

# Mining Lubrication solutions



MOVING YOUR WORLD



# FUCHS LUBRICANTS SOUTH AFRICA

We don't just develop lubricants for highly complex challenges in a wide range of industries, we develop innovative lubricant solutions that enable the mobility of tomorrow. Our goal: to keep our customers' world in motion. Efficient, sustainable, reliable. Today and tomorrow.

**What can we move for you?**







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## Package overview

Get a quick overview of the available packages of a product. Under each product pictograms and package units are listed accordingly.



Bottle



Tin



Canister



Cartridge



FB (Flowbin)



Tin



Drum



Tube



Tanker



Spray can



BULK



Bucket



Bottle



Hobbock

# The World of Mining Lubricants

FUCHS consistently relies on the so-called European Engine Lubricant Quality Management System (EELQMS), a European quality management system for engine oils. In addition to our development and production within the framework of the automotive industry quality standard IATF 16949, the EELQMS quality seal stands for highest product quality.



## Engine Oils

FUCHS is one of the leading lubricant manufacturers for the initial filling of passenger cars, trucks and agricultural or construction machines. With a comprehensive range of lubricants for all automotive applications and the XTL®-Technology that is unique worldwide, FUCHS truly sets new standards. Upon starting the engine, engine oils with XTL®-Technology reach the places where their protective film is urgently needed quicker and easier, even under extreme conditions. This ensures reliable protection throughout the entire service life of the oil. For the driver, that means easier start processes, less wear and lower fuel consumption – and oil consumption is also significantly lower than in conventional oils of the same viscosity class. A pioneering engine oil technology.

## Transmission Fluids

To ensure smooth running throughout their entire service life, modern car transmissions need state-of-the-art, high-performance lubricants that protect the gearing from wear and considerably improve the ease with which gears are changed. Moreover, the extension of the replacement intervals right up to a lifetime filling increases the requirements placed on the quality of the oils. As a longstanding development partner of the world's leading gear manufacturers, we keep our finger on the pulse of the times. Stay on the safe side with the ultra-modern **TITAN** gear oils.

**TITAN**

**TITAN**



### Industrial Oils

Industrial lubricants have an important task in the generation and transmission of energy, in the reduction or transmission of drive forces, in the deployment of machine tools, when generating cooling air or compressed air and for many other applications in production. FUCHS industrial lubricants can make a significant contribution to achieving higher productivity, improving efficiency and saving energy, for example in hydraulic systems, gear units and many other applications. Furthermore, rapidly biodegradable lubricants from FUCHS present a real alternative to hydrocarbon-based lubricants.

### RENOLIN



### Greases

Lubricating greases are consistent lubricants made up of base oil and a specially chosen thickener. To increase certain properties, additives are added to the lubricating greases. Lubricating greases are structural elements, especially when used as long-life lubricants for lifetime lubrication. **RENOLIT** industrial lubricating greases are a balanced and complete package offering the ideal technical and economical solution in the largest possible number of lubricating grease applications in industry.

### RENOLIT



### Service Products

The FUCHS range of workshop and service products is a comprehensive portfolio of coolant additives, brake fluids and fuel additives. These offer your vehicle optimum protection at all times – particularly in winter. Our FUCHS service products are individually matched to virtually every vehicle type and offer the best possible protection combined with the latest technology.

### Environmentally Friendly Lubricants

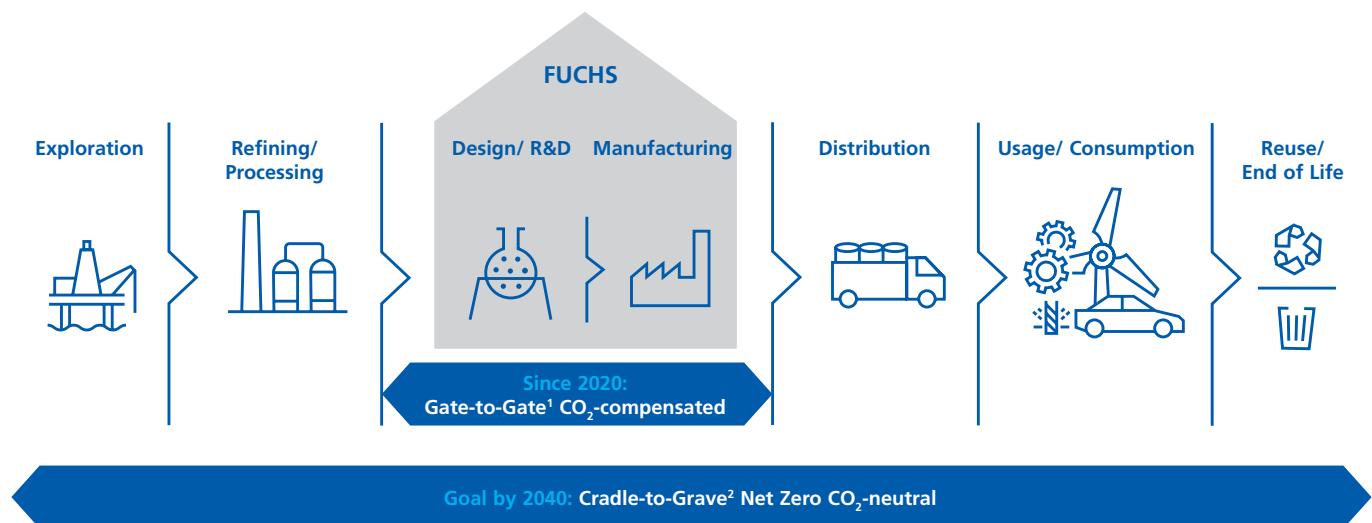
The dream of environmentally friendly lubricants is nothing new. Indeed, FUCHS was one of the first companies to enter the market with rapidly biodegradable lubricants back in the 70s. Since then, FUCHS has invested heavily in researching and further developing these lubricants. The reward for all this hard work: a priceless and unparalleled wealth of expertise and practical experience. Because one thing is certain: a good product alone is not enough. The user also needs competent advice when choosing the right product, switching over to rapidly biodegradable lubricants and for application. It really pays off to have an expert partner by your side.

## PLANTO

# ACTIVE PLAYER FOR SUSTAINABILITY – The path to 2040

The FUCHS carbon-neutrality strategy is embedded in our sustainability strategy, which began in 2010 when we signed the „Code of Responsible Conduct for Business“. In 2018 we joined the „Alliance for Development and Climate“ led by the Federal Ministry for Economic Cooperation and Development.

At the same time, we initiated the foundation of a sustainability workgroup under the umbrella of the Union of the European Lubricants Industry (UEIL). Together, we develop harmonized sustainability standards, KPIs, and benchmarks to enable sustainability-based comparisons.



<sup>1</sup> Gate-to-Gate Scope includes GHG-Protocol Scope 1, 2 and selected Scope 3 emissions (water, waste, business travel, commuting) for all affiliates and JVs incl. compensation.

<sup>2</sup> Cradle-to-Grave Scope includes GHG-Protocol Scope 1, 2 and applicable Scope 3 emissions (3.1/2/3/4/5/6/7/12) for all subsidiaries and JVs.

FUCHS has already achieved its first milestone, and in 2021 it also for the first time extended the recording of its Corporate Carbon Footprint and offset to all joint ventures. To do this, all greenhouse gas emissions of FUCHS that are directly attributable to our business activities ("gate-to-gate") have been measured retroactively since 2019 and offset through investments in climate protection projects.

FUCHS restricts its choice of projects for this purpose to high-quality certifications such as UN Gold Standard or VERRA. In any case, compensation measures are only the last step undertaken once avoidance and reduction measures have met their limits. FUCHS is therefore continuously expanding the proportion of renewable energies that make up its power supply, with the aim of gradually sourcing its electricity worldwide from renewable sources.



→ More information about our path to climate neutrality

# **MOVING YOUR WORLD**

## by oiling the gears of your mining success

At FUCHS, we understand the critical role that lubricants play in the mining industry. Our technology-driven lubricants, developed by dedicated professionals, are at the core of our business. As part of our commitment to technical excellence, we continually develop new products and optimize existing ones to better serve your mining needs.

With FUCHS mining lubricants, maintenance costs and breakdowns are reduced, leading to increased productivity and maximum value from your equipment. Our lubricants are designed to make a significant contribution to improved productivity in various applications. They can enhance efficiency significantly, reduce energy consumption, and lower associated CO2 emissions.

By choosing FUCHS, you're not just getting top-tier mining lubricants; you're partnering with a company dedicated to moving your world.





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## ENGINE OILS

TITAN engine oils are the culmination of cutting-edge research and development by the world's largest independent lubricant specialist. In collaboration with leading automobile manufacturers, these oils are tailored to meet the demands of today's high-tech engines. They offer exceptional high performance, fuel economy, and wear protection, ensuring your engine runs smoothly.

TITAN engine oils: Premium quality from the German automobile industry's leading lubricant OEM, designed to keep your world moving.



**TITAN**

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## Engine Oils

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## Engine Oils



Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils</b>				
<b>TITAN CARGO FLEX LD 10W-40</b>	Premium Performance, extreme fuel-economy engine oil, specially developed for commercial vehicles with modern exhaust after treatment systems and turbocharger. Offers good cold starting and lower oil consumption.	ACEA E11, E8, E7 API CK-4/SN CAT ECF-3 JASO DH-2	DEUTZ DQC IV-18 LA DTFR 15C100 (MB 228.31) DTFR 15C110 (MB 228.51) MACK EOS-4.5 MAN M 3775 MTU DDC TYPE 3.1 RENAULT RLD-3 VOLVO VDS 4.5	ACEA E9, E6 CUMMINS CES 20086 DETROIT DIESEL 93K222 IVECO 18-1804 TLS E9 MAN M 3477/3575 RENAULT RLD-4 SCANIA LA
<b>TITAN CARGO MC SAE 10W-40</b>	Premium Performance, fuel-economy engine oil based on MC-synthesis for a variety of commercial vehicle diesel engines. Specially developed for extended service intervals. Good cold starting and lower oil consumption.	ACEA E7, E4 API CI-4 GLOBAL DHD-1 JASO DH-1	CUMMINS CES 20077/8 DETROIT DIESEL 93K215 DEUTZ DQC III-18 DTFR 15B120 (MB 228.5) MACK EO-N MAN M 3277 MTU DDC TYPE 3 RENAULT RLD-2 VOLVO VDS-3	ALLISON C-4 FORD WSS-M2C944-A IVECO 18-1804 SDFG OM-1901A
<b>TITAN CARGO SAE 15W-40</b>	Premium Performance, fuel-economy engine oil for a variety of commercial vehicle diesel engines. Specially developed for vehicles with extended service intervals, exhaust after treatment and turbocharger.	ACEA E11, E7 API CK-4/CJ-4/SN CAT ECF-3 JASO DH-2	ALLISON TES-439 (439-34862020) CUMMINS CES 20086 DETROIT DIESEL 93K222 DEUTZ DQC III-18 LA DTFR 15C100 (MB 228.31) FORD M2C171-F1 MACK EOS-4.5 MAN M 3775 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4.5	ACEA E9 MAN M 3575 RENAULT RLD-4



Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils</b>				
<b>TITAN TRUCK PLUS SAE 15W-40</b>	Ultra High Performance Engine Oil for a variety of diesel and gasoline engines. Specially for highly-loaded commercial vehicle diesel engines. Lower oil consumption.	ACEA E7 API CI-4/SL GLOBAL DHD-1 CAT ECF-1-a/ECF-2	CUMMINS CES 20076/7/8 DETROIT DIESEL 93K215 DEUTZ DQC III-18 DTFR 15B110 (MB 228.3) MACK EO-N MTU DDC TYPE 2 RENAULT RLD/RLD-2 VOLVO VDS-3	ALLISON C-4 CAT TO-2 CASE MS 1121 CUMMINS CES 20071/2 IVECO 18-1804 CLASSE T2 E7 MAN M 3275-1 NH 330H
<b>Monograde Engine Oils for Construction Machinery</b>				
<b>TITAN UNIVERSAL HD SAE 10W</b>	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	ZF TE-ML 03B (ZF002013)	ACEA E2 API CF-4/SG MAN 270 MIL-L-2104 D ALLISON C-4 CAT TO-2 MB 228.0 ZF TE-ML 02C
<b>TITAN UNIVERSAL HD SAE 30</b>	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	DEUTZ DQC I-02 MTU DDC TYPE 2 ZF TE-ML 04B (ZF001189)	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MAN 270 MB 228.2 ZF TE-ML 02C
<b>TITAN UNIVERSAL HD SAE 50</b>	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	DEUTZ DQC I-02 MAN M 3275-2	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MB 228.0 ZF TE-ML 02C

## Engine Oils



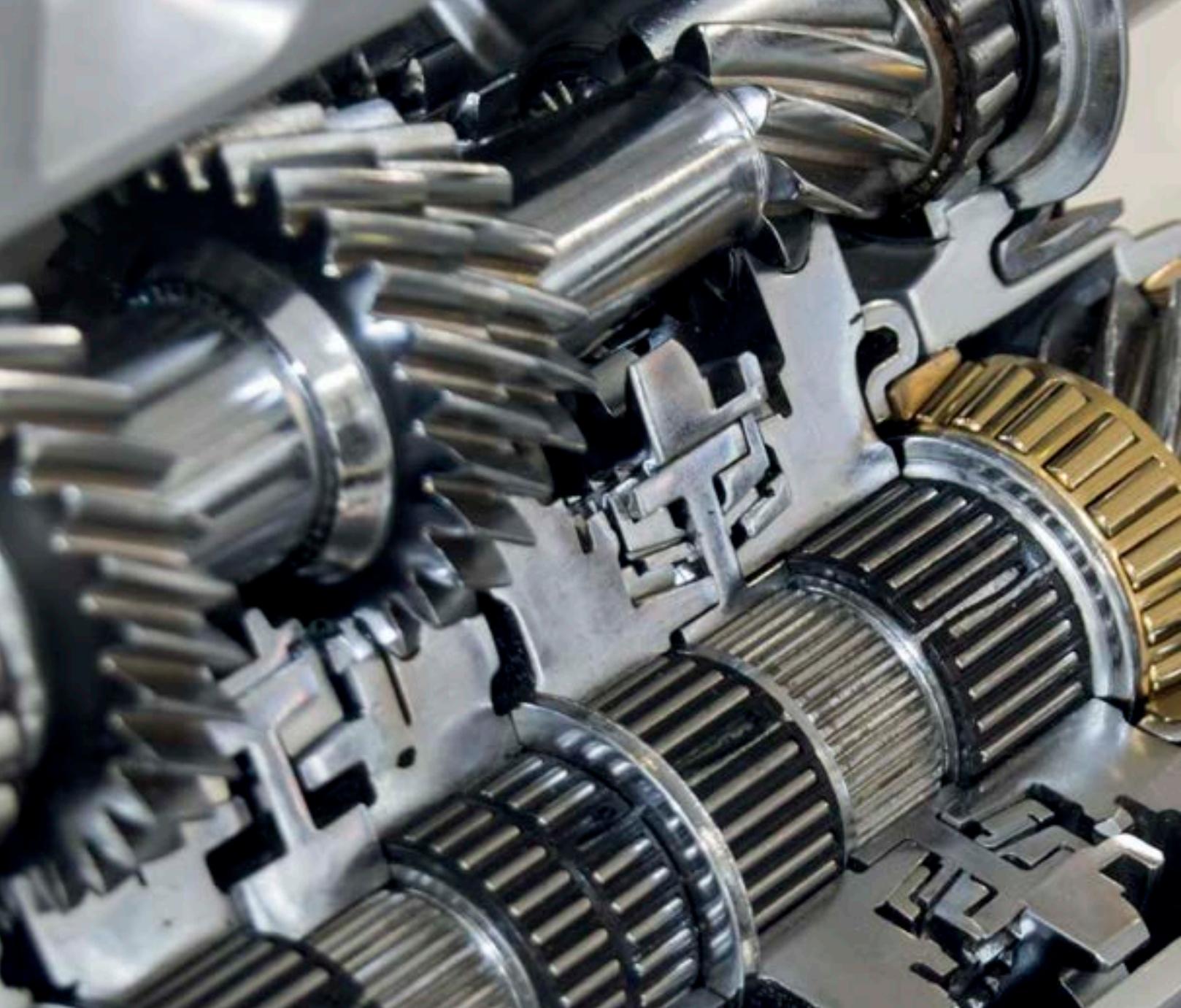
Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Gas Engine Oils for Stationary Gas Engines</b>				
<b>TITAN GANYMET ULTRA</b>	Engine oil for stationary gas engines.	–	2G TA-003 agenitor series 2,3 AGROGEN CATERPILLAR TR 0199-99-12105 INNIO JENBACHER TA 1000-1109 - A, CAT: series 2, 3, 4 (A, B), 6 (C, E) - B, CAT: series 2, 3, 4 (A, B), 6 (C, E) MAN M 3271-4 MTU Onsite Energy Series 400 (E, P, B with SRK), Series 4000 (L32FB, L62FB) MWM TR 0199-99-2105 SEVA TRS-07 SPANNER RE2 TEDOM 61-0-0281.1/L, B, S	–
<b>TITAN GANYMET PLUS</b>	Ultra High Performance Engine Oil, zinc-free, for stationary gas engines.	–	CATERPILLAR TR 0199-99-12105 DREYER & BOSSE INNIO JENBACHER TA 1000-1109 - B: series 2, 3 MTU Onsite Energy Series 400 (B) MWM TR 0199-99-2105 SEVA TRS-07	–
<b>TITAN GANYMET PLUS LA</b>	Ultra High Performance Engine Oil with low sulphated ash content, zinc-free, for stationary gas engines.	–	CATERPILLAR TR 0199-99-12105 DEUTZ TR 0199-99-01213 MWM TR 0199-99-2105 SEVA TRS-07 TEDOM 61-0-0281.1/G, P	CATERPILLAR CUMMINS WAUKESHA
<b>TITAN GANYMET</b>	High Performance Engine Oil for stationary gas engines.	–	ASJA AMBIENTE ITALIA INNIO JENBACHER TA 1000-1109 - C: series 2, 3 MAN M 3271-4 MTU Onsite Energy Series 400 (B) SEVA TRS-07	
<b>TITAN GANYMET LA</b>	High Performance Engine Oil with low sulphated ash content for stationary gas engines.	–	CATERPILLAR TR 0199-99-12105 DEUTZ TR 0199-99-01213 INNIO JENBACHER TA 1000-1109 - A, CAT: series 2, 3, 4 (A, B), 6 (C, E) MAN M 3271-2 MTU Onsite Energy Series 400 (E, P), Series 4000 (L61, L62, L63) MWM TR 0199-99-2105 SEVA TRS-07	CATERPILLAR CUMMINS WAUKESHA

Performance upgrades in Specifications, Approvals and FUCHS Recommendations are highlighted in bold.



## LOWER OPERATING COSTS, HIGHER MACHINE AVAILABILITY

Lubricant is not always the same Lubricant: With the high-performance lubricants from FUCHS, you can rely on highest reliability at all temperatures, lower oil consumption, significant fuel savings and specifically extended oil change intervals. The advantage is obvious: where the engine or gearbox runs more smoothly and reliably, operating costs are reduced, and the availability increased. Challenge us.



## TRANSMISSION FLUIDS

The mining industry presents unique demands and implications for drive-line and enclosed gear applications. With high loads, rapid intermittent shock loading, constant operation, and frequent reversing, these components face extreme stress. Virtually every design type for the transmission of power is utilized in the diverse fleet of equipment used in surface mining.

FUCHS offers a grade for nearly every type of gearbox or transmission application in the surface mining industry, including heavy-duty manual and power-shift transmissions; hoist, drag, propel, and swing gear-cases; final drives and axles. These FUCHS oils are developed specifically for the most advanced gearboxes and transmission designs. They meet the highest standards and specifications, ensuring reliable, continuous operation with low wear and minimal frictional loss.

As a long-standing development partner of the world's leading transmission manufacturers, we provide the latest approvals and specifications. Trust in quality and reliability. Trust in FUCHS to keep your world moving.

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## Transmission Fluids

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Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Gear Oils for Vehicles</b>				
<b>TITAN SUPERGEAR MC SAE 80W-140</b>	Ultra High Performance Gear Oil based on MC-Synthesis for extended oil change intervals.	-	ZF TE-ML 05A, 12M, 16C, 21A (ZF006028)	API GL-4/GL-5 API MT-1 JOHN DEERE JDM J11E OPEL 19 42 386 RENAULT VI SCANIA STO 1:0 VOLVO 97310 ZF TE-ML 08
<b>TITAN SUPERGEAR SAE 80W-90</b>	Ultra High Performance Gear Oil for extended oil change intervals.	API GL-4/GL-5	EvoBus 26.000-025 MAN 342 TYPE M2 ZF TE-ML 05A, 12E, 17B, 19B, 21A (ZF000647)	MIL-L-2105 D VOLVO 97310 NH 520A STEYR B-101
<b>TITAN SUPERGEAR SAE 85W-140</b>	Ultra High Performance Gear Oil for extended oil change intervals.	API GL-4/GL-5	EvoBus 26.000-025 ZF TE-ML 05A, 12E, 16D, 21A (ZF000650)	MIL-L-2105 D VOLVO 97310
<b>TITAN GEAR FD SAE 60</b>	Specialty final drive and axle oil designed to meet Caterpillar specification FD-1	SAE Grade 60 CATERPILLAR FD-1	-	-
<b>TITAN GEAR LS SAE 90</b>	High Performance LS (Limited Slip) hypoid gear oil for axles with or without limited slip differentials.	API GL-5 SAE J306: 85W-90	ZF TE-ML 05C, 16E, 21C (ZF000651)	MIL-L-2105 D FORD M2C104-A JOHN DEERE JDM J11F NH 520B VOLVO 97310 ZF TE-ML 12C
<b>TITAN GEAR MP SAE 80</b>	High Performance Gear Oil for synchronized and non-synchronized manual gearboxes as well as auxiliary drives, axles and differentials in commercial vehicles and passenger cars.	API GL-4	DTFR 13B100 MB-APPROVAL 235.14 ZF TE-ML 17A (ZF000654)	BMW MTF 1 (BMW 81 22 2 339 384) BMW 81 22 9 407 052 BMW 81 22 9 407 053 FORD M2C9008-A MB 235.1 VW TL 726 ZF TE-ML 08
<b>TITAN CYTRAC SL SAE 75W-90</b>	Premium Performance Gear Oil for highly-stressed hypoid axles in commercial vehicles formulated with fully-synthetic base oils. Developed for the longest oil change intervals in commercial vehicle axle drives.	API GL-5	MAN 342 TYPE S1 SCANIA STO 1:0	JOHN DEERE JDM J11E JOHN DEERE JDM J11G MB 235.8 VOLVO 97312 ZF TE-ML 05B, 07, 08, 12B, 16F, 17B
<b>TITAN CYTRAC HSY SAE 75W-90</b>	Premium Performance Gear Oil for commercial vehicle manual transmissions and axle drives formulated with fully-synthetic base oils.	API GL-4/GL-5	EvoBus 26.000-032 EvoBus 26.000-037 ZF TE-ML 05A, 12L, 12N, 16F, 17B, 19C, 21A (ZF000642)	MAN 341 TYPE E3 MAN 341 TYPE Z2 MAN 342 TYPE M3 MAN M 3343 TYPE S JOHN DEERE JDM J11E JOHN DEERE JDM J11G SCANIA STO 1:0 ZF TE-ML 05B, 07, 21B



Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Automatic Transmission Fluids (ATF)</b>				
<b>TITAN ATF 5500</b>	Premium Performance ATF for automatic transmission in motor vehicles. Outstanding base oil quality for optimal cold temperature properties and high ageing stability. Durable friction properties for excellent wet clutch performance. Product dyeing: none.	–	EvoBus 27.000-017 MAN 339 TYPE V1 MAN 339 TYPE V2 MAN 339 TYPE V3 MAN 339 TYPE Z3 MAN 339 TYPE Z12 MB-APPROVAL 236.9 VOITH 150.014524.xx VOLVO 97341 ZF TE-ML 04D, 14C, 16M, 16S, 20C, 25C (ZF001797)	DEXRON III (H) ALLISON TES 295 ALLISON TES 389 IVECO 18-1807 CLASSE AG3/I MAN 339 TYPE Z4 VOITH H55.6336.xx
<b>TITAN ATF 4400</b>	Ultra High Performance ATF based on the sustainable FUCHS Advanced Circular Technology (ACT) specifically formulated for Japanese passenger cars and light commercial vehicles, as well as for several European and American manufacturers. The high torque capacity exceeds the performance of many original fluids. Product dyeing: red.	JASO M315 TYPE 1A	–	DEXRON III (H) BMW MINI 83 22 0 402 413 BMW MINI 83 22 7 542 290 CHRYSLER MS7176E/9602 (ATF +3/+4) DAIHATSU ALUMIX ATF MULTI FIAT 9.55550-AV1/AV4 FORD MERCON FORD MERCON V FORD M2C924-A/M2C922-A1 FORD WSS-M2C919-E FORD WSS-M2C202-B GM 9986195 HONDA ATF Z-I HYUNDAI SP III ISUZU BESCO ATF -II/ATF -III JATCO 3100 PL085/FWD (N402)/JF506E (K17) JWS 3309/TYPE T-IV MAZDA ATF D-II/ATF M-3/M-V MITSUBISHI SP-II/-III MITSUBISHI ATF-J2/SP-II/-III NISSAN MATIC C/D/J SAAB 3309 SUBARU ATF OIL/ATF OIL SPECIAL/ATF HP SUZUKI ATF 3309/3317 TOYOTA TYPE D-2/T/T-II/T-III/T-IV VW G 052 990/055 025
<b>TITAN ATF 4000</b>	Ultra High Performance ATF for use in automatic transmissions as well as other ATF applications. Licensed according to DEXRON III (H). Improved low-temperature shifting compared to DEXRON II. Product dyeing: red.	–	DTFR 13C100 (MB 236.1) DTFR 13C170 MAN 339 TYPE L1 MAN 339 TYPE V1 MAN 339 TYPE Z1 MB-APPROVAL 236.93 VOITH H55.6335.xx VOLVO 97341 ZF TE-ML 04D, 14A (ZF000728)	ALLISON C-4 ALLISON TES 389 BMW 81 22 9 400 272 BMW 81 22 9 400 275 BMW 81 22 9 407 738 BMW 83 22 0 403 248 BMW 83 22 9 407 765 BMW 83 22 9 407 858 BMW 83 22 9 407 859 CAT TO-2 DEXRON III (H) FORD MERCON MB 236.9 OPEL 19 40 707 OPEL 19 40 767 VOLVO 97340 VW TL 521 62 (G 052 162) ZF TE-ML 02F, 03D, 09, 11B, 17C

# MULTIFUNCTIONAL OILS

In the mining industry, there are applications that demand specialized lubricants for specific components, as well as versatile all-rounders: STOU and UTTO products. Developed for use in transmissions and hydraulic systems, these lubricants are also suitable for brakes running in an oil bath (wet brakes).

STOU products go a step further, meeting engine performance specifications. Simply put, a STOU is a UTTO with the added capability of engine performance. The advantages of these all-rounders are clear: they enable real stock rationalization and significantly reduce the risk of incorrect filling.

FUCHS is a true pioneer in the development of UTTO and STOU lubricants, offering a comprehensive product range. These versatile lubricants are designed to meet the rigorous demands of modern mining machinery, ensuring seamless operation and longevity of your equipment. With FUCHS, you can trust in the quality and reliability of our products to keep your mining operations moving efficiently.

At FUCHS, we are committed to advancing technology and innovation in lubrication, continually evolving to meet the needs of our customers. Our expertise and dedication make us the partner of choice for those who demand the best in performance and reliability.



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## Multifunctional Oils

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UTTO Oils for Construction Machinery

24-25

## Multifunctional Oils



Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>UTTO Oils for Construction Machinery</b>				
<b>TITAN UTTO PRO 102</b>	Premium Performance Multifunctional Oil for gears, axles and hydraulic systems with improved wear protection and wide range of application temperatures. Specially developed and approved for VOLVO axles with built-in wet brakes in construction machinery.	API GL-4 SAE J306: 75W-75	VOLVO WB 102	ALLISON C-4 CASE MS 1207/1209/1210 CATERPILLAR TO-2 FORD M2C86-C FORD ESN-M2C134-D JOHN DEERE JDM J20C JOHN DEERE JDM J20D KOMATSU AXO 80 (KES 07.866) KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1145, 1143, 1135 VOLVO WB 101 ZF TE-ML 03E, 05F, 06K, 17E, 21F SAE J300: 0W-20
<b>TITAN UTTO ZF</b>	Super High Performance Gear Oil for ZF axles with limited-slip differentials. Recommended for construction machinery and material-handling vehicles axles.	API GL-4	ZF TE-ML 05F, 06K, 17E, 21F (ZF000661)	VOLVO WB 101 ZF TE-ML 03E




Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>UTTO Oils for Construction Machinery</b>				
<b>TITAN UTTO TO-4 SAE 10W</b>	High Performance multifunctional lubricant for hydraulics in construction machinery.	API GL-4 CAT TO-4	ZF TE-ML 03C (ZF002186)	ALLISON C-4 KOMATSU KES 07.868.1
<b>TITAN UTTO TO-4 SAE 30</b>	Performance multifunctional transmission lubricant for construction machinery.	API GL-4 CAT TO-4	ZF TE-ML 03C, 07F (ZF002185)	ALLISON C-4 ALLISON TES-439 KOMATSU KES 07.868.1
<b>TITAN UTTO TO-4 SAE 5W-30</b>	High Performance multifunctional transmission lubricant for construction machinery.	API GL-4 CAT TO-4		ALLISON C-4 ALLISON TES-439 KOMATSU KES 07.868.1 ZF TE-ML 03C, 07F
<b>TITAN UTTO TO-4 SAE 50</b>	Performance multifunctional transmission lubricant for construction machinery.	API GL-4 CAT TO-4	–	KOMATSU KES 07.868.1
<b>AGRIFARM UTTO MP</b>	Ultra High Performance Multifunctional Oil (UTTO/MFO) for use in transmission and hydraulic systems with integrated wet brakes, clutches and differentials for agricultural and construction machinery.	API GL-4	DANA-OHTM-UTTO VALTRA G2-08 VOLVO WB 101 ZF TE-ML 03E, 05F, 06K, 17E, 21F (ZF002183)	AGCO Powerfluid 821 XL AGCO Q-186 (Whitefarm) ALLISON C-4 CASE MS 1230, 1210, 1209, 1207, 1206 CAT TO-2 CLAAS / LANDINI / SAME-Transmission CNH MAT 3505, 3506, 3509, 3525, 3526, 3540 DIN 51524 : HLP (-D) FNHA-2-C-200.00 / -201.00 FORD M2C48-C3, ESN M2C86-B/C, M2C134-D JOHN DEERE JDM J20C KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1145, 1143, 1141, 1135 NH 410C, 410B SAE J300: 10W-30 SAE J306: 75W-80 SDFG OT 1891 A VALTRA G2-B10

Find the right oil for your vehicle.



It's so simple: at [www.fuchs.com/za](http://www.fuchs.com/za)  
just go to the button "Oil Chooser".  
Then select the type of vehicle and  
hereupon make and model.

**Engine Oils**  
TITAN CARGO SAE 15W-40

**Pin and Bush**  
RENOLIT L LMG 960 EP 1|2

**Hydraulic Oils**  
TITAN UTTO SAE 10W





## PRODUCT FEATURE

### TITAN UTTO PRO 102

Premium Performance Multi-functional Oil for gears, axles and hydraulic systems with improved wear protection and wide range of application temperatures. Specially developed and approved for VOLVO axles with built-in wet brakes in construction machiner.

#### APPLICATION

TITAN UTTO PRO 102 is used in axles, transmissions, and final drives with and without wet brakes or Limited Slip differentials. TITAN UTTO PRO 102 offers an excellent performance when used in wet brakes and reliably suppresses brake noise.

#### TITAN UTTO PRO 102

is miscible and compatible with conventional, branded multifunctional oils. However, mixing with other multifunctional oils should be avoided in order to fully exhaust this product's benefits. A complete oil drain is recommended before converting to TITAN UTTO PRO 102.





# **MOVING YOUR WORLD**

## by drawing on 90 years of experience

Customers love FUCHS lubricants, but especially our intelligent complete solutions. These not only improve friction and wear, but in some cases also the manufacturing process itself. Over 10,000 products are used to meet your specific requirements here. Efficiently and sustainably. For example, with 360-degree project support, digital lubricant monitoring, and sustainable supply processes. You can then rest easy, knowing that everything is working as it should.

### **We offer the whole range of lubricants**

Whether your applications involve the lubrication of crushers, mills, grinding rollers, kilns or excavators, FUCHS is the strong and reliable partner for you, providing solutions for all requirements of the cement industry - including all relevant approvals. We want your machines to perform at high-level – every day. With FUCHS, you can enjoy the full range of high-performance lubricants from a single source – and your plant will also benefit from higher efficiency and productivity.



A high-contrast, close-up photograph of several interlocking metal gears. The lighting is dramatic, highlighting the metallic texture and the circular patterns of the gear teeth. The colors are mostly shades of silver and black, with some yellowish highlights on the left gear.

# INDUSTRIAL OILS

Many processes in the industry work perfectly only with specially tailored lubricant solutions. For example, in the transmission of energy by pressure media (hydraulic fluids), in the gearing of driving forces (gear oils), in the power generation in power plants (turbine oils), or compressed air production (air compressor oils) the respective industrial oils have a significant task. In addition, FUCHS industrial lubricants can make a significant contribution to improved productivity in many other applications.

They can increase efficiency significantly and reduce energy consumption and associated CO<sub>2</sub> emissions. Rapidly biodegradable lubricants are a powerful alternative to hydrocarbon-based lubricants.



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## Industrial Oils

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# HYDRAULIC OILS

In many surface mining operations hydraulic excavators are taking on a greatly expanded role. The demands on these machines are increasing as is their importance to the efficiency and productivity of the mine. In turn the hydraulic oil is a crucial contributor to the efficiency and productivity of the excavator.

The hydraulic systems are always running at high load and often operate at full capacity (low tank volume, high circulation rates, high pressure) and potentially in very hot or very cold environments. In other words, today's hydraulic oils are a more critical component than ever. Standard hydraulic oils cannot reliably meet the requirements placed upon them in all instances. Therefore FUCHS offers a full range of hydraulic oils to meet the specific requirements of our customers operations. From premium performance mineral oils to special synthetics we have your hydraulic oil needs covered. The demand for lower fuel consumption and the associated reduction of emissions, while maintaining the same level of performance, can now only be met by using special hydraulic oils.

Fuel economy and energy saving are becoming more and more important. In the light of this, and in order to meet the special demands of a heavy machinery manufacturer, we have developed specialty hydraulic oil that significantly reduces fuel consumption while at the same time offering high efficiency and longer service life. Less maintenance and lower failure related downtime as well as a broader operating temperature range make a significant reduction in operating costs. You can benefit from our experience too!

# Industrial Oils

**RENOLIN**

Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Zinc-containing Hydraulic Oils</b>				
<b>RENOLIN B Plus Range</b>	Hydraulic oils, based on high-quality, hydrotreated base oils group II. Contains additives for excellent ageing and oxidation stability, zinc-containing AW/EP additive system protects against wear at high pressure and load. Extended oil drain intervals are possible.	DIN 51524-2: HLP; ISO 6743-4: HM; Vickers vane pump	Denison HF-0, HF-1, HF-2; Bosch Rexroth RDE 90245	OUTOTEC; KOMATSU
<b>RENOLIN B HVI Range</b>	Hydraulic and lubricating oils (machine oils) with a high viscosity index and additives to improve ageing stability, corrosion protection and wear protection. The products of the RENOLIN B HVI range are HVLP hydraulic and circulating oils according to DIN 51524-3, mineral oil based, demulsifying and zinc-containing AW/EP additives.	DIN 51524-3, HVLP; ISO 6743-4, HV; ISO 11158; Denison HFO; Bosch Rexroth; Vickers; US Steel; Cincinnati Milacron	–	TEREX
<b>RENOLIN B HVI PLUS Range</b>	Hydraulic and lubricating oils based on high quality hydrotreated base oils (Group II). High viscosity index and excellent shear stability, in combination with extraordinaire oxidation stability, effects in long lifetime. High wear protection by using zinc-containing AW/EP additives, demulsifying.	DIN 51524-3, HVLP; ISO 6743-4, HV; ISO 11158; Denison HFO; Bosch Rexroth; Vickers; US Steel; Cincinnati Milacron	Denison HF-0, HF-1, HF-2	–
<b>Fire-resistant Hydraulic Fluids</b>				
<b>RENOSAFE FireProtect Range</b>	Water-free, fire-resistant hydraulic fluids based on latest ester and additive technology, type HFDU. Highest oxidation and thermal stability, excellent non-ferrous metal compatibility, hydrolytic stability and very robust and reliable wear protection. Multigrade characteristics by high, shear stable viscosity index. Biodegradable acc. to OECD 301 B >60%. Surpasses the requirements on HFDU oils according to ISO 12922.	DIN 51502; HEES, ISO 15380; HFDU according to ISO 12922; Biodegradable acc. to OECD 301 B >60%	–	–
<b>RENOSAFE WG Range</b>	Water glycol based, fire-resistant hydraulic fluids with excellent anti-wear and corrosion inhibitor properties. Provides highest thermal and oxidative stability.	DIN 51502: HFC ISO 12922: HFC	–	–

# Industrial Oils

Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Turbine Oils</b>				
<b>RENOLIN ETERNA Range</b>	Turbine oils of the latest generation for lubrication of gas and steam turbines and turbo compressors (also with gear boxes, FZG ≥ 10). Based on high-quality, hydrocracked base oils. High ageing resistance, excellent protection against sludge formation. Approved by SIEMENS, MAN and many other turbine manufacturers and power station operators.	DIN 51515-1 (TDP) with and without gearbox DIN 51515-2 (TGP) with and without gearbox DIN 51524-2: HLP DIN 51524-3: HPLP – (with exception of the VI) DIN 51517-2 (CL oils: FZG ≥ 10) ISO 7624: pass > 4,000 h	GE GEK 28568 A GE GEK 32568 J GE GEK 101941 A GE GEK 107395 A Siemens TLV 901304 / 901305 Alstom HTGD 90117 V0001W Siemens MAT 812109 MAN Turbo AG – SP10000494596, Germany	–
<b>Screw Compressor Oils</b>				
<b>RENOLIN UNISYN OL Range</b>	Fully-synthetic cooling oils for piston and screw compressors based on polyalphaolefins with excellent oxidation stability, outstanding wear protection, good demulsification and excellent viscosity-temperature behaviour. High viscosity index. Excellent air release. Allow service intervals to be extended.	ISO 6743-3 L-DAA, L-DAB (reciprocating compressors) L-DAG, L-DAH, L-DAJ (rotating compressors); DIN 51506: VDL DIN 51524-2: HLP ; DIN 51524-3: HPLV	–	–
<b>RENOLIN SynAir 46</b>	High performance synthetic air compressor fluid, excellent bio-degradability according to OECD 301C > 60%. Excellent thermal and oxidation stability. Guarantee a reliable corrosion protection and compatibility with elastomers	OECD 301 C > 60% biodegradation	–	–
<b>Piston and Rotary Vane Compressor Oils</b>				
<b>RENOLIN C Range</b>	High viscosity index mineral oils and additives intended for the lubrication of reciprocating piston compressors and rotaryvane and screw compressors. Viscosity grade depends on manufacturer's recommendation.	DIN 51506 (VBL; VCL; VDL); ISO / DP 6521 (DAA; DAB; DAH; DAG)	–	–

# RENOLIN

Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Circulating and Hydraulic Oils</b>				
<b>RENOLIN HO RANGE</b>	Hydraulic oils, based on carefully selected virgin base oils. Contains additives for excellent ageing and oxidation stability, the zinc-containing AW/EP additive system protects against wear at high pressure and load. Extended oil drain intervals are possible.	ISO 6743-4: HL; ISO 6743-6; ISO 12925-1: CKB; DIN 51524-1: HL	–	–
<b>RENOLIN HO V RANGE</b>	Zinc free, high viscosity index hydraulic oils blended from carefully selected virgin base oils in combination with selected anti-wear, anti-rust, anti-oxidant and anti-foam additives.	DIN 51524-2: HLP; DIN 51524-3: HVLP; ISO 6743-4: HM; ISO 6743-4: HV	–	–
<b>Gear Oils</b>				
<b>RENOLIN CLP Range</b>	High-performance gear and circulating oils with good ageing stability and additives to improve cor-rosion protection (also combat steel and non-ferrous metal corrosion caused by moisture). Out-standing antivibration characteristics – good EP / AW performance, excellent scuffing load carrying capacity and protection against micropitting, excellent FE8 roller bearing wear protection, good demulsifying properties, very good foaming behaviour, zinc-free and silicone oil-free.	DIN 51517-3: CLP ISO 6743-6 and ISO 12925-1: CKC / CKD / CKS MP AGMA 9005/E02: EP AIST 224 David Brown S1 53.101	Flender BA 7300, table A Flender GmbH, Revision 16.1 Müller Weingarten AG, Germany DT 55 005, 10/2003 David Brown	OUTOTEC
<b>RENOLIN CLP PLUS Range</b>	High-performance gear and circulating oils offering excellent wear protection, good EP performance and excellent cor-rosion protection. Carefully selected antioxidants guarantee good ageing stability. Special detergent/dispersant additives offer very good cleaning properties and dirt carrying capacity. RENOLIN CLP PLUS oils were developed especially for the extreme conditions (e.g. in surface mining).	DIN 51517-3: CLP; ISO 6743-6 and ISO 12925-1: CKC / CKD / CKSMP; AGMA 9005/E02: EP	Flender BA 7300, table A; CAT:rope shovel gearcase; SEW	OUTOTEC
<b>RENOLIN CLP 1500 PLUS</b>	A special industrial gear oil based on high-quality base oils and synergistic acting additives to improve aging resistance, load carrying capacity and wear protection. Used for all applications in industry where a detergent/dispersant oil of the CLP type according to DIN 51517-3 is recommended.	DIN 51517-3: CLP ISO 6743-6 and ISO 12925-1: CKC / CKD AGMA 9005/E02: EP	–	DIN 51517-3

# RENOLIN

Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Fully Synthetic Gear Oils</b>				
<b>RENOLIN PG Range</b>	Fully-synthetic gear and lubricating oils based on special polyalkylene glycols (PAG) for applications with extreme thermal loads. Very high oxidation and ageing stability, high viscosity index (shear stable), good viscosity-temperature behaviour, excellent load carrying capacity, low coefficients of friction, high FZG, very good pitting and high micropitting resistance, excellent FE8 performance. The oils of the RENOLIN PG series surpass the minimum requirements of CLP-PG lubricating oil. Approved by leading gear box manufacturers.	DIN 51517-3: CLP-PG ISO 6743-6 and ISO 12925-1: CKC / CKD / CKE / CKSMP/ CSPG / CTPG AGMA 9005/E02: EP	Flender GmbH, BA 7300 table A Alpha Getriebbau SEW	-
<b>RENOLIN UNISYN CLP Range</b>	Fully-synthetic industrial gear oils based on innovative polyalphaolefins with very high, natural, shear stable viscosity index and excellent low temperature behaviour. Excellent wear protection, high micropitting resistance and very good corrosion protection.	DIN 51517-3: CLP ISO 6743-6 and ISO 12925-1: CKC / CKD / CKE/ CKSMP AGMA 9005/E02: EP AIST 224  David Brown S1 53.101 FAG requirements: FAG-FE8- Test: stage 1-4 pass (test report is available for ISO VG 320)  SKF requirements: pass (100 °C-test)	Flender BA 7300, table A RENOLIN UNISYN CLP 680: GEB25 / GDY106 Motorized Wheels (2016); CAT:Rope shovel gearcase Bosch Rexroth Chongch Echesa Eickhoff Flender GET Zollern Moventas Renk ZF Winergy Eickhoff SEW David Brown	OUTOTEC; KOMATSU
<b>RENOLIN UNISYN XT Range</b>	Fully-synthetic industrial gear oils based on new, innovative polyalphaolefins with very high, natural, shear stable viscosity index and excellent low temperature behaviour. Excellent wear protection, high micropitting resistance and very good corrosion protection	DIN 51517-3: CLP ISO 6743-6 and ISO 12925-1: CKC / CKD / CKE / CKSMP AGMA 9005/E02: EP AIST 224	Flender GmbH, BA 7300 table A Senvion Liebherr JCB Winergy	-

Maximum machine availability and minimised total cost of ownership are what we strive for. To achieve these goals, we leverage a solution-driven mindset and interdisciplinary knowledge along the entire lifecycle. An approach that enables us to take care of everything from air-leaks to zero-waste policies.







**Pin and Bush**  
RENOLIT L LMG 960 EP 2

# GREASES

Greases are viscous, tough to solid lubricants. By selecting suitable oils, thickeners and additives, the properties of the lubricating greases can be optimally adjusted for the most diverse applications with the corresponding experience and know-how.

For example, there are greases for high or very low temperatures, for applications in vacuum, particularly water-resistant and weatherproof, particularly pressure-resistant or capable of creep or particularly adhesive greases.

With the RENOLIT lubricating greases from FUCHS, you have one of the largest grease ranges on the market - for almost all applications and requirements and for the best possible technical and economical solutions.



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## Greases

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Product name	Description	Applications
<b>Off-Highway Greases</b>		
<b>RENOLIT LUBRENE LMG 960 EP Range</b>	Ultra performance, Lithium heavy duty grease fortified with MoS2 and Graphite.	Heavily loaded Pin and Bushes Slow speed Plain and Anti-Friction Bearings
<b>RENOLIT LUBRENE LX 5M 500 EP2</b>	High performance Lithium Complex grease fortified 5% MoS2	Slow speed Plain and Anti-Friction Bearings requiring high temperature performance
<b>RENOLIT LUBRENE LIM 450 EP</b>	Premium performance Lithium Calcium multipurpose grease fortified with MoS2	Slow to medium speed Plain and Roller bearings operating at medium to high loads
<b>RENOLIT LUBRENE LX 960 EP Range</b>	Extreme performance, Lithium Complex grease with no solid additives	Heavily loaded Plain and Roller Bearings operating at low to medium speeds where solids free grease is required
<b>RENOLIT LUBRENE LI 500 EP2</b>	High performance Lithium multipurpose grease with no solid additives	Medium to highly loaded Plain and Roller Bearings operating at low to medium speeds
<b>RENOLIT LUBRENE MULTI-SERVE OGL Range</b>	Extreme performance, Open Gear Lubricant fortified with solids	Open Gears, Plain Bearings, Wire Ropes
<b>RENOLIT LUBRENE WALK-IN CAM CPD</b>	Ultra performance lubricant designed for walking cam mechanism	Draglines and Open Couplings
<b>Multipurpose Automotive and Industry Greases</b>		
<b>RENOLIT M Range</b>	Premium performance Lithium multipurpose grease	Extreme pressure (EP) grease for medium to high speed roller element or plain bearings
<b>RENOLIT SUPER LUPLEX Range</b>	High performance Lithium Complex grease	Wheel Bearings, Chassis, High Speed Fans, Pumps and Electric Motor Bearings
<b>RENOLIT LUBRENE LX 220 EP2</b>	Premium performance Lithium Complex grease	Medium to high loaded plain and roller bearings operating at low to medium speeds
<b>RENOLIT LUBRENE LX/CA 700 EP2</b>	Ultra performance, Lithium Calcium Complex grease for extreme operation conditions.	Long life extreme pressure (EP) grease for low to medium speed roller element or plain bearings where hot, humid and wet environments are found
<b>RENOLIT LC-WP Range</b>	High performance, Lithium Calcium multipurpose grease fortified with synthetic polymers	Extreme pressure (EP), water resistant grease for low speed roller element or plain bearings
<b>RENOLIT LSTO</b>	Ultra performance, Lithium grease based on PAG base oils	Gear units over a wide temperature range
<b>RENOLIT RED RUBBER GREASE</b>	High performance, non-soap grease for natural and synthetic rubbers	Lubrication of rubber components i.e. Automotive brake assemblies, o-rings, seals, valves etc.
<b>RENOLIT HI TEMP 220</b>	Long Life Lithium Complex grease based on synthetic base oils	Low to high speed roller element or plain bearings operating at elevated temperatures

# RENOLIT

Product name	Description	Applications
<b>Rope Dressing</b>		
<b>RENOLIT LUBRENE WIRE ROPE LUBRICANT</b>	Bituminous based wire rope lubricant	Dragline ropes, Shaft guide ropes, and other rope applications
<b>NOXAL ROPE DRESSING 8 SUPER</b>	Bituminous based wire rope lubricant containing non-flammable volatile solvent	Dragline ropes, Shaft guide ropes, and other rope applications
<b>RENOLIT LUBRENE WIRE ROPE LUBRICANT NF</b>	Non-Fling, Bitumen free wire rope lubricant	Dragline, rope shovels, stage ropes and other rope applications
<b>RENOLIT GC R</b>	High performance aerosol grease spray fortified with solid additives	Gear, chain and rope spray
<b>Plant Processing</b>		
<b>RENOLIT LUBRENE OGL E Range</b>	High performance reopectic grease fortified with solid additives	Open Gears, Shovel Dipper Sticks, Bushings
<b>RENOLIT SO-GFB</b>	High performance soft, stringy and adhesive semi-fluid Sodium based grease	Geared couplings, semi-enclosed gearboxes
<b>RENOLIT LUBRENE TB GREASE</b>	Extreme performance speciality grease	Trunnion or plain bearings in mills
<b>RENOLIT LUBRENE AL CAST GREASE</b>	High temperature, water resistant speciality grease	Slipper pads and lubricated couplings with high centrifugal forces
<b>RENOLIT TUBE MILL 6</b>	High performance block grease	High load, slow speed trunnion bearings
<b>CEPLATTYN GT 10</b>	Ultra performance Open Gear Lubricant fortified with white solids	Heavy duty Open Gears on Kilns, Mills and Driers
<b>CEPLATTYN GT RN</b>	Ultra performance Aluminium Complex grease fortified with solid additives	Running-In lubricant for Open Gears
<b>CEPLATTYN 300</b>	High performance Aluminium Complex grease fortified with solid additives	Primer for large Open Gears and lubrication of Toothed Racks and Sliding Surfaces
<b>CEPLATTYN KG10 HMF Range</b>	Extreme performance High performance Aluminium Complex grease fortified with solid additives	Open Gear Drives in Rotary Kilns, Ball Mills, Dryers and Excavators, Large Chains, Gear Racks and Sliding Surfaces
<b>CEPLATTYN KG 10 LC</b>	Extreme performance open gear lubricant based mineral and synthetic base oils	Complies with ANSI/AGMA 9005-E02/D2
<b>CEPLATTYN HT</b>	High temperature graphite adhesive lubricant	Kiln riding ring bearings, chains and rollers
<b>CEPLATTYN SF Range</b>	Extreme performance open gear lubricant based on synthetic base oils	Open Gear Drives on Mills for process plants
<b>RENOLIT LUBRENE XHT 500</b>	High temperature speciality grease	Slow moving plain and rolling bearings operating at extreme temperatures

Product name	Description	Applications
<b>Assembly Pastes</b>		
<b>RENOLIT ANTI SEIZE PMP</b>	Aluminium based anti-seize compound	Nuts, screws and bolts, steam pipe threads, boiler gaskets, drilling rod threads
<b>RENOLIT COPPER COMPOUND</b>	Copper based anti-seize compound	Nuts, screws and bolts, steam pipe threads, boiler gaskets, exhaust manifolds
<b>RENOLIT DTG BLUE</b>	Extreme performance drill thread grease	Soft and hard rock drilling operations
<b>RENOLIT GR 2 EP</b>	High performance, Lithium grease fortified with Graphite	Drilling rods and sliding surfaces
<b>Specialities</b>		
<b>URETHYN E 2</b>	Ultra performance synthetic based polyurea grease	High speed roller element or plain bearings at elevated temperatures
<b>URETHYN MP2</b>	High performance mineral based polyurea grease	Medium to high speed roller element or plain bearings
<b>STABYL TA</b>	High performance semi-synthetic Lithium based grease	Telescopic booms
<b>LAGERMEISTER XXL</b>	Long life multi purpose grease	High temperature, electric motors, roller element and plain bearings
<b>MOLYPAUL PBC GREASE</b>	Extreme performance anti-seize compound	Threaded Fastenings, Plain Bearings, Pivots, Trips, Slow Moving Mating Surface and Splined Shafts
<b>RENOLIT CSX ULTRA Range</b> <b>NEW</b>	Ultra performance Calcium Sulphonate Complex grease	Heavily loaded Pins and Bushes, Severe Operating Conditions and Slow speed Plain and Anti-Friction Bearings



The importance of choosing the right lubricating grease or multi-service open gear lubricant must never be underestimated. These lubricants are integral components of heavy machinery, particularly for surface mining applications. Bearings—both plain pin & bush type, and rolling element type—and massive open gears are constantly subjected to extremely high load and shock load conditions, constant reversing and oscillating motion, and operating in the most severe environmental conditions.

Subjected to prolonged and continuous exposure to a combination of dust and dirt, water, process minerals contamination, and extremes of hot and cold operating temperatures, this class of lubricants is critical to the protection of your entire surface mining fleet.

## Testimonials

"Our fleet of draglines has been using LUBRENE CAM COMPOUND and MULTI -SERV OGL for the last 19 years, with excellent results. Due to this performance, excellent lives are being obtained and open gears last up to 24 years before replacement."

- Divisional dragline engineer, open Cast Coal Mine in South Africa

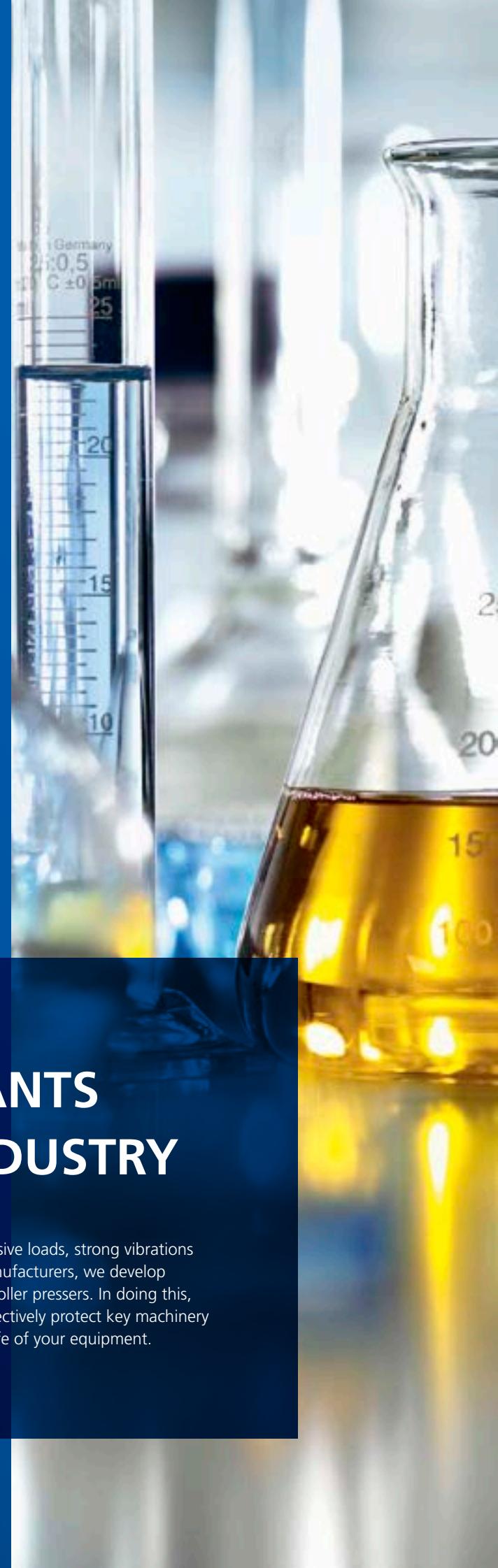
## Testimonials

"It is recommended that RENOLIT LUBRENE LMG be used as the primary grease for our pin and bushes. Field trials and experience confirm it to be a superior grease. Moreover this reflects superior properties outlined in relative performance specifications. From a total cost perspective, reduced failures and longer life from wear components on critical mobile equipment are expected to lead to substantial savings."

- Senior engineer, diamond Mine in South Africa

# SPECIALITY LUBRICANTS FOR THE MINING INDUSTRY

Machines that are used in mining production are subjected to massive loads, strong vibrations and extreme temperatures. Together with gear and machinery manufacturers, we develop innovative speciality lubricants for crushers, mills, rotary kilns and roller pressers. In doing this, we strive for highly application specific solutions which help to effectively protect key machinery parts from wear, increase maintenance intervals and prolong the life of your equipment.



Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Speciality Oils</b>				
<b>RENOLIN ROCKDRILL OIL Range</b>	Mineral oils blended from carefully selected virgin base oils in combination with selected anti-wear, anti-rust, anti-oxidant and tackiness additives.	–	–	–
<b>RENOLIN LUBRENE CORE FLUID</b>	Developed as a environmentally friendly core drilling fluid.	–	–	–
<b>RENOLIN LUBRENE ANTI LEAK GEAR OIL</b>	Manufactured using a unique grease thickener system, which reduces consistency when the product is subjected to mechanical shear (Thixotropic), such as in the meshing teeth of a gear set.	–	–	–

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## Service Products

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Brake Fluids, Degreaser, Fuel Additives, Oil Binder, Cleaner	50

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# SERVICE PRODUCTS

The FUCHS service range of workshop and service products is a comprehensive portfolio of coolants, brake fluids and fuel additives. FUCHS service range offers your vehicle optimum protection at all times.

Our service range products match with nearly every vehicle type and offer the best possible protection together with the latest technology.



Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Antifreezes / Coolants</b>				
<b>FRICOFIN LL 50</b>  <b>NEW</b>	Premium Performance Coolant Ready-Mix based on monoethylene glycol. Free of nitrates, amines, phosphates and silicates with OAT-technology. Offers frost protection down to -40°C. Product dyeing: orange.	ASTM D 3306 TYPE III ASTM D 6210 TYPE III-FF BS 6580:2010	CAT / MWM TR 0199-99-2091 DAF 74002 DEUTZ DQC CB-14 MAN 324 TYPE SNF MB-APPROVAL 326.3 MTU MTL 5048	ASTM D 4985 SAE J1034 Bez.Reg.Arnsbg. E62.12.22.64-2011-1 CATERPILLAR MAK A4.05.09.01 CHRYSLER MS 12106 CNH MAT 3624 CNH MAT 3724 CUMMINS CES 14603, CES 14439 DETROIT DIESEL 93K217 FIAT 9.55523 FORD WSS-M97-B44-D2 GM GMW 3420 (6277M) HYUNDAI MS 591-08 JAGUAR LAND ROVER STJLR.651.5003 JOHN DEERE JDM H5 KOMATSU AF-NAC (ready mix) (07.892 (2009)) LIEBHERR MD 1-36-130 MACK 014 GS 17009 MAZDA MEZ MN 121 D PSA B 71 5110 RENAULT 41-01-001/-S Type D SAAB B 040 1065 SKODA 61-0-0257 TOYOTA TSK 2601G-8A VAUXHALL GME L1301 VOLVO COOLANT VCS (STD 418-0001) VW TL 774-D/F (G12+ / different colour)
<b>FRICOFIN DP 50</b>  <b>NEW</b>	Premium Performance Coolant Ready-Mix based on monoethylene glycol. Free of nitrates, amines and phosphates with Si-OAT-technology. Offers frost protection down to -40°C. Product dyeing: pink-violet	AFNOR NF R 15-601 TYPE 3 ASTM D 3306 TYPE III ASTM D 4985 BS 6580:2010 SAE J814 CUMMINS CES 14603 UNE 26-361-88	DETROIT DIESEL 93K217 DEUTZ DQC CC-14 DTFR 29D120 (MB 326.5) MAN 324 TYPE Si-OAT MB-APPROVAL 326.6 MTU MTL 5048 VW TL 774-G (G12++) VOITH (172.00225040 – Type Si-OAT)	ASTM D 6210 TYPE III IVECO 18-1830 SCANIA TB 1451 VW TL 774-J (G13)
<b>FRICOFIN 50</b>  <b>NEW</b>	Premium Performance Coolant Ready-Mix based on monoethylene glycol. Free of nitrates, amines and phosphates with hybrid technology. Offers frost protection down to -37°C. Product dyeing: blue-green.	AFNOR NF R 15-601 TYPE 3 ASTM D 3306 TYPE III ASTM D 4985 BS 6580:2010 SAE J814	DEUTZ DQC CA-14 DTFR 29D100 (MB 326.0) MB-APPROVAL 326.0 MTU MTL 5048	BMW LC-87 (BMW GS 94000) DAF 74001 GM 1899-M INNIO JENBACHER TA 1000-0201 LIEBHERR TLV 035/TLV 23009 A MAN 324 TYPE NF MAN 324 TYPE NF PRITARDER CAT / MWM TR 0199-99-2091 OPEL/GM B 040 0240 PN-C 40007:2000 VOITH TURBO 172.00225010 VW TL 774-C (G11)

## Service Products

Product name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Brake Fluids</b>				
<b>DOT 4</b>	Premium Performance Brake Fluid for hydraulic brake systems and clutch actuation in passenger cars, trucks and motorcycles.	SAE J1704 ISO 4925 FMVSS 116 DOT 4 SANS 1905:2007	—	—
<b>DOT 3</b>	Brake fluid for hydraulic brake systems and clutch actuation in passenger cars, trucks and motorcycles.	FMVSS Nr. 116 DOT3 SAE 1703 ISO 4925 SANS 1905:2007	—	—
<b>Degreaser</b>				
<b>ENGINE CLEANER</b>	Heavy Duty Solvent Based Engine Cleaner	—	—	—
<b>Cleaner</b>				
<b>RENOCLEAN BIO HD</b>	Solvent free, readily bio degradable, environmentally friendly water based heavy duty cleaner.	—	—	—

## Aerosol



Product name	Description	Applications
<b>Aerosols</b>		
<b>ANTICORIT BW 366</b>	High performance corrosion preventative wax	Approved by: MAN: M 3082 Type D2 Federal Armed Forces: TL 8030-015 (equates to MIL-C-16173D - Grade IV)
<b>ANTICORIT G70</b>	Multi-purpose penetrating and dewatering anti-corrosion lubricant	Ignition systems Electrical Rusty bolts Inside doors Pulley blocks Winches Battery terminals
<b>ANTICORIT G80</b>	Non-flammable multi-purpose penetrating and dewatering anti-corrosion lubricant	Chains Hinges Zippers Castors Springs Linkages Sewing machines
<b>ECOCUT SC 14</b>	Readily biodegradable heavy-duty rock drill and hammer lubricant. Derived from harvestable raw materials. Environmentally harmless.	Tapping, Drilling and Reaming Types of Material: High tensile steel Nickel alloys Titanium Heavy metals Silicon irons
<b>SILKOLENE CONTACT CLEANER</b>	Quick drying, solvent based, robust components cleaner	Precisions parts Dirty points Suspension and Engine components

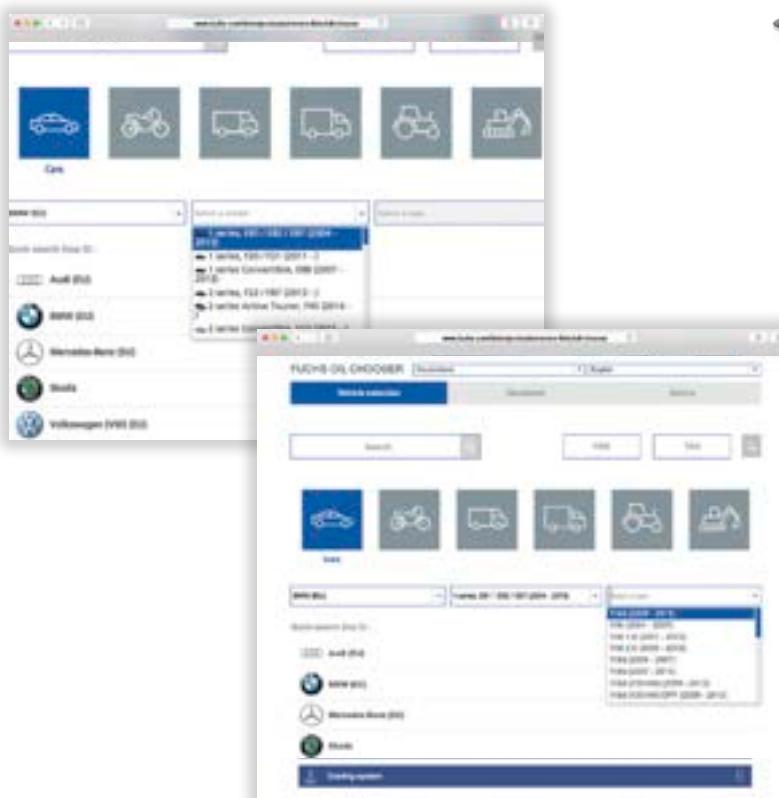
## FUCHS Oil Chooser

### [www.fuchs.com/za](http://www.fuchs.com/za)

Find the right oil  
for your vehicle.



It's so simple: at [www.fuchs.com/za](http://www.fuchs.com/za)  
just go to the button "Oil Chooser".  
Then select the type of vehicle and  
hereupon make and model.



By selecting the type of your model ...

... an overview of all application areas and their  
relevant lubricants and service fluids will appear  
(e.g. engine).

## Notes

## Notes

## Notes

## FUCHS LUBRICANTS SOUTH AFRICA

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 employees will be glad to advise on products for the application in question and also on our full range of lubricants. Moving your world by reducing the friction in your operations.

Contact:



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