



Industrial Technology

Hydrostatic-mechanical and electric drive systems

List of lubricants TE-ML 07

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The list of lubricants TE-ML 07, **edition 01.07.2026** 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	Lubricant classes for service fills ⁽¹⁾	Alternative lubricant classes for service fills ⁽¹⁾
Powershift transmissions / Transfer box		
HL	Mechanical section: 07B / 07D / 07E / 07F Transmission control unit: 07B / 07D / 07E / Hydraulic oil HLP in accordance with DIN 51524-2	---
AVG ⁽²⁾	07B / 07D / 07E / 07F	---
Electric central drive 2 eCD 50/70/90	Mechanical section: 07B / 07D / 07E / 07F Transmission control unit: Hydraulic oil HLP in accordance with DIN 51524-2	---
Continuously variable hydrostatic drives HC	Mechanical section: 07D Hydraulic section: 07D / 07H ⁽³⁾	---
Mobile mixer drives CML, CMe	Mechanical section: Gear oil ZF EcoFluid X (ZF No. 0681 000 412) Hydraulic section: 07D / 07H ⁽³⁾	---
Mobile mixer drives P3301, P4300, P5300, P6300, P7300 PK5300, PK6500, PK7500	07A / 07C / 07E	07D
Mobile mixer drives PLM P3200	07C / 07E	07D
Swing drives DR	07D / 07E / 07G / 07H	---
Transmissions for lifting equipment RME RMT	07A / 07E	---

2. Low temperature limits

Lubricant classes	Viscosity grades	Use at outside temperatures above ⁽⁴⁾	
		Hydrostatic-mechanical and electric drive - Hydraulic section	Hydrostatic-mechanical and electric drive - Mechanical section
07A (Gear oil)	SAE 75W-90, 75W-110, 75W-140	---	-40°C
	SAE 80W-85, 80W-90, 80W-110, 80W-140	---	-26°C
	SAE 85W-90, 85W-110, 85W-140, 90	---	-12°C
ZF EcoFluid X (Gear oil)	SAE 80W-90	---	-26°C
07B, 07C, 07D, 07F (STOU, engine oil, off highway lubricants)	SAE 5W-30, 5W-40	-35°C	-40°C
	SAE 10W-30, 10W-40	-30°C	-35°C
	SAE 15W-30, 15W-40	-25°C	-30°C
	SAE 20W-20	-20°C	-25°C
	SAE 20W-40	-20°C	---
	SAE 30	-5°C	-10°C
07E (Biodegradable lubricants)	SAE 75W-80	-35°C	-40°C
07G (Biodegradable lubricants)	ISO VG 46	---	-10°C
	ISO VG 68	---	-5°C
07H (hydraulic oil)	ISO VG 46	---	-10°C
	ISO VG 68	---	-5°C
	ISO VG 100	---	0°C

3. Explanation of footnotes and comments

- (1) **Refer to the following pages for approved commercial products.**
- (2) For AVGs directly mounted on ZF axles, use gear oils in accordance with TE-ML 05 for the common oil circuit of the transmission and axle.
- (3) Moreover, please observe the specifications provided by the vehicle manufacturer or hydraulic manufacturer.
- (4) An even warm-up phase is needed in order to reach the minimum oil temperature required for starting the drive unit (mentioned low temperature limit). At outside temperatures below -5°C, a warm-up phase of at least 10 minutes is required, irrespective of the viscosity grade used.

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. Greasing points

Multi-purpose grease according to the specification / requirement:

- DIN 51825 classification KP2K-30 and/or
- ISO 6743-9 classification ISO-L-XCCEB2 or
- ISO 6743-9 classification ISO-L-XCCHB2
- Base oil: mineral or synthetic hydrocarbons (no ester)
- Thickener type: Ca, Li (simple, mixed, complex soap)
- Consistency class: NLGI 2
- EP additives
- Temperature operation limits: min. -30°C to +120°C

Note:

All commercial products that meet the above specifications/requirements may be used.

There will be no product listing.

At outside temperatures above -20°C, greases with the following classification may also be used:

DIN 51825 classification KP2K-20 and/or
ISO 6743-9 classification ISO-L-XBCEB2 or
ISO 6743-9 classification ISO-L-XBCHB2

5. Lubricant classes and approved trade products

Lubricant class 07A

Transmission oil in accordance with Specification

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

Viscosity grades: SAE 75W-90 / 75W-110 / 75W-140 / 80W-85 / 80W-90 / 80W-110 / 80W-140 / 85W-90 / 85W-110 / 85W-140 / 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.

Viscosity grades: SAE 10W-30 / 10W-40 / 15W-30 / 15W-40 / 20W-40

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Manufacturer (07B)

TOTALENERGIES LUBRIFIANTS, NANTERRE/FR
TOTALENERGIES LUBRIFIANTS, NANTERRE/FR
TOTALENERGIES LUBRIFIANTS, NANTERRE/FR
TOTALENERGIES LUBRIFIANTS, NANTERRE/FR
TOTALENERGIES LUBRIFIANTS, NANTERRE/FR
UNIL OPAL, SAUMUR/FR
UNIL OPAL, SAUMUR/FR
UNIL OPAL, SAUMUR/FR
ZELLER+GMELIN GMBH&CO.KG, EISLINGEN/DE
ZELLER+GMELIN GMBH&CO.KG, EISLINGEN/DE

Trade name (07B)

MULTAGRI SUPER 15W-40
MULTAGRI SUPER 10W-30
ELF TRACTORELF ST3 15W-40
MULTAGRI MS 15W-40
MULTAGRI SUPER 15W-40
XANTHOS 10W40
XANTHOS ULTRA 10W40
XANTHOS ULTRA 15W40
DIVINOL SYNTRAC TS 10W40
DIVINOL SPEZIALÖL HGB 10W30

ZF approval number

ZF008264
ZF010693
ZF012189
ZF012187
ZF012188
ZF003672
ZF003673
ZF003674
ZF001626
ZF010463

Lubricant class 07C

Engine oil

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

Manufacturer (07C)

KUWAIT PETROLEUM (BELGIUM) N.V., ANTWERP/BE

Trade name (07C)

Q8 T 750 SAE 15W-40

ZF approval number

ZF000125

Lubricant class 07D

Engine oil in accordance with specification

- API CD/CE/CF-4/CF/CG-4/CH-4/CI-4/CI-4 Plus/CJ-4/CK-4
- API SF/SG/SH/SJ/SL/SM/SN
- ACEA-categories A/B/E

Viscosity grades:

Product groups in accordance with page 1	Viscosity grades
<ul style="list-style-type: none">- Powershift transmissions HL, AVG- Continuously variable hydrostatic drives HC- Mobile mixer drives CML - hydraulic section- Swing drives DR	SAE 5W-30 / 5W-40 / 10W-30 / 10W-40 / 15W-30 / 15W-40 / 20W-20 / 30
<ul style="list-style-type: none">- Mobile mixer drives P-series, PK-series and PLM-series	SAE 10W-40 / 15W-40

Note:

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

Lubricant class 07E

Biodegradable lubricant (Special approval)

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 (07E)

PANOLIN DISTRIBUTION AG, STEINHAUSEN/CH

Trade name (07E)

SHELL PANOLIN BIOFLUID ZFH

ZF approval number

ZF012029

Manufacturer (07F)

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ADDINOL FLUID TO-4 SAE 30
AVIA GEAR ALCAT 430
AVISTA PEAK EVO TO-4 SAE 30
TECTROL UTTO-TO
TECTROL UTTO-TO
CASTROL TRANSMAX OFFROAD 30
CAT TDTO SAE 30
CHAMPION U.T.T. OIL 500
DELO TORQFORCE SAE 30
TRANSHIDO TO-4 SAE 30
VALVOLINE DT TRANSMISSION 30
MOBILTRANS HD 30
MOBILTRANS HD 30
MOBILTRANS HD 30
MOBILTRANS HD 30
MOBILTRANS HD 30
MOBILTRANS HD 30
MOBILTRANS HD 30
MOBIL DELVAC MODERN OFF-HIGHWAY TRANS FLUID 30
MOBIL DELVAC MODERN OFF-HIGHWAY TRANS FLUID 30
MOBIL DELVAC MODERN OFF-HIGHWAY TRANS FLUID 30
MOBILTRANS HD 30
MOBIL DELVAC MODERN OFF-HIGHWAY TRANS FLUID 30
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MOBIL DELVAC MODERN OFF-HIGHWAY TRANS FLUID 30
MOBILTRANS HD 30
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FUCHS TITAN UTTO TO-4 SAE 30
TITAN UTTO TO-4 SAE 30
TITAN UTTO TO-4 SAE 30
TITAN UTTO TO-4 SAE 30
TITAN UTTO TO-4 SAE 30
KIXX GEARTEC TO-4 30
GULF HT FLUID TO-4 30
INA TRANSMATIK 30
Q8 TO-4 FLUID SAE 30
MOL TRANSFLUID TO-4 SAE 30
MOTOREX YORK GEAR OIL MEGA TO-4 SAE 30
PRODURO TO-4 30
GALP MULTITRANS 30
TUTELA TRANS TO-4 (SAE 30)
PRISTA TO-4 30
RAVENOL CATOEL TO-4 SAE 30
REPSOL TRANSMISSIONS TO-4 SAE 30
REPSOL NAVIGATOR TO-4 SAE 30
SAVSOL ULTRA KES 3-30
SHELL SPIRAX S4 CX 30
SHELL SPIRAX S4 CX 30
SHELL SPIRAX S4 CX 30
SHELL SPIRAX S4 CX 30
SINOPEC PREMIUM HD 30 TRANSMISSION OIL
SRS VIOLIN 430
TEXSA TAC-4 30
MONTANA DYNAMIC HYDROTORK 4 30
TONGYI 30
TOTAL DYNATRANS ACX 30
DYNATRANS AC 30
WOLF TRACTOFLUID 500

ZF012212
ZF003688
ZF004771
ZF002194
ZF012214
ZF000267
ZF000869
ZF003584
ZF001903
ZF001108
ZF011985
ZF000035
ZF004740
ZF004745
ZF008257
ZF008291
ZF008292
ZF008293
ZF011922
ZF011921
ZF011920
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ZF012068
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ZF012064
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ZF012069
ZF012074
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ZF012165
ZF012194
ZF012195
ZF012231
ZF012228
ZF012229
ZF012218
ZF002185
ZF012078
ZF012104
ZF012103
ZF012105
ZF002238
ZF011953
ZF000401
ZF002118
ZF002244
ZF010986
ZF003396
ZF002015
ZF005937
ZF000884
ZF001852
ZF003472
ZF008280
ZF009455
ZF000005
ZF000969
ZF001209
ZF005945
ZF001088
ZF001932
ZF001921
ZF003668
ZF012021
ZF002217
ZF011962
ZF003585

Lubricant class 07G

Biodegradable lubricant (Special approval)
Viscosity grade: ISO VG 46 / 68

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 (07G)

PANOLIN DISTRIBUTION AG, STEINHAUSEN/CH
PANOLIN DISTRIBUTION AG, STEINHAUSEN/CH

Trade name (07G)

SHELL PANOLIN S4 HLP SYNTH 46
SHELL PANOLIN S4 HLP SYNTH 68

ZF approval number

ZF012033
ZF012034

Lubricant class 07H

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

Viscosity grades: ISO VG 46 / 68 / 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.