

**Marine transmissions****List of lubricants TE-ML 04****Table of contents****Page**

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**1. Approved lubricant classes**

<b>Product groups</b>	<b>Lubricant classes for service fills <sup>(1)</sup></b>
ZF 4 to ZF 115 with all derived variants M, A, IV, C, TS, ATS, IVTS	04D
ZF 220 to ZF 60500 with all derived variants A, V, IV, C, U, D, NR, NR2, NR2H, NR2B, TS, ATS, VTS, IVTS	04A / 04B / 04C
ZF 23560 to ZF 23860 with all derived variants NR, C, D	04B / 04C
ZF W220 to ZF W93100 with all derived variants C, NR, NC, DS, NR2H	04A / 04B / 04C
ZF W93300 and ZF W103100 with all derived variants	04E / 04F
BW 5 to BW 5300 with all derived variants	04A / 04B / 04C
BW 2356 to BW 2386	04B / 04C
HBW 35 to HBW 630 HSW 90 to HSW 110 HSW 125 to HSW 800 with all derived variants	04D
IRM 40 to IRM 50	04D
IRM 220 to IRM 350	04A / 04B / 04C
ZF SD 10, SD 12	04P
SeaRex 100s, 120s, 140s, 160s	Drive oil: 04A / 04B / 04C Hydraulic oil: 04K
ZF AT 400, 2000 to 8000 with all derived variants WM, RT, DM, SM ZF TT 400, 1000 to 8000 ZF SDT 2000 to 6000	Gear box: 04H / 04M Power pack: 04K (2)
ZF TT 4000 CP, 5000 CP	Gear box and Power pack: 04H (2)
PPD, PPS	04G
CPP	04K / 04L
Stern Tubes	04A / 04B / 04H / 04K / 04L

The list of lubricants TE-ML 04, **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)

## 2. Explanation of footnotes and comments

- (1) **Refer to the following pages for approved commercial products.**
- (2) For further information (approved greases, oil fill quantities, evaluation of oil condition, etc.) see "Lubricants equivalents list P0166 ZF Krimpen".

A Multipurpose grease classified KP2K-20 acc. to DIN 51825 or ISO-L-XBCHB2 acc. to ISO 6743-9 must be used on greasing points (base oil API Group 1, 2, 3 or 4, EP additives, lithium saponified, temperature use limits min. between -20 and +120° C, NLGI-Class 2).

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.

### 3. Lubricant classes and approved trade products

#### Lubricant class 04A

Engine oil in accordance with specification

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

- API SF/SG/SH/SJ/SL/SM

- ACEA categories A/B/E

Viscosity grade: SAE 30, also SAE 40 in hot countries or when oil sump temperatures are above +80°C

Base oil API Group 1 / 2 / 3 / 4

#### Note:

1. All trade products which satisfy the above specifications may be used. There will be no product listing.
2. For transmissions which are classified according to DNV, fluids of the class 04A may not be used. Instead of this fluids according to classes 04B or 04C may be used.

**Lubricant class 04B**

Engine oil

Viscosity grade: SAE 30, also SAE 40 in hot countries or when oil sump temperatures are above +80°C

<b>Manufacturer (04B)</b>	<b>Trade name (04B)</b>	<b>ZF approval number</b>
ADDINOL LUBE OIL GMBH, LEUNA/DE	ADDINOL TURBO DIESEL MD 305 SAE 30	ZF000624
ADDINOL LUBE OIL GMBH, LEUNA/DE	ADDINOL TURBO DIESEL MD 405 SAE 40	ZF000625
CHEVRON LUBRICANTS, SAN RAMON, CA/US	URSA TRANS SAE 40	ZF000821
EXXONMOBIL CORPORATION, HOUSTON, TX/US	MOBIL DELVAC 1630 SAE30	ZF000036
EXXONMOBIL CORPORATION, HOUSTON, TX/US	MOBIL DELVAC 1640 SAE40	ZF000037
FUCHS PETROLUB SE, MANNHEIM/DE	FUCHS TITAN UNIVERSAL HD SAE 30 ZF	ZF000719
FUCHS PETROLUB SE, MANNHEIM/DE	FUCHS TITAN UNIVERSAL HD SAE 30	ZF001189
FUCHS PETROLUB SE, MANNHEIM/DE	FUCHS TITAN UNIVERSAL HD SAE 40	ZF001190
GULF OIL INTERNATIONAL, MUMBAI/IN	GULF SUPER DUTY LE 30	ZF001147
IGOL FRANCE, AMIENS/FR	ATF 700	ZF001833
INA MAZIVA LTD., ZAGREB/HR	INA GORGONELA S 30	ZF001173
INA MAZIVA LTD., ZAGREB/HR	INA SUPER 3 30	ZF001468
IPIRANGA PRODUTOS DE PETROLEO SA, RIO DE JANEIRO/BR	IPIRANGA ULTRAGEAR 40	ZF001340
IPIRANGA PRODUTOS DE PETROLEO SA, RIO DE JANEIRO/BR	IPIRANGA ULTRAGEAR ZF 40	ZF001764
KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL	Q8 MOZART DP SAE 30	ZF000095
KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL	Q8 MOZART DP SAE 40	ZF000096
OOO "PROIZVODSTVO ZAVOD IMENI SHAUMYANA", SAINT-PETERSBURG/RU	M-14D2CE (SAE 40)	ZF001095
PANOLIN AG, MADETSWIL/CH	PANOLIN EXTRA DIESEL 30	ZF000393
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TURBO SAE 30	ZF000581
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TURBO SAE 40	ZF000582
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TRM 5 HD SAE 30	ZF001174
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TRM 5 HD SAE 40	ZF001175
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TRM 40	ZF001742
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB	SHELL RIMULA R3+ 30	ZF001618
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL CAPRANO TD 30	ZF000533
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL CAPRANO TD 40	ZF000534
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL CAPRANO TD 30	ZF000538
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL CAPRANO TD 40	ZF000539
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL RUBIA FP 40	ZF001153

**Lubricant class 04C**

Engine oil

Viscosity grades: SAE 5W-40 / 10W-40 / 15W-40

**Manufacturer (04C)**

CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 MTU FRIEDRICHSHAFEN GMBH, FRIEDRICHSHAFEN/DE  
 NOVA STILMOIL SPA, MODENA/IT  
 OOO "LLK-INTERNATIONAL", 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  
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB  
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR

**Trade name (04C)**

DELO 400 MULTIGRADE SAE 15W-40  
 DELO 400 LE SAE 15W-40  
 MOBIL DELVAC XHP EXTRA 10W-40  
 DIESEL ENGINE OIL SAE 15W-40  
 ORION SUPER PLUS 15W40  
 LUKOIL AVANTGARDE PROFESSIONAL LS 10W-40  
 SHELL SIRIUS 15W-40  
 SHELL RIMULA R3X 15W-40  
 SHELL RIMULA R4 X 15W-40 (CI-4/E7/DH-1)  
 SHELL SIRIUS 15W-40  
 SHELL RIMULA R6 M 10W-40  
 SHELL RIMULA R6 M 10W-40  
 TOTAL CAPRANO TDI 15W-40  
 TOTAL CAPRANO TDH 15W-40  
 TOTAL CAPRANO TDI 15W-40

**ZF approval number**

ZF000649  
 ZF001847  
 ZF000770  
 ZF002002  
 ZF000920  
 ZF001968  
 ZF000436  
 ZF000437  
 ZF001482  
 ZF001484  
 ZF001796  
 ZF001799  
 ZF001256  
 ZF001535  
 ZF001791

## Lubricant class 04D

### Automatic Transmission Fluid (ATF)

#### Manufacturer (04D)

"RS200 MOTOR OIL" PAPANTONIOU S.A., LAKKOMA/GR  
 ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ALEXANDRIA MINERAL OILS COMPANY, ALEXANDRIA/EG  
 ALEXANDRIA MINERAL OILS COMPANY, ALEXANDRIA/EG  
 ALLEGHENY PETROLEUM, WILMERDING, PA/US  
 AMALIE PETROQUIMICA, MADRID/ES  
 AMALIE PETROQUIMICA, MADRID/ES  
 AMSOIL, INC., SUPERIOR, WI/US  
 ARAL AG, BOCHUM/DE  
 ARAL AG, BOCHUM/DE  
 ARAL AG, BOCHUM/DE  
 AVISTA OIL REFINING & TRADING DEUTSCHLAN, UETZE/DE  
 AVISTA OIL REFINING & TRADING DEUTSCHLAN, UETZE/DE  
 BAYWA AG MÜNCHEN, MÜNCHEN/DE  
 BAYWA AG MÜNCHEN, MÜNCHEN/DE  
 BELGIN MADENI YAĞLAR TIC. VE SAN. A.S., KOCAELI/TR  
 BP PLC., LONDON/GB  
 BP PLC., LONDON/GB  
 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  
 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  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 COMERCIAL ROSHFRANS, S.A. DE C.V., MEXICO, D.F./MX  
 DEUTSCHE PENTOSIN WERKE GMBH, WEDEL/DE  
 DEUTSCHE PENTOSIN WERKE GMBH, WEDEL/DE  
 ENI S.P.A., ROME/IT  
 ENI S.P.A., ROME/IT  
 EUROL B.V., NJIVERDAL/NL  
 EXOL LUBRICANTS LTD, WEDNESBURY/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  
 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, KRUSÉVAC/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  
 GRUPA LOTOS S.A., GDANSK/PL  
 GRUPA LOTOS S.A., GDANSK/PL  
 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  
 HARMS MINERALÖLE, PRISDORF/DE  
 HARMS MINERALÖLE, PRISDORF/DE  
 HI-TEC OILS, SMITHFIELD/AU  
 HUILES BERLIET S.A., SAINT-PRIEST/FR  
 HUILES BERLIET S.A., SAINT-PRIEST/FR  
 IGOL FRANCE, AMIENS/FR  
 INA MAZIVA LTD., ZAGREB/HR  
 INA MAZIVA LTD., ZAGREB/HR  
 INA MAZIVA LTD., ZAGREB/HR  
 INA MAZIVA LTD., ZAGREB/HR  
 INGRAX INDUSTRIA E COMERCIO DE GRAXA S/A, DUQUE DE CAXIAS/BR  
 IPIRANGA PRODUTOS DE PETRÓLEO SA, RIO DE JANEIRO/BR  
 KOCÁK PETROL URUNLERI SAN.VE TIC.LTD.STI, KOCAELI/TR  
 KOCÁK PETROL URUNLERI SAN.VE TIC.LTD.STI, KOCAELI/TR  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 LUBRICATION ENGINEERS, INC., FORT WORTH, TEXAS/US  
 MEGUIN GMBH & CO. KG, SAARLOUIS/DE

#### Trade name (04D)

ATF D-IIIG  
 ADDINOL ATF D II E  
 ADDINOL ATF D II D  
 ADDINOL ATF D III  
 AMOC POWER  
 AMOC POWER PLUS  
 ALTRA SHL EXTENDED DRAIN ZF 20C  
 ATF DEXRON III  
 ATF DEXRON II  
 TORQUE-DRIVE SYNTHETIC ATF  
 ARAL GETRIEBEÖL ATF LD  
 ARAL GETRIEBEÖL ATF 55  
 ARAL GETRIEBEÖL ATF 22  
 PENNASOL SUPER FLUID ATF 3000  
 PENNASOL SUPER FLUID TYP P/ICN  
 TECTROL ATF 4000  
 TECTROL ATF 3000  
 LUBEX ATF-II  
 BP AUTRAN DX III  
 BP AUTRAN LTF  
 BP AUTRAN MBX  
 BP AUTRAN SYN 295  
 ATF SUPER  
 CASTROL TRANSMAX DEX III MULTIVEHICLE  
 CASTROL TRANSMAX Z  
 CASTROL ATF DEX II MULTIVEHICLE  
 CASTROL TRANSYND  
 CEPSA ATF 3000 S  
 CEPSA ATF 70  
 CEPSA ATF 2000S  
 HAVOLINE ATF MERCON V  
 TEXAMATIC B  
 SYNTHETIC AUTOMATIC TRANSMISSION FLUID HEAVY DUTY  
 TEXAMATIC 4291  
 DELO SYN ATF HD  
 HAVOLINE MULTI-VEHICLE ATF  
 ATF ALLPOWER MULTIVEHICULOS  
 PENTOSIN ATF 1  
 PENTOSIN ATF IIIH  
 AGIP ATF II D  
 AGIP DEXRON III  
 EUROL ATF IIIIF  
 AUTOTRANS ELC  
 MOBIL ATF 220  
 MOBIL ATF D 21065  
 MOBIL ATF SHC  
 MOBIL ATF 320  
 MOBIL ATF LT 71141  
 MOBIL DELVAC SYNTHETIC ATF  
 MOBIL DELVAC 1 ATF  
 ATF DII  
 FUCHS TITAN ATF 5005  
 FUCHS TITAN ATF 3000  
 FUCHS TITAN ATF 4000  
 FUCHS TITAN ATF 5500  
 G-BOX ATF DXII  
 G-BOX ATF DX III  
 LOTOS ATF II D  
 LOTOS ATF SUPER III G  
 LOTOS ATF II D  
 LOTOS ATF IIIIG  
 GULF ATF DX III H  
 GULF ATF DX II  
 GULF ATF PC  
 OILFINO SPONTE ATF II  
 OILFINO SPONTE ATF III  
 MULTITRANS PLUS ATF  
 RTO STARMATIC 3  
 RTO STARMATIC S3  
 IGOL ATF 430  
 INA ATF SUPER  
 INA ATF DX III  
 INA ATF DX IID  
 INA ATF EKSTRA  
 UNIMATIC D-II PLUS  
 ISAMATIC V  
 SPEEDOL ATF DEXRON II  
 ATF DEXRON S III  
 Q8 AUTO 15  
 Q8 AUTO 20  
 Q8 AUTO 14  
 Q8 AUTO 14  
 Q8 AUTO 15 ED  
 LE 1150  
 MEGOL HYDRAULIKOEL ATF DEXRON II D

#### ZF approval number

ZF000415  
 ZF000697  
 ZF000698  
 ZF000699  
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 ZF001702  
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 ZF000390  
 ZF000392  
 ZF000410  
 ZF000079  
 ZF000896  
 ZF000979  
 ZF001388  
 ZF000082  
 ZF000083  
 ZF000176  
 ZF001991  
 ZF002008  
 ZF001676  
 ZF001992

**Manufacturer (04D)****Trade name (04D)****ZF approval number**

MOL-LUB KFT, ALMASFUZITO/HU	MOL ATF SYNT	ZF001155
MOL-LUB KFT, ALMASFUZITO/HU	MOL ATF 3G	ZF001179
MOL-LUB KFT, ALMASFUZITO/HU	MOL ATF	ZF001251
MOL-LUB KFT, ALMASFUZITO/HU	MOL ATF SYNT 3H	ZF001895
MOTUL SA, AUBERVILLIERS/FR	MOTUL DEXRON III	ZF001008
MOTUL SA, AUBERVILLIERS/FR	MOTUL DEXRON II D	ZF001104
OMV PETROL OFISI A.S., ISTANBUL/TR	ATF DX-3	ZF001667
OOO "LLK-INTERNATIONAL", MOSCOW/RU	LUKOIL ATF SYNTH HD	ZF001125
OOO "LLK-INTERNATIONAL", MOSCOW/RU	LUKOIL ATF SYNTH MULTI	ZF001127
OOO "LLK-INTERNATIONAL", MOSCOW/RU	LUKOIL ATF	ZF001146
OOO "LLK-INTERNATIONAL", MOSCOW/RU	LUKOIL ATF SYNTH MN Z3	ZF001302
OOO "LLK-INTERNATIONAL", MOSCOW/RU	LUKOIL ATF IID	ZF001759
OOO "LLK-INTERNATIONAL", MOSCOW/RU	LUKOIL ATF III	ZF001760
OOO "LLK-INTERNATIONAL", MOSCOW/RU	LUKOIL ATF S	ZF001782
ORLEN OIL SP. Z O.O., KRAKOW/PL	HIPOL ATF II D	ZF000081
ORLEN OIL SP. Z O.O., KRAKOW/PL	HIPOL ATF II E	ZF000501
OY TEBOIL AB, HELSINKI/FI	TEBOIL FLUID ES-MAX	ZF001726
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT	AUXON II E	ZF000048
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT	DX FLUID II TS	ZF000376
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT	ATF XT III FLUID	ZF001177
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT	AUXON III PLUS	ZF001466
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT	ATF XT III FLUID PLUS	ZF001748
PANOLIN AG, MADETSWIL/CH	PANOLIN ATF SUPER VTX	ZF001218
PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA	HEAVY DUTY SYNTHETIC BLEND ATF	ZF001236
PETROGAL S.A., LISBOA/PT	GALP TRANSMATIC D II	ZF000331
PETROGAL S.A., LISBOA/PT	GALP TRANSMATIC D III	ZF001425
PETROGAL S.A., LISBOA/PT	GALP TRANSMATIC Z	ZF001893
PETROMIN CORPORATION, JEDDAH/SA	PETROMIN ATF Z20 ECO	ZF001974
PETROMIN CORPORATION, JEDDAH/SA	PETROMIN ATF Z20 LD	ZF002003
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	TUTELA TRANSMISSION ATF 120	ZF000053
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	TUTELA TRANSMISSION G/A	ZF000308
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	TUTELA TRANSMISSION STARFLUID	ZF000309
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	TUTELA TRANSMISSION G/E	ZF000481
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	AKROS MATIC	ZF000485
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	ARBOR MTA	ZF000486
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	TUTELA TRANSMISSION STARFLUID HD-ED	ZF000992
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	TUTELA TRANSMISSION STARFLUID PS	ZF000993
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	TUTELA TRANSMISSION ATF 90	ZF001599
PHI OIL GMBH, ST. GEORGEN/AT	ATF D3 SILVER	ZF001003
PRISTA OIL HOLDING EAD, RUSE/BG	PRISTA ATF	ZF000355
RALOY LUBRICANTES, S.A. DE C.V., SANTIAGO TIANGUISTEN/MX	TRANSFLUID SYNTHETIC M-5	ZF001025
RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE	RAVENOL DEXRON III H	ZF001609
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A. MADRID/ES	REPSOL MATIC ATF	ZF000022
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A. MADRID/ES	REPSOL MATIC ATF	ZF000222
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A. MADRID/ES	REPSOL MATIC ATF	ZF000224
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A. MADRID/ES	REPSOL MATIC III	ZF000318
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A. MADRID/ES	REPSOL MATIC LD ATF	ZF001751
RN-LUBRICANTS, LLC, MOSCOW/RU	TNK ATF IID	ZF001092
ROWE MINERALÖLWERK GMBH, WORMS/DE	ROWE HIGHTEC ATF 9000	ZF001937
ROWE MINERALÖLWERK GMBH, WORMS/DE	ROWE HIGHTEC ATF 8000	ZF001938
SASOL OIL, RANDBURG/ZA	SYN TRANSMISSION OIL VI	ZF001091
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB	SHELL SPIRAX S2 ATF AX	ZF000374
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB	SHELL SPIRAX S6 ATF VM PLUS	ZF001371
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB	SHELL SPIRAX S6 ATF VM	ZF001463
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB	SHELL SPIRAX S6 ATF ZM	ZF001483
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB	SPIRAX S4 ATF HDX	ZF001812
SINOPEC LUBRICANT CO., LTD., BEIJING/CN	SINOPEC GREATWALL ATF III LD	ZF001360
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE	SRS WIOLIN ATF D	ZF000438
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE	SRS WIOLIN ATF III	ZF000439
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE	SRS WIOLIN ATF III MV	ZF002061
STATOIL LUBRICANTS, STOCKHOLM/SE	STATOIL TRANSWAY PS DX III	ZF000487
STATOIL LUBRICANTS, STOCKHOLM/SE	TRANSWAY ATF ULTRA	ZF001330
STATOIL LUBRICANTS, STOCKHOLM/SE	TRANSWAY ATF EXTRA	ZF001332
TARIMSAN TARIM SAN. VE TIC. A.S. KOCAELI/TR	TARMOND ATF II	ZF000408
TEDEX S.A., WARSZAWA/PL	TEDEX SYNTHETIC ATF	ZF001279
TEDEX S.A., WARSZAWA/PL	TEDEX ATF III	ZF001350
TEDEX S.A., WARSZAWA/PL	TEDEX ATF II D	ZF002043
TEXSA DO BRASIL LTDA, UMUARAMA/PR/BR	TEXSA ATF SUPER	ZF001207
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	ELF ELFMATIC G3	ZF001152
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	GULF ATF HIGH TECH	ZF001257
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL FLUIDE XLD FE	ZF001464
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL FLUIDMATIC SYN	ZF001569
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL FLUIDE AT 42	ZF001581
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	ELF ELFMATIC G3 SYN	ZF001582
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL FLUIDE G3	ZF001663
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL FLUIDE II D	ZF001668
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	ELF ELFMATIC G3	ZF001699
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL FLUIDE II D	ZF001723
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL FLUIDE II D	ZF001724
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL FLUIDE II D	ZF001725
UNIL OPAL, SAUMUR/FR	MATIC DX III	ZF001010
UNIL OPAL, SAUMUR/FR	MATIC D	ZF001071
VALVOLINE EMEA, DORDRECHT/NL	VALVOLINE HEAVY DUTY ATF PRO ECO	ZF001871
VALVOLINE EMEA, DORDRECHT/NL	VALVOLINE HEAVY DUTY ATF PRO LD	ZF001872
VALVOLINE EMEA, DORDRECHT/NL	VALVOLINE HEAVY DUTY ATF PRO	ZF001873
YACCO SAS, ST PIERRE LES ELBEUF/FR	ATF III	ZF001610
YORK LUBRICANTS - GINOUVES SAS, LA GARDE/FR	YORK 787	ZF000597
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE	ZF-LIFEGUARDFLUID 5	ZF001363
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE	ZF ECOFLUID A LIFE	ZF001671

**Lubricant class 04E**

Engine oil in accordance with specification

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

- API SF/SG/SH/SJ/SL/SM

- ACEA categories A/B/E

Viscosity grade: SAE 50

Base oil API Group 1 / 2 / 3 / 4

**Note:**

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



**Lubricant class 04F**

Gear oil CLP

Viscosity grade: ISO VG 220

**Manufacturer (04F)**

CASTROL LTD, LONDON/GB  
CHEVRON LUBRICANTS, SAN RAMON, CA/US  
EXXONMOBIL CORPORATION, HOUSTON, TX/US

**Trade name (04F)**

CASTROL ALPHASYN HG 220  
MEROPA 220  
MOBILGEAR 600 XP 220

**ZF approval number**

ZF001508  
ZF000811  
ZF000852

**Lubricant class 04G**

Gear oil in accordance with specification:

- API GL-5 / MIL-L-2105D
- MIL-PRF-2105E
- SAE J2360

Viscosity grade: SAE 80W-90

Base oil API Group 1 / 2 / 3 / 4

**Note:**

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

**Lubricant class 04H**

Gear oil CLP in accordance with DIN 51517-3

Viscosity grade (product groups in accordance with page 1):

- Stern Tubes: ISO VG 68 / 100 / 150 / 220 / 320
  - ZF AT, TT, SDT - Gear box L-Drive: ISO VG 100
  - ZF AT, TT, SDT - Gear box Z-Drive: ISO VG 150
  - ZF TT 4000 CP, 5000 CP - Gear box und Power pack: ISO VG 100
- Base oil API Group 1 / 2 / 3 / 4

**Note:**

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

**Lubricant class 04K**

Hydraulic oil HLP / HVLP in accordance with DIN 51524-2/-3

Viscosity grade (product groups in accordance with page 1):

- SeaRex: ISO VG 32 / 46
- CPP: ISO VG 32 / 46 / 68
- Stern Tubes: ISO VG 68 / 100 / 150 / 220 / 320
- ZF AT, TT, SDT - Power pack: ISO VG 46

**Note:**

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

**Lubricant class 04L**

Biodegradable oil

Viscosity grade (product groups in accordance with page 1):

- CPP: ISO VG 32 / 46 / 68
- Stern Tubes: ISO VG 68 / 100 / 150 / 220 / 320

**Manufacturer (04L)**

CASTROL LTD, LONDON/GB  
TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
VICKERS & SONS LTD., LEEDS/GB

**Trade name (04L)**

BIOSTAT  
BIOHYDRAN TMP  
HYDROX BIO

**Lubricant class 04M**

Biodegradable oil

Viscosity grade (product groups in accordance with page 1):

- ZF AT, TT, SDT - Gear box L-Drive: ISO VG 100

- ZF AT, TT, SDT - Gear box Z-Drive: ISO VG 150

**Manufacturer (04M)**

KLÜBER LUBRICATION, MUNICH/DE

KLÜBER LUBRICATION, MUNICH/DE

SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB

SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB

**Trade name (04M)**

KLÜBERBIO EG 2-100

KLÜBERBIO EG 2-150

SHELL NATURELLE S4 GEAR FLUID 100

SHELL NATURELLE S4 GEAR FLUID 150

**ZF approval number**

ZF001732

ZF001733

ZF001792

ZF001793

**Lubricant class 04P**

Engine oil in accordance with specification

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

- API SF/SG/SH/SJ/SL/SM

- ACEA categories A/B/E

Viscosity grade: SAE 15W-40

Base oil API Group 1 / 2 / 3 / 4

**Note:**

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