



## Electric drive systems for commercial vehicles

## List of lubricants TE-ML 28

### Table of contents

### Page

|                                                                                                                |   |
|----------------------------------------------------------------------------------------------------------------|---|
| <a href="#">1. Approved lubricant classes</a> .....                                                            | 2 |
| <a href="#">2. Change intervals <sup>(2)</sup></a> .....                                                       | 3 |
| <a href="#">2.1 CeTrax Lite</a> .....                                                                          | 3 |
| <a href="#">2.2 Electric drive systems AxTrax 2, AxTrax 2 dual, CeTrax 2, CeTrax 2 dual, AxTrax 2 LF</a> ..... | 3 |
| <a href="#">2.3 Electric drive system AxTrax AVE (AVE 130)</a> .....                                           | 3 |
| <a href="#">3. Explanation of footnotes and comments</a> .....                                                 | 3 |
| <a href="#">4. Lubricant classes and approved trade products</a> .....                                         | 4 |

The list of lubricants TE-ML 28, **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](http://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**

| <b>Product groups</b>                                                                                                                                                                                                       | <b>Lubricant classes <sup>(1)</sup></b>  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| <p>Electric drive systems</p> <p><b>CeTrax Lite</b><br/>CX 109</p> <p><b>CeTrax 2</b><br/>CX 318 CX 321</p> <p><b>CeTrax 2 dual</b><br/>CX 326, CX 328, CX 332, CX 336, CX 338</p> <p><b>AxTrax 2</b><br/>AX 318, AX321</p> | <p>ZF EcoFluid E SAE 75W-70<br/>28A</p>  |
| <p>Electric drive systems including wheel head transmissions</p> <p><b>AxTrax 2 LF</b><br/>AX 426, AX 436</p> <p><b>AxTrax 2 dual</b><br/>AX 336, AX 338</p>                                                                | <p>ZF EcoFluid E SAE 75W-70<br/>28A</p>  |
| <p>Electric drive systems for city buses including wheel head transmissions with introduction robustness package</p> <p><b>AxTrax AVE (AVE 130)</b><br/>AX 217, AX 219</p>                                                  | <p>ZF EcoFluid XE SAE 75W-85<br/>28C</p> |
| <p>Grease-lubricated compact bearing arrangement in wheel head transmissions or wheel heads</p> <p><b>AxTrax 2, AxTrax 2 dual, AxTrax 2 LF, AxTrax AVE (AVE 130)</b></p>                                                    | <p>28B</p>                               |

## 2. Change intervals <sup>(2)</sup>

### 2.1 CeTrax Lite

No oil change required.

### 2.2 Electric drive systems AxTrax 2, AxTrax 2 dual, CeTrax 2, CeTrax 2 dual, AxTrax 2 LF

| Application / Lubricant class                                                                                                                                                              | ZF EcoFluid E<br>SAE 75W-70<br>28A | Oil filter,<br>breather | Lubricating grease<br>28B |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------|---------------------------|
| - Hot country use <sup>(3)</sup><br>- Scheduled routes (city – and suburban operation)<br>- Short-distance transport<br>- Tough operating conditions<br>- Average speed from 20 to 60 km/h | 120.000 km<br>2 years              | 120.000 km<br>2 years   | 500.000 km<br>4 years     |
| - Long-distance transport<br>- Average speed as of 60 km/h                                                                                                                                 | 180.000 km<br>2 years              | 180.000 km<br>2 years   | 800.000 km<br>6 years     |

### 2.3 Electric drive system AxTrax AVE (AVE 130)

| Application / Lubricant class       | ZF EcoFluid XE 75W-85<br>28C | Lubricating grease<br>28B |
|-------------------------------------|------------------------------|---------------------------|
| - Scheduled routes (City operation) | 60.000 km<br>1 year          | 500.000 km<br>4 years     |

## 3. Explanation of footnotes and comments

### Footnotes

- (1) Refer to the following pages for approved commercial products.
- (2) Change required, depending on what occurs first. Only use genuine ZF parts.
- (3) 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.  
 A "hot country application" applies 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

Additives of any kind added **later** to the oil change the oil in a manner that is unpredictable, and they are therefore not permitted.

ZF accepts no liability for damage resulting from failure to observe the maintenance instructions or from additives subsequently introduced.

**4. Lubricant classes and approved trade products****Lubricant class 28A**

Transmission oil for electric vehicle drives

Viscosity grade: SAE 75W-70

**Manufacturer (28A)**

ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

**Trade name (28A)**

ZF ECOFLUID E

**ZF approval number**

ZF008340

**Lubricant class 28B**

Lubricating grease for long-term lubrication of compact bearings (Hub Unit)

**Manufacturer (28B)**

FUCHS SE, MANNHEIM/DE  
FUCHS SE, MANNHEIM/DE  
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

**Trade name (28B)**

RENOLIT LX-NHU 2 - OEM  
RENOLIT LX-PEP 2-OEM  
ZF RENOLIT LX-PEP 2

**ZF approval number**

ZF012093  
ZF012094  
ZF012109

**Lubricant class 28C**  
Transmission oil for electric vehicle drives  
Viscosity grade: SAE 75W-85

| Manufacturer (28C)                                                                  | Trade name (28C)                        | ZF approval number   |
|-------------------------------------------------------------------------------------|-----------------------------------------|----------------------|
| TOTALENERGIES LUBRIFIANTS, NANTERRE/FR<br>ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE | RUBIA EV-DRIVE MP 7.1<br>ZF ECOFLUID XE | ZF010971<br>ZF008403 |