUCHS SCHMIERSTOFFE GMBH in the development and manufacturing of lubricants and represents the current state-of-the-art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pre-treatment, possible external contamination, etc. For this reason, universally-valid statements about the function of our products are not possible. Our products must not be used in aircrafts/spacecrafts or their components, unless such products are removed before the components are assembled into the aircraft /spacecraft. The information given in this product information represents general, non-binding guidelines. No warranty expressed or implied is given concerning the properties of the product or its suitability for any given application.

We therefore recommend that you consult a FUCHS SCHMIERSTOFFE GMBH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

Our products undergo continuous improvement. We therefore retain the right to change our product program, the products, and their manufacturing processes as well as all details of our product information sheets at any time and without warning, unless otherwise provided in customer-specific agreements. With the publication of this product information, all previous editions cease to be valid.

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## Minimum time and expenses, maximum effect



### Overview of test results

**1.8\*%**  
lower fuel  
consumption

**11%**  
less turbocharger  
deposits

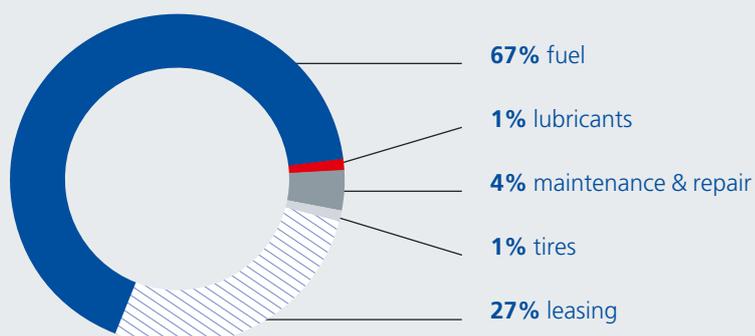
Low-temperature  
performance improved by  
**23%**

**27%**  
lower oil  
consumption

\* 0.5% when comparing TITAN CARGO MAXX SAE 10W-40 (XTL®) to conventional TITAN CARGO MAXX SAE 10W-40  
1.8% when comparing TITAN CARGO MAXX SAE 5W-30 (XTL®) to conventional TITAN CARGO MAXX SAE 10W-40

### Typical distribution of running costs of a truck for long-distance haulage

By using XTL® engine oils to optimize the smallest cost factor (lubricants), you can decisively influence the biggest cost factor (fuels)!



# Save fuel – simply switch to the new XTL® engine oils!

Your calculations could look like this:

Long-distance haulage / vehicles	Fuel consumption in liters per 100 km	Annual distance covered / oil change interval in km	Diesel price (per liter) in € excluding VAT	Saving with XTL® engine oils in %	Annual saving for fleet in €
30	35	150,000	1.0**	<b>1.8*</b>	<b>28,350,-</b>
				<b>0.5*</b>	<b>7,875,-</b>

\* 0.5% when comparing TITAN CARGO MAXX SAE 10W-40 (XTL®) to conventional TITAN CARGO MAXX SAE 10W-40

1.8% when comparing TITAN CARGO MAXX SAE 5W-30 (XTL®) to conventional TITAN CARGO MAXX SAE 10W-40

\*\* Average January – September 2015

## Work out your own fleet savings:

	<input type="text"/>	Average distance covered by each vehicle per year
<b>X</b>	<input type="text"/>	Average fuel consumption (liters per 100 km): 100
<b>=</b>	<input type="text"/>	Total annual fuel consumption (in liters) per vehicle
<b>=</b>	<input type="text"/>	
<b>X</b>	<b>1.8 %</b>	Saving with TITAN CARGO MAXX SAE 5W-30 (XTL®)
<b>or</b>	<b>X</b>	<b>0.5 %</b>
<b>X</b>	<input type="text"/>	Saving with TITAN CARGO MAXX SAE 10W-40 (XTL®)
<b>=</b>	<input type="text"/>	Fuel saving (in liters)
<b>X</b>	<input type="text"/>	Average fuel price (diesel excluding VAT) per liter in €
<b>=</b>	<input type="text"/>	Annual saving in € per vehicle
<b>X</b>	<input type="text"/>	Number of vehicles
<b>=</b>	<input type="text"/>	<b>Total annual saving in €</b>

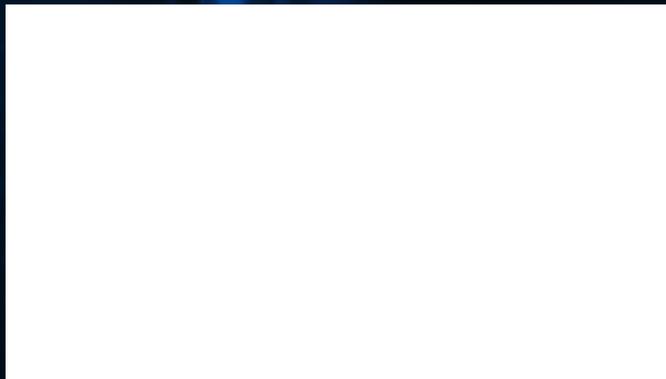


FUCHS Industrial Lubricants

## Innovative lubricants need experienced application engineers

Every lubricant change should be preceded by expert consultation on the application in question. Only then the best lubricant system can be selected. Experienced FUCHS engineers will be glad to advise on products for the application in question and also on our full range of lubricants.

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