

**Marine transmissions****List of lubricants TE-ML 04****Table of contents****Page**

1. Approved lubricant classes	1
2. Explanation of footnotes and comments	2
3. Lubricant classes and approved trade products	3

1. Approved lubricant classes

Product groups	Lubricant classes for service fills ⁽¹⁾
ZF 4 to ZF 115 with all derived variants M, A, IV, C, TS, ATS, IVTS	04D
ZF 220 to ZF 60500 with all derived variants A, V, IV, C, U, D, NR, NR2, NR2H, NR2B, TS, ATS, VTS, IVTS	04A / 04B / 04C
ZF 23560 to ZF 23860 with all derived variants NR, C, D	04B / 04C
ZF W220 to ZF W93100 with all derived variants C, NR, NC, DS, NR2H	04A / 04B / 04C
ZF W93300 and ZF W103100 with all derived variants	04E / 04F
BW 5 to BW 5300 with all derived variants	04A / 04B / 04C
BW 2356 to BW 2386	04B / 04C
HBW 35 to HBW 630 HSW 90 to HSW 110 HSW 125 to HSW 800 with all derived variants	04D
IRM 40 to IRM 50	04D
IRM 220 to IRM 350	04A / 04B / 04C
ZF SD 10, SD 12	04P
SeaRex 100s, 120s, 140s, 160s	Drive oil: 04A / 04B / 04C Hydraulic oil: 04K
ZF AT 400, 2000 to 8000 with all derived variants WM, RT, DM, SM ZF TT 400, 1000 to 8000 ZF SDT 2000 to 6000	Gear box: 04H / 04M Power pack: 04K (2)
ZF TT 4000 CP, 5000 CP	Gear box and Power pack: 04H (2)
PPD, PPS	04G
CPP	04K / 04L
Stern Tubes	04A / 04B / 04H / 04K / 04L

The list of lubricants TE-ML 04, **edition 01-JUL-16** 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.

ZF Friedrichshafen AG
D-88038 Friedrichshafen
www.zf.com/contact

2. Explanation of footnotes and comments

- (1) **Refer to the following pages for approved commercial products.**
- (2) For further information (approved greases, oil fill quantities, evaluation of oil condition, etc.) see "Lubricants equivalents list P0166 ZF Krimpen".

A Multipurpose grease classified KP2K-20 acc. to DIN 51825 or ISO-L-XBCHB2 acc. to ISO 6743-9 must be used on greasing points (base oil API Group 1, 2, 3 or 4, EP additives, lithium saponified, temperature use limits min. between -20 and +120° C, NLGI-Class 2).

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.

3. Lubricant classes and approved trade products

Lubricant class 04A

Engine oil in accordance with specification

- API CD/CE/CF-4/CF/CG-4/CH-4/CI-4/CI-4 Plus/CJ-4

- API SF/SG/SH/SJ/SL/SM

- ACEA categories A/B/E

Viscosity grade: SAE 30, also SAE 40 in hot countries or when oil sump temperatures are above +80°C

Base oil API Group 1 / 2 / 3 / 4

Note:

1. All trade products which satisfy the above specifications may be used. There will be no product listing.
2. For transmissions which are classified according to DNV, fluids of the class 04A may not be used. Instead of this fluids according to classes 04B or 04C may be used.

Lubricant class 04B

Engine oil

Viscosity grade: SAE 30, also SAE 40 in hot countries or when oil sump temperatures are above +80°C

Manufacturer (04B)	Trade name (04B)	ZF approval number
ADDINOL LUBE OIL GMBH, LEUNA/DE	ADDINOL TURBO DIESEL MD 305 SAE 30	ZF000624
ADDINOL LUBE OIL GMBH, LEUNA/DE	ADDINOL TURBO DIESEL MD 405 SAE 40	ZF000625
CHEVRON LUBRICANTS, SAN RAMON, CA/US	URSA TRANS SAE 40	ZF000821
EXXONMOBIL CORPORATION, HOUSTON, TX/US	MOBIL DELVAC 1630 SAE30	ZF000036
EXXONMOBIL CORPORATION, HOUSTON, TX/US	MOBIL DELVAC 1640 SAE40	ZF000037
FUCHS PETROLUB SE, MANNHEIM/DE	FUCHS TITAN UNIVERSAL HD SAE 30 ZF	ZF000719
FUCHS PETROLUB SE, MANNHEIM/DE	FUCHS TITAN UNIVERSAL HD SAE 30	ZF001189
FUCHS PETROLUB SE, MANNHEIM/DE	FUCHS TITAN UNIVERSAL HD SAE 40	ZF001190
GULF OIL INTERNATIONAL, MUMBAI/IN	GULF SUPER DUTY LE 30	ZF001147
IGOL FRANCE, AMIENS/FR	ATF 700	ZF001833
INA MAZIVA LTD., ZAGREB/HR	INA GORGONELA S 30	ZF001173
INA MAZIVA LTD., ZAGREB/HR	INA SUPER 3 30	ZF001468
IPIRANGA PRODUTOS DE PETROLEO SA, RIO DE JANEIRO/BR	IPIRANGA ULTRAGEAR 40	ZF001340
IPIRANGA PRODUTOS DE PETROLEO SA, RIO DE JANEIRO/BR	IPIRANGA ULTRAGEAR ZF 40	ZF001764
KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL	Q8 MOZART DP SAE 30	ZF000095
KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL	Q8 MOZART DP SAE 40	ZF000096
OOO "PROIZVODSTVO ZAVOD IMENI SHAUMYANA", SAINT-PETERSBURG/RU	M-14D2CE (SAE 40)	ZF001095
PANOLIN AG, MADETSWIL/CH	PANOLIN EXTRA DIESEL 30	ZF000393
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TURBO SAE 30	ZF000581
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TURBO SAE 40	ZF000582
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TRM 5 HD SAE 30	ZF001174
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TRM 5 HD SAE 40	ZF001175
PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR	LUBRAX TRM 40	ZF001742
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB	SHELL RIMULA R3+ 30	ZF001618
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL CAPRANO TD 30	ZF000533
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL CAPRANO TD 40	ZF000534
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL CAPRANO TD 30	ZF000538
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL CAPRANO TD 40	ZF000539
TOTAL LUBRIFIANTS S.A., NANTERRE/FR	TOTAL RUBIA FP 40	ZF001153

Lubricant class 04C

Engine oil

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

Manufacturer (04C)

CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 MTU FRIEDRICHSHAFEN GMBH, FRIEDRICHSHAFEN/DE
 NOVA STILMOIL SPA, MODENA/IT
 OOO "LLK-INTERNATIONAL", MOSCOW/RU
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR
 TOTAL LUBRIFIANTS S.A., NANTERRE/FR

Trade name (04C)

DELO 400 MULTIGRADE SAE 15W-40
 DELO 400 LE SAE 15W-40
 MOBIL DELVAC XHP EXTRA 10W-40
 DIESEL ENGINE OIL SAE 15W-40
 ORION SUPER PLUS 15W40
 LUKOIL AVANTGARDE PROFESSIONAL LS 10W-40
 SHELL SIRIUS 15W-40
 SHELL RIMULA R3X 15W-40
 SHELL RIMULA R4 X 15W-40 (CI-4/E7/DH-1)
 SHELL SIRIUS 15W-40
 SHELL RIMULA R6 M 10W-40
 SHELL RIMULA R6 M 10W-40
 TOTAL CAPRANO TDI 15W-40
 TOTAL CAPRANO TDH 15W-40
 TOTAL CAPRANO TDI 15W-40

ZF approval number

ZF000649
 ZF001847
 ZF000770
 ZF002002
 ZF000920
 ZF001968
 ZF000436
 ZF000437
 ZF001482
 ZF001484
 ZF001796
 ZF001799
 ZF001256
 ZF001535
 ZF001791

Lubricant class 04D**Automatic Transmission Fluid (ATF)****Manufacturer (04D)**

"RS200 MOTOR OIL" PAPANTONIOU S.A., LAKKOMA/GR
 ADDINOL LUBE OIL GMBH, LEUNA/DE
 ADDINOL LUBE OIL GMBH, LEUNA/DE
 ADDINOL LUBE OIL GMBH, LEUNA/DE
 ALEXANDRIA MINERAL OILS COMPANY, ALEXANDRIA/EG
 ALEXANDRIA MINERAL OILS COMPANY, ALEXANDRIA/EG
 ALLEGHENY PETROLEUM, WILMERDING, PA/US
 AMALIE PETROQUIMICA, MADRID/ES
 AMALIE PETROQUIMICA, MADRID/ES
 AMSOIL, INC., SUPERIOR, WI/US
 ARAL AG, BOCHUM/DE
 ARAL AG, BOCHUM/DE
 ARAL AG, BOCHUM/DE
 AVISTA OIL REFINING & TRADING DEUTSCHLAN, UETZE/DE
 AVISTA OIL REFINING & TRADING DEUTSCHLAN, UETZE/DE
 BAYWA AG MÜNCHEN, MÜNCHEN/DE
 BAYWA AG MÜNCHEN, MÜNCHEN/DE
 BELGIN MADENI YAĞLAR TIC. VE SAN. A.S., KOCAELI/TR
 BP PLC., LONDON/GB
 BP PLC., LONDON/GB
 BP PLC., LONDON/GB
 BP PLC., LONDON/GB
 BUCHER AG LANGENTHAL, LANGENTHAL/CH
 CASTROL LTD, LONDON/GB
 CASTROL LTD, LONDON/GB
 CASTROL LTD, LONDON/GB
 CASTROL LTD, LONDON/GB
 CEPSA COMERCIAL PETRÓLEO, MADRID/ES
 CEPSA COMERCIAL PETRÓLEO, MADRID/ES
 CEPSA COMERCIAL PETRÓLEO, MADRID/ES
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 CHEVRON LUBRICANTS, SAN RAMON, CA/US
 COMERCIAL ROSHFRANS, S.A. DE C.V., MEXICO, D.F./MX
 DEUTSCHE PENTOSIN WERKE GMBH, WEDEL/DE
 DEUTSCHE PENTOSIN WERKE GMBH, WEDEL/DE
 ENI S.P.A., ROME/IT
 ENI S.P.A., ROME/IT
 EUROL B.V., NJIVERDAL/NL
 EXOL LUBRICANTS LTD, WEDNESBURY/GB
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 EXXONMOBIL CORPORATION, HOUSTON, TX/US
 FABRIKA MAZIVA FAM AD, KRUSĚVAC/RS
 FUCHS PETROLUB SE, MANNHEIM/DE
 FUCHS PETROLUB SE, MANNHEIM/DE
 FUCHS PETROLUB SE, MANNHEIM/DE
 FUCHS PETROLUB SE, MANNHEIM/DE
 GAZPROMNEFT-LUBRICANTS, MOSCOW/RU
 GAZPROMNEFT-LUBRICANTS, MOSCOW/RU
 GRUPA LOTOS S.A., GDANSK/PL
 GRUPA LOTOS S.A., GDANSK/PL
 GRUPA LOTOS S.A., GDANSK/PL
 GRUPA LOTOS S.A., GDANSK/PL
 GULF OIL INTERNATIONAL, MUMBAI/IN
 GULF OIL INTERNATIONAL, MUMBAI/IN
 GULF OIL INTERNATIONAL, MUMBAI/IN
 HARMS MINERALÖLE, PRISDORF/DE
 HARMS MINERALÖLE, PRISDORF/DE
 HI-TEC OILS, SMITHFIELD/AU
 HUILES BERLIET S.A., SAINT-PRIEST/FR
 HUILES BERLIET S.A., SAINT-PRIEST/FR
 IGOL FRANCE, AMIENS/FR
 INA MAZIVA LTD., ZAGREB/HR
 INA MAZIVA LTD., ZAGREB/HR
 INA MAZIVA LTD., ZAGREB/HR
 INA MAZIVA LTD., ZAGREB/HR
 INGRAX INDUSTRIA E COMERCIO DE GRAXA S/A, DUQUE DE CAXIAS/BR
 IPIRANGA PRODUTOS DE PETROLEO SA, RIO DE JANEIRO/BR
 KOCAK PETROL URUNLERI SAN.VE TIC.LTD.STI, KOCAELI/TR
 KOCAK PETROL URUNLERI SAN.VE TIC.LTD.STI, KOCAELI/TR
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL
 KUWAIT PETROLEUM INTERNATIONAL LUBRICANT, ANTWERP/NL
 LUBRICATION ENGINEERS, INC., FORT WORTH, TEXAS/US
 MEGUIN GMBH & CO. KG, SAARLOUIS/DE

Trade name (04D)

ATF D-IIIG
 ADDINOL ATF D II E
 ADDINOL ATF D II D
 ADDINOL ATF D III
 AMOC POWER
 AMOC POWER PLUS
 ALTRA SHL EXTENDED DRAIN ZF 20C
 ATF DEXRON III
 ATF DEXRON II
 TORQUE-DRIVE SYNTHETIC ATF
 ARAL GETRIEBEÖL ATF LD
 ARAL GETRIEBEÖL ATF 55
 ARAL GETRIEBEÖL ATF 22
 PENNASOL SUPER FLUID ATF 3000
 PENNASOL SUPER FLUID TYP P/CM
 TECTROL ATF 4000
 TECTROL ATF 3000
 LUBEX ATF-II
 BP AUTRAN DX III
 BP AUTRAN LTF
 BP AUTRAN MBX
 BP AUTRAN SYN 295
 ATF SUPER
 CASTROL TRANSMAX DEX III MULTIVEHICLE
 CASTROL TRANSMAX Z
 CASTROL ATF DEX II MULTIVEHICLE
 CASTROL TRANSYND
 CEPSA ATF 3000 S
 CEPSA ATF 70
 CEPSA ATF 2000S
 HAVOLINE ATF MERCON V
 TEXAMATIC B
 SYNTHETIC AUTOMATIC TRANSMISSION FLUID HEAVY DUTY
 TEXAMATIC 4291
 DELO SYN ATF HD
 HAVOLINE MULTI-VEHICLE ATF
 ATF ALLPOWER MULTIVEHICULOS
 PENTOSIN ATF 1
 PENTOSIN ATF IIIH
 AGIP ATF II D
 AGIP DEXRON III
 EUROL ATF IIIIF
 AUTOTRANS ELC
 MOBIL ATF 220
 MOBIL ATF D 21065
 MOBIL ATF SHC
 MOBIL ATF 320
 MOBIL ATF LT 71141
 MOBIL DELVAC SYNTHETIC ATF
 MOBIL DELVAC 1 ATF
 ATF DII
 FUCHS TITAN ATF 5005
 FUCHS TITAN ATF 3000
 FUCHS TITAN ATF 4000
 FUCHS TITAN ATF 5500
 G-BOX ATF DXII
 G-BOX ATF DX III
 LOTOS ATF II D
 LOTOS ATF SUPER III G
 LOTOS ATF II D
 LOTOS ATF IIIIG
 GULF ATF DX III H
 GULF ATF DX II
 GULF ATF PC
 OILFINO SPONTE ATF II
 OILFINO SPONTE ATF III
 MULTITRANS PLUS ATF
 RTO STARMATIC 3
 RTO STARMATIC S3
 IGOL ATF 430
 INA ATF SUPER
 INA ATF DX III
 INA ATF DX IID
 INA ATF EKSTRA
 UNIMATIC D-II PLUS
 ISAMATIC V
 SPEEDOL ATF DEXRON II
 ATF DEXRON S III
 Q8 AUTO 15
 Q8 AUTO 20
 Q8 AUTO 14
 Q8 AUTO 14
 Q8 AUTO 15 ED
 LE 1150
 MEGOL HYDRAULIKOEL ATF DEXRON II D

ZF approval number

ZF000415
 ZF000697
 ZF000698
 ZF000699
 ZF000699
 ZF001702
 ZF001703
 ZF001756
 ZF001121
 ZF001128
 ZF001841
 ZF000144
 ZF000146
 ZF000147
 ZF001881
 ZF001894
 ZF001907
 ZF001908
 ZF001031
 ZF000194
 ZF000195
 ZF000196
 ZF000197
 ZF000593
 ZF000220
 ZF000221
 ZF000223
 ZF000226
 ZF000386
 ZF001939
 ZF002040
 ZF000101
 ZF001202
 ZF001219
 ZF001574
 ZF001664
 ZF001714
 ZF000385
 ZF000734
 ZF000783
 ZF000925
 ZF000927
 ZF000387
 ZF001685
 ZF000033
 ZF000038
 ZF000039
 ZF000043
 ZF000044
 ZF001234
 ZF001827
 ZF001187
 ZF000717
 ZF000720
 ZF000728
 ZF001797
 ZF001955
 ZF001956
 ZF000362
 ZF000620
 ZF001043
 ZF001093
 ZF000078
 ZF001099
 ZF001349
 ZF000736
 ZF000737
 ZF001669
 ZF001259
 ZF001579
 ZF002084
 ZF000248
 ZF000390
 ZF000392
 ZF000410
 ZF000079
 ZF000896
 ZF000979
 ZF001388
 ZF000082
 ZF000083
 ZF000176
 ZF001991
 ZF002008
 ZF001676
 ZF001992

Manufacturer (04D)

MOL-LUB KFT, ALMASFUZITO/HU
MOL-LUB KFT, ALMASFUZITO/HU
MOL-LUB KFT, ALMASFUZITO/HU
MOL-LUB KFT, ALMASFUZITO/HU
MOTUL SA, AUBERVILLIERS/FR
MOTUL SA, AUBERVILLIERS/FR
OMV PETROL OFISI A.S., ISTANBUL/TR
OOO "LLK-INTERNATIONAL", MOSCOW/RU
OOO "LLK-INTERNATIONAL", MOSCOW/RU
OOO "LLK-INTERNATIONAL", MOSCOW/RU
OOO "LLK-INTERNATIONAL", MOSCOW/RU
OOO "LLK-INTERNATIONAL", MOSCOW/RU
OOO "LLK-INTERNATIONAL", MOSCOW/RU
ORLEN OIL SP. Z O.O., KRAKOW/PL
ORLEN OIL SP. Z O.O., KRAKOW/PL
OY TEBOIL AB, HELSINKI/FI
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT
PAKELO MOTOR OIL, SAN BONIFACIO (VR)/IT
PANOLIN AG, MADETSWIL/CH
PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA
PETROGAL S.A., LISBOA/PT
PETROGAL S.A., LISBOA/PT
PETROGAL S.A., LISBOA/PT
PETROMIN CORPORATION, JEDDAH/SA
PETROMIN CORPORATION, JEDDAH/SA
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PETRONAS LUBRICANTS INTERNATIONAL SDN BH, KUALA LUMPUR/MY
PHI OIL GMBH, ST. GEORGEN/AT
PRISTA OIL HOLDING EAD, RUSE/BG
RALOY LUBRICANTES, S.A. DE C.V., SANTIAGO TIANGUISTEN/MX
RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES
RN-LUBRICANTS, LLC, MOSCOW/RU
ROWE MINERALÖLWERK GMBH, WORMS/DE
ROWE MINERALÖLWERK GMBH, WORMS/DE
SASOL OIL, RANDBURG/ZA
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB
SINOPEC LUBRICANT CO., LTD., BEIJING/CN
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE
STATOIL LUBRICANTS, STOCKHOLM/SE
STATOIL LUBRICANTS, STOCKHOLM/SE
STATOIL LUBRICANTS, STOCKHOLM/SE
TARIMSAN TARIM SAN. VE TIC. A.S, KOCAELI/TR
TEDEX S.A., WARSZAWA/PL
TEDEX S.A., WARSZAWA/PL
TEDEX S.A., WARSZAWA/PL
TEXSA DO BRASIL LTDA, UMUARAMA/PR/BR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
TOTAL LUBRIFIANTS S.A., NANTERRE/FR
UNIL OPAL, SAUMUR/FR
UNIL OPAL, SAUMUR/FR
VALVOLINE EMEA, DORDRECHT/NL
VALVOLINE EMEA, DORDRECHT/NL
VALVOLINE EMEA, DORDRECHT/NL
YACCO SAS, ST PIERRE LES ELBEUF/FR
YORK LUBRICANTS - GINOUVES SAS, LA GARDE/FR
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

Trade name (04D)

MOL ATF SYNT
MOL ATF 3G
MOL ATF
MOL ATF SYNT 3H
MOTUL DEXRON III
MOTUL DEXRON II D
ATF DX-3
LUKOIL ATF SYNTH HD
LUKOIL ATF SYNTH MULTI
LUKOIL ATF
LUKOIL ATF SYNTH MN Z3
LUKOIL ATF IID
LUKOIL ATF III
LUKOIL ATF S
HIPOL ATF II D
HIPOL ATF II E
TEBOIL FLUID ES-MAX
AUXON II E
DX FLUID II TS
ATF XT III FLUID
AUXON III PLUS
ATF XT III FLUID PLUS
PANOLIN ATF SUPER VTX
HEAVY DUTY SYNTHETIC BLEND ATF
GALP TRANSMATIC D II
GALP TRANSMATIC D III
GALP TRANSMATIC Z
PETROMIN ATF Z20 ECO
PETROMIN ATF Z20 LD
TUTELA TRANSMISSION ATF 120
TUTELA TRANSMISSION G/A
TUTELA TRANSMISSION STARFLUID
TUTELA TRANSMISSION G/E
AKROS MATIC
ARBOR MTA
TUTELA TRANSMISSION STARFLUID HD-ED
TUTELA TRANSMISSION STARFLUID PS
TUTELA TRANSMISSION ATF 90
ATF D3 SILVER
PRISTA ATF
TRANSFLUID SYNTHETIC M-5
RAVENOL DEXRON III H
REPSOL MATIC ATF
REPSOL MATIC ATF
REPSOL MATIC ATF
REPSOL MATIC III
REPSOL MATIC LD ATF
TNK ATF IID
ROWE HIGHTEC ATF 9000
ROWE HIGHTEC ATF 8000
SYN TRANSMISSION OIL VI
SHELL SPIRAX S2 ATF AX
SHELL SPIRAX S6 ATF VM PLUS
SHELL SPIRAX S6 ATF VM
SHELL SPIRAX S6 ATF ZM
SPIRAX S4 ATF HDX
SINOPEC GREATWALL ATF III LD
SRS WIOLIN ATF D
SRS WIOLIN ATF III
SRS WIOLIN ATF III MV
STATOIL TRANSWAY PS DX III
TRANSWAY ATF ULTRA
TRANSWAY ATF EXTRA
TARMOND ATF II
TEDEX SYNTHETIC ATF
TEDEX ATF III
TEDEX ATF II D
TEXSA ATF SUPER
ELF ELFMATIC G3
GULF ATF HIGH TECH
TOTAL FLUIDE XLD FE
TOTAL FLUIDMATIC SYN
TOTAL FLUIDE AT 42
ELF ELFMATIC G3 SYN
TOTAL FLUIDE G3
TOTAL FLUIDE II D
ELF ELFMATIC G3
TOTAL FLUIDE II D
TOTAL FLUIDE II D
TOTAL FLUIDE II D
TOTAL FLUIDE II D
MATIC DX III
MATIC D
VALVOLINE HEAVY DUTY ATF PRO ECO
VALVOLINE HEAVY DUTY ATF PRO LD
VALVOLINE HEAVY DUTY ATF PRO
ATF III
YORK 787
ZF-LIFEGUARDFLUID 5
ZF ECOFLUID A LIFE

ZF approval number

ZF001155
ZF001179
ZF001251
ZF001895
ZF001008
ZF001104
ZF001667
ZF001125
ZF001127
ZF001146
ZF001302
ZF001759
ZF001760
ZF001782
ZF000081
ZF000501
ZF001726
ZF000048
ZF000376
ZF001177
ZF001466
ZF001748
ZF001218
ZF001236
ZF000331
ZF001425
ZF001893
ZF001974
ZF002003
ZF000053
ZF000308
ZF000309
ZF000481
ZF000485
ZF000486
ZF000992
ZF000993
ZF001599
ZF001003
ZF000355
ZF001025
ZF001609
ZF000022
ZF000222
ZF000224
ZF000318
ZF001751
ZF001092
ZF001937
ZF001938
ZF001091
ZF000374
ZF001371
ZF001463
ZF001483
ZF001812
ZF001360
ZF000438
ZF000439
ZF002061
ZF000487
ZF001330
ZF001332
ZF000408
ZF001279
ZF001350
ZF002043
ZF001207
ZF001152
ZF001257
ZF001464
ZF001569
ZF001581
ZF001582
ZF001663
ZF001668
ZF001699
ZF001723
ZF001724
ZF001725
ZF001010
ZF001071
ZF001871
ZF001872
ZF001873
ZF001610
ZF000597
ZF001363
ZF001671

Lubricant class 04E

Engine oil in accordance with specification

- API CD/CE/CF-4/CF/CG-4/CH-4/CI-4/CI-4 Plus/CJ-4

- API SF/SG/SH/SJ/SL/SM

- ACEA categories A/B/E

Viscosity grade: SAE 50

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.

Lubricant class 04F

Gear oil CLP

Viscosity grade: ISO VG 220

Manufacturer (04F)

CASTROL LTD, LONDON/GB
CHEVRON LUBRICANTS, SAN RAMON, CA/US
EXXONMOBIL CORPORATION, HOUSTON, TX/US

Trade name (04F)

CASTROL ALPHASYN HG 220
MEROPA 220
MOBILGEAR 600 XP 220

ZF approval number

ZF001508
ZF000811
ZF000852

Lubricant class 04G

Gear oil in accordance with specification:

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

Viscosity grade: SAE 80W-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.

Lubricant class 04H

Gear oil CLP in accordance with DIN 51517-3

Viscosity grade (product groups in accordance with page 1):

- Stern Tubes: ISO VG 68 / 100 / 150 / 220 / 320
 - ZF AT, TT, SDT - Gear box L-Drive: ISO VG 100
 - ZF AT, TT, SDT - Gear box Z-Drive: ISO VG 150
 - ZF TT 4000 CP, 5000 CP - Gear box und Power pack: ISO VG 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.

Lubricant class 04K

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

Viscosity grade (product groups in accordance with page 1):

- SeaRex: ISO VG 32 / 46
- CPP: ISO VG 32 / 46 / 68
- Stern Tubes: ISO VG 68 / 100 / 150 / 220 / 320
- ZF AT, TT, SDT - Power pack: ISO VG 46

Note:

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

Lubricant class 04L

Biodegradable oil

Viscosity grade (product groups in accordance with page 1):

- CPP: ISO VG 32 / 46 / 68

- Stern Tubes: ISO VG 68 / 100 / 150 / 220 / 320

Manufacturer (04L)

CASTROL LTD, LONDON/GB

TOTAL LUBRIFIANTS S.A., NANTERRE/FR

VICKERS & SONS LTD., LEEDS/GB

Trade name (04L)

BIOSTAT

BIOHYDRAN TMP

HYDROX BIO

Lubricant class 04M

Biodegradable oil

Viscosity grade (product groups in accordance with page 1):

- ZF AT, TT, SDT - Gear box L-Drive: ISO VG 100

- ZF AT, TT, SDT - Gear box Z-Drive: ISO VG 150

Manufacturer (04M)

KLÜBER LUBRICATION, MUNICH/DE

KLÜBER LUBRICATION, MUNICH/DE

SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB

SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB

Trade name (04M)

KLÜBERBIO EG 2-100

KLÜBERBIO EG 2-150

SHELL NATURELLE S4 GEAR FLUID 100

SHELL NATURELLE S4 GEAR FLUID 150

ZF approval number

ZF001732

ZF001733

ZF001792

ZF001793

Lubricant class 04P

Engine oil in accordance with specification

- API CD/CE/CF-4/CF/CG-4/CH-4/CI-4/CI-4 Plus/CJ-4

- API SF/SG/SH/SJ/SL/SM

- ACEA categories A/B/E

Viscosity grade: SAE 15W-40

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.