



**Axles for off-road vehicles**

**List of lubricants TE-ML 05**

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The list of lubricants TE-ML 05, **edition 01-JUL-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).

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

## 1. Current products








Product groups	Series	Lubricant classes for service fills <sup>(1)</sup>
<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-disc 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  + 20°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). Lubricating interval acc. to corresponding lubricating and maintenance specifications.

## 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  
 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  
 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  
 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  
 TEBOIL HYPOID SAE 80W-140  
 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  
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 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  
 QATAR LUBRICANTS COMPANY, DOHA/QA  
 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  
 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  
 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  
 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)  
 QALCO SUPER GEAR OIL ZX 85W-140  
 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 GETRIEBEFLUID 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  
 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  
 ZF002076  
 ZF001141  
 ZF001142  
 ZF001784  
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 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  
 NIS AD, NOVI SAD/RS  
 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  
 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  
 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  
 NISOTEC HIPO SINT TDL SAE 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  
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 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  
 AVISTA OIL REFINING & TRADING DEUTSCHLAN, UETZE/DE  
 BAYWA AG MÜNCHEN, MÜNCHEN/DE  
 BP PLC., LONDON/GB  
 BP PLC., LONDON/GB  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 CASTROL LTD, LONDON/GB  
 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  
 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  
 PROFIL-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  
 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  
 PENNASOL LIMITED SLIP HYPOID GEAR OIL LS SAE 90  
 TECTROL MULTIGEAR LS 90  
 BP ENERGEGEAR LIMSLIP 90  
 BP ENERGEGEAR LIMSLIP 90  
 MOTOREX UNIVERSAL LS SAE 90  
 CASTROL AXLE Z LIMITED SLIP 90  
 CASTROL AXLE Z LIMITED SLIP 90  
 CASTROL AXLE Z LIMITED SLIP 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  
 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 85W90  
 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  
 PROFIL-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  
 ZF000844  
 ZF001167  
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 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  
CEPSA 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  
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  
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  
SEANON PETROCHEMICAL CO.,LTD., LIUZHOU, GUANGXI/CN  
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  
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  
VALVOLINE EMEA, DORDRECHT/NL

**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 AGRY SUPER 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  
CEPSA 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  
JCB HP GEAR OIL PLUS  
Q8 T 2200  
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 TRALUB 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)  
AMBRA MULTI G (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  
SEANON DEDICATED TRANSMISSION OIL 10W-30  
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  
UNITRAC 80W

**ZF approval number**

ZF000509  
ZF001845  
ZF000457  
ZF001811  
ZF001161  
ZF001678  
ZF000210  
ZF000897  
ZF000590  
ZF001158  
ZF000302  
ZF000759  
ZF000950  
ZF000834  
ZF001200  
ZF000100  
ZF000820  
ZF000975  
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ZF001971  
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ZF000359  
ZF001295  
ZF001613  
ZF000105  
ZF000827  
ZF000540  
ZF001317  
ZF001346  
ZF001539  
ZF000366  
ZF002041

**Lubricant class 05G**

Premium universal axle and transmission oil

**Manufacturer (05G)**

ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE  
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

**Trade name (05G)**

ZF-POWERFLUID PLUS  
ZF-POWERFLUID C-PLUS

**ZF approval number**

ZF001021  
ZF002087

**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 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 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.