



**Hydrostatic-mechanical  
and electric drive systems**

**List of lubricants TE-ML 07**

<b>Table of contents</b>	<b>Page</b>
<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**

<b>Product groups</b>	<b>Lubricant classes for service fills <sup>(1)</sup></b>	<b>Alternative lubricant classes for service fills <sup>(1)</sup></b>
<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 01.04.2024** 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).

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## 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 at least KP2K-20  
and / or ISO 6743-9 classification at least ISO-L-XBCHB2
- Consistency class: NLGI 2
- Base oil: API Group 1 / 2 / 3 / 4
- Thickener type: lithium, lithium complex
- EP additives
- Temperature operation limits: min. -20°C to +120°C

## **5. Lubricant classes and approved trade products**

### **Lubricant class 07A**

Gear 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.



**Manufacturer (07B)**

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

**Trade name (07B)**

MULTAGRI SUPER 15W-40  
AGRI UNIVERSAL 400 10W-40  
MULTAGRI SUPER 10W-30  
XANTHOS 10W40  
XANTHOS ULTRA 10W40  
XANTHOS ULTRA 15W40  
DIVINOL SYNTRAC TS 10W40

**ZF approval number**

ZF008264  
ZF008316  
ZF010693  
ZF003672  
ZF003673  
ZF003674  
ZF001626

**Lubricant class 07C**

Engine oil

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

**Manufacturer (07C)**

KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL

**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, MADETSWIL/CH

**Trade name (07E)**

PANOLIN BIOFLUID ZFH 10W/30

**ZF approval number**

ZF000391





**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, MADETSWIL/CH  
PANOLIN DISTRIBUTION AG, MADETSWIL/CH

**Trade name (07G)**

PANOLIN HLP SYNTH 46  
PANOLIN HLP SYNTH 68

**ZF approval number**

ZF000592  
ZF002019

**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.