





### OUR LUBRICANTS KEEP THE WORLD MOVING

For more than 80 years, we have been concentrating all our activities and research efforts on the development of innovative lubricants. This specialization means that we are enjoying continuous growth – geographically, technically and in the number of application areas.

Today, FUCHS is a company that offers powerful lubricants and associated specialties worldwide in practically all areas of application and industries.

















#### What makes our products more valuable.

We develop lubricants on an application-specific basis and tailored to our partners' processes. Together, we look for the best lubricant for our customers. This type of collaboration is unique in its form, scope and intensity. We call it a development partnership. This ability is based on one key feature: As a true lubricant specialist with its headquarters in Mannheim/Germany, we are the largest independent lubricant specialist, and this independence makes all the difference. We are open to new methods and visionary approaches – a prerequisite for innovations. And innovations are a FUCHS trademark.

Together, we move more.

### Maximize availability – and minimize costs.

Two factors are decisive for the operator of an HGV fleet: optimum vehicle availability at all times, and operating costs that are as low as possible. Downtime and idle times, together with high fuel costs, have a lasting negative impact on competitiveness.

Lubricants from FUCHS, the largest independent lubricant specialist worldwide, help your company to achieve better results in both of these sensitive areas.

The latest innovation from our researchers and developers is the groundbreaking XTL® engine oil technology for commercial vehicles, which offers particularly attractive savings potential for your company. Extensive test series – both stationary and in the field – impressively demonstrate that with XTL® from FUCHS you can achieve considerably improved values in no less than four areas: fuel consumption, turbo-charger protection, cold-weather performance and oil consumption.

#### Notice

The information contained in this brochure is based on the experience and know-how of FUCHS LUBRITECH GMBH and FUCHS EUROPE 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. The information given in this brochure 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 LUBRITECH GMBH or a FUCHS EUROPE 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 brochure at any time and without warning. With the publication of this brochure, all previous editions cease to be valid.

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## XTL® engine oil from FUCHS – it pays off for you.



For an HGV operator, fuel consumption is a key contributor to operating costs. The new XTL® engine oils from FUCHS are breaking new ground here.

For the first time, the fuel savings achieved as a result of a newly developed engine oil have been tested not just with fresh oil, but also after the oil has aged. 1st test result:

0.5%

**lower fuel consumption** (Comparing SAE 10W-40 / SAE 10W-40 XTL®)

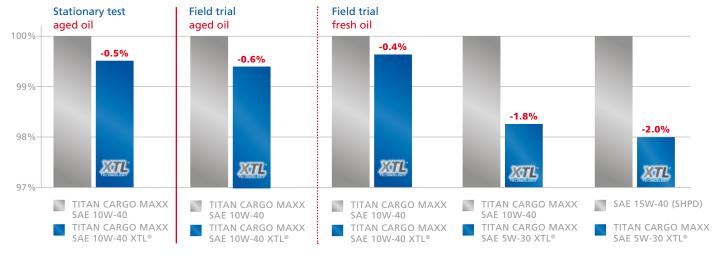
1.8%

lower fuel consumption (Comparing SAE 10W-40 / SAE 5W-30 XTL®)

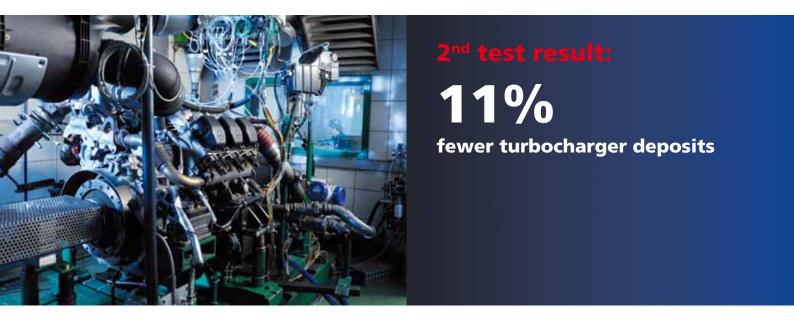
### XTL® engine oils reduce operating costs over the long term.

The effectiveness of the XTL® technology from FUCHS is demonstrated in particular by the newly developed oil. Here, consumption was reduced by up to 1.8% across the entire oil change interval. This means a sustainable reduction in fuel, enabling you to make savings every day and with every mile traveled.

#### Fuel saving: TITAN CARGO MAXX XTL® in comparison with conventional TITAN CARGO MAXX respectively 15W-40



## **Get going – and put your foot down for longer.**





Without XTL® engine oil



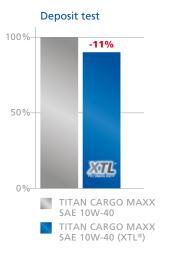
With XTL® engine oil

Many HGV fleet operators regard the turbocharger as one of the parts of an HGV that is most maintenance-intensive and subject to damage. Deposits can build up there frequently. This reduces the performance of the turbocharger, it is exposed to constant wear and ultimately fails completely.

#### Top marks: XTL® in deposit tests.

The FUCHS XTL® engine oils for commercial vehicles underwent a special deposit test recognized in the automotive sector. This test simulates turbocharger deposits and shows that by using XTL® 11% fewer deposits are caused. It's an argument that is more than convincing, because fewer turbocharger deposits mean lower wear, higher engine performance and lower costs for you.

#### Reduction in turbocharger deposits: TITAN CARGO MAXX SAE 10W-40 (XTL®) in comparison with conventional TITAN CARGO MAXX SAE 10W-40





## Highest availability – even at the lowest temperatures.



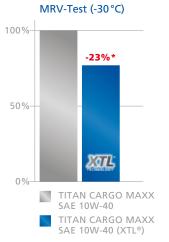
3rd test result:
23%
improvement in cold-weather performance

XTL® engine oils offer excellent cold properties and therefore provide ideal pumpability even at low temperatures, because engines must be reliably and quickly oiled, and therefore effectively protected, particularly at low temperatures.

#### XTL® scores high in the MRV test.

Our XTL® products also achieve excellent results in the MRV (mini-rotary viscometer) test. FUCHS test results show that pumpability is improved by an impressive 23% at low temperatures. Cold start is easier, and cold-start wear is reduced – and not just at -30°C.

#### Improved cold-weather performance: TITAN CARGO MAXX SAE 10W-40 (XTL®) in comparison with conventional TITAN CARGO MAXX SAE 10W-40





Ideal – at any temperature: XTL® engine oils protect the engine.

<sup>\*</sup> Lower dynamic viscosity in mPas = better cold-weather performance.

## XTL® makes it possible: far lower oil consumption.



As a result of this lower oil consumption, the new XTL® engine oils are ideal for

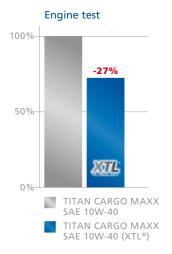


XTL® engine oils also convince through their impressive properties in terms of oil consumption. This is another area not to be underestimated for fleet operators, because over long change intervals, oil consumption is a direct cost factor. In addition follow-up costs are generated here by damaged catalytic converters or clogged filters..

#### **High savings potential with XTL®.**

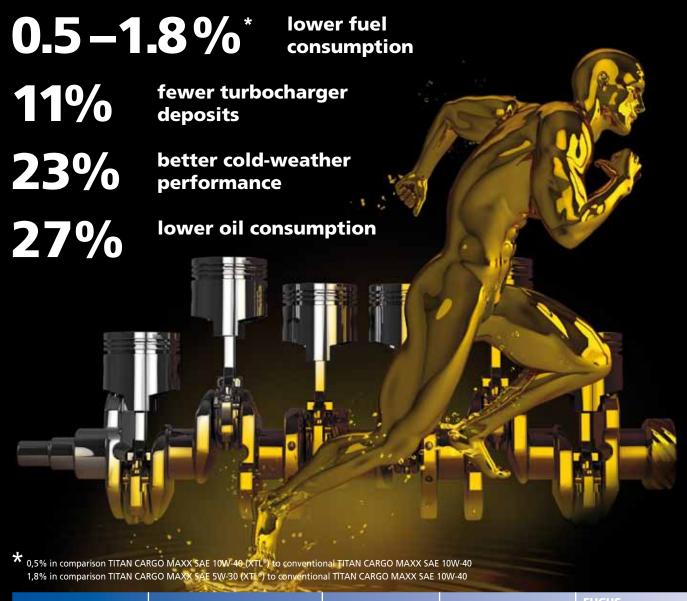
The new XTL® engine oils from FUCHS have undergone intensive test series, which revealed that with the new XTL® engine oils, oil consumption is reduced by up to 27%. This quickly pays off.

#### Reduction in oil consumption: TITAN CARGO MAXX SAE 10W-40 (XTL®) in comparison with conventional TITAN CARGO MAXX SAE 10W-40



### Products you can count on.

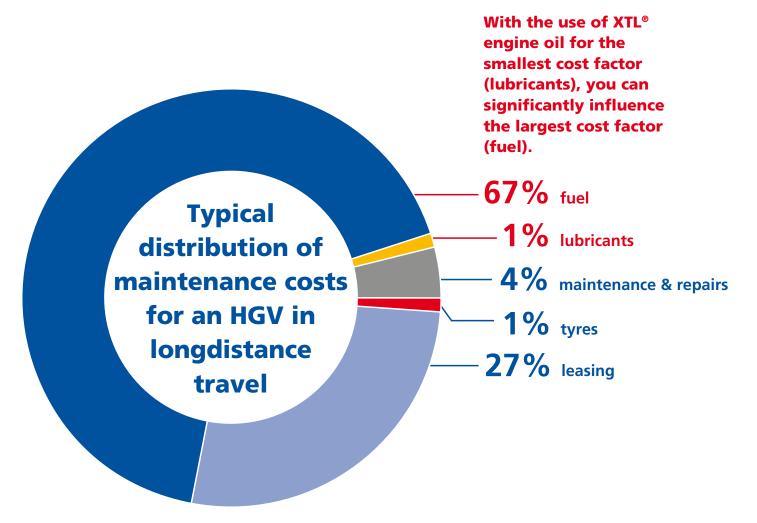




Brand name	Description	Specifications	Approvals	FUCHS recommendations
TITAN CARGO MAXX SAE 5W-30 XTL® TECHNOLOGY	Premium MAXX performance Motor Oil with new XTL® technology. Specially developed for vehicles with modern exhaust after treatment and turbocharger. Best cold starting properties and ageing stability for optimal fueleconomy over the whole drain-interval.	ACEA E6	DEUTZ DQC IV-10 LA MAN M 3477 MB-APPROVAL 228.51 MTU DDC TYP 3.1 RENAULT RXD/RLD2 VOLVO VDS-3	ACEA E7
TITAN CARGO MAXX SAE 10W-40 XTL®	Premium MAXX performance Motor Oil with new XTL® technology. Specially developed for vehicles with modern exhaust after treatment and turbocharger. Very good cold starting properties and ageing stability for optimal fuel-economy over the whole drain-interval.	ACEA E9/E7/E6 API CI-4 CATERPILLAR ECF-1-a	DEUTZ DQC IV-10 LA MACK EO-M PLUS MAN M 3271-1 MAN M 3477 MB-APPROVAL 228.51 MB-APPROVAL 235.28 MTU DDC TYPE 3.1 RENAULT RXD/RGD VOITH-RETARDER "B" VOLVO VDS-3/CNG	CUMMINS CES 20077 DAF MAN M 3277 CRT

### Maximum effect at minimal expense.





### Work it out for yourself.



## To save fuel, simply switch to the new XTL® engine oils!

Your calculations could look like this:

with long distance	Fuel consump- tion /in liters per 100 km	Annual mileage / oil change interval in km	Diesel price (liters) in € excl. VAT	Saving with XTL® engine oils in %	Fleet saving p.a. in €
30	35	150,000	1,2	0.5*	9,450
				1.8*	34,020

<sup>\* 0,5%</sup> in comparison TITAN CARGO MAXX SAE 10W-40 (XTL®) to conventional TITAN CARGO MAXX SAE 10W-40 1,8% in comparison TITAN CARGO MAXX SAE 5W-30 (XTL®) to conventional TITAN CARGO MAXX SAE 10W-40

#### Your personal fleet savings for you to work out yourself:

	Average mileage (km) per vehicle per year
x	Average fuel consumption (liters/100 km) : 100
=	Total fuel consumption (liters) per vehicle per year
=	X 0.5% Saving with TITAN CARGO MAXX SAE 10W-40 (XTL®) TITAN CARGO MAXX SAE 5W-30 (XTL®)
=	Fuel saving (liters)
x	Average fuel price (diesel excluding VAT) per liter (euros)
=	Saving (euros) per vehicle per year
х	Number of vehicles
=	Total saving per year (euros)

# Innovative lubricants need experienced application engineers

Every lubricant change should be preceded by expert consultation on the application in question. Only then can the best lubricant system 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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