



Commercial Vehicle Technology

**Manual ZF transmissions for trucks
with "TE-ML 01" label on the type plate**

List of lubricants TE-ML 01

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The list of lubricants TE-ML 01, **edition 01.10.2026** replaces all previous editions. The current list can be requested from any ZF after-sales service center or accessed on the Internet under www.aftermarket.zf.com/lubricants.

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Disclaimer: The lubricants and providers listed herein are presented solely for the purpose of documenting lubricants that were tested for compatibility with our products. This listing does not constitute an endorsement, recommendation, or preference for any of the mentioned lubricants, manufacturers, or providers. The inclusion of any lubricant in this list does not imply that it is superior to other available options, nor does it indicate that other lubricants or providers are unsuitable for use with our products. There may be additional lubricants, manufacturers, or providers — whether known or unknown to us — that are fully compatible or otherwise appropriate. It remains the sole responsibility of each customer to verify and comply with all applicable sanction laws and regulations prior to purchasing any of the mentioned lubricants.

1. Approved lubricant classes

Product groups trucks Note: Instead of the "0" as the last figure, there may also be a: 2;3;4;5. (Example: 16S2223)	Lubricant classes	
	First fill ⁽³⁾	Service fill ⁽⁴⁾
Ecomid without Intarder 8S1110, 9S1110, 9S1310, 9S1510	ZF EcoFluid M 01E	ZF EcoFluid M 01E / 01L
Ecomid with Intarder 8S1111, 9S1111, 9S1311	ZF EcoFluid M 01E	ZF EcoFluid M 01E / 01L
Ecosplit without Intarder 8S151, 16S151, 8S181, 16S181, 16S221, 16S251 8S1620, 16S1620, 8S1820, 16S1820, 8S1920, 16S1920, 16S2020, 8S2220, 16S2220, 16S2520, 16S2720 16S1580, 16S1680, 16S2180, 16S2280 16S231, 16S2320, 16S2330 12S2130, 12S2330, 12S2830 8S1630, 16S1630, 8S1830, 16S1830, 8S1930, 16S1930, 16S2030, 8S2230, 16S2230, 16S2530, 16S2733	ZF EcoFluid M 01E	ZF EcoFluid M 01E / 01L
Ecosplit with Intarder 8S151IT, 16S151IT, 8S181IT, 16S181IT, 16S221IT, 16S251IT 8S1621, 16S1621, 8S1821, 16S1821, 8S1921, 16S1921, 16S2021, 8S2221, 16S2221, 16S2521, 16S2721 16S1581, 16S1681, 16S2181, 16S2281 16S231IT, 16S2321, 12S2331 12S2131, 12S2331, 12S2831 16S1631, 8S1831, 16S1831, 8S1931, 16S1931, 16S2031, 8S2231, 16S2231, 16S2531, 16S2731	ZF EcoFluid M 01E	ZF EcoFluid M 01E / 01L

2. Oil and filter change intervals (filter replacement affects only transmission with Intarder or WSK [torque converter clutch])

Caution: Please refer to the previous pages, Section 1, tables, for information on the lubricant classes released for the individual product groups.

ZF EcoFluid M was specially designed for applications with manual transmissions and automatic transmissions in commercial vehicles. The combination of a hydrocrack base oil with a specially balanced additive package ensures excellent oxidation stability and is thus excellently suited for very long oil change intervals. It warrants high-quality transmission component protection, in particular of the synchronizers and the gearings. 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. Moreover, in comparison with mineral transmission fluids, ZF EcoFluid M helps to reduce fuel consumption by 0.5 up to 1.0%.

Lubricant class	01L	ZF EcoFluid M 01E
Application	Oil and filter change intervals ⁽²⁾	
- Off-road operation e.g. mining application - Average speed up to 20 km/h	5.000 h 100.000 km 1 year	10.000 h 200.000 km 2 years ⁽¹⁾
- Hot country use ⁽⁵⁾ - Long-distance transport > 50 t - Short-distance transport- Tough operating conditions - Scheduled routes (buses) - Average speed from 20 to 60 km/h	240.000 km 2 years	360.000 km 3 years ⁽¹⁾
- Long-distance transport (trucks) - Long-distance coach journeys (buses) - Average speed as of 60 km/h	360.000 km 2 years	600.000 km 3 years ⁽¹⁾

3. Low temperatures limits

Lubricant classes	Oil type / SAE viscosity grade	Initial vehicle start-up at oilsump temperatures
ZF EcoFluid M, 01E, 01L	75W-80	- 40°C 

4. Explanation of footnotes and comments

Footnotes

- (1) These intervals only apply to a hose breather in a dry area. If there is no hose breather in the dry area, the oil change intervals specified for lubricant class 01L apply. This restriction does not apply to bus applications.
- (2) Oil and filter change required, depending on what occurs first. Only use genuine ZF filter inserts.
 - Intarder 2: 6085 298 026
 - Intarder 3: 0501 215 163
 - WSK: 0501 202 378
- (3) First filling: Only the lubricant classes listed are permitted for initial fillings of transmissions. ZF recommends the oil grade listed in Table 1.
- (4) Service filling: The lubricant classes listed are compulsory for service oil changes according to the oil-change intervals mentioned under Section 2. **In case of oil changes at transmission mileage of up to 7 500 km, only oils for initial fillings must be used.**
- (5) The denomination „hot country use“ is derived from the area where the vehicle is used, rather than from a country in the sense of a state.
 Regarding ZF units, we say "Hot country use" when:
 1. the monthly average temperature exceeds 25°C in more than 2 months within a year
 2. or if temperatures rise above 40°C on more than 7 days in a year.

Comments

1. Instructions for transmission ventilation in accordance with Installation Guidelines 1203 765 110 and 1328 765 101 must be followed.
2. A lithium saponified multipurpose grease of NLGI class 2 which is mixable with mineral oil is to be used at greasing points (grease code KP2K-30 in acc. with DIN 51825 or ISO-L-XCCHB2 in accordance with ISO 6743-9).
3. 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.
4. ZF will not assume liability for damage caused by non-observance of our maintenance instructions.

5. Lubricant classes and approved trade products

Lubricant class 01E

We recommend that you use ZF EcoFluid M, a premium oil specially developed for ZF transmissions.

Manufacturer (01E)	Trade name (01E)	ZF approval number
CASTROL LTD, LONDON/GB	CASTROL TRANSMAX MANUAL Z LONG LIFE 75W-80	ZF004761
FUCHS SE, MANNHEIM/DE	FUCHS TITAN CYTRAC ULTRA SYNTH SAE 75W-80	ZF008388
GULF OIL INTERNATIONAL, MUMBAI/IN	GULF SYNGEAR ZX ECO	ZF012282
HUILES BERLIET S.A., SAINT-PRIEST/FR	RTO LONGEVIA BZV ECO 75W-80	ZF008323
MAN TRUCK & BUS SE, MUNICH/DE	MAN GENUINE OIL MAN 341 Z5 75W-80	ZF012154
MOEVE CLIENT SOLUTIONS, S.A.U., MADRID/ES	CEPSA TRANSMISIONES Z5 FE+LD 75W80	ZF008339
OLIPES S.L., CAMPO REAL - MADRID/ES	MAXIGEAR TS 7400	ZF011974
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY	TUTELA TRANSMISSION XT-D 540 (SAE 75W-80)	ZF008385
TOTALENERGIES LUBRIFIANTS, NANTERRE/FR	TRAXIUM GEAR 9 FE 75W-80	ZF004874
TOTALENERGIES LUBRIFIANTS, NANTERRE/FR	ELF TRANSELF ZPV 75W-80	ZF012125
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE	ZF ECOFLUID M SAE 75W-80	ZF002155

Lubricant class 01L**Manufacturer (01L)**

ADDINOL LUBE OIL GMBH, LEUNA/DE
 AVIA AG, MÜNCHEN/DE
 BAYWA AG MÜNCHEN, MÜNCHEN/DE
 BELGIN MADENI YAGLAR TIC. VE SAN. A.S., KOCAELI/TR
 CASTROL LTD, LONDON/GB
 CASTROL LTD, LONDON/GB
 CHAMPION CHEMICALS N.V., HEMIKSEM/BE
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 DE OLIEBRON BV, ZWIJNDRECHT/NL
 DEUTSCHE ÖLWERKE LUBMIN, LUBMIN/DE
 DONGFENG COMMERCIAL VEHICLE CO. LTD, HUBEI/CN
 ENILIVE S.P.A., ROME/IT
 EUROL B.V., NJIVERDAL/NL
 EUROPART TRADING GMBH, HAGEN/DE
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 FINKE MINERALÖLWERK GMBH, 27374 VISSSELHÖVEDE/DE
 FUCHS SE, MANNHEIM/DE
 FUCHS SE, MANNHEIM/DE
 FUCHS SE, MANNHEIM/DE
 FUCHS SE, MANNHEIM/DE
 GULF OIL INTERNATIONAL, MUMBAI/IN
 GULF WESTERN OIL (AUST) PTY LTD, ST MARYS/AU
 IGOL FRANCE, AMIENS/FR
 INA MAZIVA LTD., ZAGREB/HR
 KROON-OIL B.V., ALMELO/NL
 KUWAIT PETROLEUM (BELGIUM) N.V., ANTWERP/BE
 KUWAIT PETROLEUM (BELGIUM) N.V., ANTWERP/BE
 LIQUI MOLY GMBH, ULM/DE
 LIQUI MOLY PRODUKTIONS GMBH & CO. KG, SAARLOUIS/DE
 LUKOIL LUBRICANTS EUROPE GMBH, VIENNA/AT
 LUKOIL LUBRICANTS EUROPE GMBH, VIENNA/AT
 MOEVE CLIENT SOLUTIONS, S.A.U., MADRID/ES
 MOL-LUB KFT, ALMASFUZITO/HU
 MOTOREX AG, LANGENTHAL/CH
 MOTOREX AG, LANGENTHAL/CH
 PAKEL MOTOR OIL S.P.A. A S.U., SAN BONIFACIO (VR)/IT
 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA
 PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA
 PETROCHINA LUBRICANT COMPANY, BEIJING/CN
 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
 PHI OIL GMBH, ST. GEORGEN/AT
 RALOV LUBRICANTES, S.A. DE C.V., SANTIAGO TIANGUISTEN/MX
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE
 REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
 ROLF LUBRICANTS GMBH, LEVERKUSEN/DE
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SINOPEC LUBRICANT CO., LTD., BEIJING/CN
 SK ENMOVE CO.,LTD., SEOUL/KR
 TONGYI PETROLEUM CHEMICAL CO., LTD., BEIJING/CN
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR
 UNIL OPAL, SAUMUR/FR
 VALVOLINE EUROPE, DORDRECHT/NL
 VIBRA ENERGIA S.A., DUQUE DE CAXIAS/BR
 WILHELM HOYER B.V. & CO. KG, VISSSELHÖVEDE/DE
 WOLF OIL CORPORATION N.V., HEMIKSEM/BE
 YACCO SAS, ST PIERRE LES ELBEUF/FR
 ZELLER+GMELIN GMBH&CO.KG, EISLINGEN/DE
 ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

Trade name (01L)

ADDINOL GETRIEBEÖL GS 75 W 80 SL
 AVIA POWERTRAIN PREMIUM GX-HD 75W-80
 TECTROL SYNTOGEAR MA 7580
 BELGIN LUBEX MITRAS MT EP SYN 75W-80
 TRANSMAX MANUAL Z 75W-80
 CASTROL GL-4 75W-80 300K
 CHAMPION OEM SPECIFIC 75W80 ZF
 DELO SYN-MTF XZ 75W-80
 DELO SYN-MTF XZ 75W-80
 TOR MT/LD GEAR OIL 75W80
 AVENO TRUCK GEAR LONGLIFE 75W-80
 DFCV-HDT 31
 ENI ROTRA MULTIGEAR 75W-80
 EUROL HPX ZM 75W-80 GL-4
 EUROPART SYNTHOGEAR INT. 75W80
 MOBIL DELVAC 1 TRANSMISSION FLUID 75W-80
 AVIATICON FINKOGEAR MTF 75W-80
 FUCHS TITAN CYTRAC MAN SYNTH SAE 75W-80
 FUCHS TITAN CYTRAC MAT SAE 75W-80
 FUCHS TITAN CYTRAC MAT SAE 75W-80
 FUCHS TITAN CYTRAC MAT SAE 75W-80
 GULF SYNGEAR FE 75W-80
 ULTRA SHIFT M SYNTHETIC MANUAL TRANSMISSION FLUID
 IGOL TRANSGEAR ZF PLUS 75W-80
 INA TRANSMOL HD SAE 75W-80
 SYNGEAR MT/LD 75W-80
 Q8 GEAR OIL V 75W-80
 Q8 T 60 NTECH 75W-80
 LIQUI MOLY TRUCK GETRIEBEÖL HC GL4 SAE 75W-80
 MEGOL PREMIUM GETRIEBEOEL HC GL 4 75W80
 LUKOIL TRANSMISSION SYNTH MPV 75W-80
 LUKOIL TRANSMISSION LDI 75W-80
 CEPASA TRANSMISIONES FE+LD 75W-80
 MOL HYKOMOL SYNTRANS 75W80
 YORK 994
 MOTOREX YORK PRISMA TF SAE 75W/80
 GOLDENGear LD PLUS SAE 75W-80
 TRAXON SYNTHETIC MTF 75W-80
 TRAXON SYNTHETIC MTF 75W-80
 KUNLUN ZFGO 02L
 GALP TRANSVEX TDL ULTRA 75W80
 MAXIGEAR S 75W-80
 PETRONAS TUTELA MTF 700 HD 75W-80
 PETRONAS TUTELA MTF 700 HD 75W-80
 TUTELA TRANSMISSION FE-GEAR (SAE 75W-80)
 TUTELA TRANSMISSION FE-GEAR (SAE 75W-80)
 GEAR OIL MDV SILVER 75W80
 KRÖNEN TRANSMISSION SYNTHETIC OIL 341 SAE 75W-80
 RAVENOL SSG SPEC SYNT LKW GETRIEBEÖL 75W-80
 REPSOL NAVIGATOR FE LL 75W-80
 ROLF TRANSMISSION S7 GE 75W-80
 SHELL SPIRAX S6 GXME 75W- 80
 SINOPEC GREATWALL MTF 02L 75W-80
 ZIC ZS G-EP HP 75W-80
 TONGYI GEAR OIL MTF 75W-80
 TRAXIUM GEAR 8 FE 75W-80
 TRANSOLF LD 75W-80
 TRAXIUM GEAR 8 FE 75W-80
 TRANSOLF LD 75W-80
 GERION LD 75W80
 VALVOLINE HEAVY DUTY GEAR OIL PRO 75W-80 LD
 LUBRAX GOLD XP SAE 75W-80
 HOYER GEAR F-TF 75W-80
 WOLF OFFICIALTECH 75W80 ZF
 BVX Z 1000 75W-80
 DIVINOL SYNTHOGEAR INT. 75W80
 ZF ECOFLUID M1

ZF approval number

ZF008318
 ZF012201
 ZF008378
 ZF006036
 ZF004760
 ZF012090
 ZF008313
 ZF003601
 ZF003600
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