



**Tractor axles, transmissions for harvesters and final drives**

**List of lubricants TE-ML 21**

<b>Table of contents</b>	<b>Page</b>
<a href="#">1. Approved lubricant classes</a> .....	1
<a href="#">2. Oil change intervals</a> .....	2
<a href="#">2.1 Initial oil change interval</a> .....	2
<a href="#">2.2 Subsequent oil change interval</a> .....	2
<a href="#">3. Hydraulic fluids</a> .....	2
<a href="#">4. Greasing points</a> .....	2
<a href="#">5. Explanation of footnotes and comments</a> .....	3
<a href="#">6. Lubricant classes and approved trade products</a> .....	4

**1. Approved lubricant classes**

<b>Product groups</b>	<b>Lubricant classes <sup>(1)</sup></b>	
	<b>First fill <sup>(2)</sup></b>	<b>Service fills <sup>(3)</sup></b>
<b>Axles</b> 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
<b>Transmissions for harvesters</b> 2MD40 3MD30, 3MD35, 3MD40	21A	21A
<b>ZF-half-shafts</b> (planetary final drives) for tractor transmissions Eccom, Terramatic, Terrapower, T-7000 and S-Matic	21A / 21C / 21G	21A / 21C / 21G
<b>Final drives for harvesters</b> S-800, S-950, S-1050, S-1250	21A	21A

The list of lubricants TE-ML 21, **edition 28.01.2018** 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](http://www.zf.com/lubricants).

**ZF Friedrichshafen AG**  
D-88038 Friedrichshafen  
[www.zf.com/contact](http://www.zf.com/contact)

## 2. Oil change intervals








### 2.1 Initial oil change interval

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

### 2.2 Subsequent oil change interval

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

## 3. Hydraulic fluids

Product group	Lubricant classes for service fills <sup>(1)</sup>	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  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 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  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 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  
 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  
 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  
 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  
 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  
 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  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 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  
 EKO ABE, ATHENS/GR  
 ENI S.P.A., ROME/IT  
 ENI S.P.A., ROME/IT  
 ENI S.P.A., ROME/IT  
 ENI S.P.A., ROME/IT  
 ENI S.P.A., ROME/IT  
 ENI S.P.A., ROME/IT  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US

#### 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  
 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  
 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  
 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  
 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  
 EKO GEAROL-5 80W-90  
 ENI ROTRA MP 80W-90  
 ENI ROTRA MP 85W-140  
 ENI ROTRA LSX 75W-90  
 ENI ROTRA MP 75W-90  
 MOBILUBE 1 SHC 75W-90

#### ZF approval number

ZF000555  
 ZF000671  
 ZF000672  
 ZF002260  
 ZF000133  
 ZF000135  
 ZF000142  
 ZF000460  
 ZF000464  
 ZF000930  
 ZF000680  
 ZF000681  
 ZF001693  
 ZF002316  
 ZF002317  
 ZF002318  
 ZF001716  
 ZF001876  
 ZF001159  
 ZF001160  
 ZF000200  
 ZF000205  
 ZF000208  
 ZF000828  
 ZF000865  
 ZF001321  
 ZF000354  
 ZF001721  
 ZF001722  
 ZF002004  
 ZF002005  
 ZF000227  
 ZF000229  
 ZF000230  
 ZF000265  
 ZF000910  
 ZF001320  
 ZF001471  
 ZF001754  
 ZF002142  
 ZF002143  
 ZF002144  
 ZF002145  
 ZF002163  
 ZF000084  
 ZF000085  
 ZF000086  
 ZF000097  
 ZF000965  
 ZF000966  
 ZF000788  
 ZF000806  
 ZF000807  
 ZF000808  
 ZF000812  
 ZF000815  
 ZF001196  
 ZF001243  
 ZF001638  
 ZF002137  
 ZF002254  
 ZF002270  
 ZF002273  
 ZF002278  
 ZF002279  
 ZF002280  
 ZF003353  
 ZF002088  
 ZF000829  
 ZF001604  
 ZF002125  
 ZF000963  
 ZF000964  
 ZF000968  
 ZF003351  
 ZF000855  
 ZF000856  
 ZF000860  
 ZF003364  
 ZF000041





**Manufacturer (21A)**

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  
SINOPEC LUBRICANT CO., LTD., BEIJING/CN  
SINOPEC LUBRICANT CO., LTD., BEIJING/CN  
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
TEDEX S.A., WARSZAWA/PL  
TEXSA DO BRASIL LTDA, UMUARAMA/PR/BR  
TEXSA DO BRASIL LTDA, UMUARAMA/PR/BR  
TEXSA DO BRASIL LTDA, UMUARAMA/PR/BR  
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  
TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
UNIL OPAL, SAUMUR/FR  
VALVOLINE EUROPE, DORDRECHT/NL  
VALVOLINE EUROPE, DORDRECHT/NL  
VALVOLINE EUROPE, DORDRECHT/NL  
VALVOLINE EUROPE, DORDRECHT/NL  
VEEDOL INTERNATIONAL LIMITED, GLASGOW/GB  
VIAL OIL LTD., FRYAZINO/RU  
YACCO SAS, ST PIERRE LES ELBEUF/FR  
YORK LUBRICANTS - GINOUVES SAS, LA GARDE/FR  
YORK LUBRICANTS - GINOUVES SAS, LA GARDE/FR  
YORK LUBRICANTS - GINOUVES SAS, LA GARDE/FR  
ZELLER+GMELIN GMBH&CO.KG, EISLINGEN/DE  
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

**Trade name (21A)**

SHELL SPIRAX S6 AXME 75W-90  
SHELL SPIRAX S4 AX (80W-90)  
SHELL SPIRAX S4 AX (80W-90)  
SHELL SPIRAX S4 AX (80W-90)  
SHELL SPIRAX S6 ADME 75W-90  
SINOPEC GREATWALL VT 75W/90  
SINOPEC GREATWALL MULTIPURPOSE GEAR OIL 80W-90  
SINOPEC MULTIPURPOSE-II GEAR OIL 80W-90  
SRS WIOLIN HYPOID-GETRIEBEÖL 80W-90  
SRS WIOLIN HYPOID-GETRIEBEÖL 85W-140  
SRS WIOLIN HYPOID-GETRIEBEÖL 90  
SRS GETRIEBEFLUID SML 80W-90  
SRS GETRIEBEFLUID SXL 75W-90  
SRS WIOLIN HL 5 SAE 80W-90  
SRS WIOLIN HL 5 SAE 85W-90  
TEDEX SUPER GEAR OIL (TDL) SAE 80W-90  
TEXSA GEAR MULTI GL-5 85W140  
TEXSA GEAR MULTI GL-5 90  
TEXSA GEAR MULTI GL-5 80W90  
ELF TRANSSELF SYNTHSE FE 75W-90  
TOTAL TRANSMISSION DUAL 9 FE 75W-90  
TOTAL TRANSMISSION AXLE 7 85W-90  
TOTAL TRANSMISSION AXLE 8 FE 80W-140  
TOTAL TRANSMISSION AXLE 9 80W-90  
TOTAL TRANSMISSION AXLE 7 85W-140  
ELF TRANSSELF TYPE B 90  
TOTAL DYNATRANS HD 80W-90  
GEAR ZF 80W90  
VALVOLINE HEAVY DUTY TDL PRO 75W-90  
VALVOLINE HEAVY DUTY AXLE OIL PRO 80W-90 LD  
VALVOLINE HEAVY DUTY AXLE OIL PRO 80W-90  
VALVOLINE HEAVY DUTY AXLE OIL PRO 75W-140  
VEEDOL TRANSMISSION SYNTHETIC LD 75W-90  
CONSOL TRANS LUX 80W-90  
BVX 1000 75W-90  
YORK 896 75W90  
YORK 793 SAE 80W90  
YORK 793 SAE 85W140  
DIVINOL MULTI-AXLE 80W90  
ZF-ECOFLUID X SAE 80W-90

**ZF approval number**

ZF001433  
ZF001619  
ZF001620  
ZF001621  
ZF003334  
ZF000527  
ZF002267  
ZF003332  
ZF000441  
ZF000443  
ZF000444  
ZF000447  
ZF001655  
ZF001911  
ZF001912  
ZF001342  
ZF001458  
ZF001941  
ZF001942  
ZF001555  
ZF001771  
ZF001774  
ZF001775  
ZF001778  
ZF001846  
ZF002069  
ZF002310  
ZF000343  
ZF001283  
ZF001837  
ZF001869  
ZF001874  
ZF001629  
ZF000587  
ZF001612  
ZF000550  
ZF001129  
ZF001130  
ZF001684  
ZF001266

**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  
 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  
 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 VISSSELHÖVEDE/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  
 KUWAIT 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  
 NORTHLAND PRODUCTS COMPANY, WATERLOO, IOWA/US  
 NORTHLAND PRODUCTS COMPANY, WATERLOO, IOWA/US  
 NOVA STILMOIL SPA, MODENA/IT  
 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 PUBLIC COMPANY LIMITED, 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  
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB  
 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  
 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  
 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  
 CEPSA AURIGA LS PLUS 80W-90  
 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 HIPENOL 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  
 POSI-GRIP JDZF 80W90  
 POSI-GRIP JDZF 85W140  
 GEARING WONDER LS SAE 85W90  
 OILFINO VARIUS G 400LS 85W-90  
 LUKOIL TRANSMISSION LS TM-5 80W-90  
 LUKOIL TRANSMISSION LS 85W-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 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  
 SHELL SPIRAX S3 ALS 80W-90  
 SINOPEC GREATWALL ZLS GL-5 85W/90  
 SK ZIC G-5 LSD 80W-90  
 SRS WIOLIN RSH  
 TOTAL DYNATRANS DA 80W-90  
 TOTAL DYNATRANS DA 85W-140  
 TOTAL DYNATRANS LS 80W-90  
 ELF TRACTELF BLS 80W-90  
 GULF LS REAR AXLE 80W-90

**ZF approval number**

ZF000629  
 ZF000703  
 ZF000140  
 ZF000465  
 ZF000844  
 ZF001167  
 ZF002257  
 ZF000727  
 ZF000269  
 ZF000307  
 ZF002044  
 ZF002141  
 ZF002178  
 ZF001050  
 ZF000787  
 ZF000809  
 ZF000810  
 ZF001686  
 ZF002274  
 ZF001287  
 ZF000031  
 ZF000851  
 ZF002301  
 ZF000651  
 ZF000558  
 ZF000561  
 ZF000937  
 ZF001479  
 ZF000924  
 ZF001135  
 ZF001341  
 ZF000891  
 ZF001578  
 ZF000424  
 ZF001445  
 ZF001450  
 ZF001312  
 ZF001313  
 ZF002109  
 ZF000845  
 ZF001367  
 ZF001345  
 ZF001075  
 ZF001114  
 ZF001637  
 ZF000049  
 ZF000051  
 ZF000918  
 ZF000740  
 ZF001497  
 ZF001761  
 ZF000603  
 ZF001272  
 ZF001459  
 ZF003352  
 ZF000027  
 ZF000396  
 ZF000775  
 ZF001480  
 ZF000546  
 ZF000781  
 ZF000782  
 ZF000901  
 ZF001373  
 ZF001004  
 ZF000013  
 ZF001180  
 ZF000981  
 ZF000761  
 ZF000791  
 ZF000700  
 ZF001857  
 ZF001898  
 ZF001303  
 ZF000127  
 ZF003340  
 ZF000442  
 ZF001255  
 ZF001512  
 ZF001545  
 ZF001546  
 ZF001548



**Manufacturer (21C)**

TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
UNIL OPAL, SAUMUR/FR  
VALVOLINE CUMMINS PVT LIMITED, GURGAON/IN  
VALVOLINE EUROPE, DORDRECHT/NL  
YACCO SAS, ST PIERRE LES ELBEUF/FR

**Trade name (21C)**

TOTAL DYNATRANS DA 80W-90  
GEAR AB-EP 85W90  
GEAR DURA 80W90 LS  
VALVOLINE HEAVY DUTY AXLE OIL PRO 80W-90 LS  
BVX LS 200 80W-90

**ZF approval number**

ZF002309  
ZF000526  
ZF001465  
ZF001996  
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  
 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  
 UNIL OPAL, SAUMUR/FR  
 VALVOLINE CUMMINS PVT LIMITED, GURGAON/IN  
 VALVOLINE EUROPE, DORDRECHT/NL

**Trade name (21F)**

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  
 FLUID VO  
 VALVOLINE UTF PREMIUM  
 UNITRAC 80W

**ZF approval number**

ZF000358  
 ZF000359  
 ZF001295  
 ZF001613  
 ZF003325  
 ZF000105  
 ZF000827  
 ZF000540  
 ZF001317  
 ZF001346  
 ZF001539  
 ZF002222  
 ZF000366  
 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 IIH 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.