



Tractor axles, transmissions for harvesters and final drives

List of lubricants TE-ML 21

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1. Approved lubricant classes

Product groups	Lubricant classes ⁽¹⁾	
	First fill ⁽²⁾	Service fills ⁽³⁾
Axles APL-300, APL-700 AS-2000, AS-3000	21C	21C / 21F / 21G
TerraSteerAxle (TSA), TerraDriveAxle (TDA)	21C / 21F / 21G	21C / 21F / 21G
Kintra KC	21A / 21C / 21F / 21G	21A / 21C / 21F / 21G
Transmissions for harvesters 2MD40 3MD30, 3MD35, 3MD40	21A	21A
ZF-half-shafts (planetary final drives) for tractor transmissions Eccom, Terramatic, Terrapower, T-7000 and S-Matic	21A / 21C / 21G	21A / 21C / 21G
Final drives for harvesters S-800, S-950, S-1050, S-1250	21A	21A

The list of lubricants TE-ML 21, **edition 01.10.2018** replaces all previous editions. The current list can be requested from any ZF after-sales service center or accessed on the Internet under www.zf.com/lubricants.

ZF Friedrichshafen AG
D-88038 Friedrichshafen
www.zf.com/contact

2. Oil change intervals








2.1 Initial oil change interval

Lubricant classes	21A	21C	21F / 21G
Product groups	Initial oil change interval		
Axles APL, AS, TSA, TDA	-	1000 h	1000 h
Axles Kintra KC	100 h	100 h	100 h
Transmissions for harvesters	500 h	-	-
ZF-half-shafts	500 h	500 h	500 h
Final drives for harvesters	500 h	-	-

2.2 Subsequent oil change interval

Lubricant classes	21A	21C	21F / 21G
Product groups	Subsequent oil change interval		
Axles APL, AS, TSA, TDA	-	1000 h	1500 h
Axles Kintra KC	500 h	500 h	500 h
Transmissions for harvesters	1000 h	-	-
ZF-half-shafts	1000 h	1000 h	1000 h
Final drives for harvesters	1000 h	-	-

3. Hydraulic fluids

Product group	Lubricant classes for service fills ⁽¹⁾	Use at outside temperatures above
Brake hydraulics, hydraulic differential lock (DHL) and steering	21L	- 40°C 
	lubricants in accordance with JDM J20D	- 40°C 
	21F (only lubricants in accordance with JDM J20C), 21G	- 30°C 
	21K	- 30°C 
	21M (ISO VG 32)	- 40°C  + 20°C
	21M (ISO VG 46)	- 10°C 
	21M (ISO VG 68)	- 5°C 

4. Greasing points

Product groups	Lubricating grease
All	Lithium saponified multipurpose grease of NLGI class 2 which is mixable with mineral oil (grease code KP2K-30 in acc. with DIN 51825 or ISO-L-XCCHB2 in accordance with ISO 6743-9). Lubricating interval acc. to corresponding lubricating and maintenance specifications.

5. Explanation of footnotes and comments

Footnotes

- (1) **Refer to the following pages for approved commercial products.**
- (2) First filling: The lubricant classes listed are compulsory for initial fillings of transmissions as well as fillings during transmission break-in (under 1,000h).
- (3) Service filling: The lubricant classes listed are compulsory for service oil changes according to the oil-change intervals mentioned under Section 2.2.

Comments

Additives of any kind added **later** to the oil change the oil in a manner that is unpredictable, and they are therefore not permitted. No liability of any kind will be accepted by ZF for any damage resulting from the use of such additives.

6. Lubricant classes and approved trade products

Lubricant class 21A

Gear oil

Viscosity grades: SAE 75W-90 / 75W-110 / 75W-140 / 80W-90 / 80W-110 / 80W-140 / 85W-90 / 85W-110 / 85W-140 / 90

Manufacturer (21A)

ADDINOL LUBE OIL GMBH, LEUNA/DE
 ADDINOL LUBE OIL GMBH, LEUNA/DE
 ADDINOL LUBE OIL GMBH, LEUNA/DE
 ADDINOL LUBE OIL GMBH, LEUNA/DE
 ARAL AG, BOCHUM/DE
 ARAL AG, BOCHUM/DE
 ARAL AG, BOCHUM/DE
 ARAL AG, BOCHUM/DE
 ARAL AG, BOCHUM/DE
 ARAL AG, BOCHUM/DE
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE
 BAHRAIN PETROLEUM COMPANY, AWALI/BH
 BAHRAIN PETROLEUM COMPANY, AWALI/BH
 BAHRAIN PETROLEUM COMPANY, AWALI/BH
 BAHRAIN PETROLEUM COMPANY, AWALI/BH
 BASF SE, LUDWIGSHAFEN/DE
 BASF SE, LUDWIGSHAFEN/DE
 BAYWA AG MÜNCHEN, MÜNCHEN/DE
 BAYWA AG MÜNCHEN, MÜNCHEN/DE
 BP PLC., LONDON/GB
 BP PLC., LONDON/GB
 BP PLC., LONDON/GB
 BP PLC., LONDON/GB
 BP PLC., LONDON/GB
 BP PLC., LONDON/GB
 BP PLC., LONDON/GB
 BUCHER AG LANGENTHAL, LANGENTHAL/CH
 BUCHER AG LANGENTHAL, LANGENTHAL/CH
 BUCHER AG LANGENTHAL, LANGENTHAL/CH
 BUCHER AG LANGENTHAL, LANGENTHAL/CH
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 BUCHER AG LANGENTHAL, LANGENTHAL/CH
 BUCHER AG LANGENTHAL, LANGENTHAL/CH
 BUCHER AG LANGENTHAL, LANGENTHAL/CH
 CASTROL LTD, LONDON/GB
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 CASTROL LTD, LONDON/GB
 CEPSA COMERCIAL PETRÓLEO S.A.U., MADRID/ES
 CEPSA COMERCIAL PETRÓLEO S.A.U., MADRID/ES
 CEPSA COMERCIAL PETRÓLEO S.A.U., MADRID/ES
 CEPSA COMERCIAL PETRÓLEO S.A.U., MADRID/ES
 CEPSA COMERCIAL PETRÓLEO S.A.U., MADRID/ES
 CEPSA COMERCIAL PETRÓLEO S.A.U., MADRID/ES
 CHAMPION CHEMICALS N.V., HEMIKSEM/BE
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
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 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CLASS KGAA MBH, HARSEWINKEL/DE
 CONDAT LUBRIFIANTS, CHASSE SUR RHONE/FR
 CYCLON HELLAS SA, ATHENS/GR
 DAF TRUCKS NV, EINDHOVEN/NL
 DE OLIEBRON BV, ZWIJNDRECHT/NL
 DE OLIEBRON BV, ZWIJNDRECHT/NL
 DE OLIEBRON BV, ZWIJNDRECHT/NL

Trade name (21A)

ADDINOL GETRIEBEÖL GH 85W-90
 ADDINOL GETRIEBEÖL GH 80W-90
 ADDINOL GETRIEBEÖL GX 80W-90 ML
 ADDINOL GETRIEBEÖL GH 75 W 90 SL
 ARAL GETRIEBEÖL BS 75W-90
 ARAL GETRIEBEÖL SNA-D 80W-90
 ARAL GETRIEBEÖL SNA-E 75W-90
 ARAL GETRIEBEÖL EP PLUS 80W-90
 ARAL GETRIEBEÖL HYP 85W-90
 ARAL GETRIEBEÖL HYP 85W-140
 PENNASOL HYPOID GEAR OIL GL 5 SAE 90
 PENNASOL MULTIGRADE HYPOID GEAR OIL GL 5 SAE 80W90
 SPAREX EP 90 GL-5
 SPAREX EP 90 GL-5
 SPAREX EP 80W-90 GL-5
 SPAREX EP 85W-140 GL-5
 EMGARD HP 75W-90
 EMGARD UAF 7105
 TECTROL MULTIGEAR HYP 90
 TECTROL MULTIGEAR PLUS 8090
 BP ENERGEAR HT 80W-90
 BP ENERGEAR HYPO XL 80W-90
 BP ENERGEAR SHX-M 75W-90
 BP ENERGEAR HYPO 90
 BP ENERGEAR HYPO 85W-140
 BP ENERGEAR HYPO 80W-90
 UNISYNT ZX SAE 75W90
 GEAR ZX TP SAE 80W/90
 GEAR ZX TP SAE 80W/140
 UNIVERSAL SAE 80W/90
 GEAR OIL HYPOID SAE80W/90
 PENTA TL SAE 75W/90
 UNIVERSAL CT SAE 80W/90
 CASTROL SYNTRAX UNIVERSAL 80W-90
 CASTROL AXLE LONG DRAIN 80W-90
 CASTROL SYNTRAX LONG LIFE 75W-90
 CASTROL AXLE EPX 90
 CASTROL AXLE EPX 85W-140
 CASTROL AXLE EPX 80W-90
 SYNTRAX UNIVERSAL PLUS 75W-90
 CASTROL AXLE EPX 80W-90
 CASTROL TRANSMAX AXLE LONG LIFE 75W-90
 CASTROL TRANSMAX UNIVERSAL LL 80W-90
 CASTROL TRANSMAX UNIVERSAL LL 75W-90
 CASTROL TRANSMAX AXLE EPX 85W-140
 CASTROL TRANSMAX AXLE EPX 80W-90
 CASTROL TRANSMAX AXLE EPX 85W-90
 CEPSA TRANSMISIONES EP 80W-90
 CEPSA TRANSMISIONES EP 85W-140
 CEPSA TRANSMISIONES EP FE+LD 75W-90
 CEPSA TRANSMISIONES EP 90
 MAN SUPER AXLE 3343 75W-90
 MAN SUPER AXLE 342-M2
 CHAMPION OEM SPECIFIC 75W90 GL 5
 HYPOID LD SAE 85W-90
 GEARTEX EP-B 85W-90
 GEARTEX EP-C 80W-90
 GEARTEX EP-C 85W-140
 MULTIGEAR 80W-90
 MULTIGEAR S 75W-90
 MULTIGEAR PREMIUM EP SAE 85W-140
 MULTIGEAR EP SAE 90
 MULTIGEAR S 75W-140
 MULTIGEAR EP-5 SAE 80W-90
 DELO GEAR EP-5 SAE 85W-140
 DELO GEAR EP-5 SAE 80W-90
 DELO GEAR TDL 80W-90
 GEARTEX EP-5 85W-90
 GEARTEX EP-5 80W-90
 GEARTEX EP-5 85W-140
 DELO SYN-TDL 75W-90
 DELO GEAR CGA SAE 80W-90
 DELO GEAR CGA SAE 80W-90
 CLAAS AGRISHIFT MT 80W-90
 GEAR TXS 75W90
 GEAR EP GL-5 80W-90
 DAF SUPER 80W-90
 TOR SUPER GEAR OIL 80W90
 TOR UNI GEAR LD 75W90
 TOR UNI GEAR 75W110 LD

ZF approval number

ZF000555
 ZF000671
 ZF000672
 ZF002260
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 ZF003438
 ZF003442
 ZF002088
 ZF000829
 ZF001604
 ZF002125
 ZF000963
 ZF000964
 ZF000968

Manufacturer (21A)

MOOVE LUBRICANTS, GRAVESEND/GB
 MOOVE LUBRICANTS, GRAVESEND/GB
 MORRIS LUBRICANTS, SHREWSBURY/GB
 MORRIS LUBRICANTS, SHREWSBURY/GB
 MOTUL SA, AUBERVILLIERS/FR
 MOTUL SA, AUBERVILLIERS/FR
 NIS AD, NOVI SAD/RS
 NIS AD, NOVI SAD/RS
 NIS AD, NOVI SAD/RS
 OILFINO MINERALÖL GMBH, PRISDORF/DE
 OOO "LLK-INTERNATIONAL", MOSCOW/RU
 OOO "LLK-INTERNATIONAL", MOSCOW/RU
 OOO "LLK-INTERNATIONAL", MOSCOW/RU
 OOO "LLK-INTERNATIONAL", MOSCOW/RU
 OOO "LLK-INTERNATIONAL", MOSCOW/RU
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 OOO "LLK-INTERNATIONAL", MOSCOW/RU
 OOO "LLK-INTERNATIONAL", MOSCOW/RU
 OPET FUCHS MADENI YAG. SAN. VE TIC. A.S., IZMIR/TR
 ORLEN OIL SP. Z O.O., KRAKOW/PL
 ORLEN OIL SP. Z O.O., KRAKOW/PL
 OY TEBOIL AB, HELSINKI/FI
 OY TEBOIL AB, HELSINKI/FI
 OY TEBOIL AB, HELSINKI/FI
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT
 PANOLIN AG, MADETSWIL/CH
 PANOLIN AG, MADETSWIL/CH
 PANOLIN AG, MADETSWIL/CH
 PANOLIN AG, MADETSWIL/CH
 PANOLIN AG, MADETSWIL/CH
 PANOLIN AG, MADETSWIL/CH
 PAZ LUBRICANTS & CHEMICALS, HAIFA/IL
 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA
 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA
 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA
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 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA
 PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR
 PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR
 PETROGAL S.A., LISBOA/PT
 PETROGAL S.A., LISBOA/PT
 PETROGAL S.A., LISBOA/PT
 PETROGAL S.A., LISBOA/PT
 PETROGAL S.A., LISBOA/PT
 PETROGAL S.A., LISBOA/PT
 PETROL OFISI A.S., ISTANBUL/TR
 PETROL OFISI A.S., ISTANBUL/TR
 PETROL OFISI A.S., ISTANBUL/TR
 PETROMIN CORPORATION, JEDDAH/SA
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
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 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PHI OIL GMBH, ST. GEORGEN/AT
 PHI OIL GMBH, ST. GEORGEN/AT
 PRISTA OIL HOLDING EAD, RUSE/BG
 PRISTA OIL HOLDING EAD, RUSE/BG
 QATAR LUBRICANTS COMPANY, DOHA/QA
 QATAR LUBRICANTS COMPANY, DOHA/QA
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
 RN-LUBRICANTS, LLC, MOSCOW/RU
 RN-LUBRICANTS, LLC, MOSCOW/RU
 RN-LUBRICANTS, LLC, MOSCOW/RU
 SASOL OIL, RANDBURG/ZA

Trade name (21A)

COMMA PRO EP 80W-90
 COMMA PRO EP 75W-90 TDL
 EP 80W-90 GEAR OIL
 EP 85W-140
 MOTUL TRANS MB 85W-90
 MOTUL GEAR SYNTH TDL 75W-90
 NISOTEC HIPO LD SAE 80W-90
 NISOTEC HIPO LD ZF SAE 80W-90
 NISOTEC HIPO SINT TDL SAE 75W-90
 OILFINO VARIUS G 500 80W-90
 LUKOIL TRANSMISSION TM-4/5 75W-90
 LUKOIL TRANSMISSION TM-5 SAE 90
 LUKOIL TRANSMISSION TM-5 85W-90
 LUKOIL TRANSMISSION TM-5 SAE 80W-90
 LUKOIL TRANSMISSION TM-5 SAE 85W-90
 LUKOIL TRANSMISSION TM-5 SAE 90
 LUKOIL TRANSMISSION TM-5 SAE 85W-140
 LUKOIL TRANSMISSION B 85W-90
 LUKOIL TRANSMISSION UNI 80W-90
 LUKOIL TRANSMISSION UNI S 75W-90
 LUKOIL TRANSMISSION UNI 80W-90
 LUKOIL TRANSMISSION MN 75W-90
 LUKOIL TRANSMISSION GL-5 80W-90
 LUKOIL TRANSMISSION GL-5 90
 LUKOIL TRANSMISSION GL-5 85W-140
 OPET FULLGEAR HYP EP MT 90
 PLATINUM GEAR LL 80W-90
 PLATINUM GEAR GL-5 80W-90
 TEBOIL HYPOID SAE 75W-90
 TEBOIL HYPOID SAE 80W-90
 TEBOIL HYPOID SAE 80W-140
 GLOBAL MULTIGEAR TS SAE 75W/90
 GLOBAL GEAR SA SAE 85W-140
 PANOLIN TOPGEAR 80W/90
 PANOLIN SUPER DUTY SYNTH 75W/140
 PANOLIN SUPER DUTY SYNTH 75W/90
 PANOLIN SUPER DUTY 90
 PANOLIN SUPER DUTY 80W/90
 PAZ GEAR LD 80W-90
 TRAXON 80W-90
 TRAXON 85W-140
 TRAXON SYNTHETIC 75W-90
 TRAXON XL SYNTHETIC BLEND 80W-140
 TRAXON 80W-90
 TRAXON 85W-140
 LUBRAX TRM 5 SAE 85W-140
 LUBRAX TRM 5 SAE 90
 GALP TRANSOIL HP 80W90
 GALP TRANSOIL HP 85W140
 GALP TRANSVEX TDL 85W140
 GALP TRANSVEX TDL 75W90
 GALP TRANSOIL HP XT 80W90
 MAXIGEAR EP-X 80W-90
 MAXIGEAR D 75W-90
 MAXIGEAR TECH EP-X 80W-90
 PETROMIN GEAR BOX Z12 SAE 80W90
 ARBOR TRW 90 (SAE 80W-90)
 ARBOR TRW 140 (SAE 85W-140)
 AMBRA HYPOIDE 90 (SAE 80W-90)
 AKCELA GEAR 135H EP (SAE 80W-90)
 AKROS GEAR EP 90 (SAE 80W-90)
 AMBRA HYPOIDE 140 (SAE 85W-140)
 AKCELA GEAR 135H EP (SAE 85W-140)
 TUTELA TRANSMISSION W90/LA (SAE 80W-90)
 TUTELA TRANSMISSION W90/M-DA (SAE 80W-90)
 TUTELA TRANSMISSION W140/M-DA (SAE 85W-140)
 TUTELA TRANSMISSION X-ROAD (75W-140)
 TUTELA TRANSMISSION STARGEAR AX (SAE 85W-90)
 TUTELA TRANSMISSION STARGEAR AX-ED (SAE 75W-90)
 TUTELA TRANSMISSION FE-AXLE (SAE 75W-90)
 ARBOR TRW 90 (SAE 80W-90)
 TUTELA TRANSMISSION STARGEAR AX-ED (SAE 75W-90)
 UNIGEAR GOLD 75W90
 UNIGEAR GOLD 75W90
 PRISTA EP 90
 PRISTA EP 80W-90
 QALCO SUPER GEAR OIL ZX 85W-140
 QALCO SUPER GEAR OIL ZX 80W-90
 RAVENOL HYPOID EPX GETR.-OEL 80W-90 GL5
 RAVENOL TDG 75W-110
 REPSOL CARTAGO EP SAE 90
 REPSOL CARTAGO FE LD 75W90
 REPSOL CARTAGO EP MULTIGRADO SAE 80W90
 REPSOL CARTAGO EP MULTIGRADO SAE 85W140
 REPSOL CARTAGO LD 80W90
 REPSOL CARTAGO LD 85W140
 ROSNEFT KINETIC HYPOID 80W-90
 ROSNEFT KINETIC HYPOID 85W-140
 ROSNEFT KINETIC HYPOID 85W-90
 SYN GEAR DIFFERENTIAL OIL 75W-90

ZF approval number

ZF003324
 ZF003420
 ZF000275
 ZF001670
 ZF000398
 ZF000825
 ZF000490
 ZF001362
 ZF002038
 ZF000741
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 ZF001015
 ZF001230
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 ZF001141
 ZF001142
 ZF003335
 ZF003336
 ZF003337
 ZF000702

Lubricant class 21C

Gear oil with limited-slip-additives

Viscosity grades: SAE 75W-90 / 75W-110 / 75W-140 / 80W-90 / 80W-110 / 80W-140 / 85W-90 / 85W-110 / 85W-140 / 90

Manufacturer (21C)

ADDINOL LUBE OIL GMBH, LEUNA/DE
 ADDINOL LUBE OIL GMBH, LEUNA/DE
 AGCO GMBH, MARKTOBERDORF/DE
 AGCO GMBH, MARKTOBERDORF/DE
 ARAL AG, BOCHUM/DE
 ARAL AG, BOCHUM/DE
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE
 BAYWA AG MÜNCHEN, MÜNCHEN/DE
 BELGIN MADENI YAGLAR TIC. VE SAN. A.S., KOCAELI/TR
 BUCHER AG LANGENTHAL, LANGENTHAL/CH
 CASTROL LTD, LONDON/GB
 CASTROL LTD, LONDON/GB
 CASTROL LTD, LONDON/GB
 CASTROL LTD, LONDON/GB
 CASTROL LTD, LONDON/GB
 CEPSA COMERCIAL PETRÓLEO S.A.U., MADRID/ES
 CHAMPION CHEMICALS N.V., HEMIKSEM/BE
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CLASS KGAA MBH, HARSEWINKEL/DE
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 FINKE MINERALÖLWERK GMBH, 27374 VISSELHÖVEDE/DE
 FUCHS PETROLUB SE, MANNHEIM/DE
 GAZPROMNEFT-LUBRICANTS, MOSCOW/RU
 GAZPROMNEFT-LUBRICANTS, MOSCOW/RU
 GAZPROMNEFT-LUBRICANTS, MOSCOW/RU
 GEORG OEST MINERALÖLWERK GMBH & CO.KG, FREUDENSTADT/DE
 GRUPA LOTOS S.A., GDANSK/PL
 GRUPA LOTOS S.A., GDANSK/PL
 GS CALTEX CORPORATION, SEOUL/KR
 GULF OIL INTERNATIONAL, MUMBAI/IN
 HINDUSTAN PETROLEUM CORPORATION LTD., MUMBAI/IN
 INA MAZIVA LTD., ZAGREB/HR
 INDIAN OIL CORPORATION LTD, MUMBAI/IN
 INDIAN OIL CORPORATION LTD, MUMBAI/IN
 JOHN DEERE, MOLINE, ILLINOIS/US
 JOHN DEERE, MOLINE, ILLINOIS/US
 JOHNAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL
 LIEBHERR HYDRAULIKBAGGER GMBH, KIRCHDORF/DE
 LIQUI MOLY GMBH, ULM/DE
 MEGUIN GMBH & CO. KG, SAARLOUIS/DE
 MOL-LUB KFT, ALMASFUZITO/HU
 MOL-LUB KFT, ALMASFUZITO/HU
 MORRIS LUBRICANTS, SHREWSBURY/GB
 NILS SPA, BURGSTALL/IT
 NORTHLAND PRODUCTS COMPANY, WATERLOO, IOWA/US
 NORTHLAND PRODUCTS COMPANY, WATERLOO, IOWA/US
 OILFINO MINERALÖL GMBH, PRISDORF/DE
 OOO "LLK-INTERNATIONAL", MOSCOW/RU
 OOO "LLK-INTERNATIONAL", MOSCOW/RU
 ORLEN OIL SP. Z O.O., KRAKOW/PL
 ORLEN OIL SP. Z O.O., KRAKOW/PL
 ORLEN OIL SP. Z O.O., KRAKOW/PL
 OY TEBOIL AB, HELSINKI/FI
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT
 PANOLIN AG, MADETSWIL/CH
 PETROGAL S.A., LISBOA/PT
 PETROL OFISI A.S., ISTANBUL/TR
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
 PHI OIL GMBH, ST. GEORGEN/AT
 PTT OIL AND RETAIL BUSINESS PLC., BANGKOK/TH
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
 RN-LUBRICANTS, LLC, MOSCOW/RU
 RN-LUBRICANTS, LLC, MOSCOW/RU
 SASOL OIL, RANDBURG/ZA
 SAVITA OIL TECHNOLOGIES LIMITED, MUMBAI/IN
 SAVITA OIL TECHNOLOGIES LIMITED, MUMBAI/IN
 SINOPEC LUBRICANT CO., LTD., BEIJING/CN
 SK LUBRICANTS, SEOUL/KR
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR

Trade name (21C)

ADDINOL GETRIEBEÖL GH 85W-90 LS
 ADDINOL GETRIEBEÖL GH 80W-90 LS
 VALTRA AXLE LS 85W-90
 FENDT SUPER TRANS LS 85W-90
 ARAL GETRIEBEÖL BS-LSX 75W-140
 ARAL GETRIEBEÖL HYP LS 85W-90
 PENNASOL LIMITED SLIP HYPOID GEAR OIL LS SAE 90
 TECTROL MULTIGEAR LS 90
 BELGEAR LS 85W90
 MOTOREX UNIVERSAL LS SAE 90
 CASTROL SYNTRAX LIMITED SLIP 75W-140
 CASTROL AXLE Z LIMITED SLIP 90
 CASTROL AXLE Z LIMITED SLIP 85W-90
 CASTROL TRANSMAX LIMITED SLIP LL 75W-140
 CASTROL TRANSMAX LIMITED SLIP Z 85W-90
 CEPASA AURIGA LS PLUS 80W-90
 CHAMPION OEM SPECIFIC 80W90 LS GL 5
 GEAR OIL ZF SAE 80W-90
 GEARTEX LS 80W-90
 GEARTEX LS 85W-90
 GEARTEX LS SAE 85W-140
 DELO SYN-GEAR XS 75W-140
 CLAAS AGRISHIFT BLS 90
 MOBILUBE LS 85W-90
 GEARLUBE VS 500
 AVIATICON HYPOID LS 90
 FUCHS TITAN GEAR LS SAE 90
 G-TRUCK LS 80W-90
 G-TRUCK LS 85W-140
 G-TRUCK LS 85W-90
 OEST GETRIEBEÖL HYPOID LS 90
 LOTOS TITANIS LS GL-5 80W-90
 LOTOS TITANIS LS GL-5 SAE 85W-140
 DOOSAN LS GEAR OIL 80W90
 GULF GEAR LS 90
 HP GEAR OIL ZFL 80W 90 LS
 INA HYPENOL GTL LS 90
 SERVO GEAR SUPER LS 90
 SERVO GEAR SUPER LS 80W-90
 JOHN DEERE GL-5 GEAR LUBRICANT W/LS ADD 80W-90
 JOHN DEERE GL-5 GEAR LUBRICANT W/LS ADD 85W-140
 Q8 T 45 LS SAE 90
 LIEBHERR GEAR BASIC 90 LS
 LIQUI MOLY HYPOID-GETRIEBEÖL PLUS GL 5 LS 85W-90
 MEGOL HYPOID-GETRIEBEÖL AXLE LS SAE 85W-90
 MOL HYKOMOL LS 85W140
 MOL HYKOMOL LS 85W90
 TERRAIN LS 80W-90
 ALGOL HYPOID LS 90
 POSI-GRIP JDZF 80W90
 POSI-GRIP JDZF 85W140
 OILFINO VARIUS G 400LS 85W-90
 LUKOIL TRANSMISSION LS 85W-90
 LUKOIL TRANSMISSION LS 80W-90
 PLATINUM GEAR LS 80W-90
 PLATINUM AGRO LS 80W-90
 PLATINUM GEAR LS 85W-140
 TEBOIL HYPOID LS 80W-90
 UNIVERSAL GEAR EP LS SAE 85W/90
 PANOLIN SUPER DUTY LS 90
 GALP TRANSOIL HP LS 90
 MAXIGEAR EP-X 85W-90LS
 AMBRA AXF 80W-90 (SAE 80W-90)
 AKCELA AXLEPOWER (SAE 80W-90)
 AKROS AXLEGEAR 80W-90 (SAE 80W-90)
 TUTELA TRANSMISSION W90/LS (SAE 80W-90)
 ARBOR TTF (SAE 80W-90)
 SUPERGEAR BRONZE 85W90 LS
 PTT LIMITED SLIP (SAE 80W-90)
 RAVENOL SPERRDIFF.-GETR.-OEL LS 90
 REPSOL CARTAGO EP AUTOBLOCANTE SAE 80W90
 TNK TRANS GIPOID LS 80W-90
 TNK TRANS GIPOID LS 85W-90
 SASOL DIFFERENTIAL OIL LIMITED SLIP 80W-90
 SAVSOL AUTOGEAR 85W140 LIMITED SLIP GL5
 SAVSOL AUTOGEAR 90 LIMITED SLIP GL-5
 SINOPEC GREATWALL ZLS GL-5 85W/90
 SK ZIC G-5 LSD 80W-90
 SRS WLOLIN RSH
 TOTAL DYNATRANS DA 80W-90
 TOTAL DYNATRANS DA 85W-140
 TOTAL DYNATRANS LS 80W-90

ZF approval number

ZF000629
 ZF000703
 ZF003466
 ZF003467
 ZF000140
 ZF000465
 ZF000844
 ZF001167
 ZF002257
 ZF000727
 ZF000269
 ZF000307
 ZF002044
 ZF002141
 ZF002178
 ZF001050
 ZF003555
 ZF000787
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 ZF000810
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 ZF002109
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 ZF001004
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 ZF001180
 ZF000981
 ZF000761
 ZF000791
 ZF000700
 ZF001857
 ZF001898
 ZF000127
 ZF003340
 ZF000442
 ZF001255
 ZF001512
 ZF001545

Manufacturer (21C)

TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
UNIL OPAL, SAUMUR/FR
VALVOLINE CUMMINS PVT LIMITED, GURGAON/IN
VALVOLINE EUROPE, DORDRECHT/NL
WOLF OIL CORPORATION N.V., HEMIKSEM/BE
YACCO SAS, ST PIERRE LES ELBEUF/FR

Trade name (21C)

ELF TRACTELF BLS 80W-90
GULF LS REAR AXLE 80W-90
TOTAL DYNATRANS DA 80W-90
GEAR AB-EP 85W90
GEAR DURA 80W90 LS
VALVOLINE HEAVY DUTY AXLE OIL PRO 80W-90 LS
WOLF OFFICIALTECH 80W90 LS GL 5
BVX LS 200 80W-90

ZF approval number

ZF001546
ZF001548
ZF002309
ZF000526
ZF001465
ZF001996
ZF003552
ZF001614

Manufacturer (21F)

SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SINOPEC LUBRICANT CO., LTD., BEIJING/CN
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR
 VALVOLINE CUMMINS PVT LIMITED, GURGAON/IN
 VALVOLINE EUROPE, DORDRECHT/NL

Trade name (21F)

SHELL SPIRAX S4 TXM
 SHELL SPIRAX S4 TXM
 SHELL SPIRAX S4 TXM
 SHELL SPIRAX S6 TXME
 SHELL SPIRAX S4 TXM
 SHELL SPIRAX S4 TXM
 SINOPEC GREATWALL UTTO
 SRS HYDROFLUID N
 TOTAL DYNATRANS MPV
 ELF TRACTELF BF 16
 TOTAL DYNATRANS LS 20W-40
 TOTAL DYNATRANS MPWB
 TOTAL DYNATRANS MPX
 VALVOLINE UTF PREMIUM
 UNITRAC 80W

ZF approval number

ZF000357
 ZF000358
 ZF000359
 ZF001295
 ZF001613
 ZF003325
 ZF000105
 ZF000827
 ZF000540
 ZF001317
 ZF001346
 ZF001539
 ZF002222
 ZF002218
 ZF002041

Lubricant class 21G

Premium universal axle and transmission oil

Manufacturer (21G)

SINOPEC LUBRICANT CO., LTD., BEIJING/CN
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

Trade name (21G)

SINOPEC GREATWALL HD DRIVE AXLE OIL
ZF-POWERFLUID PLUS
ZF-POWERFLUID C-PLUS

ZF approval number

ZF002162
ZF001021
ZF002087

Lubricant class 21K

Engine oil

Viscosity grades: SAE 10W, 10W-30, 10W-40

in accordance with Specification

API CD/CE/CF-4/CF/CG-4/CH-4/CI-4/CI-4 Plus/CJ-4

or SF/SG/SH/SJ/SL/SM

or ACEA, categories A, B, E

Note:

All trade products which satisfy the above specifications may be used. There will be no product listing.

Lubricant class 21L

Automatic Transmission Fluid (ATF) based on mineral base fluids according to former Dexron IID, IIIF, IIIG or IIIH specification by General Motors.

Note:

All trade products which satisfy the above specifications may be used. There will be no product listing.

Lubricant class 21M

Mineral oil-based hydraulic oil HLP in accordance with DIN 51524-2 or mineral oil-based hydraulic oil HVLP in accordance with DIN 51524-3.

Viscosity grades: ISO VG 32 / 46 / 68

Note:

All mineral oil-based gear oils which satisfy the above specifications may be used. There will be no product listing.