



**Powershift transmissions, type Ecomat <sup>(1)</sup>,  
for buses, trucks, and special vehicles**

**List of lubricants TE-ML 14**

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**1. Approved lubricant classes**

Product groups	Lubricant classes for service fills
<p><b>Ecomat (Oil sump temperatures below 100°C) <sup>(3)</sup></b></p> <p>HP500, HP590, HP600 HP502C, HP552C, HP592C, HP602C, HP504C, HP554C, HP594C, HP604C</p> <p><b>Ecomat HL (Oil sump temperatures below 100°C) <sup>(3)</sup></b></p> <p>HP900, HP902</p>	<p><b>14A / 14B / 14C / 14E</b> <b>Automatic Transmission Fluids (ATF)</b></p> <p>Refer to the following pages for approved commercial products and oil change intervals</p> <p><b>Particularly recommended:</b> <b>ZF-Ecofluid A Life (14E) <sup>(2)</sup></b></p>
<p><b>Ecomat (Oil sump temperatures below 105°C) <sup>(4)</sup></b></p> <p>HP502C, HP552C, HP592C, HP602C, HP504C, HP554C, HP594C, HP604C</p> <p><b>Ecomat HL (Oil sump temperatures below 105°C) <sup>(4)</sup></b></p> <p>HP900, HP902</p>	<p><b>14E</b></p> <p><b>Particularly recommended:</b> <b>ZF-Ecofluid A Life (14E) <sup>(2)</sup></b></p>

The list of lubricants TE-ML 14, **edition 01.10.2018** replaces all previous editions. The current list can be requested from any ZF after-sales service center or accessed on the Internet under [www.zf.com/lubricants](http://www.zf.com/lubricants).

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

**Table 1: Oil and filter change intervals for Ecomat transmissions in buses:**

Lubricant class (See overleaf for approved trade products)	Oil and filter change interval [km/year] <sup>(5)</sup>
14A	30.000 km 1 x year
14B	60.000 km 1 x every 2 years
14C	120.000 km 1 x every 2 years
14E	150.000 km 1 x every 3 years

**Note:**

In case of initial oil change transition from an ATF of the lubricants category 14A or 14B to an ATF featuring extended oil change intervals, an interim oil change interval after < 60.000 km/max. 2 years is required.

**Table 2: Oil and filter change intervals for Ecomat transmissions in trucks, off-road equipment and special vehicles:**

Lubricant class (See overleaf for approved trade products)	Oil and filter change interval [h/year]	
	Normal operating conditions (6), (7), (9)	Tough operating conditions (6), (8), (9)
14A	400 h 1 x year	300 h 1 x year
14B	750 h 1 x year	500 h 1 x year
14C	1500 h 1 x year	1000 h 1 x year
14E	2000 h 1 x every 2 years	1500 h 1 x year

**Note:**

In case of initial oil change transition from an ATF of the lubricants category 14A or 14B to an ATF featuring extended oil change intervals, an interim oil change interval after < 750h/max. 1 year is required.

## 2. Explanation of footnotes and comments

### Footnotes

- (1) Automatic powershift transmissions, type EcoLife, also refer to List of lubricants TE-ML 20.
- (2) The fully synthetic ATF ZF-Ecofluid A Life was specially developed for use in automatic powershift transmissions installed in CVs. The combination of synthetic basic oil on the basis of polyalphaolefin and a specially well balanced package of additives ensures excellent oxidation stability, a very constant friction coefficient, and high-quality protection of all transmission components. As a result of the flat viscosity characteristic curve, the oil is suited for applications in all climate zones, particularly in hot and cold regions.
- (3) Transmissions with oil sump temperatures below 100°C.
- (4) Ecomat 2 plus- and Ecomat 4- transmissions with oil sump temperatures above 100°C may only be operated with fluids from the 14E lubricants category. Always use fluids according to 14E in borderline cases or in the case of uncertainty with reference to transmission operation temperature.
- (5) Oil and filter change required, depending on what occurs first. Use only ZF original filter elements, ZF order no. 4139 298 936.
- (6) Oil and filter change required, depending on what occurs first. Use only ZF original filter elements, ZF order no. 4139 298 936. The operating instructions apply in the case of deviating information.
- (7) Standard application: Fire fighting vehicles, construction machinery, and dumpers with high mileage share.
- (8) Extreme applications: Refuse collection vehicles, vehicles featuring high share of off-road use (low mileage share, high level of shift efforts).
- (9) For military applications, the service intervals apply according to document 4237.700.014. Please contact your respectively responsible ZF-Services employee.

### 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.

### 3. Lubricant classes and approved trade products

#### Lubricant class 14A

##### Manufacturer (14A)

ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ALEXANDRIA MINERAL OILS COMPANY, ALEXANDRIA/EG  
 ALEXANDRIA MINERAL OILS COMPANY, ALEXANDRIA/EG  
 AMALIE PETROQUIMICA, MADRID/ES  
 AMALIE PETROQUIMICA, MADRID/ES  
 ARAL AG, BOCHUM/DE  
 ARAL AG, BOCHUM/DE  
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
 BAYWA AG MÜNCHEN, MÜNCHEN/DE  
 BAYWA AG MÜNCHEN, MÜNCHEN/DE  
 BELGIN MADENI YAGLAR TIC. VE SAN. A.S., KOCAELI/TR  
 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 S.A.U., MADRID/ES  
 CEPSA COMERCIAL PETRÓLEO S.A.U., MADRID/ES  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 ENI S.P.A., ROME/IT  
 ENI S.P.A., ROME/IT  
 EUROL B.V., NJIVERDAL/NL  
 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  
 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  
 HILL CORPORATION, SHYMKENT/KZ  
 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  
 INGRAX INDUSTRIA E COMERCIO DE GRAXA S/A, DUQUE DE CAXIAS/BR  
 KOCAK PETROL URUNLERI SAN.VE TIC.LTD.STI, KOCAELI/TR  
 KOCAK 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  
 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  
 MOTUL SA, AUBERVILLIERS/FR  
 MOTUL SA, AUBERVILLIERS/FR  
 OILFINO MINERALÖL GMBH, PRISDORF/DE  
 OILFINO MINERALÖL GMBH, PRISDORF/DE  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 ORLEN OIL SP. Z O.O., KRAKOW/PL  
 OY TEBOIL AB, HELSINKI/FI  
 PETROGAL S.A., LISBOA/PT  
 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  
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY  
 PHI OIL GMBH, ST. GEORGEN/AT  
 PRISTA OIL HOLDING EAD, RUSE/BG  
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES

##### Trade name (14A)

ADDINOL ATF D II D  
 ADDINOL ATF D III  
 AMOC POWER  
 AMOC POWER PLUS  
 ATF DEXRON III  
 ATF DEXRON II  
 ARAL GETRIEBEÖL ATF 55  
 ARAL GETRIEBEÖL ATF 22  
 AVISTA SUPER FLUID TYP P/CN  
 AVISTA SUPER FLUID ATF 3000  
 PENNASOL SUPER FLUID ATF 3000  
 PENNASOL SUPER FLUID TYP P/CN  
 MOTOR GOLD FLUIDTEC TYP P/CN  
 MOTOR GOLD FLUIDTEC ATF 3000  
 TECTROL ATF 4000  
 TECTROL ATF 3000  
 LUBEX ATF-II  
 BP AUTRAN DX III  
 BP AUTRAN MBX  
 ATF SUPER  
 CASTROL TRANSMAX DEX III MULTIVEHICLE  
 CASTROL ATF DEX II MULTIVEHICLE  
 CASTROL TRANSMAX ATF DX II MULTIVEHICLE  
 CASTROL TRANSMAX ATF DX III MULTIVEHICLE  
 CEPSA ATF 70  
 CEPSA ATF 2000S  
 TEXAMATIC 4291  
 AGIP ATF II D  
 AGIP DEXRON III  
 EUROL ATF IIIIF  
 MOBIL ATF 220  
 MOBIL ATF 320  
 ATF DII  
 STATOIL TRANSWAY PS DX III  
 FUCHS TITAN ATF 3000  
 FUCHS TITAN ATF 4000  
 PENTOSIN ATF IIIH  
 G-BOX ATF DXII  
 LOTOS ATF II D  
 LOTOS ATF II D  
 LOTOS ATF IIIIG  
 GULF ATF DX III H  
 GULF ATF DX II  
 GULF ATF PC  
 FASTROIL ATF 3  
 RTO STARMATIC 3  
 IGOL ATF 430  
 INA ATF SUPER  
 INA ATF DX III  
 INA ATF DX IID  
 UNIMATIC D-II PLUS  
 SPEEDOL ATF DEXRON II  
 SPEEDOL ATF DEXRON S III  
 Q8 AUTO 20  
 Q8 AUTO 14  
 Q8 AUTO 14  
 Q8 AUTO 15  
 LIEBHERR HYDRAULIC-GEAR ATF  
 LIQUI MOLY ATF DEXRON IID  
 MEGOL HYDRAULIKOEL ATF DEXRON II D  
 MOL ATF 3G  
 MOL ATF  
 MOTUL DEXRON III  
 MOTUL DEXRON II D  
 OILFINO SPONTE ATF II  
 OILFINO SPONTE ATF III  
 LUKOIL ATF  
 LUKOIL ATF IID  
 LUKOIL ATF III  
 LUKOIL ATF IIIIG  
 HIPOL ATF II D  
 TEBOIL FLUID E  
 GALP TRANSMATIC D II  
 GALP TRANSMATIC D III  
 ATF DX-3  
 TUTELA TRANSMISSION GI/A  
 TUTELA TRANSMISSION STARFLUID  
 TUTELA TRANSMISSION GI/E  
 AKROS MATIC  
 ARBOR MTA  
 TUTELA TRANSMISSION STARFLUID HD-ED  
 ATF D3 SILVER  
 PRISTA ATF  
 REPSOL MATIC ATF

##### ZF approval number

ZF000698  
 ZF000699  
 ZF001702  
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 ZF002128  
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 ZF000309  
 ZF000481  
 ZF000485  
 ZF000486  
 ZF000992  
 ZF001003  
 ZF000355  
 ZF000022

**Manufacturer (14A)**

REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES  
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES  
 RN-LUBRICANTS, LLC, MOSCOW/RU  
 ROLF LUBRICANTS GMBH, LEVERKUSEN/DE  
 ROLF LUBRICANTS GMBH, LEVERKUSEN/DE  
 ROWE MINERALÖLWERK GMBH, WORMS/DE  
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB  
 SPECOL SP. Z O.O., CHORZOW/PL  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
 TEDEX S.A., WARSZAWA/PL  
 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  
 UNIL OPAL, SAUMUR/FR  
 UNIX AUTO, BUDAPEST/HU  
 VALVOLINE EUROPE, DORDRECHT/NL  
 YORK LUBRICANTS - GINOUVES SAS, LA GARDE/FR

**Trade name (14A)**

REPSOL MATIC ATF  
 REPSOL MATIC ATF  
 ROSNEFT KINETIC ATF IID  
 ROLF ATF IID  
 ROLF ATF IIIG  
 ROWE HIGHTEC ATF 8000  
 SHELL SPIRAX S2 ATF AX  
 HIPOSPEC ATF IID  
 SRS WIOLIN ATF D  
 SRS WIOLIN ATF III  
 TEDEX ATF II D  
 TEXSA ATF SUPER  
 ELF ELFMATIC G3  
 GULF ATF HIGH TECH  
 TOTAL FLUIDE G3  
 TOTAL FLUIDE II D  
 ELF ELFMATIC G3  
 TOTAL FLUIDE II D  
 TOTAL FLUIDE II D  
 TOTAL FLUIDE II D  
 FLUIDE AT 42  
 MATIC DX III  
 MATIC D  
 A.Z.MEISTERTEILE AUTOMATIKGETRIEBEÖL ATF  
 VALVOLINE HEAVY DUTY ATF PRO  
 YORK 787

**ZF approval number**

ZF000222  
 ZF000224  
 ZF003440  
 ZF003371  
 ZF003372  
 ZF001938  
 ZF000374  
 ZF003354  
 ZF000438  
 ZF000439  
 ZF002043  
 ZF001207  
 ZF001152  
 ZF001257  
 ZF001663  
 ZF001668  
 ZF001699  
 ZF001723  
 ZF001724  
 ZF001725  
 ZF002100  
 ZF001010  
 ZF001071  
 ZF002192  
 ZF001873  
 ZF000597

**Lubricant class 14B**(\*) Not approved for special transmissions with ratio  $i=5.6-0.83/1.0$ **Manufacturer (14B)**

ADDINOL LUBE OIL GMBH, LEUNA/DE  
 ASTRIS SA, GIORNICO/CH  
 BARDAHL ASIA PACIFIC PTE LTD, SINGAPORE/SG  
 BELGIN MADENI YAGLAR TIC. VE SAN. A.S., KOCAELI/TR  
 BELGIN MADENI YAGLAR TIC. VE SAN. A.S., KOCAELI/TR  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CEPESA 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  
 COMERCIAL ROSHFRANS, S.A. DE C.V., MEXICO, D.F./MX  
 ENI S.P.A., ROME/IT  
 ENI S.P.A., ROME/IT  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 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  
 HUILES BERLIET S.A., SAINT-PIERRE/FR  
 IGOL FRANCE, AMIENS/FR  
 INA MAZIVA LTD., ZAGREB/HR  
 INA MAZIVA LTD., ZAGREB/HR  
 IPIRANGA PRODUTOS DE PETRÓLEO SA, RIO DE JANEIRO/BR  
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL  
 LUBRICATION ENGINEERS, INC., FORT WORTH, TEXAS/US  
 MOL-LUB KFT, ALMASFUZITO/HU  
 MOL-LUB KFT, ALMASFUZITO/HU  
 MORRIS LUBRICANTS, SHREWSBURY/GB  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 ORLEN OIL SP. Z O.O., KRAKOW/PL  
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT  
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT  
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT  
 PANOLIN AG, MADETSWIL/CH  
 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA  
 PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR  
 PETROMIN CORPORATION, JEDDAH/SA  
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY  
 PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY  
 PHI OIL GMBH, ST. GEORGEN/AT  
 RALOY LUBRICANTES, S.A. DE C.V., SANTIAGO TIANGUISTEN/MX  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE  
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A. MADRID/ES  
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A. MADRID/ES  
 ROWE MINERALÖLWERK GMBH, WORMS/DE  
 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  
 SINOPEC LUBRICANT CO., LTD., BEIJING/CN  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
 TEDEX S.A., WARSZAWA/PL  
 TEDEX S.A., WARSZAWA/PL  
 TONGYI PETROLEUM CHEMICAL CO., LTD., BEIJING/CN  
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR  
 UNITED OIL COMPANY PTE LTD, SINGAPORE/SG  
 VALVOLINE EUROPE, DORDRECHT/NL  
 ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

**Trade name (14B)**

ADDINOL ATF D II E (\*)  
 ASTRIS ATF GLOBAL  
 SYNMAXTRAN-HD  
 LUBEX ATF-III KYS  
 LUBEX ATF-III KYS  
 ATF TP  
 CEPESA ATF 3000 S  
 HAVOLINE ATF MERCON V  
 SYNTHETIC AUTOMATIC TRANSMISSION FLUID HEAVY DUTY  
 DELO SYN ATF HD  
 HAVOLINE MULTI-VEHICLE ATF  
 ATF ALLPOWER MULTIVEHICULOS  
 ENI ROTRA ATF II E  
 ENI ROTRA ATF MULTI  
 MOBIL ATF SHC (\*)  
 MOBIL ATF LT 71141  
 FUCHS TITAN ATF 5005  
 PENTOSIN ATF 1  
 TRANSWAY ATF EXTRA  
 G-BOX ATF DX III  
 G-BOX ATF DX III  
 LOTOS ATF SUPER III G  
 RTO STARMATIC S3  
 ATF 700  
 INA ATF EKSTRA (\*)  
 INA ATF DX IIIH  
 ISAMATIC V  
 Q8 AUTO 15 ED  
 LE 1150  
 MOL ATF SYNT (\*)  
 MOL ATF SYNT 3H  
 MULTITRANS ACV  
 LUKOIL ATF SYNTH HD  
 LUKOIL ATF SYNTH MULTI  
 LUKOIL ATF SYNTH MULTI  
 LUKOIL ATF SYNTH (\*)  
 HIPOL ATF II E (\*)  
 AUXON II E  
 DX FLUID II TS (\*)  
 ATF XT III FLUID  
 PANOLIN ATF SUPER VTX  
 HEAVY DUTY SYNTHETIC BLEND ATF  
 LUBRAX ATF HD  
 PETROMIN ATF Z20 ECO  
 TUTELA TRANSMISSION STARFLUID PS  
 TUTELA TRANSMISSION ATF 90  
 ATF D3 GOLD  
 TRANSFLUID SYNTHETIC M-5  
 RAVENOL DEXRON III H  
 REPSOL MATIC III  
 REPSOL MATIC LD ATF  
 ROWE HIGHTEC ATF 9000  
 SHELL SPIRAX S6 ATF VM PLUS  
 SHELL SPIRAX S6 ATF VM  
 SPIRAX S4 ATF HDX  
 SINOPEC GREATWALL ATF III LD  
 SINOPEC GREATWALL ATF HD S  
 SINOPEC GREATWALL ATF HD  
 SRS VIOLIN ATF III MV  
 TEDEX SYNTHETIC ATF (\*)  
 TEDEX ATF III  
 LINGXIAN 6+ AUTOMATIC TRANSMISSION FLUID  
 TOTAL FLUIDE XLD FE  
 TOTAL FLUIDMATIC SYN  
 ELF ELFMATIC G3 SYN  
 UNITED MV 99  
 VALVOLINE HEAVY DUTY ATF PRO LD (\*)  
 ZF-LIFEGUARDFLUID 5

**ZF approval number**

ZF000697  
 ZF002187  
 ZF002246  
 ZF002255  
 ZF002293  
 ZF003609  
 ZF000386  
 ZF000101  
 ZF001219  
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 ZF001279  
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 ZF003377  
 ZF001464  
 ZF001569  
 ZF001582  
 ZF003562  
 ZF001872  
 ZF001363

**Lubricant class 14C****Manufacturer (14C)**

ALLEGHENY PETROLEUM, WILMERDING, PA/US  
 AMSOIL, INC., SUPERIOR, WI/US  
 ARAL AG, BOCHUM/DE  
 BASF SE, LUDWIGSHAFEN/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  
 CASTROL LTD, LONDON/GB  
 EXOL LUBRICANTS LTD, WEDNESBURY/GB  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 EXXONMOBIL CORPORATION, HOUSTON, TX/US  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 FUCHS PETROLUB SE, MANNHEIM/DE  
 H. BANTLEON GMBH / GESELLS. D. AVIA, ULM/DE  
 HI-TEC OILS, SMITHFIELD/AU  
 LUBRICATING SPECIALTIES COMPANY, PICO RIVERA/US  
 OOO "LLK-INTERNATIONAL", MOSCOW/RU  
 OY TEBOIL AB, HELSINKI/FI  
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT  
 PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT  
 PETROGAL S.A., LISBOA/PT  
 PETROMIN CORPORATION, JEDDAH/SA  
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES  
 SASOL OIL, RANDBURG/ZA  
 SINOPEC LUBRICANT CO., LTD., BEIJING/CN  
 SINOPEC LUBRICANT CO., LTD., BEIJING/CN  
 TEDEX S.A., WARSZAWA/PL  
 TONGYI PETROLEUM CHEMICAL CO., LTD., BEIJING/CN  
 VALVOLINE AUSTRALIA PTY LTD, WETHERILL PARK, NSW/AU  
 VALVOLINE EUROPE, DORDRECHT/NL

**Trade name (14C)**

ALTRA SHL EXTENDED DRAIN ZF 20C  
 TORQUE-DRIVE SYNTHETIC ATF  
 ARAL GETRIEBEÖL ATF LD  
 EMGARD 2805  
 BP AUTRAN LTF  
 BP AUTRAN SYN 295  
 ATF VZ  
 CASTROL TRANSMAX Z  
 CASTROL TRANSYND  
 CASTROL TRANSMAX ATF Z  
 TES-295 SYN TRANSMISSION FLUID  
 AUTOTRANS ELC  
 MOBIL DELVAC SYNTHETIC ATF  
 MOBIL DELVAC 1 ATF  
 TRANSWAY ATF ULTRA  
 FUCHS TITAN ATF 5500  
 AVILUB FLUID ATZ 295  
 MULTITRANS PLUS ATF  
 MV TYPE 20C ATF  
 LUKOIL ATF SYNTH MN Z3  
 TEBOIL FLUID ES-MAX  
 AUXON III PLUS  
 ATF XT III FLUID PLUS  
 GALP TRANSMATIC Z  
 PETROMIN ATF Z20 LD  
 REPSOL MATIC SINTETICO  
 SYN TRANSMISSION OIL VI  
 SINOPEC GREATWALL FULLY SYNTHETIC ATF HD S  
 SINOPEC GREATWALL SYNTHETIC ATF HD  
 TEDEX ATF SYNTHETIC (S)  
 LINGXIAN 10+ AUTOMATIC TRANSMISSION FLUID  
 HEAVY DUTY ATF PRO ECO PLUS  
 VALVOLINE HEAVY DUTY ATF PRO ECO

**ZF approval number**

ZF001756  
 ZF001841  
 ZF000144  
 ZF003370  
 ZF000195  
 ZF000197  
 ZF003369  
 ZF000221  
 ZF000226  
 ZF002158  
 ZF002298  
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 ZF001827  
 ZF001330  
 ZF001797  
 ZF002288  
 ZF001669  
 ZF002208  
 ZF001302  
 ZF001726  
 ZF001466  
 ZF001748  
 ZF001893  
 ZF002003  
 ZF003586  
 ZF001091  
 ZF003345  
 ZF003347  
 ZF002213  
 ZF003378  
 ZF003488  
 ZF001871

**Lubricant class 14E****Manufacturer (14E)**

PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY  
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB  
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

**Trade name (14E)**

TUTELA TRANSMISSION ATF 120  
SHELL SPIRAX S6 ATF ZM  
ZF ECOFLUID A LIFE

**ZF approval number**

ZF000053  
ZF001483  
ZF001671