



Manual transmissions, double-clutch transmissions
and automatic transmissions for cars

List of lubricants TE-ML 11

Manual transmissions

Product groups	Approved lubricants for service fills
S5-31 S5-39	According to spare part number of vehicle manufacturer: - Esso Gear Oil 304 => BMW Oil No. 2300 1434 404 - BP Castrol BOT 338 => BMW Oil No. 2300 7533 513 => Castrol Syntrans B 75W
S6-37	According to spare part number of vehicle manufacturer: - Esso Gear Oil 304 => BMW Oil No. 2300 1434 404 (clutch bell housing label MTF-LT1) - BP Castrol BOT 338 => BMW Oil No. 2300 7533 513 (clutch bell housing label MTF-LT2) => Castrol Syntrans B 75W - BP Castrol BOT 207 => BMW Oil No. 2300 7533 818 (clutch bell housing label MTF-LT3) Warning: use of incorrect lubricant can cause transmission failure
S6-45	According to spare part number of vehicle manufacturer: - Pentosin FFL-3 => BMW Oil No. 8322 2167 666 (MTF-LT-5)
S6-53	According to spare part number of vehicle manufacturer: - Esso Gear Oil 304 => BMW Oil No. 2300 1434 404 (clutch bell housing label MTF-LT1) - BP Castrol BOT 338 => BMW Oil No. 2300 7533 513 (clutch bell housing label MTF-LT2) => VW Oil No. N 05279800 => Castrol Syntrans B 75W - BP Castrol BOT 207 => BMW Oil No. 2300 7533 818 (clutch bell housing label MTF-LT3) Warning: use of incorrect lubricant can cause transmission failure
6S530	According to spare part number of vehicle manufacturer: - BP Castrol BOT 338 => Nissan Oil No. 32001 1BY0A => Castrol Syntrans B 75W - Esso Gear Oil 304
S7-45HL	According to spare part number of vehicle manufacturer: - ExxonMobil Mobilube PTX 75W-90 => Porsche Oil No. 999.917.067.00

Note:

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.

The list of lubricants TE-ML 11, **Edition 13.01.2014** replaces all previous editions. The current list can be requested from any ZF after-sales service center or accessed on the Internet under www.zf.com/lubricants.

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D-88038 Friedrichshafen
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mailto: lubricant3@zf.com

Double-clutch transmissions

Product groups	Approved lubricants for service fills
7DT45HL, 7DT45HLA, 7DT45FL 7DT46HL, 7DT46HLA, 7DT46FL 7DT47HL 7DT70HLA 7DT71HLA	According to spare part number of vehicle manufacturer: 1. Clutch component Pentosin FFL-3 => Porsche Oil No. 999.917.080.00 2. Transmission component ExxonMobil Mobilube PTX 75W-90 => Porsche Oil No. 999.917.067.00
7DT75, 7DT75A 7DT76, 7DT76A	According to spare part number of vehicle manufacturer: Pentosin FFL-3 => Porsche Oil No. 999.917.080.00

Note:

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Automatic transmissions

Product groups	Approved lubricants for service fills
3HP22, 3HP22Q, 4HP14Q, 4HP18FL (1), 4HP18FLA (2), 4HP18FLE (1), 4HP18Q, 4HP18QE, 4HP22, 4HP22EH, 4HP22HL (3), 4HP24, 4HP24A (2)	Automatic Transmission Fluid (ATF) according to lubricant classes 11A / 11B => Refer to the following pages for approved commercial products or Automatic Transmission Fluid (ATF) based on mineral base fluids according to former Dexron-II / Dexron-III specification by General Motors. => without listing
5HP18	According to marking: 1. Transmissions with black type plate Automatic Transmission Fluid (ATF) according to lubricant class 11B => Refer to the following pages for approved commercial products 2. Transmissions with green type plate or with green label on the oil pan. ZF Lifeguardfluid 5 (ZF No. S671 090 170) => BMW Oil No. 8322 9407807 ATF according to lubricant class 11B are not permitted (exception: ZF Lifeguardfluid 5) Warning: use of incorrect lubricant can cause transmission failure
5HP30	According to spare part number of vehicle manufacturer: ZF Lifeguardfluid 5 (ZF No. S671 090 170) => BMW Oil No. 8322 9407807 => Rolls Royce Oil No. PL 31493PA
4HP20, 5HP19, 5HP19FL (1), 5HP19FLA (2), 5HP19HL (1), 5HP19HLA (2), 5HP24, 5HP24A (2)	According to spare part number of vehicle manufacturer: ZF Lifeguardfluid 5 (ZF No. S671 090 170) => Audi / VW Oil No. G 052162 A1 / A2 / A6 => BMW Oil No. 8322 9407807 => Citroen Oil No. Z 000169756 => Jaguar Oil No. JLM 20238 => Mercedes Benz Oil No. A 0019892203 => Peugeot Oil No. Z 000169756 => Porsche Oil No. 999.917.547.00
6HP19, 6HP19A (2) - MPL-dependent (main parts list) 6HP19X - not for Audi Q7, 6HP21, 6HP21X, 6HP26, 6HP26X, 6HP26A61 - not for vehicles equipped with Audi W12-engine (2), 6HP28, 6HP28X, 6HP28A61, 6HP32, 6HP32A (2), 6HP32X	According to spare part number of vehicle manufacturer: ZF Lifeguardfluid 6 (ZF No. S671 090 255) => AML Oil No. 4G4319A509/AA/S => Audi / VW Oil No. G 055005 A1 / A2 / A6 => Bentley Oil No. PY112995PA => BMW Oil No. 8322 0142516 => Hyundai Oil No. 040000C90SG => Jaguar Oil No. Jaguar Fluid 8432 => Land Rover Oil No. TYK500050 => Maserati Oil No. 231603
6HP19A (2) - MPL-dependent (main parts list) 6HP19X - for Audi Q7, 6HP26A61 - for vehicles with Audi W12-engine (2) 6HP28AF (2) 8HP45, 8HP45X, 8HP55A (2), 8HP70, 8HP70X, 8HP90, 8HP90A (2) 9HP48	According to spare part number of vehicle manufacturer: ZF Lifeguardfluid 8 (ZF No. S671 090 312) => Audi / VW Oil No. G 060162 A1 / A2 / A6 ATF => BMW Oil No. 8322 2152426 => Jaguar Oil No. 02JDE 26444 => Land Rover Oil No. LR023288 => Chrysler Oil No. 68157995AA

Note footnotes and maintenance recommendations ZF automatic transmissions page 4.

Footnotes

- (1) Filling differential with transmission oil Castrol SAF-AG4 => Audi / VW Oil No. N 052145000, Porsche Oil No. 999.917.545.00)
- (2) Split oil supply front / rear axle differential:
 - Filling front axle differential with transmission oil Castrol SAF-AG4
=> Audi / VW Oil No. N 052145000, Porsche Oil No. 999.917.545.00)
 - Filling rear axle differential with transmission oil Castrol SAF-AG4 Q (SAF-AG4 + 4% FM Additive)
=> Audi / VW Oil No. G 055145 A2)
 Common oil supply front /rear axle differential:
 - Filling with transmission oil Castrol SAF-AG4 Q (SAF-AG4 + 4% FM Additive) => Audi / VW Oil No. G 055145 A2
- (3) Filling differential with transmission oil API GL-5, MIL-L-2105D, MIL-PRF-2105E, SAE J 3260, viscosity class SAE 75W-90 or SAE 90

Note:

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Maintenance recommendations ZF automatic transmissions

<p>3/4-speed automatic transmissions: ZF 3 and 4-speed automatic transmissions must be filled with approved ATF oils according to ZF list of lubricants TE-ML 11, lubricant class 11A / 11B or with mineral ATF oils according to the former Specification Dexron II / Dexron III by General Motors. For oil-change intervals consult the vehicle manufacturer's specifications.</p>
<p>5-, 6- and 8-speed as well as 4HP20 automatic transmissions: ZF 5-, 6- and 8-speed as well as the ZF 4HP20 automatic transmissions are filled maintenance-free with specially developed partially synthetic ATF oils. Maintenance-free fills are intended for normal operating conditions. Especially driving at very high operating temperatures can result in accelerated aging or increased wear of ATF oils. It is recommended, in the event of severe operating conditions, such as:</p> <ul style="list-style-type: none"> - frequent highway driving in top speed range, - offensive, sporty driving style, - frequent trailer operation, <p>being above average, oil purification (oil change) on automatic transmissions is recommended between 80,000 km and 120,000 km, or 8 years, depending on the load.</p> <p>In each case, only released ATF oil may be used for oil changes. And oil changes must be performed in accordance with the relevant specifications.</p>
<p>The exception is the ZF 5HP18 automatic transmission which must be filled differently depending on the version.</p>
<p>The released ATF oils in each case are specified in the ZF Lubricants List TE-ML 11.</p>

Lubricant class 11A

Automatic Transmission Fluid (ATF)

Manufacturer (11A)

AMALIE PETROQUIMICA, MADRID/ES
 ARAL AG, BOCHUM/DE
 BP PLC., LONDON/GB
 BUCHER AG LANGENTHAL, LANGENTHAL/CH
 CASTROL LTD, LONDON/GB
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 ENI S.P.A., ROME/IT
 EXXONMOBIL CORPORATION, FAIRFAX, VA/US
 EXXONMOBIL CORPORATION, FAIRFAX, VA/US
 FABRIKA MAZIVA FAM AD, KRUEVAC/RS
 INA MAZIVA LTD., ZAGREB/HR
 KOCAK PETROL URUNLERI SAN.VE TIC.LTD.STI, KOCAELI/TR
 MOTUL SA, AUBERVILLIERS/FR
 OMV REFINING & MARKETING GMBH, VIENNA/AT
 OPET FUCHS MADENI YAG. SAN. VE TIC. A.S., IZMIR/TR
 ORLEN OIL SP. Z O.O., KRAKOW/PL
 PRISTA OIL HOLDING EAD, RUSE/BG
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 TARIMSAN TARIM SAN. VE TIC. A.S, KOCAELI/TR
 UNIL OPAL, SAUMUR/FR

Trade name (11A)

ATF DEXRON II
 ARAL GETRIEBEÖL ATF 22
 BP AUTRAN MBX
 ATF SUPER
 CASTROL ATF DEX II MULTIVEHICLE
 TEXAMATIC 4291
 TEXAMATIC B
 AGIP ATF II D
 ESSO ATF D 2
 MOBIL ATF 220
 ATF DII
 INA ATF SUPER
 SPEEDOL ATF DEXRON II
 MOTUL DEXRON II D
 OMV ATF D II
 OPET ATF DX II
 HIPOL ATF II D
 PRISTA ATF
 SHELL SPIRAX S2 ATF AX
 TARMOND ATF II
 MATIC D

Lubricant class 11B
Automatic Transmission Fluid (ATF)**Manufacturer (11B)**

AMALIE PETROQUIMICA, MADRID/ES
ARAL AG, BOCHUM/DE
BP PLC., LONDON/GB
CASTROL LTD, LONDON/GB
DEUTSCHE PENTOSIN WERKE GMBH, WEDEL/DE
ENI S.P.A., ROME/IT
EXXONMOBIL CORPORATION, FAIRFAX, VA/US
EXXONMOBIL CORPORATION, FAIRFAX, VA/US
KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

Trade name (11B)

ATF DEXRON III
ARAL GETRIEBEÖL ATF LD
BP AUTRAN LTF
CASTROL TRANSMAX Z
PENTOSIN ATF 1
AGIP DEXRON III
MOBIL ATF D 21065
MOBIL ATF LT 71141
Q8 AUTO 15
TOTAL FLUIDE AT 42
ZF-LIFEGUARDFLUID 5