

# Lubricants for Construction Companies



LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.





# LUBRICANTS. TECHNOLOGY. PEOPLE.

We focus consistently 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.



## 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:** ISO/TS 16949, DIN EN ISO 14001, BS OHSAS 18001, ISO 50001, KTA 1401

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

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.

# ENSURE YOUR SUCCESS



## Germany's leading OEM

No-one knows the technology behind engines, transmissions and hydraulic systems better than FUCHS. Because as the world's largest independent lubricant manufacturer, we concentrate solely on lubricants. This has made us the leading OEM in the German automotive industry. Because we know the technical challenges, we can always offer you the product with the best performance. For all applications and at any time.



## All lubricants for construction

Whether greases for bearing locations on vehicles and work machines, hydraulic oils for a wide range of applications, or engine and gear oils for all vehicles used on construction and quarry sites – FUCHS can provide you with the optimal lubricant from a single source. This also includes lubricants that allow you to rationalize the oil types you use for a mixed fleet of vehicles. But no matter which FUCHS lubricant you choose, the benefits always pay off. Day after day.

## The benefit for you: lower operating costs

Not all lubricants are the same: high-performance lubricants from FUCHS offer you the highest level of reliability at all temperatures, lower oil consumption, significant fuel savings and specifically extended oil change intervals. The advantage is clear: in companies where engines or transmissions run more easily and reliably, operating costs fall simply due to the reduced consumption of the unit. And, depending on the number of miles traveled, even 1% lower fuel consumption means hundreds of euros less in fuel costs per vehicle every year. Put us to the test.

## TITAN Engine Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Premium Quality</b>				
<b>TITAN CARGO MAXX SAE 5W-30</b>   <b>NEW</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 3575 MAN M 3677 MB-APPROVAL 228.31 MB-APPROVAL 228.51 MTU DDC TYPE 2.1 MTU DDC TYPE 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>   <b>NEW</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	DETROIT DIESEL 93K218 DEUTZ DQC IV-10 LA 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 TYPE 2.1 MTU DDC TYPE 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“
<b>TITAN CARGO SL SAE 5W-30</b>	Ultra High Performance, Extreme Fuel-economy Engine Oil for a variety of commercial vehicle diesel engines, with optimum cold starting and lower oil consumption. Specially developed for extended service intervals.	ACEA E7/E4	DEUTZ DQC IV-10 FORD WSS-M2C212-A1 MACK EO-N MAN M 3277 MB-APPROVAL 228.5 MTU DDC TYPE 3 RENAULT RXD/RLD-2 SCANIA LDF-3 VOLVO VDS-3	CUMMINS CES 20077 IVECO 18-1804 CLASSE TFE SCANIA LDF-2
<b>TITAN CARGO LD3 SAE 10W-40</b>	Ultra High Performance, Fuel-economy Engine Oil for use in SCANIA Euro 6 vehicles. Specially developed for extended service intervals.	ACEA E7/E4	MACK EO-N MAN M 3277 MB-APPROVAL 228.5 RENAULT RLD-2 SCANIA LDF-3 VOLVO VDS-3	API CF
<b>TITAN CARGO MC SAE 10W-40</b>	Ultra High 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	CUMMINS CES 20077/8 DETROIT DIESEL 93K215 DEUTZ DQC III-10 MACK EO-M PLUS MACK EO-N, MAN M 3277 MB-APPROVAL 228.5 MTU DDC TYPE 3 RENAULT RXD/RLD-2 SCANIA LDF-2 VOLVO VDS-3	IVECO 18-1804 SDFG OM-1901A
<b>TITAN CARGO LA SAE 5W-30</b>  <b>NEW</b>	Ultra High 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 E7/E6 API CI-4 JASO DH2	DEUTZ DQC III-10 LA MACK EO-N MAN M 3271-1 MAN M 3477 MB-APPROVAL 228.51 MTU DDC TYPE 3.1 RENAULT RLD-2/RXD/RGD VOLVO VDS-3	CUMMINS CES 20076/7/8



## TITAN Engine Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Premium Quality</b>				
<b>TITAN CARGO SAE 5W-40</b>	Ultra High Performance, Fuel-economy Engine Oil, specially developed for commercial vehicle diesel engines with ex-tended service intervals, exhaust after treatment and turbocharger.	ACEA E9/E7 API CJ-4 CAT ECF-2/ECF-3	DETROIT DIESEL 93K218 DEUTZ DQC II-10 LA FAWDE Q/XC 3135-2007 MACK EO-O PREMIUM PLUS MAN M 3575 MB-APPROVAL 228.31 RENAULT RLD-3 VOLVO VDS-4	CUMMINS CES 20081 DETROIT DIESEL 93K214/93K215
<b>TITAN CARGO SAE 10W-30</b>	Ultra High Performance, Fuel-economy Engine Oil, specially developed for commercial vehicle diesel engines with ex-tended service intervals, exhaust after treatment and turbocharger.	ACEA E9 API CJ-4/SN CAT ECF1-a/ECF-2/ECF-3 JASO DH-2	DEUTZ DQC III-10 LA MACK EO-O PREMIUM PLUS MAN M 3575 MB-APPROVAL 228.31 RENAULT RLD-3 VOLVO VDS-4	CUMMINS CES 20081 MTU DDC TYPE 2.1
<b>TITAN CARGO SAE 15W-40</b>	Ultra High Performance, Fuel-economy Engine Oil for a variety of commercial vehicle diesel engines. Specially developed for VOLVO with extended service intervals, exhaust after treatment and turbocharger.	ACEA E9 API CJ-4/CI-4 PLUS/ CI-4/SM CAT ECF-2/ECF-3 JASO DH-2	CUMMINS CES 20081 DEUTZ DQC III-10 LA DETROIT DIESEL 93K218 MACK EO-O PREMIUM PLUS MAN M 3275-1 MAN M 3575 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4	ALLISON C-4
<b>TITAN UNIMAX ULTRA MC SAE 10W-40</b>	Premium Performance Engine Oil based on MC-Synthesis for all commercial vehicles, off-highway equipment and passenger cars. Substantial rationalisation opportunities for mixed fleets. Prolongation of drain intervals possible with many manufacturers. Good cold starting and lower oil consumption.	ACEA E7/B4/B3/A3 API CI-4, GLOBAL DHD-1 JASO DH-1	DETROIT DIESEL 93K215 DEUTZ DQC III-10 MACK EO-M PLUS MAN M 3275-1 MB-APPROVAL 228.3 MB-APPROVAL 229.1 MB-APPROVAL 235.27 MTU DDC TYPE 2 RENAULT RLD/RLD-2 VOITH-RETARDER „A“ VOLVO VDS-3	ALLISON C-4 CAT ECF-2 CUMMINS CES 20071/2/6/7/8 VW 500 00/501 01/505 00
<b>TITAN UNIMAX PLUS MC SAE 10W-40</b>	Ultra High Performance, Fuel-economy Engine Oil based on MC-Synthesis for all commercial vehicles, off-highway equipment and passenger cars. Substantial rationalisation opportunities for mixed fleets. Prolongation of drain intervals possible with some manufacturers. Good cold starting and lower oil consumption.	ACEA E7/B3/A3 API CH-4	DEUTZ DQC II-10 MAN M 3275-1 MB-APPROVAL 228.3 MB-APPROVAL 229.1 MB-APPROVAL 235.27 MTU DDC TYPE 2 RENAULT RD/RD-2 VOITH-RETARDER „A“ VOLVO VDS-2	ALLISON C-4 CUMMINS CES 20071/2/6/7 MACK EO-M PLUS

## TITAN Engine Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>High Quality</b>				
<b>TITAN TRUCK PLUS SAE 15W-40</b>	Super 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-10 MACK EO-N, MAN M 3275-1 MB-APPROVAL 228.3 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 NH 330H
<b>TITAN TRUCK SAE 15W-40</b>	Super High Performance Engine Oil for a variety of diesel engines. Specially for highly-loaded commercial vehicle diesel engines. Lower oil consumption.	ACEA E7 API CH-4/SJ CAT ECF-1-a	DEUTZ DQC II-10 MACK EO-N, MAN M 3275-1 MB-APPROVAL 228.3 MTU DDC TYPE 2 RENAULT RLD/RLD-2 VOLVO VDS-3	CUMMINS CES 20076/7
<b>TITAN CARGO PRO GAS SAE 5W-30</b>	Premium Performance, Zinc-free, Extreme Fuel-economy Engine Oil for highly-supercharged commercial vehicle gas engines as well as diesel engines with exhaust gas after treatment systems. Specially developed for gas powered engines with and without turbocharger. Optimum cold starting, lower oil consumption and minimized exhaust emissions. For MAN gas engines extended drain intervals are possible depending on engine type.	ACEA E6	MAN M 3271-1 MAN M 3271-3 MAN M 3477 MB-APPROVAL 226.9 MB-APPROVAL 235.28 VOITH-RETARDER „B“	–
<b>TITAN UNIVERSAL HD SAE 15W-40</b>	High Performance Engine Oil for mixed fleets operated under normal conditions. Good performance in normally aspirated and turbocharged diesel engines.	ACEA A3/B3/B4 API SL	DEUTZ DQC I-02 MB-APPROVAL 228.1 MB-APPROVAL 229.1 MTU DDC TYPE 2	ACEA E2 API CG-4/CF MIL-L-2104 E ALLISON C-4 CASE MS 1120 MACK EO-L MAN 271 NH 330G STEYR A-202 VOLVO VDS 501 01/505 00
<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.	–	MAN 270 MB-APPROVAL 228.0 ZF TE-ML 03B (ZF002013)	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 ZF TE-ML 02C
<b>TITAN UNIVERSAL HD SAE 20W-20</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.	–	MB-APPROVAL 228.0 MB-APPROVAL 235.27 VOITH-RETARDER „A“	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MAN 270 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 MB-APPROVAL 228.2 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 ZF TE-ML 02C

## TITAN Engine Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>High Quality</b>				
<b>TITAN UNIVERSAL HD SAE 40</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 MB-APPROVAL 228.2 MB-APPROVAL 235.12 MTU DDC TYPE 2 ZF TE-ML 04B (ZF001190)	ACEA E2 API CF-2/CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MAN 270 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 MB-APPROVAL 228.0	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 ZF TE-ML 02C



## TITAN Gear Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Premium Quality</b>				
<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 SCANIA STO 1:0	MAN 342 TYPE S1	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 ULTRA SYNTH SAE 75W-80</b>	Premium Performance Gear Oil for gear boxes in commercial vehicles, especially developed for ZF heavy duty transmissions with and without interarder. Reduces fuel consumption by improving gearbox efficiency. Suitable for longest oil change intervals.	API GL-4 VOLVO 97307	MAN 341 TYPE Z5 ZF TE-ML 01E, 02E, 16P (ZF001457)	–
<b>TITAN CYTRAC MAN SYNTH SAE 75W-80</b>	Premium Performance Gear Oil for gear boxes in commercial vehicles, specially developed for manual and automatic ZF-gear boxes, formulated with fully-synthetic base oils. Reduces fuel consumption by improving gearbox efficiency. Suitable for the longest oil change intervals and compatible with Carbon-Synchronizers.	API GL-4	MAN 341 TYPE Z4 ZF TE-ML 01L, 02L, 16K (ZF001140)	VOLVO 97307
<b>TITAN CYTRAC LD SAE 75W-80</b>	Ultra High Performance Gear Oil for extended oil change intervals in commercial vehicles fitted with integral interarders or supplementary retarders.	API GL-4	EATON MAN 341 TYPE E3	MAN 341 TYPE Z3 VOLVO 97305 ZF TE-ML 02D, 08
<b>TITAN CYTRAC HSY SAE 75W-90</b>	Ultra High Performance Gear Oil for commercial vehicle manual transmissions and axle drives formulated with fully-synthetic base oils.	API GI-4/GL-5	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
<b>TITAN GEAR HYP LD SAE 80W-90</b>	Super High Performance Gear Oil specially developed for Mercedes-Benz commercial vehicles. Offering enhanced thermal stability and fuel-economy potential.	API GL-5 API MT-1 SAE J2360	DETROIT DIESEL 93K219.02 MAN 342 TYPE M3 MB-APPROVAL 235.20 ZF TE-ML 05A, 12L, 12M, 16B, 17B, 19B, 21A (ZF000645)	MIL-PRF-2105 E ARVIN MERITOR 0-76-D MACK GO-J JOHN DEERE JDM J11E SCANIA STO 1:0 ZF TE-ML 07A



## TITAN Gear Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>High Quality</b>				
<b>TITAN SUPERGEAR MC SAE 80W-90</b>	Super High Performance Gear Oil based on MC-Synthesis for extended oil change intervals.	API GL-4/GL-5 SCANIA STO 1:0	MAN 341 TYPE E2 MAN 341 TYPE Z2 MAN 342 TYPE M2 MB-APPROVAL 235.0 ZF TE-ML 02B, 05A, 12L, 12M, 16B, 17B, 19B, 21A (ZF000722)	CASE MS 1316 FORD M2C197-A JOHN DEERE JDM J11E MAN M 3343 TYPE M NH 520A SDFG OP 1705 STEYR B-101 VOLVO 97310 ZF TE-ML 07, 08
<b>TITAN SUPERGEAR MC SAE 80W-140</b>	Super High Performance Gear Oil based on MC-Synthesis for extended oil change intervals.	API GL-4/GL-5 SCANIA STO 1:0	–	JOHN DEERE JDM J 11 E OPEL 19 42 386 RENAULT VI VOLVO 97310 ZF TE-ML 08
<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	ZF TE-ML 05C, 12C, 16E, 21C (ZF000651)	MIL-L-2105 D FORD M2C104-A JOHN DEERE JDM J11F NH 520B VOLVO 97310
<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	MB-APPROVAL 235.1 ZF TE-ML 17A (ZF000654)	BMW 81 22 9 407 052 BMW 81 22 9 407 053 FORD M2C9008-A VW TL 726 ZF TE-ML 08
<b>TITAN GEAR MP SAE 90</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	–	MAN 341 TYPE E1, Z1 MB 235.1 ZF TE-ML 02A, 16A, 17A, 19A
<b>TITAN GEAR HYP SAE 90</b>	High Performance Gear Oil for highly-stressed differentials in commercial vehicles and passenger cars.	API GL-5	MAN 342 TYPE M1 MB-APPROVAL 235.0 ZF TE-ML 16C, 17B, 19B, 21A (ZF000656)	FORD M2C9102-A JOHN DEERE JDM J11E OPEL 19 42 387 VOLVO 97310 VW TL 727 ZF TE-ML 07, 08

## TITAN Gear Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>High Quality – Multifunctional Gear Oils</b>				
<b>TITAN UTTO PRO</b>	Ultra High Performance Multifunctional Oil for gears, axles and hydraulic systems with improved wear protection and wide range of application temperatures.	API GL-4 SAE J 306: 75W-80	VOLVO WB 101	ALLISON C-4 CASE MS 1207/1209/1210 FORD M2C86-C FORD M2C134-D JOHN DEERE JDM J20C JOHN DEERE JDM J20D KOMATSU AXO 80 (KES 07.866) KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1143, 1135 VOLVO WB 102 ZF TE-ML 03E, 03F, 05F, 06K8
<b>TITAN UTTO PLUS</b>	Ultra High Performance Multifunctional Oil for gears, axles and hydraulic systems on construction and agricultural machinery with or without wet brakes and limited slip differentials.	SAE J300: 5W-30	–	SAE J306: 75W-80 CASE MS 1207/1209/1210 FORD M2C86-C, M2C134-D JOHN DEERE JDM J20C JOHN DEERE JDM J20D JOHN DEERE JDM J14 KOMATSU KES 07.866 KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1143, 1135 STEYR 397.88.0001 VOLVO WB 101



## TITAN / AGRIFARM Gear Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>High Quality – Multifunctional Gear Oils</b>				
<b>TITAN UTTO TO-4 SAE 10W</b>	Super High Performance Multifunctional Lubricant for hydraulics in construction machinery.	API GL-4 CAT TO-4 KOMATSU KES 07.868.1	–	ALLISON C-4 ZF TE-ML 03C
<b>TITAN UTTO TO-4 SAE 30</b>	Super High Performance Multifunctional Transmission Lubricant for construction machinery.	API GL-4 CAT TO-4 KOMATSU KES 07.868.1	ZF TE-ML 03C, 07F (ZF000709)	ALLISON C-4 ALLISON TES-439
<b>TITAN UTTO TO-4 SAE 50</b>	Super High Performance Multifunctional Lubricant for final drives in construction machinery.	API GL-4 CAT TO-4 KOMATSU KES 07.868.1	–	–
<b>TITAN UTTO TO-4 SAE 60</b>	Super High Performance Multifunctional Lubricant for final drives in construction machinery.	API GL-4 CAT TO-4	–	–
<b>AGRIFARM UTTO MP</b>	Super 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 SAE J300:10W-30	ZF TE-ML 03E, 05F, 17E, 21F (ZF001623)	AGCO Powerfluid 821 XL AGCO Q-186 (Whitefarm) ALLISON C-4 CASE MS 1230, 1210, 1209, 1207, 1206 CLAAS/LANDINI/SAME-Transmission CNH MAT 3505, 3506, 3509, 3525, 3526, 3540 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 410B SAE J306: 75W-80 SDFG OT 1891 A VALTRA G2-08, G2-B10 ZF TE-ML 06K



## TITAN Automatic Transmission Fluids

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Premium Quality – Automatic Transmission Fluids (ATF)</b>				
<b>TITAN ATF 5005</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: red.	–	MAN 339 TYPE L1 MAN 339 TYPE V2 MAN 339 TYPE Z2 MB-APPROVAL 236.6 VOITH H55.6336.xx ZF TE-ML 04D, 14B, 16L, 17C (ZF000717)	DEXRON III (H) ALLISON TES 295 ALLISON TES 389 BMW 81 22 9 400 272 BMW 81 22 9 400 275 BMW 83 22 0 403 248 BMW 83 22 9 407 738 BMW 83 22 9 407 807 BMW 83 22 9 407 858 BMW 83 22 9 407 859 FORD MERCON V MAN 339 TYPE Z3 OPEL 19 40 707 VOLVO 97341 VW TL 521 62 (G 052 162) ZF TE-ML 02F, 11B, 14C
<b>High Quality – Automatic Transmission Fluids (ATF)</b>				
<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.	–	ALLISON C-4 ALLISON TES 389 DEXRON III (H) MAN 339 TYPE L1 MAN 339 TYPE V1 MAN 339 TYPE Z1 MB-APPROVAL 236.1 MB-APPROVAL 236.9 VOITH H55.6335.xx VOLVO 97341 ZF TE-ML 04D, 14A (ZF000728)	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 9 407 807 BMW 83 22 9 407 858 BMW 83 22 9 407 859 CAT TO-2 FORD MERCON OPEL 19 40 707 OPEL 19 40 767 VW TL 521 62 (G 052 162) ZF TE-ML 02F, 03D, 09, 11B, 17C
<b>TITAN ATF 3000</b>	Super High Performance DEXRON II (D) ATF for automatic transmissions in commercial vehicles, machinery and passenger cars according to manufacturer's documentation. Product dyeing: red.	–	MAN 339 TYPE L2 MAN 339 TYPE V1 MAN 339 TYPE Z1 MB-APPROVAL 236.1 VOITH H55.6335.xx ZF TE-ML 04D, 14A (ZF000720)	DEXRON II (D) ALLISON C-4 BMW 81 22 9 400 272 BMW 81 22 9 400 275 BMW 81 22 9 407 738 CAT TO-2 FORD MERCON FORD M2C185-A FORD M2C138-CJ FORD M2C166-H FORD M2C9010-A OPEL 19 40 700 OPEL 19 40 707 RENK-DOROMAT ZF TE-ML 02F, 03D, 09, 11A, 17C
<b>TITAN ATF 10</b>	High Performance ATF for transmissions, power steering systems and hydraulic drives which require a GM-specification TYPE A, Suffix A fluid. Product dyeing: red.	–	MB-APPROVAL 236.2	TASA MAN 339 TYPE A



## TITAN / RENOLIN / PENTOSIN Hydraulic Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Premium Quality – Hydraulic Oils</b>				
<b>TITAN HYD MR 530 MC</b>	Ultra High Performance Multigrade Hydraulic Oil for construction machinery as well as diverse motor vehicle applications.	HVLPD covers SAE 5W to 30 or ISO VG 22-68 (100)	–	–
<b>RENOLIN XtremeTemp</b>	High Performance Hydraulic Oil based on the latest hydrogenated base oil. Especially recommended if a low starting viscosity at low temperatures and simultaneously at operating temperature a stable lubrication is to be ensured. Due to the excellent shear stability, this large viscosity range is guaranteed over the entire period of use. In addition, the oil change intervals can be extended and fuel economy can be realized.	DIN 51524-3 ISO 11158-HV	DIN 51524-3 (2006): HVLP ISO 6743-4: HV DENISON HF-0-T6H20C: Hybridpumpe BOSCH REXROTH TEREX VICKERS 35VQ-25/V104C: VANE PUMPS US STEEL 127, 136 CINCINNATI MILACRON P68, P69, P70	–
<b>RENOLIN XtremeTemp Plus</b>	Like RENOLIN XtremeTemp with additives to reduce stick-slip.	DIN 51524-3 ISO 6743-4: HV	DIN 51524-3 (2006): HVLP ISO 6743-4: HV DENISON HF0-T6H20C: Hybridpumpe BOSCH REXROTH TEREX VICKERS 35VQ-25/V104-C: VANE PUMPS US STEEL 127, 136 CINCINNATI MILACRON P68, P69, P70	–
<b>High Quality – Hydraulic Oils</b>				
<b>TITAN HYD 1030</b>	Super High Performance Multigrade Hydraulic Oil for general machinery and motor vehicle applications.	HVLP according to DIN 51524-3 HV according ISO 11158	DENISON HF 0	CASE MS 1216
<b>RENOLIN LIFT</b>	Special Hydraulic Oils for elevators and hydraulic conveyors. Reliably combat stick-slip, especially at high loads and low speeds.	DIN 51524: HLPD ISO 6743-4: HM	–	–
<b>Premium Quality – Central Hydraulic Fluids</b>				
<b>PENTOSIN CHF 115</b> <b>NEW</b>	Premium Performance Power Steering and Central Hydraulic Fluid with a wide application and approval profile for various manufacturers. Product dyeing: green.	DIN 51524 T3 ISO 7308 FORD M2C204-A	CHRYSLER MS-11655B MAN M 3289 MB-APPROVAL 345.0 PSA 5712710 ZF TE-ML 02K (ZF000832) VW TL 52 146 (G 002 000)	BENTLEY JNV862564F BMW 81 22 9 407 758 BMW 82 11 1 468 041 BMW 83 29 0 429 576 FENDT X 902 011 622 OPEL B 040 0070 PORSCHE 000 043 203 33 SAAB 3032 380 VOLVO 1161529

## RENOLIT Greases

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Premium Quality</b>				
<b>RENOLIT CA-LZ</b> Also available in spray cans as RENOLIT UNIMAX LZ.	Long-term, Tacky Grease based on a special calcium soap with excellent water resistance, for the lubrication of construction and agricultural machinery, NLGI 2, -30°C to +120°C.	KP 2 K-30 ISO-L-X-CCHB 2	–	–
<b>RENOLIT LZR 2 H</b>	Highly Adhesive, Premium Performance-quality, Long-life EP Grease based on lithium soap for all plain and roller bearings as well as central lubrication systems in commercial vehicles and general machinery. Excellent corrosion protection even in the presence of saltwater, NLGI 2, -30°C to +140°C.	KP 2 N-30 ISO-L-X-CDIB 2	–	Central lubrication system of BAIER & KÖPPEL LINCOLN and SKF Lubrication Solutions
<b>RENOLIT FAP 502</b>	Lithium-/Calcium Soap-based EP Grease with high base oil viscosity for highly loaded plain and roller bearings with low speeds, NLGI 2, -20°C to +140°C.	KP 2 N-20 ISO-L-X-BDEB 2	–	–
<b>RENOLIT LX-PEP 2</b> Also in NLGI grade 1-2 and 3 available.	Special Grease based on lithium complex soaps for long-life applications. Good corrosion protection, thermally and mechanically stable, specially suitable for wheel bearings of cars and trucks, -30°C to +150°C.	KP 2 N-30 ISO-L-X-CDEB 2	MAN 284 Li-H 2 MB-APPROVAL 265.1 SCHAEFFLER DB-Kenndatenblatt 873 499 ZF TE-ML 12 VW TL 52147X INTERPRELISE	–
<b>RENOLIT HI-TEMP 220</b> Also available in base oil viscosities of 100 mm <sup>2</sup> /s and 460 mm <sup>2</sup> /s at 40°C.	Synthetic EP Special Grease based on lithium complex soap. Good low temperature properties and excellent corrosion protection. Temperature range -40°C to +140°C. For the lubrication of plain and roller bearings over a wide temperature range, e.g. electric motor bearings, wheel bearings and cardan shafts.	KPHC 2 N-40 ISO-L-X-DDFB 2	–	–
<b>RENOLIT JP 1619</b>	Synthetic Special Grease based on lithium soap. Excellent low temperature and good EP properties. Temperature range -50°C to +120°C. For the lubrication of plain and roller bearings, joints of construction machinery and centred double universal joints at low temperatures. Also suitable for the use in central lubrication systems.	–	DANA SPICER	–
<b>RENOLIT POLAR BLACK</b>	Fully Synthetic Special Grease based on lithium soap for the lubrication of high loaded plain and roller bearings. All-season grease for construction and mining machines, NLGI 1-2, -50°C to +140°C.	–	–	–
<b>RENOLIT PU-FH 300</b>	High Temperature Grease based on polyurea thickener. Excellent corrosion protection and good EP properties. Temperature range -20°C to +180°C. For the lubrication of thermally stressed plain and roller bearings, e.g. asphalt pavers.	–	–	–
<b>RENOLIT CX-HT 2</b> Also available for use in FUCHS system grease guns. Also in NLGI grade 0 available.	Heavy Duty Grease based on calcium sulphate complex soap containing MoS <sub>2</sub> and graphite for the lubrication of highly stressed plain bearings at high temperatures. Excellent protection against corrosion and wear. Lubrication of open gear systems and gear rims, NLGI 2, -20°C to +200°C, also available in spray cans as RENOLIT UNILOAD.	–	–	–



## RENOLIT Greases

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>High Quality</b>				
<b>RENOLIT LZR 000</b>	Semi-fluid Grease for central lubrication systems of commercial vehicles and gearboxes in municipal machinery (observe manufacturer's recommendations), NLGI 00-000, -40 °C to +110 °C	ISO-L-X-DBIB 00-000 GP 00-000 G-40	MAN 283 Li-P 00/000 MB-APPROVAL 264.0	Commercial central lubrication system of LINCOLN and SKF Lubrication Solutions (for trucks)
<b>RENOLIT MP PLUS</b> Only available for use in FUCHS system grease guns.	High Performance Multipurpose EP Grease for plain and roller bearings with excellent adhesion, good corrosion protection and very good ageing stability, NLGI 2, -30 °C to +120 °C.	KP 2 K-30 ISO-L-X-CCEB 2	–	–
<b>RENOLIT 283 EP2</b>	EP Multipurpose Grease with good low temperature properties. Temperature range -35 °C to +120 °C.	KP 2 K-30 ISO-L-X-CCEB 2	MB-APPROVAL 267.0	–
<b>RENOLIT FEP 2</b> Also in NLGI 1 and 2-3 available.	EP Multipurpose Grease with good corrosion protection and load carrying capacity. Working temperature range from -20 °C to +140 °C.	KP 2 N-20 ISO-L-X-BDEB 2	–	–
<b>RENOLIT FLM 2</b> Also available for use in FUCHS system grease guns. Also in NLGI grade 0 available.	EP Grease based on lithium soap and mineral oil, containing molybdenum disulphide (MoS <sub>2</sub> ). For the lubrication of commercial vehicles and machinery. NLGI 2, -30 °C to +140 °C.	KPF 2 N-30 ISO-L-X-CDEB 2	MAN 285 Li-PF 2	–
<b>RENOLIT DURAPLEX EP 2</b> Also available for use in FUCHS system grease guns. Also in NLGI grade 1 and 3 available.	EP High Temperature Multipurpose Grease for the long-term lubrication of plain and roller bearings, such as vehicle clutch-release bearings, highly-stressed construction machinery bearings, etc., NLGI 2, -30 °C to +160 °C.	–	–	–



## MAINTAIN Specialties

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>High Quality – Brake Fluids</b>				
<b>MAINTAIN DOT 5.1</b>	Ultra High Performance Brake Fluid for hydraulic brake systems and clutch actuation in passenger cars, trucks and motorcycles.	FMVSS NR. 116 DOT 5.1 ISO 4925 CLASS 3/4/5.1 SAE J 1703/J 1704	–	–
<b>MAINTAIN DOT 4</b>	Super High Performance Brake Fluid for hydraulic brake systems and clutch actuation in passenger cars, trucks and motorcycles.	FMVSS NR. 116 DOT 3/DOT 4 ISO 4925 CLASS 3/4 SAE J1703/J1704	–	FORD M6C62-A FORD M6C9103-A NH 800 A OPEL 19 42 421
<b>Premium Quality – Antifreeze</b>				
<b>MAINTAIN FRICOFIN LL</b>	Premium Performance Coolant Additive based on monoethylene glycol. Free from nitrite, amine, phosphate and silicates. Product dyeing: orange.	ASTM D 3306 TYPE I BS 6580: 2010 SAE J814 FORD WSS-M97-B44-D JAGUAR LAND ROVER STJLR.651.5003 FVV Heft R443 KSM 2142 UNE 26-361-88/1	Bez.Reg.Arnsbg. E62.12.22.64-2011-1 CAT/MWM TR 0199-99-2091 DAF 74002 DEUTZ DQC CB-14 MAN 324 TYPE SNF MB-APPROVAL 325.3	AFNOR NFR 15-601 TYPE I ASTM D 4985 SAE J1034,ADE (ATLANTIS DIESEL ENGINES) BAIC GROUP FOTON Q-FPT 2313005-2013 CATERPILLAR MAK A4.05.09.01 CHRYSLER MS 12106 CNH MAT 3624 CUMMINS (ISBe engines at DAF and LEYLAND) CUMMINS CES 14603, CES 14439 DETROIT DIESEL 93K217 FIAT 9.55523 GM GMW 3420 (6277M) HYUNDAI MS 591-08 JASO M325, JIS K2234 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 VW TL 774-D/F (G12+ / different colour) VOLVO 128 6083/002 (=VOLVO TRUCKS, VOLVO CE, from MY 2005, VOLVO PENTA from MY 05/2010)
<b>MAINTAIN FRICOFIN HDD</b>	Ultra High Performance Engine Coolant concentrate based on monoethylene glycol. Free of amines and phosphates with low silicate technology. Product dyeing: yellow.	ASTM D 3306 TYPE I ASTM D 4985 ASTM D 6210 TYPE I-FF ASTM D 7583 AS/NZS 2008: 2004 TYPE A BS 6580: 2010 SAE J814 CHRYSLER MS 7170 CHRYSLER MS 9769 DETROIT DIESEL 75E298 FORD ESE-M97B44-A FORD ESE-M97B18-C FORD WSS M97B51-A1 GM 1825M & GM 1899M JIS K2234 MACK 014GS17004	MTU MTL 5048	CASE MS 1710 CAT EC-1 CUMMINS CES 14603 DETROIT DIESEL 93K217 (NOAT) FREIGHTLINER 48-2288D IVECO 18-1830 KENWORTH RO26-170-97 MAN 324 TYPE N NEW HOLLAND WSN-M97B18-D PACCAR CS 0185 TOYOTA Motor Corp. RP 329

## MAINTAIN/RENOLIN Specialties

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Premium Quality – Antifreeze/Fuel Additives</b>				
<b>MAINTAIN FRICOFIN</b>	Super High Performance Coolant Additive based on monoethylene glycol. Free from nitrite, amine and phosphate. Product dyeing: blue-green.	AFNOR NFR 15-601 TYPE 1 ASTM D 3306 TYPE I ASTM D 4985 BS 6580: 2010 CUNA NC 956-16 SAE J814 SAE J1034	BMW GS 94000 (BMW N 600 69.0) CAT/MWM TR 0199-99-2091 DEUTZ DQC CA-14 GE JENBACHER TA 1000-0201 MAN 324 TYPE NF MAN 324 TYPE NF PRITARDER MB-APPROVAL 325.0 MTU MTL 5048 PN-C 40007:2000 VOITH TURBO 172.00225010	DAF 74001 LIEBHERR TLV 035/ TLV 23009 A OPEL/GM B 040 0240 VW TL 774-C (G 11)
<b>MAINTAIN DIESEL EFFECT</b>	Super High Performance Fuel Additive improving diesel fuel properties for singular as well as constant treatment.	–	–	–
<b>MAINTAIN WINTERFIT</b>	Super High Performance Diesel Fuel and Heating Oil additive to prevent waxing and plugging at low temperatures.	–	–	–
<b>Hydraulic-, Compressor- and General Lubricating Oils</b>				
<b>RENOLIN COOL +</b>	Air Compressor Fluid of the latest generation based on semi-synthetic basic oils for oil-injected screw compressors. RENOLIN COOL + is specially designed for extreme working conditions, at high loads and temperatures. Compared to mineral oil-based products, RENOLIN COOL + provides an extension up to a doubling of service life and service intervals. Great viscosity-temperature behavior (shear-stable, high natural viscosity index).	Exceeds requirements acc. to DIN 51506: VDL	–	–
<b>RENOLIN UNISYN OL</b>	Synthetic EP/Air and Gas Compressor Oil based on PAO, for turbo, screw, multi-cell and piston compressors. The RENOLIN UNISYN OL products have a high shear, stability natural viscosity index. Compared to mineral oils, the starting viscosity is very much lower, the oil circulation is faster. At high working temperatures an optimum lubrication film is formed. Due to the selected synthetic base oils, a drop in viscosity as a result of shear losses, as is the case with mineral oils with viscosity index improvers (VI-improvers) will not occur. The capacity of air separation is excellent.	DIN 51506: VDL ISO DP 6521 (Entwurf): L-DAB, L-DAH/L-DAG DIN 51524-2: HLP, DIN 51524-3 HVLP	–	–
<b>RENOLIN B 46 CP</b>	High Quality AW-Hydraulic Oil for highly stressed hydraulic systems, especially for the use in concrete pumps. In addition, RENOLIN B 46 CP is a universal demulsifying hydraulic and lubricating oil for circulation and bearing lubrication for use in all mobile and stationary hydraulic systems.	DIN 51524-2: HLP ISO 11158: HM	DENISON HF 1, HF 2, HF 0 VICKERS I 286-S, M 2950-S CINCINNATI MACHINE P68, P69, P70 US STEEL 127, 136 PUTZMEISTER WN 022521	–

## PLANTO Specialties

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>High Quality – Brake Fluids</b>				
<b>PLANTO MOT SAE 5W-40</b>	Super High Performance SAE 5W-40 Diesel Engine Oil. Rapidly biodegradable and specially recommended for use with alternative diesel fuels.	–	–	ACEA E3/B3 API CG-4 KUBOTA SISU ZETOR
<b>Environmentally Friendly Gear Oils/Hydraulic Oils</b>				
<b>PLANTO HYTRAC PLUS</b>	Biodegradable Super High Performance Multifunctional Oil (UTTO) for tractor gearboxes with or without wet brakes.	SAE 10W-30 SAE 80	–	Several makes of commercial equipment
<b>Environmentally Friendly Hydraulic Oils</b>				
<b>PLANTOSYN 3268*</b> EU Ecolabel DE/027/149	Environmentally Friendly, HVI Multi-grade Hydraulic Oil with high temperature stability based on fullysaturated, synthetic esters (HEES), rapidly biodegradable according to OECD 301 B >60 %, awarded with the European Ecolabel.	ISO 15380: HEES DIN 51524-3: HVLP DIN 51519: ISO VG 46	FENDT O&K BAUMASCHINEN ECO-Label	BOSCH REXROTH AG CAT BF-1 KRAMER ALLRAD PALFINGER SAUER DANFOSS TIMBERJACK VALMET/KOMATSU FOREST PONSSE
<b>PLANTOSYN 3268 ECO*</b> EU Ecolabel DE/027/160	Environmentally Friendly, HVI Multi-grade Hydraulic Fluid based on partly saturated synthetic esters (HEES), universally applicable, rapidly biodegradable according to OECD 301 B >60 %, awarded with the European Ecolabel.	DIN 51519: ISO VG 46 ISO 3448: ISO VG 46 DIN 51524-2: HLP DIN 51524-3: HVLP ISO 15380: HEES	FENDT: KDM 28/2006	–
<b>Environmentally Friendly Greases</b>				
<b>PLANTOGEL ECO 2 S* (based on synthetic esters)</b> EU Ecolabel DE/027/114	Environmentally Friendly, Readily Biodegradable EP Grease based on lithium soap and synthetic esters for the lubrication of plain and roller bearings. Good pumpability in central lubrication systems, awarded with the European Ecolabel, NLGI 2, -40°C to +120°C.	–	–	–



Further biodegradable specialties can be found in the FUCHS PLANTO brochure.

### 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.

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FUCHS 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.

Contact:



**FUCHS SCHMIERSTOFFE GMBH**  
Friesenheimer Straße 19  
68169 Mannheim/Germany  
Phone: +49 621 3701-0  
Fax: +49 621 3701-7000  
E-mail: [zentrale@fuchs-schmierstoffe.de](mailto:zentrale@fuchs-schmierstoffe.de)  
[www.fuchs.com/de/en](http://www.fuchs.com/de/en)

**Export Division**  
Friesenheimer Straße 19  
68169 Mannheim/Germany  
Phone: +49 621 3701-1713  
Fax: +49 621 3701-7713  
E-mail: [export@fuchs-schmierstoffe.de](mailto:export@fuchs-schmierstoffe.de)  
[www.fuchs.com/de/en](http://www.fuchs.com/de/en)