



## Transmissions for rail vehicles

## List of lubricants TE-ML 16

Product groups axle gearboxes	Lubricant classes for service fills (3)
helical gear drive (1) (3)	16A / 16B / 16F
helical gear drive (2) (3) bevel gear drive (1) (3) hypoid gear drive (1) (3) helical-bevel gear drive (1) (3)	16C / 16F
bevel gear drive (2) (3) hypoid gear drive (2) (3) helical-bevel gear drive (2) (3)	16D / 16F
transmissions with multi-disc self-locking differential (3)	16E / 16G

Product groups automatic transmissions for rail vehicles	Lubricant classes for service fills (4) transmissions without/with ZF - Intarder
<b>ASRail:</b> 12 AS 2303, 12 AS 2703, 12 AS 3103, 16 AS 2603	16H / 16K / 16P
<b>Ecomat:</b> HP 500 R, HP 590 R, HP 600 R HP 502 R, HP 592 R, HP 602 R	16L / 16M / 16N Automatic Transmission Fluid (ATF) (5)
<b>Ecomat:</b> HP 902 R	16N
<b>Ecolife (&lt;105°C)</b>	16Q

- (1) Low loaded - Product categorization according to ZF Manual
- (2) High loaded - Product categorization according to ZF Manual
- (3) **Refer to the following pages for approved commercial products and low temperature limits;  
Pay attention to product specific, approved lubricant classes incl. viscosity classes and oil change intervals according to the ZF manual!**
- (4) **Refer to the following pages for approved commercial products, oil change intervals and low temperature limits.**
- (5) **Particularly recommended:** The fully synthetic ATF known as ZF-Ecofluid A PLUS was developed specifically for use in Ecomat transmissions. This combination of a synthetic base oil with a specially balanced additive package delivers superlative oxidation stability and consistent friction characteristics. The viscosity level is ideally suited to this transmission and this factor, combined with high resistance to scuffing and pitting, assures the unit of extremely valuable protection and a correspondingly long service life for its bearings and gears. Another positive feature of ZF-Ecofluid A PLUS is its flat viscosity characteristics curve which makes it particularly well suited to operation in cold as well as hot climate zones.

At greasing points pay attention to the manual!

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 16, **Edition 01.01.2008** 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](http://www.zf.com).

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phone: + 49 7541 77 7853  
fax: + 49 7541 77 7319

**Oil change intervals****Axle gearboxes for rail vehicles:**

Lubricant classes (6)	Oil change interval [km /years] (7) (8) (9)
16A / 16B / 16C / 16D / 16E	120.000 km / 1x year
16F / 16G	200.000 km / 1x every 2 years

**Oil change intervals****ASRAIL transmissions:**

Lubricant classes (6)	Oil change interval [km /years] (7) (9)
16H	160.000 km / 1x year
16K	300.000 km / 1x every 2 years
16P	360.000 km / 1x every 3 years

**Oil and filter change interval****ECOMAT- transmissions for rail vehicles:**

Lubricant classes (6)	Oil and filter change interval [km /years] (7) (9)
16L	45.000 km / 1x year
16M	90.000 km / 1x year
16N	120.000 km / 1x year

**Oil and pressure filter change interval****EcoLife- transmissions for rail vehicles:**

Lubricant classes (6)	Oil and filter change interval [km /years] (7) (9)
16Q	180.000 km / 1x year

The above oil change intervals only apply to complete fills. If oil is changed to another class of lubricant, the following oil and filter change intervals apply:

Changing class of lubricant from	Oil and filter change interval [km /years] (7)
16L => 16M	70.000 km / 1x year
16L => 16N	90.000 km / 1x year
16M => 16N	120.000 km / 1x year

(6) Pay attention to approved trade products and lubricant classes.

(7) Oil change required, depending on what occurs first.

(8) The manual contains the product-specific data on oil change intervals.

After first installation or overhaul of the gearbox, an oil change will be necessary after about 10,000 km.

(9) After consultation with the Customer Service department of ZF Friedrichshafen AG, Special Driveline Technology, and after an oil analysis has been made (after agreed mileages), longer oil change intervals can be applied to some reference transmissions. The procedure for taking oil samples is described in the respective Service Information.

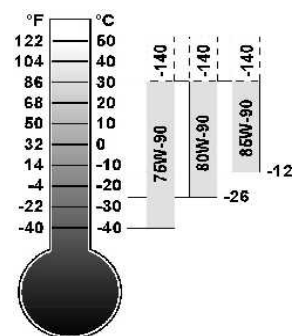
## Application areas of lubricants

Opposite illustration shows application areas of the various SAE classes in relation to the ambient temperatures to be expected.

The oils have a bottom limit of max. dynamic viscosity (Brookfield) of 150,000 mPas, which roughly corresponds to the viscosity limit at low temperatures.

The upper limit is determined by the load in the transmission and the appearing temperature level during operation. It can be assumed that high ambient temperatures will also result in higher oil sump temperatures.

For detailed information to the low temperature behaviour of the specific product see at the safety data sheet of the oil supplier.



### The user has to observe of the low temperature limits!!

Lubricant classes	Viscosity grades	Use at oil sump temperature as over
16F / 16G / 16K / 16L / 16M / 16N / 16P / 16Q	75W-80 / 75W-85 / 75W-90 / 75W-140 / ATF	- 40° C
16A / 16B / 16C / 16D / 16E / 16H	80W-85 / 80W-90 / 80W-140	- 25° C
16A / 16B / 16C / 16D / 16E	85W-90 / 85W-140	- 12° C

**Lubricant class 16A**

Gear oil (mineral oil-based, semi-synthetic)

Viscosity grades: SAE 80W-90 / 85W-90 / 90

**Manufacturer (16A)**

ADDINOL LUBE OIL GMBH, LEUNA/D  
 AGIP SCHMIERTECHNIK GMBH, WÜRZBURG/D  
 ARAL AG, BOCHUM/D  
 BLASER SWISSLUBE AG, HASLE-RÜEGSAU/CH  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CALPAM MINERALÖL-GMBH, ASCHAFFENBURG/D  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CEPSA LUBRICANTS S.A., MADRID/E  
 CEPSA LUBRICANTS S.A., MADRID/E  
 CHEVRONTEXACO, GHENT/B  
 CHEVRONTEXACO, GHENT/B  
 CHEVRONTEXACO, SYDNEY/AUS  
 CHEVRONTEXACO, SYDNEY/AUS  
 CLAAS KGAA MBH, HARSEWINKEL/D  
 DE OLIEBRON B.V., ZWIJNDRECHT/NL  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 FALCON OIL COMPANY LTD., SHARJAH/UAЕ  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 HUILES BERLIET S.A., SAINT PRIEST/F  
 INDIAN OIL CORPORATION LTD., MUMBAI/IND  
 KOMPRESSOL-OEL VERKAUFS GMBH, KÖLN/D  
 KROON-OIL B.V., ALMELO/NL  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 MINERALÖL-RAFFIN. DOLLBERGEN, UETZE-DOLLBERGEN/D  
 MINERALÖL-RAFFIN. DOLLBERGEN, UETZE-DOLLBERGEN/D  
 MODRICA OIL REFINERY, MODRICA/BIH  
 MORRIS LUBRICANTS, SHREWSBURY/GB  
 NESTE MARKKININTI OY, ESPOO/FIN  
 OAO SIBNEFT-ONPZ, OMSK/RUS  
 OEST, GEORG MINERALÖLWERK, FREUDENSTADT/D  
 OMV REFINING & MARKETING GMBH, WIEN/A  
 ORLEN OIL SP. Z O.O., KRAKOW/PL  
 PAKELO MOTOR OIL S.R.L. SAN BONIFACIO (VR)/I  
 PANOLIN AG, MADETSWIL/CH  
 PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR  
 PETROGAL S.A., LISBOA/P  
 PT PERTAMINA (PERSERO), JAKARTA/RI  
 PT PERTAMINA (PERSERO), JAKARTA/RI  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/D  
 SHARJAH NATIONAL LUBE OIL CO. LTD., SHARJAH/UAЕ  
 SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D  
 SUOMEN PETROOLI OY, HAMINA/FIN  
 TOTAL ISU OIL CO. LTD., SEOUL/ROK  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F

**Trade name (16A)**

ADDINOL GETRIEBEÖL GS 80W-90  
 AUTOL GETRIEBEÖL 80W-90  
 ARAL GETRIEBEOL EP 80W-90  
 EP-GETRIEBEÖL 80W90  
 BP ENERGEAR EP 80W-90  
 BP ENERGEAR EP 90  
 FRONTOL MEHRZWECKGETRIEBEÖL SAE 90  
 MOTOREX GEAR OIL EP 80W/90  
 CALPAM MP GEAR OIL 85W90 GL4  
 CASTROL EP 80W90  
 CEPSA TRANSMISIONES 80W-90  
 ERTOIL TRANSMISIONES 80W-90  
 GEARTEX EP-A 80W-90  
 GEARTEX EP-A 85W-90  
 CALTEX TRANSLUBE LD SAE 80W-90  
 CALTEX TRANSLUBE LD SAE 90  
 CLAAS AGRISHIFT 4SC 80W90  
 TOR MULTIPURPOSE GEAR OIL SAE 80W90  
 AGIP ROTRA HY 85W-90  
 ROTRA HY 80W-90  
 FALCON SUPER EP GEAR OIL 80W/90 GL-4  
 GULF GEAR MZ 85W-90  
 GULF GEAR MZ 90  
 RTO EP 80W-90  
 SERVO GEAR HP 80W-90 (T)  
 KOMPRESSOL-MEHRZWECK-GETRIEBEOEL SAE 80W-90  
 GEARLUBE GL-4 80W-90  
 Q8 T 35 SAE 90  
 PENNASOL MEHRZWECK-GETRIEBEOEL GL 4 SAE 85W90  
 PENNASOL MEHRZWECK-GETRIEBEOEL GL 4 SAE 90  
 TRANSLUBE GL-4 SAE 90  
 SERVOL EP 80W/90  
 NESTE GEAR EP 80W-90  
 SIBIMOTOR TRANS KP-2 SAE 80W-85  
 OEST MEHRZWECK-GETRIEBEÖL SAE 80W-90  
 OMV GEAR OIL MP SAE 85W-90  
 PLATINUM GEAR GL-4 80W/90  
 PAKELO GEAR OIL EP/FZ SAE 80W/90  
 PANOLIN EP GEAR 80W/90  
 LUBRAX TRM-4 SAE 90  
 GALP TRANSOIL 80W90  
 RORED EP-A SAE80W-90  
 RORED EP-A SAE90  
 RAVENOL MZ-GETRIEBEÖL 80W-90 GL4  
 SHARLU EP GEAR LUBE 80W/90 (GL-4)  
 SHELL SPIRAX GX 80W-90  
 WINTERSHALL WIOLIN MEHRZWECK-GETRIEBEÖL 80W-90  
 WINTERSHALL WIOLIN MEHRZWECK-GETRIEBEÖL 90  
 TEBOIL EP SAE 80W-90  
 TOTAL EP 80W-90  
 ANTAR EP 80W-90  
 FINA PONTONIC N 80W-90  
 TOTAL EP 80W-90  
 TRANSELF EP 80W-90

**Lubricant class 16B**

Gear oil (mineral oil-based, semi-synthetic)

Viscosity grades: SAE 75W-90 / 80W-90 / 85W-90 / 90

**Manufacturer (16B)**

ADDINOL LUBE OIL GMBH, LEUNA/D  
 ADDINOL LUBE OIL GMBH, LEUNA/D  
 AGIP SCHMIERTECHNIK GMBH, WÜRZBURG/D  
 ARAL AG, BOCHUM/D  
 AVIA MINERALÖL-AG, MÜNCHEN/D  
 BAYWA AG, MÜNCHEN/D  
 BLASER SWISSLUBE AG, HASLE-RÜEGSAU/CH  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CALPAM MINERALÖL-GMBH, ASCHAFFENBURG/D  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CEPSA LUBRICANTS S.A., MADRID/E  
 CEPSA LUBRICANTS S.A., MADRID/E  
 CHEVRONTXACO GLOBAL LUBRICANTS, SAN RAMON/USA  
 CHEVRONTXACO, GHENT/B  
 CHEVRONTXACO, GHENT/B  
 CLAAS KGAA MBH, HARSEWINKEL/D  
 CONDAT LUBRIFIANTS, CHASSE SUR RHONE/F  
 CONDAT LUBRIFIANTS, CHASSE SUR RHONE/F  
 DAF TRUCKS N.V., EINDHOVEN/NL  
 DE OLIEBRON B.V., ZWIJNDRECHT/NL  
 DEUTSCHE PENTOSIN WERKE GMBH, WEDEL/D  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 FALCON OIL COMPANY LTD., SHARJAH/UA  
 FINKE MINERALÖLWERK GMBH, VISSSELHÖVEDE/D  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FUCHS PETROLUB AG, MANNHEIM/D  
 FUCHS PETROLUB AG, MANNHEIM/D  
 GENOL GMBH & CO., WIEN/A  
 GENOL GMBH & CO., WIEN/A  
 GINOUVES GEORGES SA, LA FARLEDE/F  
 GINOUVES GEORGES SA, LA FARLEDE/F  
 GRUPA LOTOS SA, GDANSK/PL  
 GRUPA LOTOS SA, GDANSK/PL  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 HANDEL MIJ NOVIO B.V., NIJMEGEN/NL  
 HUILES BERLIET S.A., SAINT PRIEST/F  
 HUILES BERLIET S.A., SAINT PRIEST/F  
 IGOL FRANCE SA, AMIENS/F  
 IGOL FRANCE SA, AMIENS/F  
 JOHN DEERE, WATERLOO/USA  
 KOMPRESSOL-OEL VERKAUFS GMBH, KÖLN/D  
 KRAFFT S.L., ANDOAIN/E  
 KROON-OIL B.V., ALMELO/NL  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 LIQUI MOLY GMBH, ULM/D  
 LIQUI MOLY GMBH, ULM/D  
 MAROIL S.R.L. CONC. BARDAHL MANU. CO.,ALTOPASCIO/I

**Trade name (16B)**

ADDINOL GETRIEBEÖL GH 80W-90  
 ADDINOL GETRIEBEÖL GX 80 W 90 ML  
 AUTOL HYPOID-GETRIEBEÖL SAE 80W-90  
 ARAL GETRIEBEOL EP PLUS 80W-90  
 AVIA SYNTOGEAR FE 80W-90  
 BAYWA SUPER 8090 MC  
 HYPOID-GETRIEBEÖL 80W90  
 BP ENERGEAR DL 80W-90  
 BP ENERGEAR HT 80W-90  
 BP ENERGEAR HYPO 80W-90  
 BP ENERGEAR HYPO XL 80W-90  
 FRONTOL GETRIEBEÖL FE SAE 80W-90  
 MOTOREX GEAR OIL UNIVERSAL 80W/90  
 CALPAM MULTI GEAR OIL FE 80W90  
 CASTROL EPX 80W-90  
 CASTROL MULTIDRIVE 80W90  
 CEPSA TRANSMISIONES EP MULTIGRADO 80W-90  
 ERTOIL EP MULT. CAMBIOS Y DIFERENCIALES 80W-90  
 CHEVRON RPM UNIVERSAL GEAR LUBRICANT SAE 80W-90  
 GEARTEX EP-C 80W-90  
 MULTIGEAR 80W-90  
 CLAAS AGRISHIFT MT 80W-90  
 GEAR S 80W90  
 GEAR SLX 75W90  
 DAF SUPER 80W90  
 TOR SUPER GEAR OIL 80W90  
 PENTOSIN GETRIEBEÖL O-226 80W-90  
 AGIP ROTRA MP/C 80W-90  
 ROTRA MP 80W-90  
 ROTRA TRUCK GEAR 80W-90  
 MOBILUBE S 80W-90  
 FALCON SUPER MP GEAR OIL 80W/90 GL-5  
 AVIATICON FINKOGEAR SUPER 80W-90  
 AKCELA GEAR 135H EP (SAE 80W90)  
 AKROS EP 90 SAE 80W90  
 AMBRA HYPOIDE 90 SAE 80W90  
 ARBOR TRW 90 (SAE 80W90)  
 TUTELA TRANSMISSION TRUCK W90/LA (SAE 80W-90)  
 TUTELA W90/M-DA SAE 80W90  
 TITAN GEAR HYP LD SAE 80W-90  
 TITAN SUPERGEAR MC 80W-90  
 GENOL GEAR-SYN 80W-90  
 GENOL HYPOLUBE 80W-90  
 YORK 793 SAE 80W90  
 YORK 993  
 LOTOS TITANIS GL-5 SAE 80W/90  
 TITANIS SUPER GL-5 80W/90  
 GULF GEAR DB 80W-90  
 GULF GEAR LD 80W-90  
 GULF GEAR TDL 80W-90  
 KENDALL NS-MP GEAR LUBE SAE 80W-90  
 RTO HD 80W-90  
 RTO LONGEVIA P ECO 80W-90  
 GEAR M 80W90  
 LONG GEAR 80W90  
 GL-5 GEAR LUBRICANT (80W-90)  
 KOMPRESSOL-HYPOID EW SAE 80W-90  
 HIDROIL EP SAE 80W-90  
 GEARLUBE GL-5 80W-90  
 Q8 AUTO 12 SAE 80W-90  
 Q8 GEAR OIL XG SAE 80W-90  
 Q8 T 55 SAE 80W-90  
 Q8 UNIGEAR GL-5 75W-90  
 HYPOID GETRIEBEÖL GL 5 SAE 80W-90  
 HYPOID GETRIEBEÖL TDL SAE 80W-90  
 BARDAHL T&D OIL 80W 90

MAZIVA ZAGREB D.O.O, ZAGREB/HR  
 MAZIVA ZAGREB D.O.O, ZAGREB/HR  
 MAZIVA ZAGREB D.O.O, ZAGREB/HR  
 MEGUIN GMBH & CO. KG MINERALOELWERKE, SAARLOUIS/D  
 MEGUIN GMBH & CO. KG MINERALOELWERKE, SAARLOUIS/D  
 MILLERS OILS LIMITED, BRIGHOUSE/GB  
 MINERALÖL-RAFFIN. DOLLBERGEN, UETZE-DOLLBERGEN/D  
 MODRICA OIL REFINERY, MODRICA/BIH  
 MOL-LUB KFT., ALMÿSFÜZITÖ/H  
 MORRIS LUBRICANTS, SHREWSBURY/GB  
 NOVA STILMOIL SPA, MODENA/I  
 OAO SIBNEFT-ONPZ, OMSK/RUS  
 OEST, GEORG MINERALÖLWERK, FREUDENSTADT/D  
 OK NEDERLAND, STAPHORST/NL  
 OMV REFINING & MARKETING GMBH, WIEN/A  
 OMV REFINING & MARKETING GMBH, WIEN/A  
 ORLEN OIL SP. Z O.O., KRAKOW/PL  
 PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I  
 PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN  
 PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN  
 PETROGAL S.A., LISBOA/P  
 PETROL OFISI A.S, MASLAK-ISTANBUL-TURKEY/TR  
 PROFI-TECH GMBH, GINGEN/D  
 PT PERTAMINA (PERSERO), JAKARTA/RI  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/D  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/D  
 SHARJAH NATIONAL LUBE OIL CO. LTD., SHARJAH/UAE  
 SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB  
 SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D  
 STATOIL LUBRICANTS, STOCKHOLM/S  
 STRUB + CO AG, REIDEN/CH  
 SUOMEN PETROOLI OY, HAMINA/FIN  
 SYNECO SPA, SAN GIULIANO MILANESE/I  
 TEDEX PRODUCTION SP.Z.O.O., TOMASZOW MAZOWIECKI/PL  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 UNIL OPAL, SAUMUR CEDEX/F  
 VALVOLINE EUROPE, DORDRECHT/NL  
 VALVOLINE EUROPE, DORDRECHT/NL  
 ZELLER + GMELIN GMBH & CO., EISLINGEN/D  
 ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/D

INA HIPENOL GTL DB 90  
 INA HIPENOL GTL HD 80W-90  
 INA HIPENOL TDL 80W-90  
 MEGOL HYPOID-GETRIEBEOEL GL 5 SAE 80W-90  
 MEGOL HYPOID-GETRIEBEOEL TDL SAE 80W-90  
 SYNTRAN II  
 PENNASOL HYPOID-GETRIEBEOEL GL 5 SAE 80W90  
 HIPOIDNO ULJE B SAE 80W90  
 MOL HYKOMOL ZF 80W-90  
 MORRIS EP 80W/90  
 GEARING PLUS 80W90  
 SIBIMOTOR SUPER T-2 SAE 80W-90  
 OEST MEHRZWECK-GETRIEBEOEL FE SAE 80W-90  
 OK CARDAN OIL MP-B-SAE 80W/90  
 OMV GEAR OIL XD-5 SAE 80W-90  
 OMV UNIGEAR SAE 80W-90  
 PLATINUM GEAR GL-5 80W/90  
 PAKELO GLOBAL GEAR SA SAE 80W/90  
 TRAXON 80W-90  
 TRAXON XL SYNTHETIC BLEND 75W-90  
 GALP TRANSOIL HP 80W90  
 PO UNI. KEBAN EP MAN 80W/90  
 PROFI CAR HYPOID PERFORMANCE GEAR SAE 80W-90 GL 5  
 RORED HD-A SAE80W-90  
 RAVENOL HYPOID EPX GETR.-OEL 80W-90 GL 5  
 RAVENOL SLG SPEC. LKW GETR.ÖL 80W90  
 SHARLU MP GEAR LUBE 80W/90 (GL-5)  
 SHELL SPIRAX AX 90  
 SHELL SPIRAX AX PLUS 80W-90  
 WINTERSHALL GETRIEBEFLUID SML 80W-90  
 WINTERSHALL WIOLIN HYPOID-GETRIEBEOEL 80W-90  
 GEARWAY G5 80W-90  
 STRUB MULTIGEAR SGO 80W-90  
 TEBOIL HYPOID SAE 80W-90  
 AMPLEX 80W90  
 TEDEX SUPER GEAR OIL (3343ML) SAE 80W90  
 ANTAR EPR 80W-90  
 ANTAR UNIVERSAL FE 80W-90  
 FINA PONTONIC MDL 80W-90  
 FINA PONTONIC MP 80W-90  
 TOTAL EP B 80W-90  
 TOTAL TRANSMISSION MDL 80W-90  
 TOTAL TRANSMISSION RS FE 80W-90  
 TRANSELF TYPE B 80W-90  
 TRANSELF UNIVERSAL FE 80W-90  
 UNIL OPAL GEAR ZF 80W90  
 HIGH PERFORMANCE GEAR OIL GL-5 90  
 HP GEAR OIL GL-5 PLUS SAE 80W-90  
 DIVINOL GEAR OIL STO SAE 80W-90  
 ZF-ECOFLUID X

**Lubricant class 16C**

Gear oil (mineral oil-based, semi-synthetic)

Viscosity grades: 80W-90 / 85W-90 / 80W-110 / 85W-110 / 80W-140 / 85W-140 / 90

**Manufacturer (16C)**

ADDINOL LUBE OIL GMBH, LEUNA/D  
 ARAL AG, BOCHUM/D  
 ARMORINE S.A., LANESTER CEDEX/F  
 AVIA MINERALÖL-AG, MÜNCHEN/D  
 BAYWA AG, MÜNCHEN/D  
 BLASER SWISSLUBE AG, HASLE-RÜEGSAU/CH  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 CALPAM MINERALÖL-GMBH, ASCHAFFENBURG/D  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CD SERVICE, PINASCA (TO)/I  
 CEPESA LUBRICANTS S.A., MADRID/E  
 CEPESA LUBRICANTS S.A., MADRID/E  
 CHEVRON BRASIL LTDA., RIO DE JANEIRO/BRAZIL  
 CHEVRONTEXACO, GHENT/B  
 CHEVRONTEXACO, SYDNEY/AUS  
 CHEVRONTEXACO, SYDNEY/AUS  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 FUCHS PETROLUB AG, MANNHEIM/D  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 IGOL FRANCE SA, AMIENS/F  
 INDIAN OIL CORPORATION LTD., MUMBAI/IND  
 IRANOL CO., TEHRAN/IR  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 LIQUI MOLY GMBH, ULM/D  
 LIQUI MOLY GMBH, ULM/D  
 MEGUIN GMBH & CO. KG MINERALOELWERKE, SAARLOUIS/D  
 MINERALÖL-RAFFIN. DOLLBERGEN, UETZE-DOLLBERGEN/D  
 MINERALÖL-RAFFIN. DOLLBERGEN, UETZE-DOLLBERGEN/D  
 MODRICA OIL REFINERY, MODRICA/BIH  
 MOL-LUB KFT., ALMÿSFÜZITÖ/H  
 MOTUL SA, AUBERVILLIERS CEDEX/F  
 NEW PROCESS AG, TÜBACH/CH  
 OAO SIBNEFT-ONPZ, OMSK/RUS  
 OEST, GEORG MINERALÖLWERK, FREUDENSTADT/D  
 OMV REFINING & MARKETING GMBH, WIEN/A  
 OPET PETROLÇÜLÜK A.S., IZMIR/TR  
 PAKELO MOTOR OIL S.R.L., SAN BONIFACIO (VR)/I  
 PAKELO MOTOR OIL S.R.L., SAN BONIFACIO (VR)/I  
 PAKELO MOTOR OIL S.R.L., SAN BONIFACIO (VR)/I  
 PAKELO MOTOR OIL S.R.L., SAN BONIFACIO (VR)/I  
 PANOLIN AG, MADETSWIL/CH  
 PANOLIN AG, MADETSWIL/CH  
 PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR  
 PRISTA OIL EAD, ROUSSE/BG  
 PT PERTAMINA (PERSERO), JAKARTA/RI  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/D  
 REPSOL YPF LUBRICANTES Y ESPECIALIDADES, MADRID/E  
 S.A.E.L., MADRID/E  
 SHELL BRASIL, BARRA DA TIJUCA - RIO DE JANEIRO/BR  
 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  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D  
 SUOMEN PETROOLI OY, HAMINA/FIN  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F

**Trade name (16C)**

ADDINOL GETRIEBEÖL GH 85W-90  
 ARAL GETRIEBEOL HYP 85W-90  
 PM 90  
 AVIA HYPOID 90 EP  
 BAYWA HYPOID GETRIEBEÖL 85W-90  
 HYPOID-GETRIEBEÖL 90  
 BP ENERGEGEAR HYPO 90  
 FRONTOL HYPOID GETRIEBEÖL B SAE 90  
 CALPAM SUPER GEAR OIL 85W90 GL 5  
 CASTROL DYNADRIVE 80W-90  
 CASTROL EPX 90  
 CASTROL EPX M 90  
 CD MONDIAL MULTIGEAR  
 CEPESA TRANSMISIONES EP 90  
 ERTOIL EP CAMBIOS Y DIFERENCIALES SAE 90  
 MULTIGEAR EP SAE 90  
 GEARTEX EP-B 85W-90  
 CALTEX HYPOID LD SAE 85W-90  
 CALTEX HYPOID LD SAE 90  
 AGIP ROTRA MP DB 85W-90  
 ESSO GEAR OIL GX-D 85W-90  
 MOBILUBE HD-A 85W-90  
 TITAN GEAR HYP SAE 90  
 GULF GEAR DB 85W-90  
 GULF GEAR DB 90  
 GULF GEAR HD 85W-90  
 HYPOID B SAE85W90  
 SERVO GEAR SUPER 85W-90(T)  
 IRANOL XP (SAE 85W-90)  
 Q8 T 55 SAE 90  
 HYPOID GETRIEBEÖL GL 5 SAE 85W-90  
 HYPOID GETRIEBEÖL GL 5 SAE 90W  
 MEGOL HYPOID-GETRIEBEOEL GL 5 SAE 85W-90  
 PENNASOL HYPOID-GETRIEBEOEL GL 5 SAE 85W-90  
 PENNASOL HYPOID-GETRIEBEOEL GL 5 SAE 90  
 HIPOIDNO ULJE B SAE 90  
 MOL HYKOMOL K 85W-90  
 MOTUL TRANS MB 85W-90  
 HD GEAROIL SAE 90  
 SIBIMOTOR SUPER T-3 SAE 85W-90  
 OEST MEHRZWECK-GETRIEBEÖL SPEZIAL SAE 85W-90  
 OMV GEAR OIL B SAE 85W-90  
 ORSA HYPOID EP MB 90 SAE85W90  
 PAKELO GLOBAL GEAR SA SAE 85W/90  
 PAKELO GLOBAL MULTIGEAR CBS  
 PAKELO GLOBAL MULTIGEAR CBS DLS  
 PAKELO GLOBAL MULTIGEAR SA SAE 80W/140  
 PANOLIN SUPER DUTY 80W/90  
 PANOLIN TOPGEAR 80W/90  
 LUBRAX TRM-5 SAE 90  
 PRISTA EP 90  
 RORED HD-A SAE90  
 RAVENOL HYPOID EPX GETRIEBE-OEL SAE 90 GL-5  
 CARTAGO EP SAE 90  
 GULF MULTIPURPOSE GEAR LUBRICANT 85W-90  
 SHELL SPIRAX A 90  
 SHELL SPIRAX AX 80W-90  
 SHELL SPIRAX MB 90  
 SHELL SPIRAX MX 80W-90  
 SHELL SPIRAX ST 80W-140  
 WINTERSHALL WIOLIN HYPOID-GETRIEBEÖL 90  
 TEBOIL HYPOID SAE 90  
 ANTAR EPR 90  
 FINA PONTONIC MP 85W-90

TOTAL LUBRIFIANTS S.A., PARIS/F  
TOTAL LUBRIFIANTS S.A., PARIS/F

TOTAL EP B 85W-90  
TRANSELF TYPE B 90



**Lubricant class 16D**

Gear oil (mineral oil-based, semi-synthetic)

Viscosity grades: 80W-140 / 85W-140 / 140

**Manufacturer (16D)**

ARAL AG, BOCHUM/D  
 BLASER SWISSLUBE AG, HASLE-RÜEGSAU/CH  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CEPESA LUBRICANTS S.A., MADRID/E  
 CEPESA LUBRICANTS S.A., MADRID/E  
 CHEVRONTEXACO GLOBAL LUBRICANTS, SAN RAMON/USA  
 CHEVRONTEXACO, GHENT/B  
 CONDAT LUBRIFIANTS, CHASSE SUR RHONE/F  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 FALCON OIL COMPANY LTD., SHARJAH/UAЕ  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 GINOUVES GEORGES SA, LA FARLEDE/F  
 HUILES BERLIET S.A., SAINT PRIEST/F  
 IRANOL CO., TEHRAN/IR  
 JOHN DEERE, WATERLOO/USA  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 LIQUI MOLY GMBH, ULM/D  
 MAZIVA ZAGREB D.O.O, ZAGREB/HR  
 MEGUIN GMBH & CO. KG MINERALOELWERKE, SAARLOUIS/D  
 MORRIS LUBRICANTS, SHREWSBURY/GB  
 OEST, GEORG MINERALÖLWERK, FREUDENSTADT/D  
 PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I  
 PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I  
 PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN  
 PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN  
 PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR  
 PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR  
 PETROBRAS DISTRIBUIDORA S.A., DUQUE DE CAXIAS/BR  
 PETROGAL S.A., LISBOA/P  
 PETROGAL S.A., LISBOA/P  
 PRISTA OIL EAD, ROUSSE/BG  
 PT PERTAMINA (PERSERO), JAKARTA/RI  
 PT PERTAMINA (PERSERO), JAKARTA/RI  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/D  
 SHARJAH NATIONAL LUBE OIL CO. LTD., SHARJAH/UAЕ  
 SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D  
 STATOIL LUBRICANTS, STOCKHOLM/S  
 SUOMEN PETROOLI OY, HAMINA/FIN  
 SYNECO SPA, SAN GIULIANO MILANESE/I  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 ZELLER + GMELIN GMBH & CO., EISLINGEN/D

**Trade name (16D)**

ARAL GETRIEBEÖL HYP SAE 85W-140  
 HYPOID-GETRIEBEÖL 85W140  
 BP ENERGEGEAR HYPO 85W-140  
 ENERGEGEAR HT 85W140  
 FRONTOL HYPOID GETRIEBEÖL B SAE 85W-140  
 MOTOREX GEAR OIL UNIVERSAL 85W/140  
 CASTROL EPX 85W-140  
 CEPESA TRANSMISIONES EP MULTIG. 85W-140  
 ERTOIL EP MULT. CAMBIOS Y DIFERENCIALES 85W-140  
 CHEVRON RPM UNIVERSAL GEAR LUBRICANT SAE 85W-140  
 GEARTEX EP-C 85W-140  
 GEAR S 85W140  
 AGIP ROTRA MP 85W-140  
 AGIP ROTRA MP/C 85W-140  
 AGIP ROTRA TRUCK GEAR 85W-140  
 FALCON SUPER MP GEAR OIL 85W/140 GL-5  
 AKCELA GEAR 135H EP (SAE 85W140)  
 AMBRA HYPOIDE 140 SAE 85W140  
 ARBOR TRW 140 (SAE 85W140)  
 TUTELA W140/M-DA SAE 85W140  
 YORK 793 SAE 85W140  
 RTO LONGEVIA P ECO 80W-140  
 IRANOL XP 85W140  
 GL-5 GEAR LUBRICANT (85W-140)  
 Q8 AXLE OIL XG SAE 80W-140  
 Q8 T 55 SAE 85W-140  
 HYPOID GETRIEBEÖL GL 5 SAE 85W-140  
 INA HIPENOL GTL HD 85W-140  
 MEGOL HYPOID-GETRIEBEOEL GL 5 SAE 85W-140  
 MORRIS EP 85W/140  
 OEST MEHRZWECK-GETRIEBEÖL SPEZIAL SAE 85W-140  
 PAKELO GEAR OIL EP GL-5 SAE 85W/140  
 PAKELO GLOBAL GEAR SA SAE 85W/140  
 TRAXON 85W-140  
 TRAXON XL SB 80W-140  
 LUBRAX GOLD SAE 85W/140  
 LUBRAX TRM-5 SAE140  
 LUBRAX TRM-5 SAE 85W/140  
 GALP TRANSOIL HP 85W140  
 GALP TRANSVEX TDL 85W140  
 PRISTA EP 85W140  
 RORED HD-A SAE140  
 RORED HD-A SAE85W-140  
 RAVENOL HYP. EPX GETR.ÖL 85W-140 GL5  
 SHARLU MP GEAR LUBE 85W/140(GL-5)  
 SHELL SPIRAX AX 85W-140  
 WINTERSHALL WIOLIN HYPOID-GETRIEBEÖL 85W-140  
 GEARWAY G5 85W-140  
 TEBOIL HYPOID SAE 80W-140  
 AMPLEX 85W140  
 ANTAR UNIVERSAL FE 80W-140  
 FINA PONTONIC A 80W-140  
 FINA PONTONIC MP 85W-140  
 TOTAL EP-B 85W-140  
 TOTAL TRANSMISSION RS FE 80W-140  
 TRANSELF UNIVERSAL FE 80W-140  
 DIVINOL HYPOID-GETRIEBEÖL SAE 85W-140

**Lubricant class 16E**

Gear oil with limited-slip additives (mineral oil-based)

Viscosity grades: 80W-90 / 85W-90 / 80W-110 / 85W-110 / 80W-140 / 85W-140 / 90

**Manufacturer (16E)**

ADDINOL LUBE OIL GMBH, LEUNA/D  
 ARAL AG, BOCHUM/D  
 AVIA MINERALÖL-AG, MÜNCHEN/D  
 AVIA MINERALÖL-AG, MÜNCHEN/D  
 BAYWA AG, MÜNCHEN/D  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 CALPAM MINERALÖL-GMBH, ASCHAFFENBURG/D  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CHEVRON BRASIL LTDA., RIO DE JANEIRO/BRAZIL  
 CHEVRONTEXACO, GHENT/B  
 CONDAT LUBRIFIANTS, CHASSE SUR RHONE/F  
 ENGEN PETROLEUM LTD., CAPE TOWN/ZA  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 FINKE MINERALÖLWERK GMBH, VISSSELHÖVEDE/D  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FUCHS PETROLUB AG, MANNHEIM/D  
 GRUPA LOTOS SA, GDANSK/PL  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 IGOL FRANCE SA, AMIENS/F  
 JOHN DEERE, WATERLOO/USA  
 KOMPRESSOL-OEL VERKAUFS GMBH, KÖLN/D  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 LIQUI MOLY GMBH, ULM/D  
 MEGUIN GMBH & CO. KG MINERALOELWERKE, SAARLOUIS/D  
 MINERALÖL-RAFFIN. DOLLBERGEN, UETZE-DOLLBERGEN/D  
 MOL-LUB KFT., ALMÿSFÜZITÓ/H  
 NOVA STILMOIL SPA, MODENA/I  
 OMV REFINING & MARKETING GMBH, WIEN/A  
 PAKELO MOTOR OIL S.R.L., SAN BONIFACIO (VR)/I  
 PANOLIN AG, MADETSWIL/CH  
 PETROGAL S.A., LISBOA/P  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/D  
 REPSOL YPF LUBRICANTES Y ESPECIALIDADES, MADRID/E  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D

**Trade name (16E)**

ADDINOL GETRIEBEÖL GH 85W-90 LS  
 ARAL GETRIEBEÖL HYP LS 90  
 AVIA HYPOID 90 LS  
 AVIA HYPOID 90 LS, 85W-90  
 BAYWA GETRIEBEÖL HYPOID LS 90  
 BP ENERGEGEAR LIMSLIP 90  
 FRONTOL GETRIEBEÖL LS 90  
 CALPAM GEAR OIL LS 90  
 CASTROL HYPOY LS 90  
 CASTROL LSX  
 GEARTEX LS 85W140  
 GEARTEX LS 85W-90  
 GEAR T ( 90 )  
 ENGEN GEARLUBE EP 90 LS - SAE 80W-90  
 AGIP ROTRA MP/S 85W-90  
 ESSO GEAR OIL LSA 85W-90  
 MOBILUBE LS 85W-90  
 AVIATICON HYPOID LS 90  
 AKCELA AXLEPOWER (80W90)  
 AMBRA AXF 80W90  
 AMBRA STF (80W90)  
 TITAN GEAR LS 90  
 LOTOS TITANIS LS GL-5 SAE 85W/140  
 GULF GEAR LS 90  
 HYPOID BPA SAE90  
 GL-5 GEAR LUBRICANT WITH LS ADDITIVE (85W-140)  
 KOMPRESSOL-HYPOID LS SAE 90  
 Q8 T 45 SAE 90  
 HYPOID GETRIEBEÖL GL 5 SAE 85W-90 LS  
 MEGOL HYPOID-GETRIEBEOEL GL 5 SAE 85W-90 LS  
 PENNASOL SPERRDIFFERENTIAL HYPOID GETRIEBEOEL LS90  
 MOL HYKOMOL LS 85W-90  
 GEARING WONDER LS SAE 85W90  
 OMV GEAR OIL LS SAE 85W-90  
 PAKELO UNIVERSAL GEAR EP/LS SAE 85W/140  
 PANOLIN SUPER DUTY LS 90  
 GALP LS 90  
 RAVENOL SPERRDIFF.-GETR.-OEL LS 90  
 CS EP AUTOBLOCANTE SAE 85W140  
 WINTERSHALL WIOLIN RSH

**Lubricant class 16F****Gear oil (synthetic)**

Viscosity grades: 75W-90 / 75W110 / 75W-140 / 80W-110 / 80W-140

**Manufacturer (16F)**

ADDINOL LUBE OIL GMBH, LEUNA/D  
 AGIP SCHMIERTECHNIK GMBH, WÜRZBURG/D  
 ARAL AG, BOCHUM/D  
 AVIA MINERALÖL-AG, MÜNCHEN/D  
 BP INTERNATIONAL, PANGBOURNE, READING/GB  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
 CEPSA LUBRICANTS S.A., MADRID/E  
 CHEVRONTEXACO, GHENT/B  
 COGNIS DEUTSCHLAND GMBH, MONHEIM/D  
 COGNIS DEUTSCHLAND GMBH, MONHEIM/D  
 CONDAT LUBRIFIANTS, CHASSE SUR RHONE/F  
 DE OLIEBRON B.V., ZWIJNDRECHT/NL  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FUCHS PETROLUB AG, MANNHEIM/D  
 FUCHS PETROLUB AG, MANNHEIM/D  
 GINOUVES GEORGES SA, LA FARLEDE/F  
 GINOUVES GEORGES SA, LA FARLEDE/F  
 GULF OIL INTERNATIONAL, PITTSBURG/USA  
 HANDEL MIJ NOVIOL B.V., NIJMEGEN/NL  
 HUILES BERLIET S.A., SAINT PRIEST/F  
 IGOL FRANCE SA, AMIENS/F  
 KROON-OIL B.V., ALMELO/NL  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 MAZIVA ZAGREB D.O.O, ZAGREB/HR  
 MEGUIN GMBH & CO. KG MINERALOELWERKE, SAARLOUIS/D  
 MILLERS OILS LIMITED, BRIGHOUSE/GB  
 MOTUL SA, AUBERVILLIERS CEDEX/F  
 NESTE MARKKININTI OY, ESPOO/FIN  
 NEW PROCESS AG, TÜBACH/CH  
 OEST, GEORG MINERALÖLWERK, FREUDENSTADT/D  
 OK NEDERLAND, STAPHORST/NL  
 OK NEDERLAND, STAPHORST/NL  
 OMV REFINING & MARKETING GMBH, WIEN/A  
 OMV REFINING & MARKETING GMBH, WIEN/A  
 PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I  
 PANOLIN AG, MADETSWIL/CH  
 PETROGAL S.A., LISBOA/P  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/D  
 REPSOL YPF LUBRICANTES Y ESPECIALIDADES, MADRID/E  
 S.A.E.L., MADRID/E  
 SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D  
 STRUB + CO AG, REIDEN/CH  
 SUOMEN PETROOLI OY, HAMINA/FIN  
 SUOMEN PETROOLI OY, HAMINA/FIN  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 VALVOLINE EUROPE, DORDRECHT/NL  
 YACCO, ST PIERRE LES ELBEUF/F  
 ZELLER + GMELIN GMBH & CO., EISLINGEN/D

**Trade name (16F)**

ADDINOL GETRIEBEÖL GH 75W 90 SL, SAE 75W-90  
 AGIP ROTRA TRUCK GEAR S, SAE 75W-90  
 ARAL GETRIEBEÖL SNA-C SAE 75W-90  
 AVIA SYNTOGEAR FE 75W-90 EP  
 ENERGEGEAR SHX-M SAE 75W-90  
 MOTOREX PENTA TL  
 MOTOREX UNISYNT TX  
 CASTROL DYNADRIE PLUS 75W90  
 CEPSA TRANSMISIONES EP FE+LD 75W-90  
 MULTIGEAR S 75W-90  
 COGNIS EMGARD RW-A, SAE 75W-90  
 COGNIS EMGARD UAF 4209, SAE 75W-90  
 GEAR SLX 75W140  
 TOR UNIGEAR 75W90 LD  
 ROTRA LSX 75W-90  
 MOBIL DELVAC SYNTHETIC GEAR OIL 75W-90  
 MOBIL DELVAC SYNTHETIC GEAR OIL 80W-140  
 MOBILUBE 1 SHC 75W-90  
 MOBILUBE SHC 75W-90  
 MOBILUBE SHC 80W-140  
 TUTELA TRUCK FE-AXLE (75W-90)  
 FUCHS TITAN CYTRAC SL SAE 75W-90  
 TITAN CYTRAC HSY SAE 75W-90  
 YORK 896  
 YORK 896 75W110  
 GULF SYNGEAR 75W-90  
 KENDALL TOTAL DRIVE LINE ED 75W90  
 RTO LONGEVIA PXD ECO 75W-90  
 SYNTHEGEAR SAE75W90  
 TRANSMISSION OIL SP 1011  
 Q8 TRANS XGS SAE 75W-90  
 INA HIPENOL SHD 75W-90  
 MEGOL GETRIEBEOEL TRUCK-SYNTH SAE 75W-90  
 SYNTRAN FE  
 MOTUL GEAR SYNT TDL 75W-90  
 NESTE HYPOIDI TDL S 75W-90  
 GEAROIL SYNTH  
 OEST SYNTH GETRIEBEÖL SAE 75W-90  
 OK UNI-CARDAN OIL LD-SAE 75W/90  
 QUINTOL TRANSMISSION OIL VS-45 SAE 75W/90  
 OMV GEAR OIL BSX SAE 75W-90  
 OMV UNIGEAR S SAE 75W-90  
 PAKELO GLOBAL MULTIGEAR TS SAE 75W/90  
 PANOLIN SUPER DUTY SYNTH 75W/90  
 GALP TRANSVEX TDL 75W90  
 RAVENOL GETR.OEL 75W-90 VSG VOLLSYNTH.  
 CARTAGO FE LD 75W90  
 GULF SYTHETIC GEAR LUBRICANT 75W-90  
 SHELL SPIRAX ASX 75W-90  
 WINTERSHALL GETRIEBEFLUID AFS  
 VULCOGEAR SYNT SGX 75W-90  
 TEBOIL HYPOID SAE 75W-140  
 TEBOIL HYPOID SAE 75W-90  
 ANTAR EPS 75W-90  
 FINA PONTONIC FDL 75W-90  
 TOTAL TRANSMISSION BM 75W-90  
 TOTAL TRANSMISSION SYN FE 75W-90  
 TRANSELF BM 75W-90  
 TRANSELF SYNTHESE FE 75W-90  
 SYNPOWER GEAR OIL TDL 75W-90  
 BVX 1000  
 DIVINOL SYNTHOGEAR SL 75W-90

## Lubricant class 16G

Gear oil with limited-slip additives (synthetic)

Viscosity grades: 75W-90 / 75W-110 / 75W-140

### Manufacturer (16G)

AGIP SCHMIERTECHNIK GMBH, WÜRZBURG/D  
BP INTERNATIONAL, PANGBOURNE, READING/GB  
BP INTERNATIONAL, PANGBOURNE, READING/GB  
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D  
TOTAL LUBRIFIANTS S.A., PARIS/F  
TOTAL LUBRIFIANTS S.A., PARIS/F

### Trade name (16G)

AGIP HLZ, SAE 75W-140  
BP ENERGEAR SHX S 75W140  
BP ENERGEAR SHX-ZR 75W-140  
MOBIL GEARLUBE VS 500  
WINTERSHALL GETRIEBEFLUID BMS PLUS  
FINA PONTONIC MLX 75W-140  
TOTAL TRANSMISSION LS 75W-140

**Lubricant class 16H**

Gear oil of viscosity grades: SAE 75W-80 / 75W-85 / 75W-90 / 80W / 80W-85 / 80W-90 / 30  
(mineral oil-based, applicable for Intarder)

**Note:**

In moderate climate zones, shift quality is impaired if viscosity grades higher than SAE 80W are used.

**Manufacturer (16H)**

FL SELENIA S.P.A., VILLASTELLONE/I

**Trade name (16H)**

TUTELA TRUCK ZC 90 SAE80W-90

**Lubricant class 16K**

Gear oil of viscosity grades: SAE 75W-80 / 75W-85  
(semi-synthetic, synthetic, applicable for Intarder)

**Manufacturer (16K)**

FUCHS PETROLUB AG, MANNHEIM/D

**Trade name (16K)**

FUCHS TITAN CYTRAC MAN SYNTH 75W-80

**Lubricant class 16L****ATF****Manufacturer (16L)**

ADDINOL LUBE OIL GMBH, LEUNA/D  
 AMERICAN AGIP COMPANY, CABOT/USA  
 AMSOIL, SUPERIOR/USA  
 ARAL AG, BOCHUM/D  
 AVIA MINERALÖL-AG, MÜNCHEN/D  
 BUCHER AG LANGENTHAL, LANGENTHAL/CH  
 CEP SA LUBRICANTS S.A., MADRID/E  
 CHEVRONTEXACO GLOBAL LUBRICANTS, SAN RAMON/USA  
 CHEVRONTEXACO GLOBAL LUBRICANTS, SAN RAMON/USA  
 CHEVRONTEXACO GLOBAL LUBRICANTS, SAN RAMON/USA  
 CHEVRONTEXACO GLOBAL LUBRICANTS, SAN RAMON/USA  
 CHEVRONTEXACO GLOBAL LUBRICANTS, SAN RAMON/USA  
 CHEVRONTEXACO GLOBAL LUBRICANTS, SAN RAMON/USA  
 CHEVRONTEXACO GLOBAL LUBRICANTS, SAN RAMON/USA  
 CHEVRONTEXACO, GHENT/B  
 COMP.BRASIL. D. PETRO. IPIRANGA, RIO DE JANEIRO/BR  
 ENI S.P.A. REFINING & MARKETING DIVISION, ROME/I  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA  
 FL SELENIA S.P.A., VILLASTELLONE/I  
 FUCHS PETROLUB AG, MANNHEIM/D  
 GINOUVES GEORGES SA, LA FARLEDE/F  
 GRUPA LOTOS SA, GDANSK/PL  
 HUILES BERLIET S.A., SAINT PRIEST/F  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL  
 LUBRICATION ENGINEERS, INC., FORT WORTH, TEXAS/USA  
 MAZIVA ZAGREB D.O.O, ZAGREB/HR  
 MOL-LUB KFT., ALMÿSFÜZITÓ/H  
 NESTE MARKKINOINTI OY, ESPOO/FIN  
 NEW PROCESS AG, TÛBACH/CH  
 OEL-BRACK AG, HUNZENSCHWIL/CH  
 OMV REFINING & MARKETING GMBH, WIEN/A  
 PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I  
 PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I  
 PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I  
 PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I  
 PANOLIN AG, MADETSWIL/CH  
 PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN  
 PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN  
 PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN  
 RALOY LUBRICANTES S.A. DE C.V., TIANGUISTENCO/MEX  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/D  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/D  
 REPSOL YPF LUBRICANTES Y ESPECIALIDADES, MADRID/E  
 REPSOL YPF LUBRICANTES Y ESPECIALIDADES, MADRID/E  
 S.A.E.L., MADRID/E  
 SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB  
 SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D  
 STATOIL LUBRICANTS, STOCKHOLM/S  
 STATOIL LUBRICANTS, STOCKHOLM/S  
 SUOMEN PETROOLI OY, HAMINA/FIN  
 TEDEX PRODUCTION SP.Z.O.O., TOMASZOW MAZOWIECKI/PL  
 TEDEX PRODUCTION SP.Z.O.O., TOMASZOW MAZOWIECKI/PL  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 TOTAL LUBRIFIANTS S.A., PARIS/F  
 VALVOLINE EUROPE, DORDRECHT/NL  
 WARREN OIL CO., DUNN, NORTH CAROLINA/USA  
 ZF GETRIEBE GMBH, SAARBRÜCKEN/D

**Trade name (16L)**

ADDINOL ATF D II E  
 AGIP HD SYNTHETIC BLEND ATF  
 AMSOIL 206 SYNTHETIC ATF  
 ARAL GETRIEBEÖL ATF E-S  
 AVIA FLUID ATF 92 S  
 MOTOREX ATF II E SYNTHETIC  
 CEP SA ATF SYNTHETIC  
 CALTEX SYNTHETIC ATF HEAVY DUTY  
 CHEVRON AUTOMATIC TRANSMISSION FLUID MERCON V  
 CHEVRON MULTI-VEHICLE ATF  
 CHEVRON SYNTHETIC ATF HEAVY DUTY  
 TEXACO HAVOLINE ATF MERCON V  
 TEXACO HAVOLINE MULTI-VEHICLE ATF  
 TEXACO SYNTHETIC ATF HEAVY DUTY  
 TEXAMATIC S  
 ISAMATIC MERCON V  
 ATF II E  
 ESSO ATF LT 71141  
 MOBIL 1 SYNTHETIC ATF  
 MOBIL ATF SHC  
 MOBIL MULTI-VEHICLE ATF  
 TUTELA TRUCK ATF 90  
 TITAN ATF 5000 SL  
 YORK 886  
 LOTOS ATF SUPER III G  
 RTO STARMATIC S2  
 Q8 AUTO 14 SYNTHETIC  
 Q8 AUTO 15 ED  
 1150 TRANS-ALL EHP AUTOMATIC TRANSMISSION FLUID  
 INA ATF EKSTRA  
 MOL ATF SYNT  
 NESTE ATF-S  
 ATF SYNTH  
 MIDLAND ATF XD  
 OMV ATF-S  
 PAKELO ATF DX III HTS  
 PAKELO AUXON II E  
 PAKELO AUXON III  
 PAKELO DX FLUID II TS  
 PANOLIN ATF SYNTH  
 HEAVY DUTY SYNTHETIC BLEND ATF  
 MERCON V ATF H-36007  
 SYNTHETIC BLEND ATF  
 TRANSFLUID SYNTHETIC M-5  
 RAVENOL DEXRON II E  
 RAVENOL DEXRON III H  
 MATIC SINTETICO  
 REPSOL MATIC III  
 GULF ATF SYNT  
 SHELL DONAX TV  
 SHELL DONAX TX  
 WINTERSHALL ATF DEXRON S  
 SYNTOMATIC  
 TRANSWAY S DX II  
 TEBOIL FLUID ES-MAX  
 TEDEX ATF III  
 TEDEX ATF SYNTHETIC  
 ELFMATIC G2 SYN  
 ELFMATIC G3 SYN  
 TOTAL FLUIDE SYN FE  
 TOTAL FLUIDEMATIC SYN  
 VALVOLINE SYNPOWER ATF  
 MULTI-VEHICLE SYNTHETIC BLEND ATF  
 ZF LIFE GUARD FLUID5

## Lubricant class 16M

### ATF

#### Manufacturer (16M)

BP INTERNATIONAL, PANGBOURNE, READING/GB  
BP INTERNATIONAL, PANGBOURNE, READING/GB  
CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
KOMPRESSOL-OEL VERKAUFS GMBH, KÖLN/D

#### Trade name (16M)

BP AUTRAN LTF  
BP AUTRAN SYN 295  
CASTROL TRANSMAX Z  
CASTROL TRANSYND  
KOMPRESSOL-DEXRON SYNTH LTF



**Lubricant class 16N**  
Synthetic ATFs

**Manufacturer (16N)**

FL SELENIA S.P.A., VILLASTELLONE/I  
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB  
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/D

**Trade name (16N)**

TUTELA TRUCK ATF 120  
SHELL DONAX TZ  
ZF-ECOFLUID A PLUS

**Lubricant class 16P**

Gear oil of viscosity grades: SAE 75W-80  
(synthetic, applicable for Intarder)

**Manufacturer (16P)**

CASTROL INTERNATIONAL, PANGBOURNE READING/GB  
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/D

**Trade name (16P)**

CASTROL SYNTRANS MAX 75W-80  
ZF-ECOFLUID M

**Lubricant class 16Q**

**Manufacturer (16Q)**

ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/D

**Trade name (16Q)**

ZF-ECOFLUID LIFE