



## Hydrostatic-mechanical and electric drive systems

## List of lubricants TE-ML 07

Table of contents	Page
<a href="#">1. Approved lubricant classes</a> .....	1
<a href="#">2. Low temperature limits</a> .....	2
<a href="#">3. Explanation of footnotes and comments</a> .....	2
<a href="#">4. Greasing points</a> .....	2
<a href="#">5. Lubricant classes and approved trade products</a> .....	3

### 1. Approved lubricant classes

Product groups	Lubricant classes for service fills <sup>(1)</sup>	Alternative lubricant classes for service fills <sup>(1)</sup>
<b>Powershift transmissions / Transfer box</b> HL AVG <sup>(2)</sup>	07B / 07D / 07E / 07F	---
<b>Continuously variable hydrostatic drives</b> HC	Mechanical section: 07D Hydraulic section: 07D / 07H <sup>(3)</sup>	---
<b>Mobile mixer drives</b> CML, CMe	Mechanical section: Gear oil ZF EcoFluid X (ZF No. 0681 000 412) Hydraulic section: 07D / 07H <sup>(3)</sup>	---
<b>Mobile mixer drives</b> P3301, P4300, P5300, P6300, P7300 PK5300, PK6500, PK7500	07A / 07C / 07E	07D
<b>Mobile mixer drives</b> PLM P3200	07C / 07E	07D
<b>Swing drives</b> DR	07D / 07E / 07G / 07H	---
<b>Transmissions for lifting equipment</b> RME RMT	07A / 07E	---

The list of lubricants TE-ML 07, **edition 01.04.2026** 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](http://www.aftermarket.zf.com/lubricants).

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

## 2. Low temperature limits

Lubricant classes	Viscosity grades	Use at outside temperatures above <sup>(4)</sup>	
		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

Page 4 of 12

**Manufacturer (07B)**

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

**ZF approval number**

ZF008263  
ZF008264  
ZF010693  
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"><li>- Powershift transmissions HL, AVG</li><li>- Continuously variable hydrostatic drives HC</li><li>- Mobile mixer drives CML - hydraulic section</li><li>- Swing drives DR</li></ul>	SAE 5W-30 / 5W-40 / 10W-30 / 10W-40 / 15W-30 / 15W-40 / 20W-20 / 30
<ul style="list-style-type: none"><li>- Mobile mixer drives P-series, PK-series and PLM-series</li></ul>	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)**

**Trade name (07F)**

ZF approval number

ZF012212  
ZF003688  
ZF002171  
ZF002194  
ZF000267  
ZF000869  
ZF003584  
ZF001903  
ZF001108  
ZF011985  
ZF000035  
ZF004740  
ZF004745  
ZF008257  
ZF008291  
ZF008292  
ZF008293  
ZF011922  
ZF011921  
ZF011920  
ZF011917  
ZF011919  
ZF011916  
ZF011959  
ZF012068  
ZF012066  
ZF012064  
ZF012067  
ZF012069  
ZF012074  
ZF012065  
ZF012159  
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  
ZF003583



**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.