



**Axles for off-road vehicles**

**List of lubricants TE-ML 05**

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The list of lubricants TE-ML 05, **edition 01.04.16** 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).

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**1. Current products**

<b>Product groups</b>	<b>Series</b>	<b>Lubricant classes for service fills <sup>(1)</sup></b>
<b>Compactor</b>	MT-C 3035, MT-C 3065, MT-C 3075	05C / 05D
<b>Motor grader</b>	MT-G 3070, MT-G 3075, MT-G 3080, MT-G 3085, MT-G 3090, WH-L3065, WH-L3075	<a href="#">ZF-Powerfluid Plus</a> 05F / 05G / 05H
<b>Dumper</b>	Axle/Wheel head: MT-D 3105	<a href="#">ZF-Powerfluid Plus</a> 05C / 05D / 05F / 05G / 05H
	Brake: MT-D 3105, WH-D 3105, MT-D 3085, MT-D 3095	<a href="#">ZF-Powerfluid Plus</a> 05F / 05G / 05H
	Axle inserts	<a href="#">ZF-Powerfluid Plus</a> 05C / 05D / 05F / 05G / 05H
<b>Wheel loader</b>	MT-L series, paper brake lining: MT-L 3065, MT-L 3075, MT-L 3085, MT-L 3095, MT-L 3105 AP-410, AP-412, AP-3085, AP-3095	<a href="#">ZF-Powerfluid Plus</a> 05C / 05D / 05F / 05G / 05H
	MT-L series, sintered brake lining: MT-L 3065, MT-L 3075, MT-L 3085, MT-L 3095, MT-L 3105, MT-L 3115, MT-L 3125, MT-L 3135	<a href="#">ZF-Powerfluid Plus</a> 05F / 05G / 05H
<b>Backhoe loader</b>	Rear axle: MT-B 3065, MT-B 3070, MT-2075, MT-2085, MS-B 3070	<a href="#">ZF-Powerfluid Plus</a> 05F / 05G / 05H
	Front axle: MS-B 3025, MS-2045, MS-B 3055	<a href="#">ZF-Powerfluid Plus</a> 05C / 05D / 05F / 05G / 05H
<b>Telescopic handler</b>	MS-T 3045, MS-T 3055, MS-T 3060	<a href="#">ZF-Powerfluid Plus</a> 05F / 05G / 05H
<b>Compact loader</b>	AV230	05A / 05B / 05C / 05D
	MT-L 3015, MS-L 3015, MT-L 3020, MT-L 3045, MT-L 3055	<a href="#">ZF-Powerfluid Plus</a> 05C / 05D / 05F / 05G / 05H
<b>Mobile excavator</b>	MS-E 3050, MT-E 3050, MS-E 3060, MT-E 3060, MS-E 3070, MT-E 3070	<a href="#">ZF-Powerfluid Plus</a> 05C / 05D / 05F / 05G / 05H
<b>Lift-trucks</b>	MT-F 3065, MT-F 3070 (Shared oil supply with WG 94)	refer to TE-ML 03

**2. Products not listed in detail**

Product groups	Lubricant classes for service fills <sup>(1)</sup>	
	without	with
	wet multi-disc brakes and / or multi-disk limited-slip differentials	
Axles Differentials Axle inserts Wheel hubs	<a href="#">ZF-Powerfluid Plus</a> 05A / 05B / 05C / 05D 05F / 05G / 05H	<a href="#">ZF-Powerfluid Plus</a> 05C / 05D / 05F / 05G / 05H
Axles, differentials and axle inserts with hypoid drive	05A / 05B / 05C / 05D	05C / 05D

**Note:** APL 9000 see TE-ML 12

**3. Hydraulic fluids**

Product group	Lubricant classes for service fills <sup>(1)</sup>	Use at outside temperatures
Brake hydraulics, hydraulic differential lock (DHL) and steering	05L	- 40°C
	lubricants in accordance with JDM J20D	- 40°C
	05F (only lubricants in accordance with JDM J20C), 05G	- 30°C
	05K	- 30°C
	05M (ISO VG 32)	- 40°C
	05M (ISO VG 46)	- 10°C
	05M (ISO VG 68)	- 5°C

**4. Greasing points**

Product groups	Lubricating grease
Swivel bearing axles, motor grader: MT-G 3070, MT-G 3075, MT-G 3080, MT-G 3085, MT-G 3090	ZF Powergrease (ZF P/N 0671 090 354) Total Aerogrease N 31089 Shell Aeroshell Grease 22 Lubricating interval acc. to corresponding lubricating and maintenance specifications
Other	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). Recommendation for lubrication interval: every 100 h or at least once a month.

**5. Oil change intervals**

Lubricant class	05A, 05B, 05C, 05D	ZF Powerfluid Plus 05F, 05G, 05H
Load class	Oil change interval	
1	1500 h	2000 h
2	1000 h	1500 h
3	500 h	1000 h

**Note:** The original ZF filling ex works is to remain in the axle for at least the first 500 operating hours; it is not recommended to change the oil earlier.

## 6. Load classes

Load class	Examples of applications
1	<ul style="list-style-type: none"> <li>- Dumper</li> <li>- Mobile excavator with low driving-mode share (&lt;25%) and equipment in material handling</li> <li>- Wheel loader with low share of service brake use</li> <li>- Other axles without wet brakes</li> <li>- Backhoe loader under normal operating conditions</li> </ul>
2	<ul style="list-style-type: none"> <li>- Mobile excavator with increased driving-mode share (&gt;25%) and equipment in timber handling</li> <li>- Wheel loader, grader, telescopic handler</li> <li>- Backhoe loader under extreme operating conditions</li> <li>- Compactors</li> </ul>
3	<ul style="list-style-type: none"> <li>- Wheel loader operated under extreme braking conditions</li> <li>- Generally all vehicles operated in outdoor temperatures &gt; 40°C</li> </ul>

## 7. Explanation of footnotes and comments

### Footnotes

- (1) **The lubricant classes listed are compulsory for service oil changes according to the oil-change intervals mentioned under Section 5. Additional requirements apply to ZF factory fills.**

### 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.

## 8. Lubricant classes and approved trade products

### Lubricant class 05A

#### 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 (05A)

ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ARAL AG, BOCHUM/DE  
 ARAL AG, BOCHUM/DE  
 ARAL AG, BOCHUM/DE  
 BAHRAIN PETROLEUM COMPANY, AWALI /BH  
 BAYWA AG MÜNCHEN, MÜNCHEN/DE  
 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  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CEPSA COMERCIAL PETRÓLEO, MADRID/ES  
 CEPSA COMERCIAL PETRÓLEO, MADRID/ES  
 CEPSA COMERCIAL PETRÓLEO, 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  
 CYCLON HELLAS SA, ATHENS/GR  
 DEUTSCHE PENTOSIN WERKE GMBH, WEDEL/DE  
 DEUTSCHE PENTOSIN WERKE GMBH, WEDEL/DE  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 FABRIKA MAZIVA FAM AD, KRUŠEVAC/RS  
 FABRIKA MAZIVA FAM AD, KRUŠEVAC/RS  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 GAZPROMNEFT-LUBRICANTS, MOSCOW/RU  
 GAZPROMNEFT-LUBRICANTS, MOSCOW/RU  
 GEORG OEST MINERALÖLWERK GMBH & CO.KG, FREUDENSTADT/DE  
 GERMAN MIRROR LUBRICANTS AND GREASES, SHARJAH/AE  
 GERMAN MIRROR LUBRICANTS AND GREASES, SHARJAH/AE  
 GRUPA LOTOS S.A., GDANSK/PL  
 GRUPA LOTOS S.A., GDANSK/PL  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 HUILES BERLIET S.A., SAINT-PRIEST/FR  
 HUILES BERLIET S.A., SAINT-PRIEST/FR  
 IGOL FRANCE, AMIENS/FR  
 INA MAZIVA LTD., ZAGREB/HR  
 INGRAX INDUSTRIA E COMERCIO DE GRAXA S/A, DUQUE DE CAXIAS/BR  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 LIQUI MOLY GMBH, ULM/DE  
 MEGUIN GMBH & CO. KG, SAARLOUIS/DE  
 MOL-LUB KFT, ALMASFUZITO/HU  
 MORRIS LUBRICANTS, SHREWSBURY/GB  
 MORRIS LUBRICANTS, SHREWSBURY/GB  
 NIS AD, NOVI SAD/RS  
 OMV PETROL OFISI A.S., ISTANBUL/TR  
 OMV PETROL OFISI A.S., ISTANBUL/TR  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 ORLEN OIL SP. Z O.O., KRAKOW/PL  
 OY TEBOIL AB, HELSINKI/FI  
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT  
 PANOLIN AG, MADETSWIL/CH  
 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA  
 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA  
 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA  
 PETROGAL S.A., LISBOA/PT  
 PETROGAL S.A., LISBOA/PT  
 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  
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY  
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY

#### Trade name (05A)

ADDINOL GETRIEBEÖL GX 80W-90 ML  
 ARAL GETRIEBEÖL SNA-D 80W-90  
 ARAL GETRIEBEÖL EP PLUS 80W-90  
 ARAL GETRIEBEÖL HYP 85W-140  
 SPAREX EP 85W-140 GL-5  
 TECTROL MULTIGEAR PLUS 8090  
 BP ENERGEAR HT 80W-90  
 BP ENERGEAR HYPO XL 80W-90  
 BP ENERGEAR HYPO 85W-140  
 BP ENERGEAR HYPO 80W-90  
 GEAR ZX TP SAE 80W/90  
 GEAR ZX TP SAE 80W/140  
 GEAR OIL HYPOID SAE80W/90  
 CASTROL SYNTRAX UNIVERSAL 80W-90  
 CASTROL AXLE LONG DRAIN 80W-90  
 CASTROL AXLE EPX 85W-140  
 CASTROL AXLE EPX 80W-90  
 CASTROL AXLE EPX 80W-90  
 CEPSA TRANSMISIONES EP 80W-90  
 CEPSA TRANSMISIONES EP 85W-140  
 MAN SUPER AXLE 342-M2  
 MULTIGEAR 80W-90  
 MULTIGEAR PREMIUM EP SAE 85W-140  
 RPM UNIVERSAL GEAR LUBRICANT SAE 80W-90  
 THUBAN GL-5 EP SAE 85W-140  
 GEAR EP GL-5 80W-90  
 PENTOSIN GETRIEBEÖL O-226 80W-90  
 PENTOSIN TRX 85W-110  
 MOBILUBE HD-A PLUS 80W-90  
 MOBILUBE S 80W-90  
 MULTIHIPO 80W-90 F PLUS  
 MULTIHIPO 80W-140 F PLUS  
 FUCHS TITAN GEAR HYP LD SAE 80W-90  
 FUCHS TITAN SUPERGEAR SAE 80W-90  
 FUCHS TITAN SUPERGEAR SAE 85W-140  
 FUCHS TITAN SUPERGEAR MC SAE 80W-90  
 G-TRUCK GL-4/GL-5 80W-90  
 GAZPROMNEFT GL-5 80W-90  
 OEST GETRIEBEÖL FE SAE 80W-90 GL4/5  
 MIRR GEAR OIL API GL-5 SAE 80W90  
 MIRR GEAR OIL API GL-5 SAE 85W90  
 TITANIS SUPER GL-5 80W/140  
 TITANIS SUPER GL-5 80W-90  
 GULF GEAR TDL 80W-90  
 GULF GEAR LD 80W-90  
 GULF GEAR LD 80W-90  
 RTO LONGEVIA TC ECO 80W-90  
 RTO LONGEVIA P ECO 80W-90  
 GEAR M 80W-90  
 INA HIPENOL TDL 80W-90  
 MULTIGEROL 85W140  
 Q8 SYNTHETIC GEAR OIL SAE 80W-140  
 Q8 AXLE OIL XG SAE 80W-140  
 Q8 GEAR OIL XG SAE 80W-90  
 LIQUI MOLY HYPOID GETRIEBEÖL TDL SAE 80W-90  
 MEGOL HYPOID-GETRIEBEOEL TDL 80W-90  
 MOL HYKOMOL ZF 80W90  
 EP 80W-90 GEAR OIL  
 EP 85W-140  
 NISOTEC HIPO LD ZF SAE 80W-90  
 MAXIGEAR EP-X 80W-90  
 MAXIGEAR TECH EP-X 80W-90  
 LUKOIL TRANSMISSION TM-5 SAE 80W-90  
 LUKOIL TRANSMISSION TM-5 SAE 85W-140  
 LUKOIL TRANSMISSION UNI 80W-90  
 PLATINUM GEAR LL 80W-90  
 TEBOIL HYPOID SAE 80W-90  
 GLOBAL GEAR SA SAE 85W-140  
 PANOLIN TOPGEAR 80W/90  
 TRAXON 80W-90  
 TRAXON 85W-140  
 TRAXON XL SB 80W-140  
 GALP TRANSVEX TDL 85W140  
 GALP TRANSOIL HP XT 80W90  
 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)

#### ZF approval number

ZF000672  
 ZF000135  
 ZF000460  
 ZF000930  
 ZF001691  
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 ZF000777  
 ZF001981  
 ZF001966  
 ZF000007  
 ZF000008  
 ZF000231  
 ZF000232  
 ZF000233

**Manufacturer (05A)**

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  
 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  
 RN-LUBRICANTS, LLC, MOSCOW/RU  
 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  
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 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB  
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
 STATOIL LUBRICANTS, STOCKHOLM/SE  
 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  
 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  
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
 VALVOLINE AUSTRALIA PTY LTD, WETHERILL PARK, NSW/AU  
 VALVOLINE EMEA, DORDRECHT/NL  
 VALVOLINE EMEA, DORDRECHT/NL  
 VIAL OIL LTD., FRYAZINO/RU  
 ZELLER+GMELIN GMBH&CO.KG , EISLINGEN/DE  
 ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

**Trade name (05A)**

AMBRA HYPOIDE 140 (SAE 85W-140)  
 AKCELA GEAR 135H EP (SAE 85W-140)  
 TUTELA TRANSMISSION W90/LA (SAE 80W-90)  
 ARBOR TRW 90 (SAE 80W-90)  
 REPSOL CARTAGO LD 80W90  
 REPSOL CARTAGO LD 85W140  
 TNK TRANS GIPOID 85W-140  
 TNK TRANS GIPOID 85W-90  
 TNK TRANS GIPOID 80W-90  
 ROSNEFT KINETIC 80W-90  
 SHELL SPIRAX S3 AS 80W-140  
 SHELL SPIRAX S3 AD 80W-90  
 SHELL SPIRAX S3 AM 80W-90  
 SHELL SPIRAX S4 AT 75W-90  
 SHELL SPIRAX HD 80W- 90  
 SHELL SPIRAX HD 80W- 90  
 SHELL SPIRAX HD 80W- 90  
 SHELL SPIRAX S4 AX (80W-90)  
 SHELL SPIRAX S4 AX (80W-90)  
 SHELL SPIRAX S4 AX (80W-90)  
 SRS GETRIEBFLUID SML 80W-90  
 SRS WIOLIN HL 5 SAE 80W-90  
 SRS WIOLIN HL 5 SAE 85W-90  
 GEARWAY G5 80W-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  
 TOTAL TRANSMISSION XPM 80W-90  
 TOTAL TRANSMISSION TM 85W-140  
 ELF TRANSELF UNIVERSAL FE 80W-90  
 FINA PONTONIC MP 85W-140  
 TOTAL EP B 85W-140  
 TOTAL TRANSMISSION AXLE 8 FE 80W-140  
 TOTAL TRANSMISSION AXLE 9 80W-90  
 TOTAL TRANSMISSION AXLE 7 85W-140  
 GEAR OIL GL-5 XTREME SAE 80W-90  
 VALVOLINE HEAVY DUTY AXLE OIL PRO 80W-90 LD  
 VALVOLINE HEAVY DUTY AXLE OIL PRO 80W-90  
 CONSOL TRANS LUX 80W-90  
 DIVINOL MULTI-AXLE 80W90  
 ZF-ECOFUID X SAE 80W-90

**ZF approval number**

ZF000234  
 ZF000235  
 ZF000516  
 ZF001201  
 ZF001141  
 ZF001142  
 ZF001784  
 ZF001786  
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 ZF001824  
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 ZF001237  
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 ZF001559  
 ZF001573  
 ZF001775  
 ZF001778  
 ZF001846  
 ZF001720  
 ZF001837  
 ZF001869  
 ZF000587  
 ZF001684  
 ZF001266

**Lubricant class 05B****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 (05B)**

ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ARAL AG, BOCHUM/DE  
 ARAL AG, BOCHUM/DE  
 ARAL AG, BOCHUM/DE  
 BASF SE, LUDWIGSHAFEN/DE  
 BASF SE, LUDWIGSHAFEN/DE  
 BASF SE, LUDWIGSHAFEN/DE  
 BP PLC., LONDON/GB  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CEPESA COMERCIAL PETRÓLEO, MADRID/ES  
 CEPESA COMERCIAL PETRÓLEO, MADRID/ES  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 CONDAT LUBRIFIANTS, CHASSE SUR RHONE/FR  
 DE OLIEBRON BV, ZWIJNDRECHT/NL  
 DE OLIEBRON BV, ZWIJNDRECHT/NL  
 DEEP OIL TRADING COMPANY LLP, LONDON/GB  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 FABRIKA MAZIVA FAM AD, KRUŠEVAC/RS  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 GAZPROMNEFT-LUBRICANTS, MOSCOW/RU  
 GEORG OEST MINERALÖLWERK GMBH & CO.KG, FREUDENSTADT/DE  
 GRUPA LOTOS S.A., GDANSK/PL  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 HUILES BERLIET S.A., SAINT-PRIEST/FR  
 IGOL FRANCE, AMIENS/FR  
 INA MAZIVA LTD., ZAGREB/HR  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 LIEBHERR HYDRAULIKBAGGER GMBH, KIRCHDORF/DE  
 LIQUI MOLY GMBH, ULM/DE  
 MEGUIN GMBH & CO. KG, SAARLOUIS/DE  
 MOTUL SA, AUBERVILLIERS/FR  
 OMV PETROL OFISI A.S., ISTANBUL/TR  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OY TEBOIL AB, HELSINKI/FI  
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT  
 PANOLIN AG, MADETSWIL/CH  
 PANOLIN AG, MADETSWIL/CH  
 PETROGAL S.A., LISBOA/PT  
 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  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE  
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES  
 SASOL OIL, RANDBURG/ZA  
 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  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
 STATOIL LUBRICANTS, STOCKHOLM/SE  
 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 EMEA, DORDRECHT/NL  
 VALVOLINE EMEA, 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

**Trade name (05B)**

ADDINOL GETRIEBEÖL GH 75W-90 SL  
 ARAL GETRIEBEÖL BS 75W-90  
 ARAL GETRIEBEÖL SNA-C 75W-90  
 ARAL GETRIEBEÖL SNA-E 75W-90  
 EMGARD UAF 4209  
 EMGARD RW-A, SAE 75W-90  
 EMGARD UAF 7105  
 BP ENERGEAR SHX-M 75W-90  
 UNISYNT ZX SAE 75W90  
 MOTOREX PENTA TL SAE 75W90  
 CASTROL SYNTRAX LONG LIFE 75W-90  
 SYNTRAX UNIVERSAL PLUS 75W-90  
 CEPESA TRANSMISIONES EP FE+LD 75W-90  
 MAN SUPER AXLE 3343 75W-90  
 MULTIGEAR S 75W-90  
 MULTIGEAR S 75W-140  
 GEAR TXS 75W90  
 TOR UNI GEAR LD 75W90  
 TOR UNI GEAR 75W110 LD  
 DRIVE RW FORCE S GL-5 75W-90  
 MOBILUBE 1 SHC 75W-90  
 MOBIL DELVAC SYNTHETIC GEAR OIL 75W-90  
 MOBIL DELVAC SYNTHETIC GEAR OIL 80W-140  
 MOBIL DELVAC 1 GEAR OIL 75W-90  
 MOBIL DELVAC 1 GEAR OIL 80W-140  
 MULTIHIPO 75W-90 SINT  
 FUCHS TITAN CYTRAC HSY SAE 75W-90  
 FUCHS TITAN CYTRAC RR SAE 75W-90  
 G-BOX GL-4/GL-5 75W-90  
 OEST SYNTH GETRIEBEÖL SAE 75W-90  
 TITANIS SUPER GL-5 75W/90  
 GULF SYNGEAR 75W-90  
 RTO LONGEVIA TCX ECO 75W-90  
 SYNTHEGEAR 75W-90  
 INA HIPENOL SHD 75W-90  
 Q8 TRANS XGS 75W-90  
 Q8 TRANS XGR 75W-140  
 Q8 T 66 SAE 75W-110  
 LIEBHERR SYNTOGEAR PLUS 75W-90  
 LIQUI MOLY VOLL SYN. HYPOID GETR.ÖL TRUCK (75W-90)  
 MEGOL GETRIEBEOEL TRUCK-SYNTH SAE 75W-90  
 MOTUL GEAR SYNTH TDL 75W-90  
 MAXIGEAR D 75W-90  
 LUKOIL TRANSMISSION TM-4/5 75W-90  
 LUKOIL TRANSMISSION SYNTH BSX 75W-90  
 LUKOIL TRANSMISSION UNI S 75W-90  
 TEBOIL HYPOID SAE 75W-90  
 GLOBAL MULTIGEAR TS SAE 75W/90  
 PANOLIN SUPER DUTY SYNTH 75W/140  
 PANOLIN SUPER DUTY SYNTH 75W/90  
 GALP TRANSVEX TDL 75W90  
 TUTELA TRANSMISSION X-ROAD (75W-140)  
 TUTELA TRANSMISSION STARGEAR AX-ED (SAE 75W-90)  
 TUTELA TRANSMISSION FE-AXLE (SAE 75W-90)  
 TUTELA TRANSMISSION STARGEAR AX-ED (SAE 75W-90)  
 UNIGEAR GOLD 75W90  
 RAVENOL TDG 75W-110  
 REPSOL CARTAGO FE LD 75W90  
 SYN GEAR DIFFERENTIAL OIL 75W-90  
 SHELL SPIRAX S6 AXME 75W-90  
 SHELL SPIRAX S6 AXME 75W-140  
 SHELL SPIRAX S6 AXME 75W-90  
 SHELL SPIRAX S 75W-140  
 SHELL SPIRAX S6 AXME 75W-90  
 SINOPEC GREATWALL VT 75W/90  
 SRS GETRIEBEFLUID AFS  
 SRS GETRIEBEFLUID SXL 75W-90  
 GEARWAY S5 75W-90  
 TOTAL TRANSMISSION SYN FE 75W-90  
 FINA PONTONIC FDL 75W-90  
 ELF TRANSELF SYNTHSE FE 75W-90  
 TOTAL TRANSMISSION DUAL 9 FE 75W-90  
 VALVOLINE HEAVY DUTY TDL PRO 75W-90  
 VALVOLINE HEAVY DUTY AXLE OIL PRO 75W-140  
 VEEDOL TRANSMISSION SYNTHETIC LD 75W-90  
 CONSOL TRANS LUX 75W-90  
 BVX 1000 75W-90  
 YORK 896 75W90

**ZF approval number**

ZF000819  
 ZF000133  
 ZF000134  
 ZF000142  
 ZF000363  
 ZF000917  
 ZF001876  
 ZF000208  
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 ZF000591  
 ZF001612  
 ZF000550

**Lubricant class 05C**

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 (05C)**

ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ARAL AG, BOCHUM/DE  
 AVIA MINERALÖL-AG, MÜNCHEN/DE  
 AVISTA OIL REFINING & TRADING DEUTSCHLAN, UETZE/DE  
 BAYWA AG MÜNCHEN, MÜNCHEN/DE  
 BP PLC., LONDON/GB  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CEPESA COMERCIAL PETRÓLEO, 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  
 CLAAS KGAA MBH, HARSEWINKEL/DE  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 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  
 HARMS MINERALÖLE, PRISDORF/DE  
 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  
 OMV PETROL OFISI A.S., ISTANBUL/TR  
 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  
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT  
 PANOLIN AG, MADETSWIL/CH  
 PETROGAL S.A., LISBOA/PT  
 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  
 PROFI-TECH GMBH, FRIEDRICHSHAFEN/DE  
 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  
 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  
 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  
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
 UNIL OPAL, SAUMUR/FR  
 VALVOLINE CUMMINS PVT LIMITED, GURGAON/IN  
 YACCO SAS, ST PIERRE LES ELBEUF/FR

**Trade name (05C)**

ADDINOL GETRIEBEÖL GH 85W-90 LS  
 ADDINOL GETRIEBEÖL GH 80W-90 LS  
 ARAL GETRIEBEÖL HYP LS 85W-90  
 AVIA HYPOID 90 LS  
 PENNASOL LIMITED SLIP HYPOID GEAR OIL LS SAE 90  
 TECTROL MULTIGEAR LS 90  
 BP ENERGEAR LIMSLIP 90  
 MOTOREX UNIVERSAL LS SAE 90  
 CASTROL AXLE Z LIMITED SLIP 90  
 CASTROL AXLE Z LIMITED SLIP 90  
 CEPESA AURIGA LS PLUS 80W-90  
 GEAR OIL ZF SAE 80W-90  
 GEARTEX LS 80W-90  
 GEARTEX LS 85W-90  
 GEARTEX LS SAE 85W-140  
 CLAAS AGRISHIFT BLS 90  
 MOBILUBE LS 85W-90  
 ESSO GEAR OIL LSA LS 85W-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  
 OILFINO VARIUS G 400LS 85W-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 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  
 MAXIGEAR EP-X 85W-90LS  
 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  
 UNIVERSAL GEAR EP LS SAE 85W/90  
 PANOLIN SUPER DUTY LS 90  
 GALP LS 90  
 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  
 PROFI-CAR PERFORMANCE GEAR SAE 90 LIMITED SLIP 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  
 TNK TRANS GIPOID LS SAE 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  
 SRS WIOLIN RSH  
 TOTAL DYNATRANS DA 80W-90  
 TOTAL DYNATRANS DA 85W-140  
 TOTAL DYNATRANS LS 80W-90  
 ELF TRACTELF BLS 80W-90  
 FINA TRANSFLUID LS 80W-90  
 GULF LS REAR AXLE 80W-90  
 GEAR AB-EP 85W90  
 GEAR DURA 80W90 LS  
 BVX LS 200 80W-90

**ZF approval number**

ZF000629  
 ZF000703  
 ZF000465  
 ZF001440  
 ZF000844  
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 ZF001465  
 ZF001614



**Lubricant class 05D**

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 (05D)**ARAL AG, BOCHUM/DE  
CASTROL LTD, LONDON/GB  
EXXONMOBIL CORPORATION, HOUSTON, TX/US**Trade name (05D)**ARAL GETRIEBEÖL BS-LSX 75W-140  
CASTROL SYNTRAX LIMITED SLIP 75W-140  
GEARLUBE VS 500**ZF approval number**ZF000140  
ZF000269  
ZF000851

### Lubricant class 05F

#### Universal axle and transmission oil

#### Manufacturer (05F)

ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ARAL AG, BOCHUM/DE  
 AVIA MINERALÖL-AG, MÜNCHEN/DE  
 BAYWA AG MÜNCHEN, MÜNCHEN/DE  
 BAYWA AG MÜNCHEN, MÜNCHEN/DE  
 BP PLC., LONDON/GB  
 BP PLC., LONDON/GB  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CATERPILLAR, INC., MOSSVILLE/US  
 CEPESA COMERCIAL PETRÓLEO, MADRID/ES  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 CHS INC, INVER GROVE HEIGHTS/US  
 CLAAS KGAA MBH, HARSEWINKEL/DE  
 DEUTSCHE ÖLWERKE LUBMIN, LUBMIN/DE  
 EUROL B.V., NJIVERDAL/NL  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 GAZPROMNEFT-LUBRICANTS, MOSCOW/RU  
 GB LUBRICANTS, GATESHEAD/GB  
 GS CALTEX CORPORATION, SEOUL/KR  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 IGOL FRANCE, AMIENS/FR  
 INA MAZIVA LTD., ZAGREB/HR  
 INA MAZIVA LTD., ZAGREB/HR  
 INA MAZIVA LTD., ZAGREB/HR  
 JCB INDIA, BALLABGARH/IN  
 JOHN DEERE, MOLINE, ILLINOIS/US  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 LIEBHERR HYDRAULIKBAGGER GMBH, KIRCHDORF/DE  
 LIQUI MOLY GMBH, ULM/DE  
 MEGUIN GMBH & CO. KG, SAARLOUIS/DE  
 OMV PETROL OFISI A.S., ISTANBUL/TR  
 OPET FUCHS MADENI YAG. SAN. VE TIC. A.S., IZMIR/TR  
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT  
 PANOLIN AG, MADETSWIL/CH  
 PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR  
 PETROGAL S.A., LISBOA/PT  
 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  
 PHI OIL GMBH, ST. GEORGEN/AT  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE  
 SASOL OIL, RANDBURG/ZA  
 SASOL OIL, RANDBURG/ZA  
 SAVITA OIL TECHNOLOGIES LIMITED, MUMBAI/IN  
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB  
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB  
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB  
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 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  
 UNIL OPAL, SAUMUR/FR

#### Trade name (05F)

ADDINOL UTTO SAE 10W-30  
 ADDINOL UTTO EXTRA (SAE 20W-40)  
 ARAL FLUID HGS  
 AVIA HYDROFLUID TD  
 TECTROL UTTO-ZF  
 TECTROL UTTO-HF  
 BP VANELLUS AGRISUPER TRANSMISSION 80W  
 BP TRACTRAN TF-10  
 FARMER POLY 304  
 MOTOREX UTTO CF  
 CASTROL AGRI TRANS PLUS CVT 80W  
 CASTROL AGRI TRANS PLUS 80W  
 CASTROL AGRI TRANS PLUS 10W-30  
 CAT MULTIPURPOSE TRACTOR OIL  
 CEPESA AURIGA TE 55 10W-30  
 CHEVRON 1000 THF  
 TEXTRAN TDH PREMIUM  
 QWIKLIFT HTB  
 CLAAS AGRISHIFT GA 12  
 AVENO UTTO  
 EUROL HYKROL JD 68  
 MOBILFLUID 424  
 MOBILFLUID 426  
 FUCHS TITAN UTTO ZF (SAE 20W-40)  
 FUCHS TITAN AGRIFARM UTTO MP  
 G-SPECIAL UTTO 10W-30  
 GB UNITRANS(R) ZF  
 DOOSAN AXLE OIL STANDARD  
 GULF MPTF 10W-30  
 GULF MPTF 10W-30  
 TICMA FLUID MU XTREM  
 INA TRANSHIDROL JD 50  
 INA TRANSHIDROL ZF 20W-40  
 INA TRANSHIDROL JD 50  
 JCB REAR AXLE OIL  
 JOHN DEERE HY-GARD  
 Q8 T 2000  
 Q8 T 2200  
 JCB HP GEAR OIL PLUS  
 LIEBHERR GEAR MF 80W  
 LIQUI MOLY SPECIAL UTTO  
 MEGOL TRAKTORENOEL UTTO PREMIUM SAE 10W-30  
 MAXITRAK TMS OIL 500  
 OPET FULGEAR FD 80W-140  
 UTTO FLUID 4 D SAE 10W/30  
 PANOLIN JD 303  
 LUBRAX UNITRACTOR SAE 10W-30  
 GALP TRALUX 807 S  
 AMBRA MULTI G (SAE 10W-30)  
 AMBRA MULTI G (SAE 10W-30)  
 AMBRA MULTI G (SAE 10W-30)  
 AMBRA TRX 20W-40 (SAE 20W-40)  
 AMBRA TRX 80W-140 (SAE 80W-140)  
 ARBOR TRW 140 SPECIAL (SAE 80W-140)  
 AKCELA TRANSAXLE FLUID 20W-40 (SAE 20W-40)  
 AKCELA TRANSAXLE FLUID 80W-140 (SAE 80W-140)  
 AKCELA TRANSAXLE FLUID 80W-140 (SAE 80W-140)  
 AKCELA TRANSAXLE FLUID 20W-40  
 AMBRA MULTI G (SAE 10W-30)  
 ARBOR MTF (SAE 10W-30)  
 AMBRA MULTI G (SAE 10W-30)  
 AMBRA MULTI G (SAE 10W-30)  
 AKCELA NEXPLORE (SAE 10W-30)  
 AKCELA NEXPLORE (SAE 10W-30)  
 GEAR OIL UTTO SILVER 10W-30  
 RAVENOL GETRIEBEOEL UTTO  
 UNIVERSAL TRANSMISSION OIL 68  
 SASOL UNIVERSAL TRANSMISSION OIL RS 68  
 SAVSOL 315 HAT  
 SHELL SPIRAX S4 TXM  
 SHELL SPIRAX S4 TXM  
 SHELL SPIRAX S4 TXM  
 SHELL SPIRAX S6 TXME  
 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  
 FLUID VO

#### ZF approval number

ZF000509  
 ZF001845  
 ZF000457  
 ZF001811  
 ZF001161  
 ZF001678  
 ZF000210  
 ZF000897  
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 ZF000540  
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 ZF001346  
 ZF001539  
 ZF000366

**Lubricant class 05G**

Premium universal axle and transmission oil

**Manufacturer (05G)**SINOPEC LUBRICANT CO., LTD., BEIJING/CN  
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE**Trade name (05G)**ZF-POWERFLUID C-PLUS  
ZF-POWERFLUID PLUS**ZF approval number**ZF001896  
ZF001021

**Lubricant class 05H**

Biodegradable lubricants

Viscosity grade: SAE 75W-80

**Instructions on the use of biodegradable lubricants:**

The oil manufacturer's change-over directives included in the product description are to be observed when change-over to biodegradable lubricants is effected.

**Manufacturer (05H)**

PANOLIN AG, MADETSWIL/CH

**Trade name (05H)**

PANOLIN BIOFLUID LS

**ZF approval number**

ZF001206

**Lubricant class 05K**

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 05L**

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 05M**

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