



Industrial Technology

## Ripartitore di coppia e rinvio angolare per veicoli industriali

## Tabella dei lubrificanti TE-ML 19

Indice	Pagina
<a href="#">1. Classi di lubrificanti benestariati</a>	2
<a href="#">2. Controllo del livello dell'olio ed intervalli di sostituzione dell'olio</a>	2
<a href="#">3. Limite inferiore d'utilizzo a basse temperature</a>	2
<a href="#">4. Limiti di temperatura superiori</a>	2
<a href="#">5. Spiegazione di note a piè di pagina ed osservazioni</a>	3
<a href="#">6. Classi di lubrificanti e prodotti commerciali benestariati</a>	4

La tabella dei lubrificanti TE-ML 19, **edizione 01.07.2026** sostituisce tutte le edizioni precedenti. La rispettiva tabella dei lubrificanti aggiornata può essere richiesta ad ogni punto di appoggio e servizio assistenza ZF oppure consultata sul sito Internet [www.aftermarket.zf.com/lubricants](http://www.aftermarket.zf.com/lubricants).

**ZF Friedrichshafen AG**  
D-88038 Friedrichshafen  
[www.zf.com/contact](http://www.zf.com/contact)

Disclaimer: I lubrificanti e i fornitori elencati nel presente documento sono indicati esclusivamente allo scopo di documentare i lubrificanti che sono stati testati per la compatibilità con i nostri prodotti. Questo elenco non costituisce alcuna approvazione, raccomandazione o preferenza per nessuno dei lubrificanti, produttori o fornitori menzionati. L'inclusione di qualsiasi lubrificante in questo elenco non implica che sia superiore ad altre opzioni disponibili, né indica che altri lubrificanti o fornitori non sono adatti per l'uso con i nostri prodotti. Potrebbero esistere ulteriori lubrificanti, produttori o fornitori — noti o meno alla nostra società — che siano pienamente compatibili o comunque idonei all'impiego. Resta esclusiva responsabilità di ciascun cliente verificare e rispettare tutte le leggi e i regolamenti sanzionatori applicabili prima di acquistare uno qualsiasi dei lubrificanti menzionati.





**1. Classi di lubrificanti benestariati**

Gruppi di prodotto	Lubrificanti ammessi per riempimento servizio <sup>(1)</sup>	
	Impiego normale <sup>(2)</sup>	Impiego impegnativo <sup>(3)</sup>
VG750, VG754 VG1200, VG1600/300, VG1600/396 VG2000/300, VG2000/396, VG2010, VG2700 VG3800	19A / 19B / 19C / 19D	19B / 19C / 19D
DR500, DR1600, DR1610, DR1620	19A / 19B / 19C / 19D	19B / 19C / 19D
TC 27	19A / 19B / 19C / 19D	19B / 19C / 19D
TC 27 + PTO	19C <sup>(6)</sup> / 19D <sup>(6)</sup>	19C <sup>(6)</sup> / 19D <sup>(6)</sup>

**2. Controllo del livello dell'olio ed intervalli di sostituzione dell'olio**

	Impiego normale <sup>(2)</sup>	Impiego impegnativo <sup>(3)</sup>
Controllo del livello dell'olio	10.000 km	10.000 km
Cambio dell'olio e pulizia dello sfianto	60.000 km / 1 anno <sup>(4)</sup>	20.000 km / 1 anno <sup>(4)</sup>

**3. Limite inferiore d'utilizzo a basse temperature**

Classi di viscosità	Utilizzo con temperatura esterna <sup>(7)</sup>	
SAE 75W-85, 75W-90	- 40°C	
SAE 80W-90	- 26°C	
SAE 85W-90	- 12°C	
SAE 90	- 5°C	

**4. Limiti di temperatura superiori**

Classe dei lubrificanti	Temperatura nella coppa dell'olio max. ammissibile per impieghi continuativi <sup>(5)</sup>
19A, 19B	110 °C
19C, 19D	120 °C

## 5. Spiegazione di note a piè di pagina ed osservazioni

### Note a piè di pagina

- (1) Per i prodotti commerciali ammessi vedi seguenti pagine.
- (2) Impiego normale: uso misto su strada e fuori strada.
- (3) Condizioni d'impiego impegnative: essenzialmente fuori strada (resistenza all'avanzamento elevata, carichi alti, velocità bassa) nonché applicazioni speciali (ad esempio veicoli per trasporto pesante, autogrù, veicoli antincendio, ...).
- (4) Sostituzione dell'olio necessario in base a ciò che si verifica prima.
- (5) In caso di superamento continuo della temperatura nella coppa dell'olio max. ammissibile bisogna prevedere un sistema di raffreddamento supplementare.
- (6) Nell'impiego della PTO TC 27 per i lubrificanti ammessi valgono i seguenti limiti di temperatura e condizioni di marcia a caldo:

Limite inferiore d'utilizzo a basse temperature	Classe dei lubrificanti	Riscaldamento prima dell'impiego della PTO
+...°C e -10°C	19C, 19D	-
-11°C e -20°C	19C, 19D	5 minuti in folle con 500 giri/min
-21°C e -30°C	19D	5 minuti in folle con 500 giri/min
-31°C e -40°C	19D	10 minuti in folle con 500 giri/min

- (7) Per l'impiego a temperature esterne inferiori a -40 ° C sono necessarie misure particolari o lubrificanti speciali in accordo con ZF.

### Osservazioni

Additivi di qualsiasi tipo che vengono aggiunti all'olio **posteriormente** fanno modificare l'olio in un modo da non prevedere e per questo non sono ammissibili. ZF non assume alcuna responsabilità di tutti i danni derivanti dall'uso di tali additivi.

## 6. Classi di lubrificanti e prodotti commerciali benestariati

### Classe dei lubrificanti 19A

Olio per cambi

Classi di viscosità: SAE 80W-90 / 85W-90 / 90

#### Produttore (19A)

ADDINOL LUBE OIL GMBH, LEUNA/DE  
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
 AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
 CHEVRON LUBRICANTS, SAN RAMON, CA/US  
 DE OLIEBRON BV, ZWIJNDRECHT/NL  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 GULF OIL INTERNATIONAL, MUMBAI/IN  
 KUWAIT PETROLEUM (BELGIUM) N.V., ANTWERP/BE  
 LIQUI MOLY GMBH, ULM/DE  
 LIQUI MOLY PRODUKTIONS GMBH & CO. KG, SAARLOUIS/DE  
 MOEVE CLIENT SOLUTIONS, S.A.U., MADRID/ES  
 OILFINO MINERALÖL GMBH, PRISDORF/DE  
 ORLEN OIL SP. Z O.O., KRAKOW/PL  
 PETROGAL S.A., LISBOA/PT  
 RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE  
 SK ENMOVE CO.,LTD., SEOUL/KR  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
 SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/DE  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 VIBRA ENERGIA S.A., DUQUE DE CAXIAS/BR  
 VIBRA ENERGIA S.A., DUQUE DE CAXIAS/BR

#### Denominazione prodotto (19A)

ADDINOL GETRIEBEÖL GS 80W-90  
 AVISTA PEER EVO GL4 SAE 80W-90  
 AVISTA PEER EVO GL4 SAE 85W-90  
 TRANSLUBE LD SAE 90  
 TOR MULTIPURPOSE GEAR OIL SAE 80W90  
 GULF GEAR XP 90  
 GULF GEAR XP MAX 90  
 GULF GEAR XP DURA MAX 80W-90  
 GULF GEAR MZ 90  
 GULF GEAR MZ 85W-90  
 GULF GEAR XP 80W-90  
 GULF GEAR MZ 80W-90  
 Q8 T 35 SAE 80W-90  
 LIQUI MOLY GETRIEBEÖL GL4 SAE 85W-90  
 MEGOL MEHRZWECKGETRIEBEOEL GL 4 SAE 85W-90  
 CEPISA TRANSMISIONES 80W-90  
 OILFINO VARIUS G 300 SAE 80W-90  
 ORLEN OIL GEAR GL-4 80W-90  
 GALP TRANSOIL 80W90  
 RAVENOL GETRIEBEÖL MZG SAE 80W-90 GL-4  
 SK GEAR EP 80W-90 ZF  
 SRS WIOLIN MEHRZWECK-GETRIEBEÖL 80W-90  
 SRS WIOLIN MEHRZWECK-GETRIEBEÖL 90  
 TRAXIUM GEAR 7 80W-90  
 TRAXIUM GEAR 7 80W-90  
 TRAXIUM GEAR 7 85W-90  
 TRAXIUM GEAR 7 85W-90  
 TRANSELF EP 80W-90  
 TRANSELF EP 80W-90  
 LUBRAX TRM 4 SAE 90  
 LUBRAX TRM 4 SAE 90

#### Numero di approvazione ZF

ZF000701  
 ZF004779  
 ZF004792  
 ZF000801  
 ZF000622  
 ZF000428  
 ZF000471  
 ZF000684  
 ZF000874  
 ZF000875  
 ZF000893  
 ZF001034  
 ZF002108  
 ZF002054  
 ZF001999  
 ZF000023  
 ZF000739  
 ZF011320  
 ZF000768  
 ZF001109  
 ZF000715  
 ZF000440  
 ZF000445  
 ZF006084  
 ZF006085  
 ZF008222  
 ZF008223  
 ZF008381  
 ZF008382  
 ZF001477  
 ZF006103

**Classe dei lubrificanti 19B**

Olio per cambi

Classi di viscosità: SAE 80W-90 / 85W-90 / 90

**Produttore (19B)**

ADDINOL LUBE OIL GMBH, LEUNA/DE  
ADDINOL LUBE OIL GMBH, LEUNA/DE  
ADDINOL LUBE OIL GMBH, LEUNA/DE  
ADDINOL LUBE OIL GMBH, LEUNA/DE  
AVIA AG, MÜNCHEN/DE  
AVIA AG, MÜNCHEN/DE  
AVIA AG, MÜNCHEN/DE  
AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
AVISTA OIL DEUTSCHLAND GMBH, UETZE/DE  
BAYWA AG MÜNCHEN, MÜNCHEN/DE  
BAYWA AG MÜNCHEN, MÜNCHEN/DE  
BELGIN MADENI YAGLAR TIC. VE SAN. A.S., KOCAELI/TR  
BELGIN MADENI YAGLAR TIC. VE SAN. A.S., KOCAELI/TR  
BELGIN MADENI YAGLAR TIC. VE SAN. A.S., KOCAELI/TR  
BLASER SWISSLUBE AG, HASLE-RÜEGSAU/CH  
CASTROL LTD, LONDON/GB  
CASTROL LTD, LONDON/GB  
CASTROL LTD, LONDON/GB  
CASTROL LTD, LONDON/GB  
CASTROL LTD, LONDON/GB  
CASTROL LTD, LONDON/GB  
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  
CHEVRON LUBRICANTS, SAN RAMON, CA/US  
CLASS KGAA MBH, HARSEWINKEL/DE  
CLASS KGAA MBH, HARSEWINKEL/DE  
CYCLON HELLAS SA, ATHENS/GR  
DE OLIEBRON BV, ZWIJNDRECHT/NL  
EKO ABEE, ATHENS/GR  
ELLIS ENTERPRISES EAST D.O.O. KRUSEVAC, KRUŠEVAC/RS  
ELLIS ENTERPRISES EAST D.O.O. KRUSEVAC, KRUŠEVAC/RS  
ENILIVE S.P.A., ROME/IT  
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  
EXXONMOBIL CORPORATION, HOUSTON, TX/US  
EXXONMOBIL CORPORATION, HOUSTON, TX/US  
EXXONMOBIL CORPORATION, HOUSTON, TX/US  
EXXONMOBIL CORPORATION, HOUSTON, TX/US  
FINKE MINERALÖLWERK GMBH, 27374 VISSELHÖVEDE/DE  
FINKE MINERALÖLWERK GMBH, 27374 VISSELHÖVEDE/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
GS CALTEX CORPORATION, SEOUL/KR  
GULF OIL INTERNATIONAL, MUMBAI/IN  
GULF OIL INTERNATIONAL, MUMBAI/IN  
GULF OIL INTERNATIONAL, MUMBAI/IN  
GULF OIL INTERNATIONAL, MUMBAI/IN  
GULF OIL INTERNATIONAL, MUMBAI/IN  
GULF OIL INTERNATIONAL, MUMBAI/IN  
HD HYUNDAI OILBANK, LTD, GYEONGGI-DO/KR  
HD HYUNDAI OILBANK, LTD, GYEONGGI-DO/KR  
HUILES BERLIET S.A., SAINT-PRIEST/FR  
HUILES BERLIET S.A., SAINT-PRIEST/FR  
INA MAZIVA LTD., ZAGREB/HR  
INA MAZIVA LTD., ZAGREB/HR  
INA MAZIVA LTD., ZAGREB/HR  
KUWAIT PETROLEUM (BELGIUM) N.V., ANTWERP/BE  
KUWAIT PETROLEUM (BELGIUM) N.V., ANTWERP/BE  
KUWAIT PETROLEUM (BELGIUM) N.V., ANTWERP/BE  
KUWAIT PETROLEUM (BELGIUM) N.V., ANTWERP/BE  
LAEMMLE CHEMICALS AG, MADETSWIL/CH  
LIEBHERR HYDRAULIKBAGGER GMBH, KIRCHDORF/DE  
LIQUI MOLY GMBH, ULM/DE

**Denominazione prodotto (19B)**

ADDINOL GETRIEBEÖL GH 85W-90  
ADDINOL GETRIEBEÖL GH 80W-90  
ADDINOL GETRIEBEÖL GX 80W-90 ML  
ADDINOL GETRIEBEÖL GX 80 W 90  
AVIA POWERTRAIN AX 85W-90  
AVIA POWERTRAIN GAX 80W-90  
AVIA POWERTRAIN PREMIUM AX 80W-90  
AVISTA PEER EVO GL5 SAE 80W-90  
AVISTA PEER EVO GL4/GL5 SAE 80W-90  
AVISTA PEER EVO GL5 SAE 85W-90  
AVISTA PEER EVO PRIME GL4/GL5 SAE 80W-90  
TECTROL MULTIGEAR HYP 90  
TECTROL MULTIGEAR PLUS 8090  
BELGIN LUBEX MITRAS AX EP MD 80W-90  
BELGIN LUBEX MITRAS AX EP PLUS 80W-90  
BELGIN LUBEX MITRAS AX EP EXTRA 80W-90  
EVOLCA BGP 80W90  
CASTROL AXLE EPX 80W-90  
CASTROL AXLE EPX 80W-90  
CASTROL TRANSMAX UNIVERSAL LL 80W-90  
CASTROL TRANSMAX AXLE EPX 80W-90  
CASTROL TRANSMAX AXLE EPX 85W-90  
CASTROL TRANSMAX AXLE LONG DRAIN 80W-90  
HYPOID LD SAE 85W-90  
MULTIGEAR EP SAE 90  
MULTIGEAR EP-5 SAE 80W-90  
DELO GEAR TDL 80W-90  
DELO GEAR EP-5 SAE 80W-90  
GEARTEX EP-5 80W-90  
DELO GEAR CGA SAE 80W-90  
AGRISHIFT MT 80W-90  
AGRISHIFT MT 80W-90  
GEAR EP GL-5 80W-90  
TOR SUPER GEAR OIL 80W90  
EKO GEAROL-5 80W-90  
MULTIHIPO PLUS 80W-90  
MULTIHIPO 80W-90 F PLUS  
ENI ROTRA MP 80W-90  
MOBILUBE HD-A PLUS 80W-90  
MOBILUBE S 80W-90  
MOBIL DELVAC MODERN AXLE OIL 80W-90 V1  
MOBIL DELVAC MODERN AXLE OIL 80W-90 V1  
MOBIL DELVAC MODERN AXLE OIL 80W-90 HDA  
MOBILUBE HD-A 85W-90  
MOBIL DELVAC MODERN AXLE OIL 80W-90  
MOBIL DELVAC MODERN AXLE OIL 85W-90 V1  
MOBILUBE S 80W-90  
MOBILUBE HD-A 85W-90  
MOBIL DELVAC MODERN AXLE OIL 85W-90 V1  
MOBIL DELVAC MODERN AXLE OIL 85W-90 V1  
MOBILUBE HD-A 85W-90  
AVIATICON FINKOGEAR SUPER 80W-90  
AVIATICON HYPOID EP 80W-90  
FUCHS TITAN GEAR HYP LD SAE 80W-90  
FUCHS TITAN SUPERGEAR SAE 80W-90  
FUCHS TITAN GEAR HYP SAE 90  
FUCHS TITAN SUPERGEAR MC SAE 80W-90  
GEARWAY G5 80W-90  
PENTOSIN GETRIEBEÖL O-226 80W-90  
PENTOSIN G5 85W-90  
FUCHS AGRIFARM GEAR SAE 80W-90  
PENTOSIN GEAR SAE 80W-90  
TITAN SUPERGEAR PLUS SAE 80W-90  
KIXX GEARTEC X GL-5 80W-90  
GULF GEAR TDL 80W-90  
GULF GEAR DB 80W-90  
GULF GEAR DB 90  
GULF GEAR DB 85W-90  
GULF GEAR HD 85W-90  
GULF GEAR LD 80W-90  
DEVELON AXLE LSD 80W-90  
HYUNDAI AXLE LSD 80W-90  
LONGEVIA TC ECO 80W-90  
LONGEVIA HD 80W-90  
INA HIPENOL GTL DB 90  
INA HIPENOL GTL HD 80W-90  
INA HIPENOL TDL 80W-90  
Q8 GEAR OIL XG SAE 80W-90  
Q8 T 55 SAE 80W-90  
Q8 T 55 SAE 90  
Q8 T 55 SAE 80W-90  
ROXOR TOPGEAR 80W-90  
LIEBHERR GEAR HYPOID 90 EP  
LIQUI MOLY HYPOID-GETRIEBEÖL GL5 SAE 85W-90

**Numero di  
approvazione ZF**

ZF000555  
ZF000671  
ZF000672  
ZF003620  
ZF012196  
ZF012197  
ZF012198  
ZF004777  
ZF004780  
ZF004793  
ZF004797  
ZF005977  
ZF012143  
ZF006035  
ZF011935  
ZF011981  
ZF004735  
ZF001320  
ZF001754  
ZF002143  
ZF002163  
ZF003394  
ZF004885  
ZF000788  
ZF001243  
ZF002137  
ZF002273  
ZF002270  
ZF002279  
ZF003513  
ZF008203  
ZF008233  
ZF001604  
ZF000963  
ZF003351  
ZF001086  
ZF001456  
ZF000855  
ZF000042  
ZF000776  
ZF008180  
ZF008311  
ZF009835  
ZF000668  
ZF012014  
ZF012012  
ZF012155  
ZF012157  
ZF012186  
ZF012252  
ZF012247  
ZF002299  
ZF012141  
ZF000645  
ZF000647  
ZF000656  
ZF000722  
ZF001036  
ZF001195  
ZF001422  
ZF003624  
ZF004809  
ZF010958  
ZF003553  
ZF000780  
ZF000879  
ZF000886  
ZF000887  
ZF001151  
ZF001950  
ZF012283  
ZF012292  
ZF008379  
ZF008396  
ZF000416  
ZF000417  
ZF000432  
ZF002103  
ZF002110  
ZF002112  
ZF003681  
ZF010966  
ZF004912  
ZF000695

**Numero di  
approvazione ZF**

LIQUI MOLY HYPOID-GETRIEBEÖL TDL SAE 80W-90  
LIQUI MOLY HYPOID-GETRIEBEÖL GL5 SAE 80W-90  
MEGOL HYPOID-GETRIEBEÖL GL 5 SAE 85W-90  
MEGOL HYPOID-GETRIEBEÖL TDL 80W-90  
MEGOL HYPOID-GETRIEBEÖL GL 5 SAE 80W-90  
LUKOIL TRANSMISSION LD 80W-90  
LUKOIL TRANSMISSION B 85W-90  
LUKOIL TRANSMISSION UNI 80W-90  
CEPSA TRANSMISIONES EP 80W-90  
CEPSA TRANSMISIONES EP 90  
MAN SUPER AXLE 342-M2  
MOL HYKOMOL K 85W90  
MOL HYKOMOL ZF 80W90  
YORK 793 SAE 80W90  
MOTOREX YORK UNIVERSAL CT SAE 80W/90  
MOTOREX YORK UNIVERSAL SAE 80W90  
MOTOREX YORK GEAR ZX TP SAE 80W/90  
OEST GETRIEBEÖL FE SAE 80W-90 GL4/5  
OEST MEHRZWECK-GETRIEBEÖL SPEZIAL SAE 85W-90  
OILFINO VARIUS G 500 80W-90  
PLATINUM GEAR GL-5 80W-90  
ORLEN OIL GEAR GL-5 80W-90  
ORLEN OIL GEAR LL 80W-90  
LOTOS TITANIS GL-5 80W-90  
TITANIS SUPER GL-5 80W-90  
LOTOS TITANIS GL-5 80W-90  
TRAXON 80W-90  
TRAXON 80W-90  
TRAXON 80W-90  
GALP TRANSOIL HP 80W90  
GALP TRANSOIL HP XT 80W90  
MAXIGEAR EP-X 80W-90  
MAXIGEAR TECH EP-X 80W-90  
ARBOR TRW 90 (SAE 80W-90)  
AMBRA HYPOIDE 90 (SAE 80W-90)  
AKCELA GEAR 135H EP (SAE 80W-90)  
AKROS GEAR EP 90 (SAE 80W-90)  
TUTELA TRANSMISSION W90/LA (SAE 80W-90)  
TUTELA TRANSMISSION W90/M-DA (SAE 80W-90)  
ARBOR TRW 90 (SAE 80W-90)  
AMBRA HYPOIDE 90 (SAE 80W-90)  
TUTELA TRANSMISSION W 90/LA (SAE 80W-90)  
ARBOR TRW 90 (SAE 80W-90)  
AKCELA GEAR 135H EP (SAE 80W-90)  
AKROS GEAR EP 90 (SAE 80W-90)  
TUTELA TRANSMISSION W 90/M-DA (SAE 80W-90)  
PETRONAS TUTELA AXLE 300 80W-90  
PETRONAS TUTELA AXLE 300 80W-90  
PRISTA EP 90  
PRISTA EP 80W-90  
RAVENOL HYPOID EPX GETR.-OEL 80W-90 GL5  
RAVENOL SLG SAE 80W-90  
REPSOL CARTAGO EP SAE 90  
REPSOL CARTAGO EP MULTIGRADO SAE 80W90  
REPSOL CARTAGO LD 80W90  
REPSOL NAVIGATOR LL 80W-90  
REPSOL NAVIGATOR HQ GL-5 80W-90  
REPSOL NAVIGATOR HQ GL-5 SAE 90  
ROLF TRANSMISSION M5 A 80W-90  
TRANSMISSION 80W-90 GL5  
SHELL SPIRAX S3 AX 80W-90  
SHELL SPIRAX S3 AD 80W-90  
SHELL SPIRAX S3 AM 80W-90  
SHELL SPIRAX HD 80W- 90  
SHELL SPIRAX HD 80W- 90  
SHELL SPIRAX HD 80W- 90  
SHELL SPIRAX S4 AX (80W-90)  
SHELL SPIRAX S4 AX (80W-90)  
SHELL SPIRAX S4 AX (80W-90)  
SHELL SPIRAX S4 AX (80W-90)  
SHELL SPIRAX S3 AX 80W-90  
SHELL SPIRAX S3 AX 80W-90  
SHELL SPIRAX S3 AX 80W-90  
SHELL SPIRAX S3 AX 80W-90  
SHELL SPIRAX S3 AX 80W-90  
SHELL SPIRAX S3 AX 80W-90  
SHELL SPIRAX S3 AX 80W-90  
SHELL SPIRAX MB 90  
SHELL SPIRAX S3 AM 80W-90  
GEARLUBE HG M2 SAE 80W-90  
SINOPEC GREATWALL MULTIPURPOSE GEAR OIL 80W-90  
SINOPEC MULTIPURPOSE-II GEAR OIL 80W-90  
SRS WOLIIN HYPOID-GETRIEBEÖL 80W-90  
SRS WOLIIN HYPOID-GETRIEBEÖL 90  
SRS GETRIEBEFLUID SML 80W-90  
SRS WOLIIN HL 5 SAE 80W-90  
SRS WOLIIN HL 5 SAE 85W-90  
SRS WOLIIN HGAV 80W-90  
TEDEX SUPER GEAR OIL (TDL) SAE 80W-90  
TEXSA GEAR MULTI GL-5 90  
TEXSA GEAR MULTI GL-5 80W90

ZF001323  
ZF002053  
ZF000069  
ZF001183  
ZF001998  
ZF010982  
ZF010981  
ZF012150  
ZF000084  
ZF000097  
ZF000966  
ZF001113  
ZF001118  
ZF001129  
ZF006108  
ZF006020  
ZF006006  
ZF005565  
ZF000566  
ZF000741  
ZF005052  
ZF011288  
ZF011188  
ZF000923  
ZF001098  
ZF005949  
ZF000764  
ZF003389  
ZF011072  
ZF000772  
ZF001981  
ZF001499  
ZF001665  
ZF000007  
ZF000231  
ZF002232  
ZF000233  
ZF000516  
ZF006666  
ZF001201  
ZF003638  
ZF003640  
ZF003641  
ZF003642  
ZF003658  
ZF003659  
ZF003703  
ZF012505  
ZF000378  
ZF000380  
ZF001110  
ZF005984  
ZF000379  
ZF000623  
ZF001141  
ZF008261  
ZF008271  
ZF008273  
ZF003629  
ZF006100  
ZF001233  
ZF001237  
ZF001292  
ZF001352  
ZF001353  
ZF001354  
ZF001619  
ZF001620  
ZF001621  
ZF008191  
ZF008187  
ZF010960  
ZF010963  
ZF010962  
ZF010959  
ZF010961  
ZF008356  
ZF012279  
ZF005976  
ZF022627  
ZF003332  
ZF000441  
ZF000444  
ZF000447  
ZF001911  
ZF001912  
ZF010330  
ZF001342  
ZF001941  
ZF001942

**Produttore (19B)**

TEXSA DO BRASIL LTDA, UMUARAMA/PR/BR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
 UNIL OPAL, SAUMUR/FR  
 VALVOLINE EUROPE, DORDRECHT/NL  
 VALVOLINE GLOBAL PRODUCTS, LEXINGTON/US  
 VIBRA ENERGIA S.A., DUQUE DE CAXIAS/BR  
 WILHELM HOYER B.V. & CO. KG, VISSELHÖVEDE/DE  
 WILHELM HOYER B.V. & CO. KG, VISSELHÖVEDE/DE  
 ZELLER+GMELIN GMBH&CO.KG, EISLINGEN/DE  
 ZELLER+GMELIN GMBH&CO.KG, EISLINGEN/DE  
 ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE

**Denominazione prodotto (19B)**

MONTANA DYNAMIC TRACTOGEAR 5 80W90  
 ELF TRANSELF TYPE B 90  
 TRAXIUM DUAL 8 FE 80W-90  
 DYNATRANS HD 80W-90  
 TRAXIUM AXLE 7 85W-90  
 TRAXIUM AXLE 7 85W-90  
 TRAXIUM AXLE 7 80W-90  
 TRAXIUM AXLE 7 80W-90  
 TRANSELF TYPE B 80W-90  
 TRAXIUM AXLE 9 80W-90  
 TRAXIUM AXLE 9 80W-90  
 TRANSELF TYPE B 80W-90  
 DYNATRANS HD 80W 90  
 TRAXIUM AXLE 7 80W-90  
 TRAXIUM AXLE 7 80W-90  
 GEAR ZF 80W90  
 VALVOLINE HEAVY DUTY AXLE OIL PRO 80W-90 LD  
 KUBOTA 80W-90 GEAR LUBRICANT HD  
 LUBRAX TRM 5 SAE 90  
 HOYER GEAR M-FS 80W-90  
 HOYER GEAR M-HP 80W-90  
 DIVINOL MULTI-AXLE 80W90  
 DIVINOL GETRIEBEÖL ST 80W90  
 ZF ECOFLUID X SAE 80W-90

**Numero di approvazione ZF**

ZF003665  
 ZF002069  
 ZF004817  
 ZF008196  
 ZF008210  
 ZF008211  
 ZF008224  
 ZF008225  
 ZF008227  
 ZF008229  
 ZF008230  
 ZF008231  
 ZF008232  
 ZF011486  
 ZF011518  
 ZF000343  
 ZF001837  
 ZF008218  
 ZF006105  
 ZF011992  
 ZF012144  
 ZF001684  
 ZF012095  
 ZF001266

**Classe dei lubrificanti 19C**

Olio per cambi

Classe di viscosità: SAE 75W-90

**Produttore (19C)**

ADDINOL LUBE OIL GMBH, LEUNA/DE  
AVIA AG, MÜNCHEN/DE  
BASF SE, LUDWIGSHAFEN/DE  
BAYWA AG MÜNCHEN, MÜNCHEN/DE  
BELGIN MADENI YAGLAR TIC. VE SAN. A.S., KOCAELI/TR  
BLASER SWISSLUBE AG, HASLE-RÜEGSAU/CH  
CASTROL LTD, LONDON/GB  
CASTROL LTD, LONDON/GB  
CASTROL LTD, LONDON/GB  
CHAMPION CHEMICALS N.V., HEMIKSEM/BE  
CHEVRON LUBRICANTS, SAN RAMON, CA/US  
CONDAT LUBRIFIANTS, CHASSE SUR RHONE/FR  
DE OLIEBRON BV, ZWIJNDRECHT/NL  
DEUTSCHE ÖLWERKE LUBMIN, LUBMIN/DE  
ELLIS ENTERPRISES EAST D.O.O. KRUSEVAC, KRUŠEVAC/RS  
ENILIVE S.P.A., ROME/IT  
ENILIVE S.P.A., ROME/IT  
EXXONMOBIL CORPORATION, HOUSTON, TX/US  
EXXONMOBIL CORPORATION, HOUSTON, TX/US  
EXXONMOBIL CORPORATION, HOUSTON, TX/US  
FINKE MINERALÖLWERK GMBH, 27374 VISSELHÖVEDE/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
FUCHS PETROLUB SE, MANNHEIM/DE  
GULF OIL INTERNATIONAL, MUMBAI/IN  
HUILES BERLIET S.A., SAINT-PRIEST/FR  
IGOL FRANCE, AMIENS/FR  
INA MAZIVA LTD., ZAGREB/HR  
KUWAIT PETROLEUM (BELGIUM) N.V., ANTWERP/BE  
LAEMMLE CHEMICALS AG, MADETSWIL/CH  
LIEBHERR HYDRAULIKBAGGER GMBH, KIRCHDORF/DE  
LIQUI MOLY GMBH, ULM/DE  
LIQUI MOLY PRODUKTIONS GMBH & CO. KG, SAARLOUIS/DE  
LUKOIL LUBRICANTS EUROPE GMBH, VIENNA/AT  
LUKOIL LUBRICANTS EUROPE GMBH, VIENNA/AT  
MOEVE CLIENT SOLUTIONS, S.A.U., MADRID/ES  
MOEVE CLIENT SOLUTIONS, S.A.U., MADRID/ES  
MOL-LUB KFT, ALMASFUZITO/HU  
MOTOREX AG, LANGENTHAL/CH  
MOTOREX AG, LANGENTHAL/CH  
MOTOREX AG, LANGENTHAL/CH  
MOTUL SA, AUBERVILLIERS/FR  
OEL-BRACK AG, HUNZENSCHWIL/CH  
OEST LUBRICANTS GMBH & CO.KG, FREUDENSTADT/DE  
PAKELO MOTOR OIL S.P.A. A S.U., SAN BONIFACIO (VR)/IT  
PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA  
PETRO-CANADA LUBRICANTS INC., MISSISSAUGA, ONTARIO/CA  
PETROGAL S.A., LISBOA/PT  
PETROL OFISI A.S., ISTANBUL/TR  
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  
PHI OIL GMBH, ST. GEORGEN/AT  
RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE  
RAVENSBERGER SCHMIERSTOFFVERTRIEB GMBH, WERTHER/DE  
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES  
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A, MADRID/ES  
ROLF LUBRICANTS GMBH, LEVERKUSEN/DE  
SASOL ENERGY, JOHANNESBURG/ZA  
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  
TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
TOTALENERGIES LUBRIFIANTS, NANTERRE/FR  
VALVOLINE EUROPE, DORDRECHT/NL  
WILHELM HOYER B.V. & CO. KG, VISSELHÖVEDE/DE  
WOLF OIL CORPORATION N.V., HEMIKSEM/BE  
YACCO SAS, ST PIERRE LES ELBEUF/FR

**Denominazione prodotto (19C)**

ADDINOL GETRIEBEÖL GH 75 W 90 SL  
AVIA POWERTRAIN SUPREME GAX 75W-90  
EMGARD HP 75W-90  
TECTROL SYNTOGear MM 7590  
BELGIN LUBEX MITRAS AX SYN ULTRA 75W-90  
EVOLCA SGP 75W90  
CASTROL TRANSMAX AXLE LONG LIFE 75W-90  
CASTROL TRANSMAX UNIVERSAL LL 75W-90  
CASTROL SAF-XO 75W-90  
CHAMPION OEM SPECIFIC 75W90 GL 5  
DELO SYN-TDL 75W-90  
GEAR TXS 75W90  
TOR UNI GEAR LD 75W90  
AVENO TDL ULTIMATE 75W-90  
MULTIHIPO 75W-90 SINT  
ENI ROTRA LSX 75W-90  
ENI ROTRA MP 75W-90  
MOBILUBE 1 SHC 75W-90  
MOBIL DELVAC 1 GEAR OIL 75W-90  
MOBIL DELVAC ULTRA TOTAL DRIVELINE 75W-90  
AVIATICON FINKOGear PREMIUM 75W-90  
FUCHS TITAN CYTRAC HSY SAE 75W-90  
FUCHS TITAN CYTRAC RR SAE 75W-90  
GEARWAY S5 75W-90  
FUCHS TITAN CYTRAC TD SAE 75W-90  
PENTOSIN GEAR PRO SAE 75W-90  
PENTOSIN GEAR ULTRA SAE 75W-90  
GULF SYNGEAR 75W-90  
LONGEVIA TCX ECO 75W-90  
SYNTHEGEAR 75W-90  
INA HIPENOL SHD 75W-90  
Q8 TRANS XGS 75W-90  
ROXOR SUPER DUTY SYNTH 75W-90  
LIEBHERR SYNTOGear PLUS 75W-90  
LIQUI MOLY VOLL SYN. HYPOID GETR.ÖL TRUCK (75W-90)  
MEGOL GETRIEBEOEL TRUCK-SYNTH SAE 75W-90  
LUKOIL TRANSMISSION SYNTH BSX 75W-90  
LUKOIL TRANSMISSION MN 75W-90  
CEPSA TRANSMISIONES EP FE+LD 75W-90  
MAN SUPER AXLE 3343 75W-90  
MOL HYKOMOL TDL 75W90  
MOTOREX YORK PENTA TL SAE 75W/90  
MOTOREX YORK UNISYNT ZX SAE 75W90  
YORK 896 75W90  
MOTUL GEAR SYNTH TDL 75W-90  
MIDLAND SENSOGear 75W-90  
OEST SYNTH GETRIEBEÖL SAE 75W-90  
GLOBAL MULTIGEAR TS SAE 75W/90  
TRAXON SYNTHETIC 75W-90  
TRAXON SYNTHETIC 75W-90  
GALP TRANSVEX TDL 75W90  
MAXIGEAR D 75W-90  
TUTELA TRANSMISSION FE-AXLE (SAE 75W-90)  
TUTELA TRANSMISSION STARGear AX-ED (SAE 75W-90)  
PETRONAS TUTELA AXLE 700 EHD 75W-90  
UNIGEAR GOLD 75W90  
UNIGEAR GOLD 75W90  
RAVENOL GEAR SUPER SYNTH GSS SAE 75W-90  
RAVENOL GEAR TRANS SYNTH GTS SAE 75W-90  
REPSOL CARTAGO FE LD 75W90  
REPSOL NAVIGATOR FE LL 75W-90  
ROLF TRANSMISSION S9 AGE 75W-90  
SYN GEAR DIFFERENTIAL OIL 75W-90  
SHELL SPIRAX S6 AXME 75W-90  
SHELL SPIRAX S6 ADME 75W- 90  
SHELL SPIRAX S6 AXME 75W-90  
SINOPEC GREATWALL VT 75W/90  
SRS GETRIEBEFLUID SXL 75W-90  
TRAXIUM DUAL 9 FE 75W-90  
TRANSELF SYN FE 75W-90  
VALVOLINE HEAVY DUTY TDL PRO 75W-90  
HOYER GEAR F-FP 75W-90  
WOLF OFFICIALTECH 75W90 GL 5  
BVX 1000 75W-90

**Numero di  
approvazione ZF**

ZF002260  
ZF012039  
ZF001716  
ZF012124  
ZF005978  
ZF004734  
ZF002142  
ZF002144  
ZF006097  
ZF003554  
ZF003353  
ZF000829  
ZF000964  
ZF010792  
ZF000653  
ZF000860  
ZF003364  
ZF000041  
ZF001681  
ZF003699  
ZF002249  
ZF000642  
ZF000732  
ZF001030  
ZF003341  
ZF004930  
ZF004931  
ZF000863  
ZF008392  
ZF008361  
ZF000977  
ZF000179  
ZF009457  
ZF006012  
ZF001347  
ZF001291  
ZF010972  
ZF012099  
ZF000086  
ZF000965  
ZF003365  
ZF006007  
ZF008207  
ZF000550  
ZF000825  
ZF003680  
ZF000491  
ZF001224  
ZF011913  
ZF002212  
ZF000980  
ZF001591  
ZF001199  
ZF001738  
ZF003639  
ZF001203  
ZF003606  
ZF006037  
ZF006038  
ZF000451  
ZF008268  
ZF003626  
ZF000702  
ZF001262  
ZF003334  
ZF012287  
ZF000527  
ZF001655  
ZF006074  
ZF008393  
ZF001283  
ZF011993  
ZF003525  
ZF009462

**Classe dei lubrificanti 19D**  
Olio per cambi  
Classe di viscosità: SAE 75W-85

Produttore (19D)	Denominazione prodotto (19D)	Numero di approvazione ZF
SHELL INTERNATIONAL PETROLEUM COMP. LTD, LONDON/GB ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/DE	SHELL SPIRAX S6 AZME 75W-85 ZF ECOFLUID XL SAE 75W-85	ZF004894 ZF003441