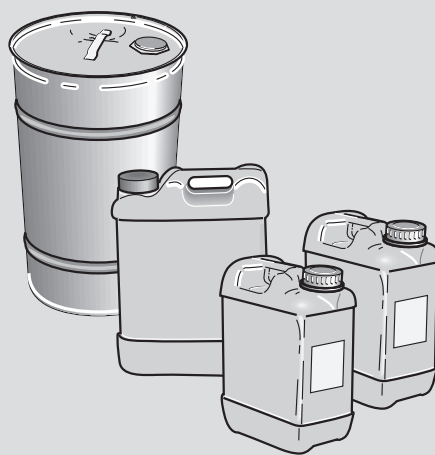


Specifications manual, fluids and lubricants



©200424 DAF Trucks N.V., Eindhoven,
The Netherlands.

In the interest of continuing product development,
DAF reserves the right to change specifications
or products at any time without prior notice.

No part of this publication may be reproduced
and/or published by printing, by photocopying, on
microfilm or in any way whatsoever without the
prior consent in writing of DAF Trucks N.V.

	0
	1
SAFETY INSTRUCTIONS	2
FLUIDS AND LUBRICANTS	3
PERMITTED OIL PRODUCTS, ZF	4
PERMITTED OIL PRODUCTS, EATON	5
PERMITTED OIL PRODUCTS, ALLISON	6
PERMITTED OIL PRODUCTS, VOITH	7

CONTENTS

	Page	Date
1. GENERAL	1-1.....	200424
1.1 General	1-1.....	200424

SAFETY INSTRUCTIONS

Contents

2

1. GENERAL

1.1 GENERAL

TO COMPLY WITH THE WARRANTY CONDITIONS AND TO GUARANTEE THE SERVICE LIFE OF DAF PRODUCTS, IT IS OF UTMOST IMPORTANCE THAT ONLY THE SPECIFIED COOLANT, OIL AND LUBRICANTS BE USED.

ADDITIVES TO THE LUBRICANTS, FUEL AND COOLANTS - OF WHATEVER KIND - MAY NOT BE USED EXCEPT IN INSTANCES AUTHORISED BY DAF.

ALWAYS FOLLOW THE SAFETY INFORMATION SUPPLIED BY DAF OR BY THE SUPPLIER.

Ask your lubricant and fuel supplier(s) whether the products supplied comply with DAF specifications.

DAF is not responsible for damage as a result of:

- lubricants, fuels, coolant or brake fluid being used which do not comply with DAF specifications.
- the specified oil change interval being exceeded.
- oil of a lower grade than specified being used.
- oil of a different viscosity than specified being used.

SAFETY INSTRUCTIONS

General



Avoid physical contact with:

- fuel
- lubricants
- coolants

In the event of contact with the skin:

Remove with paper or a cloth, wash with water and soap. If irritation persists, consult a doctor.

In the event of contact with the eyes:

Remove with a soft cloth and rinse with water. If irritation persists, consult a doctor.

If swallowed:

DO NOT induce vomiting. Rinse mouth, drink two glasses of water and consult a doctor.

In the event of inhalation:

get fresh air and rest.

2

CONTENTS

	Page	Date
1. CAB	1-1	200424
1.1 Cab tilting mechanism	1-1	200424
2. ENGINE, COOLING SYSTEM AND FUEL SYSTEM	2-1	200424
2.1 Engine	2-1	200424
2.2 Cooling system	2-9	200424
2.3 Fuel system	2-13	200424
3. DRIVE AND CHASSIS	3-1	200424
Gearbox		
3.1 Gearbox oil for ZF gearboxes	3-1	200424
3.2 Gearbox oil for EATON gearboxes	3-5	200424
3.3 Gearbox oil for Allison gearboxes	3-7	200424
3.4 Transfer box	3-9	200424
3.5 Retarder	3-9	200424
3.6 Torque converter	3-9	200424
3.7 Hydraulically driven fan	3-9	200424
3.8 Hydraulic gearbox and clutch	3-9	200424
3.9 dry-plate clutch	3-10	200424
3.10 Universal joint, prop shaft	3-10	200424
3.11 Driven front axle	3-10	200424
3.12 Front axle hub	3-11	200424
3.13 Rear axle without hub reduction	3-11	200424
3.14 Rear axle with hub reduction	3-14	200424
3.15 Rear axle hub	3-15	200424
3.16 Trailing axle load transfer device	3-15	200424
3.17 Central tandem axle	3-15	200424
3.18 Chassis lubrication	3-15	200424
4. STEERING GEAR AND BRAKE SYSTEM	4-1	200424
4.1 Steering box	4-1	200424
4.2 Idler arm	4-1	200424
4.3 EVS	4-1	200424
4.4 EMAS	4-1	200424
4.5 RAS-EC	4-2	200424
4.6 Braking system	4-2	200424

FLUIDS AND LUBRICANTS

Contents

3

1. CAB

1.1 CAB TILTING MECHANISM

Cab tilting mechanism oil must meet MIL-H-5606C.

The following may be used:

ESSO Univis J13
FINA Hydran B5219B
TEXACO Aircraft Hydraulic 5606G
TOTAL Aerohydraulic 520.

FLUIDS AND LUBRICANTS

Cab

3

2. ENGINE, COOLING SYSTEM AND FUEL SYSTEM

2.1 ENGINE

The engine oil specification overview is related to the maintenance schedules as stated in the maintenance manuals.

DAF specification lists refer to international standards such as ACEA and API. In addition, requirements are made as to viscosity.

If necessary, the engine oil can be subjected to additional requirements. These are listed in the DAF HP (High Performance) specification.

If the engine oil must meet the DAF HP specification, it is listed as such in the overview.

On the oil specification sheet pertaining to the specific oil company and on the packaging, there is an indication as to whether the DAF HP specifications are met. This means that the oil may be used for the relevant application.

DAF HP (High Performance) specification for diesel engines

- HP 1: low-viscosity oil ..W30 E4/E5
- HP 2: low-viscosity oil ..W40 E4/E5
- HP 3: low-viscosity oil ..W40 E5
- HP gas: oil to be used in DAF LPG engines

Additional information:

ACEA E3: mineral oil

ACEA E5: further developed ACEA E3 oil, geared to possible higher requirements on Euro 3 engines.

ACEA E4: partially or completely synthetic oil, specially developed for extended oil change interval and/or highly loaded engines.

FLUIDS AND LUBRICANTS

Engine, cooling system and fuel system

Explanation of overview:

V = may be used.

HP ... = may be used if the listed specifications have been met.

Engines used in the F95 vehicle series 45/55

Engine type	ACEA E3 ..W-40	ACEA E4 ..W-40	ACEA E4 ..W-30	ACEA E5 ..W-40	ACEA E5 ..W-30	Note
CB	V			V		
CD	V			V		
CN	V			V		
CT	V			V		
CS	V			V		

Engines used in vehicle series: LF 45/LF 55

Engine type	ACEA E3 ..W-40	ACEA E4 ..W-40	ACEA E4 ..W-30	ACEA E5 ..W-40	ACEA E5 ..W-30	Note
BE				V		
CE				V		

Engines used in vehicle series: 65/75/85

Engine type	ACEA E3 ..W-40	ACEA E4 ..W-40	ACEA E4 ..W-30	ACEA E5 ..W-40	ACEA E5 ..W-30	Note
NS	V	V		V		
RS	V	V		V		
WS	V	V		V		

Engines used in vehicle series:
65CF/75CF/85CF

Engine type	ACEA E3 ..W-40	ACEA E4 .W-40	ACEA E4 .W-30	ACEA E5 .W-40	ACEA E5 .W-30	Note
NS	V	V		V		
PF	V	V	HP 1	V	HP 1	
XF Standard changing interval	V	V	HP 1	V	HP 1	
XF Extended changing interval		V	HP 2	HP 2	HP 2	Only permitted if supplementary conditions have been met. See explanation.
PE	V	V	HP 1	V	HP 1	
XE	V	V	HP 1	V	HP 1	

Explanation of supplementary conditions for extended changing interval

- An oil filter with a greater filtering capacity must be fitted.
- A fuel filter with a greater filtering capacity must be fitted.
- A centrifugal oil filter must be fitted.
- The vehicle must drive at least 100,000 km per year.

FLUIDS AND LUBRICANTS

Engine, cooling system and fuel system

Engines used in vehicle series:
CF65/CF75/CF85

Engine type	ACEA E3 ..W-40	ACEA E4 .W-40	ACEA E4 .W-30	ACEA E5 ..W-40	ACEA E5 .W-30	Note
CE				V		
PE Standard changing interval	V	V	HP 1	V	HP 1	
PE Extended changing interval		V	HP 2	HP 2	HP 2	Only permitted if supplementary conditions have been met. See explanation.
XE Standard changing interval	V	V	HP 1	V	HP 1	
XE Extended changing interval		V	HP 2	HP 2	HP 2	Only permitted if supplementary conditions have been met. See explanation.

Explanation of supplementary conditions for extended changing interval for PE engine

- An oil filter with a greater filtering capacity must be fitted.
- A centrifugal oil filter must be fitted.

Explanation of supplementary conditions for extended changing interval for XE engine

- An oil filter with a greater filtering capacity must be fitted.
- A centrifugal oil filter must be fitted.
- A fuel filter with a greater filtering capacity must be fitted.

3

FLUIDS AND LUBRICANTS

Engine, cooling system and fuel system

Engines used in vehicle series: F95

Engine type	ACEA E3 ..W-40	ACEA E4 . .W-40	ACEA E4 . .W-30	ACEA E5 . .W-40	ACEA E5 . .W-30	Note
WS	V	V		V		
VF						API CF4 SAE 15W40

Engines used in vehicle series: 95XF

Engine type	ACEA E3 ..W-40	ACEA E4 . .W-40	ACEA E4 . .W-30	ACEA E5 . .W-40	ACEA E5 . .W-30	Note
VF						API CF4 SAE 15W40
XF Standard changing interval	V	V	HP 1	V	HP 1	
XF Extended changing interval		V	HP 2	HP 2	HP 2	Only permitted if supplementary conditions have been met. See explanation.
XE	V	V	HP 1	V	HP 1	
XE 390 kW Standard changing interval		V	HP 1	HP3		

Explanation of supplementary conditions for extended changing interval

- An oil filter with a greater filtering capacity must be fitted.
- A fuel filter with a greater filtering capacity must be fitted.
- A centrifugal oil filter must be fitted.
- The vehicle must drive at least 100,000 km per year.

FLUIDS AND LUBRICANTS

Engine, cooling system and fuel system

Engines used in vehicle series: XF95

Engine type	ACEA E3 ..W-40	ACEA E4 ..W-40	ACEA E4 ..W-30	ACEA E5 ..W-40	ACEA E5 ..W-30	Note
XE Standard changing interval	V	V	HP 1	V	HP 1	
XE Extended changing interval		V	HP 2	HP 2	HP 2	Only permitted if supplementary conditions have been met. See ex- planation.
XE 390 kW Standard changing interval		V	HP 1	HP3		
XE 390 kW Extended changing interval		V				Only permitted if supplementary conditions have been met. See ex- planation.

Explanation of supplementary conditions for extended changing interval for XE engine

- An oil filter with a greater filtering capacity must be fitted.
- A centrifugal oil filter must be fitted.
- A fuel filter with a greater filtering capacity must be fitted.

Engines used in buses, coaches and other applications

Engine type	ACEA E3 ..W-40	ACEA E4 . .W-40	ACEA E4 . .W-30	ACEA E5 . .W-40	ACEA E5 . .W-30	Note
PE Standard changing interval	V		HP 1	V	HP 1	
PE Extended changing interval		V	HP 2	HP 2	HP 2	Only permitted if supplementary conditions have been met. See explanation.
XE Standard changing interval	V	V	HP 1	V	HP 1	
XE Extended changing interval		V	HP 2	HP 2	HP 2	Only permitted if supplementary conditions have been met. See explanation.
NS	V	V		V		
RT	V	V		V		
RS/GS	V	V		V		
WS	V	V		V		
PF	V	V		V		
XF	V	V		V		
LPG GG/RG						HP GAS

Explanation of supplementary conditions for extended changing interval for PE engine

- An oil filter with a greater filtering capacity must be fitted.
- A centrifugal oil filter must be fitted.

Explanation of supplementary conditions for extended changing interval for XE engine

- An oil filter with a greater filtering capacity must be fitted.
- A centrifugal oil filter must be fitted.
- A fuel filter with a greater filtering capacity must be fitted.

FLUIDS AND LUBRICANTS

Engine, cooling system and fuel system

Engines not related to the above vehicle series

Engine type	ACEA A3 ..W-40	ACEA E2 ..W-40	ACEA E3 ..W-40	ACEA E4 ..W-40	ACEA E4 ..W-30	Note
LPG GG/RG						HP GAS
Other Diesel			V			

3

Prescribed oil grade after an engine repair/ overhaul

For engine repair/overhaul during which shortblock, piston rings and/or cylinder linings are replaced, the engine must be filled with SAE 30 or 15W-30 grade oil.

Replace this oil after 7,500-10,000 km with the specified oil.

Note:

This specification is not valid for the V200/V400 engines.

For LPG engines, the oil must be changed at 2,500 km. Do this with the specified oil.

2.2 COOLING SYSTEM



Coolant is a toxic fluid. Protect skin and eyes. Coolant is harmful to the environment; after use, it should be processed as industrial chemical waste.

The cooling system should preferably be filled with a ready-mixed coolant containing antifreeze and corrosion inhibiting additives.

The antifreeze, present in the cooling system from the factory, consists of an ethylene glycol base: Longlife Coolant

When temperatures never fall below +5°C it is permitted for pure water having the correct specification to be mixed with an anticorrosion agent conforming to ASTM D-3306.

COOLANT

With the exception of the F45/55 and the LF45/55, a sticker behind the grille states the information on the coolant used. The DAF specification is also given here.

Coolant according to DAF specification 74001

Both coolants and anti-corrosion additives must comply with the following specification:
ethylene glycol: ASTM D-3306, BS 6580 and SAE J-1034, for propylene glycol: ASTM D-5216 and BS 6580.

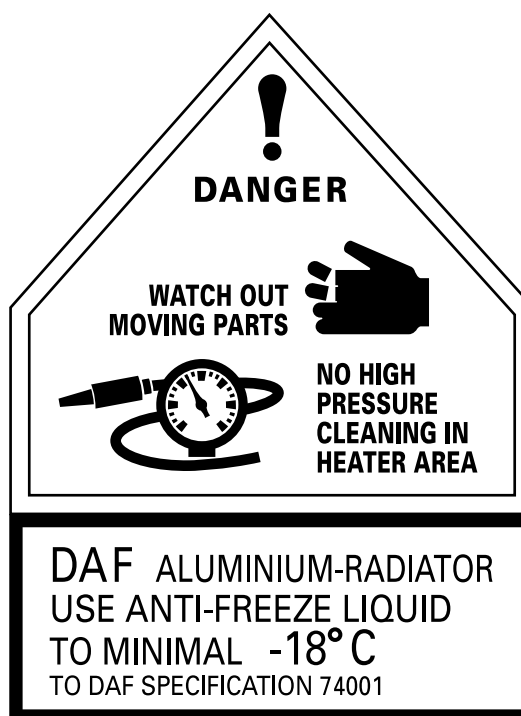
FLUIDS AND LUBRICANTS

Engine, cooling system and fuel system

Note:

1. This specification also applies to the F45/55 with chassis number <OL146081. Furthermore, for the F45 Euro II and F55 the following applies:
 - the corrosion inhibitor must be based on organic acids (carboxylates)
 - they must not contain silicates, nitrites, phosphates, amines and boron compounds.**Ethylene and propylene glycol may never be mixed together. Do not mix glycol/anti-corrosion inhibitor of different makes.**

Follow the coolant manufacturer's directions for use.
2. Topping up the cooling system should be done with the type of coolant that meets DAF specification 74001 or 74002.
3. When changing coolant in the cooling system, the system may also be filled with coolant according to DAF specification 74002. Do not forget to remove the sticker behind the grille and to replace it by the sticker reading Longlife Coolant (DAF number 1653084).



G000315

Coolant according to DAF specification 74002

Compared with the coolant used (in accordance with DAF specification 74001), the new coolant has the following improved properties:

- Improved anti-corrosive properties
- Longer changing interval permitted

Note:

1. This specification also applies to:
 - F45/55 with chassis number \geq 0L 146081
 - LF45/55
2. Topping up the cooling system should be done with the type of coolant that meets DAF specification 74001 or 74002.
3. When changing coolant in the cooling system, the system may also be filled with coolant according to DAF specification 74002.

The below table lists the current suppliers that meet DAF specification 74002. It is not allowed to fill the cooling system with another coolant than the one specified in this overview.



3

G000316

Brand name	Supplier
Longlife Coolant	DAF Trucks N.V.
Havoline XLC/Havoline Extended Life Antifreeze Coolant	ChevronTexaco
Caltex Extended Life Coolant	Caltex
Total Organifreeze	Total
Maxigel Plus/Ultracooling Plus	Renault Truck Oils
Bevercool Organic	Beverol
BP Procool	BP
Castrol Antifreeze SF Premix	Castrol
Inugel Optimal/Inugel Optimal Ultra	Motul
Yacco LR Organique	Yacco
Valvoline Antifreeze Extreme	Valvoline
Petrol Antifriz Koncentrat	Petrol
Orvema Protex Long Life/Coolmix LL	Orvema
SB-G12	Sotragel

FLUIDS AND LUBRICANTS

Engine, cooling system and fuel system

Cooling water requirements

- pH: 5,5 - 9,0
- hardness*: ≤ 170 ppm (calcium and/or magnesium carbonate)
- total solid content: ≤ 340 ppm (≤ 340 mg/litre)
- chloride: ≤ 40 ppm (≤ 40 mg/litre) (sodium chloride)
- sulphate: ≤ 100 ppm (≤ 100 mg/litre) (magnesium and/or sodium sulphate)

* hardness 170 ppm = 9.5° German hardness / 17° French hardness / 12° British hardness.

2.3 FUEL SYSTEM

Diesel fuel

Diesel fuel must meet the specifications according to EN 590. At extremely low temperatures and exclusively in an emergency, (for example, breakdown), a specific quantity of petroleum (maximum 20%) or a flow improver may be added.

However, if this is PROHIBITED BY LAW, a maximum of 20% unleaded petrol may be added.

Explanation: For BE and CE engines, fuel additives are not permitted.

Sulphur content	Oil change interval
> 0,2%	halve interval to max. of 25,000 km

Fuel should have a lubricity effect according to the requirements below ("lubricity standard"):

test method:	HFRR according to standard CEC-F-06-A96
test value:	< 460 µm

Biodiesel

Biodiesel (according to standard EN 14214) is permitted for the following DAF vehicles:

- **CF75/85 from chassis number 0E552890**
- **XF95**

FLUIDS AND LUBRICANTS

Engine, cooling system and fuel system

Restrictions:

Oil changing interval:

Is to be halved compared with the standard changing interval. Extended changing intervals are not allowed.

Oil and fuel filter replacement interval:

Halve.

Cab heater:

The D1LC compact and D3LC compact air heater versions are suitable for biodiesel.

The Hydronic 10 and D2 Airtronic water heater versions are not suitable for biodiesel.

Note:

Biodiesel has dissolving characteristics so that the change from diesel to biodiesel may cause deposits in the fuel system to dissolve and thereby clogging the filter. When changing from diesel to biodiesel it is wise to check the filters after 1 or 2 tank fillings and to replace any clogged filters. At low temperatures biodiesel may cause problems such as clogging of filters.

LPG fuel

The EON number (Engine Octane Number) must be a minimum of 93.5.

(not to be confused with the RON number (Research Octane Number)).

3

3. DRIVE AND CHASSIS

3.1 GEARBOX OIL FOR ZF GEARBOXES

The oil specification overview is related to the maintenance schedules as stated in the maintenance manuals.

The permitted oil products are listed in the appended ZF lubricant specifications (TE-ML 02 and TE-ML 14); the viscosity classes and suppliers are listed as well.

The currently applicable specifications are appended; consult the ZF website, **WWW.ZF.COM**, for other products and approved suppliers.

Explanation of overview

V = may be used.

ZF gearbox applied in the vehicle series: 45/55

Type of gearbox	02B	02C	02D	02F	02G	02H	02L	Note
ZF gearboxes without intarder Standard changing interval	V		V	V	V	V		See explanation
ZF gearboxes without intarder Extended changing interval			V					See explanation

Explanation: Use of class 02B or 02H oil is advised against as there may be an increase in the required gear-changing forces at low temperatures.

ZF gearbox applied in the vehicle series: LF45/55

Type of gearbox	02B	02C	02D	02F	02G	02H	02L	Note
ZF 6S850 Standard changing interval	V	V			V	V		See explanation
ZF gearboxes without intarder Standard changing interval (not 6S850)	V		V	V	V	V		See explanation
ZF gearboxes without intarder Extended changing interval (not 6S850)			V					See explanation

Explanation: Use of class 02B, 02C or 02H oil is advised against as there may be an increase in the required gear-changing forces at low temperatures.

FLUIDS AND LUBRICANTS

Drive and chassis

ZF gearbox applied in the vehicle series: 65/75/85

Type of gearbox	02B	02C	02D	02F	02G	02H	02L	Note
ZF S6-36 Standard changing interval	V		V	V	V	V		See explanation
ZF gearboxes without intarder Standard changing interval (not 6S-36)	V	V	V			V	V	
ZF gearboxes with intarder Standard changing interval (not 6S-36)		V	V			V	V	

Explanation: Use of class 02B, 02C or 02H oil is advised against as there may be an increase in the required gear-changing forces at low temperatures.

ZF gearbox applied in the vehicle series: 65/75/85CF

Type of gearbox	02B	02C	02D	02F	02G	02H	02L	Note
ZF S6-36 Standard changing interval	V		V	V	V	V		See explanation
ZF 6S850 Standard changing interval	V	V			V	V		See explanation
ZF gearboxes without intarder Standard changing interval (not S6-36/6S850)	V	V	V			V	V	
ZF gearboxes without intarder Extended changing interval (not S6-36/6S850)			V				V	
ZF gearboxes with intarder Standard changing interval (not S6-36/6S850)		V	V			V	V	
ZF gearboxes with intarder Extended changing interval (not S6-36/6S850)			V				V	

Explanation: Use of class 02B, 02C or 02H oil is advised against as there may be an increase in the required gear-changing forces at low temperatures.

**ZF gearbox applied in the vehicle series:
CF65/75/85**

Type of gearbox	02B	02C	02D	02F	02G	02H	02L	Note
ZF 6S850 Standard changing interval	V	V			V	V		See explanation
ZF gearboxes without intarder Standard changing interval (not 6S850)	V	V	V			V	V	
ZF gearboxes without intarder Extended changing interval (not 6S850)			V				V	
ZF gearboxes with intarder Standard changing interval (not 6S850)		V	V			V	V	
ZF gearboxes with intarder Extended changing interval (not 6S850)			V				V	
AS Tronic Extended changing interval							V	

Explanation: Use of class 02B, 02C or 02H oil is advised against as there may be an increase in the required gear-changing forces at low temperatures.

ZF gearbox applied in the vehicle series: F95

Type of gearbox	02B	02C	02D	02F	02G	02H	02L	Note
ZF gearboxes without intarder Standard changing interval	V	V	V			V	V	
ZF gearboxes with intarder Standard changing interval		V	V			V	V	

ZF gearbox applied in the vehicle series: 95XF

Type of gearbox	02B	02C	02D	02F	02G	02H	02L	Note
ZF gearboxes without intarder Standard changing interval	V	V	V			V	V	
ZF gearboxes without intarder Extended changing interval			V				V	
ZF gearboxes with intarder Standard changing interval		V	V			V	V	
ZF gearboxes with intarder Extended changing interval			V				V	

FLUIDS AND LUBRICANTS

Drive and chassis

ZF gearbox applied in the vehicle series: XF95

Type of gearbox	02B	02C	02D	02F	02G	02H	02L	Note
ZF gearboxes without intarder Standard changing interval	V	V	V			V	V	
ZF gearboxes without intarder Extended changing interval			V				V	
ZF gearboxes with intarder Standard changing interval		V	V			V	V	
ZF gearboxes with intarder Extended changing interval			V				V	
AS Tronic Extended changing interval							V	

ZF gearbox used in buses, coaches and other applications

Type of gearbox	02B	02C	02D	02F	02G	02H	02L	Note
ZF 6S-1600 without intarder Standard changing interval	V	V				V		
ZF 6S-1600 without intarder Extended changing interval			V				V	
ZF 6S-1600 with intarder Standard changing interval		V				V		
ZF 6S-1600 with intarder Extended changing interval			V				V	
ZF 8S-180 with intarder Standard changing interval		V				V		
ZF 8S-180 with intarder Extended changing interval			V				V	

ZF automatic gearbox used in buses, coaches and other applications

Type of gearbox	14A	14B	14C	14E	Note
ZF 5HP-600 Standard changing interval		V			
ZF 5HP-600 Extended changing interval			V		

3.2 GEARBOX OIL FOR EATON GEARBOXES

The oil specification overview is related to the maintenance schedules as stated in the maintenance manuals.

The permitted oil products are listed in the appended EATON lubricant specifications; the classes and suppliers are listed as well.

Explanation of overview

V = may be used.

EATON gearbox applied in the vehicle series: 45/55

Type of gearbox	API GL4 SAE 80W Mineral oil	API GL4 SAE 90 Mineral oil	API GL4 SAE 80W Synthetic/semi- synthetic oil	API GL4 SAE 90 Synthetic/semi- synthetic oil	Note
6109 Standard changing interval	V	V			

EATON gearbox applied in the vehicle series: LF45/55

Type of gearbox	API GL4 SAE 80W Mineral oil	API GL4 SAE 90 Mineral oil	API GL4 SAE 80W Synthetic/semi- synthetic oil	API GL4 SAE 90 Synthetic/semi- synthetic oil	Note
6309 Standard changing interval	V	V			
6309 Extended changing interval			V	V	

EATON gearbox applied in the vehicle series: 65/75/85

Type of gearbox	API GL4 SAE 80W Mineral oil	API GL4 SAE 90 Mineral oil	API GL4 SAE 80W Synthetic/semi- synthetic oil	API GL4 SAE 90 Synthetic/semi- synthetic oil	Note
TS(O) Standard changing interval	V	V			

FLUIDS AND LUBRICANTS

Drive and chassis

EATON gearbox applied in the vehicle series:
65/75/85 CF

Type of gearbox	API GL4 SAE 80W Mineral oil	API GL4 SAE 90 Mineral oil	API GL4 SAE 80W Synthetic/semi- synthetic oil	API GL4 SAE 90 Synthetic/semi- synthetic oil	Note
TS Standard changing interval	V	V			
TS Extended changing interval			V	V	

EATON gearbox applied in the vehicle series:
CF 65/75/85

Type of gearbox	API GL4 SAE 80W Mineral oil	API GL4 SAE 90 Mineral oil	API GL4 SAE 80W Synthetic/semi- synthetic oil	API GL4 SAE 90 Synthetic/semi- synthetic oil	Note
6309 Standard changing interval	V	V			
6309 Extended changing interval			V	V	

EATON gearbox applied in the vehicle series:
95

Type of gearbox	API GL4 SAE 80W Mineral oil	API GL4 SAE 90 Mineral oil	API GL4 SAE 80W Synthetic/semi- synthetic oil	API GL4 SAE 90 Synthetic/semi- synthetic oil	Note
TS(O) Standard changing interval	V	V			

3.3 GEARBOX OIL FOR ALLISON GEARBOXES

The oil specification overview is related to the maintenance schedules as stated in the maintenance manuals.

The permitted Allison oil products are listed in the appended lubricant specifications.

Explanation of overview

V = may be used.

Allison automatic gearbox used in vehicle series: LF45/55

Type of gearbox	ATF type Dexron III or C4 with valid approval number mineral oil	ATF type Dexron III or C4 with valid approval number synthetic oil	Note
MD 3060 Standard changing interval	V		
MD 3060 Extended changing interval		V	

Allison automatic gearbox used in vehicle series: 65/75/85

Type of gearbox	ATF type Dexron III or C4 with valid approval number mineral oil	ATF type Dexron III or C4 with valid approval number synthetic oil	Note
MD 3060 MD 3066 MD 3560 Standard changing interval	V		

FLUIDS AND LUBRICANTS

Drive and chassis

Allison automatic gearbox used in vehicle
series: 65/75/85CF

Type of gearbox	ATF type Dexron III or C4 with valid approval number mineral oil	ATF type Dexron III or C4 with valid approval number synthetic oil	Note
MD 3060 MD 3066 MD 3560 Standard changing interval	V		
MD 3060 MD 3066 MD 3560 Extended changing interval		V	

Allison automatic gearbox used in vehicle
series: CF65/75/85

Type of gearbox	ATF type Dexron III or C4 with valid approval number mineral oil	ATF type Dexron III or C4 with valid approval number synthetic oil	Note
MD 3060 MD 3066 MD 3560 Standard changing interval	V		
MD 3060 MD 3066 MD 3560 Extended changing interval		V	

Allison automatic gearbox used in other
vehicle series

Type of gearbox	ATF type Dexron III or C4 with valid approval number	Dexron II D	CCMC G5 SAE 10W-30 or 10W-40	Note
R5-150 (V400) LT-140 (V200) Standard changing interval		V		
P5-100 (V400) Standard changing interval			V	

3.4 TRANSFER BOX

Type of transfer box	API GL4 or GL5 SAE 90	Note
Steyr	V	

3.5 RETARDER

Type	Viscosity	Oil grade
Voith	SAE 10W SAE 20W-20 SAE 30	mineral oil: API CC/SF or higher
	SAE 5W-40 SAE 5W-50 SAE 10W-30 SAE 10W-40	(semi-) synthetic oil: API CC/SF or higher

For an overview of all the permitted oil products in Voith retarders, see the list published by Voith. An example is printed in the back of this manual.

3.6 TORQUE CONVERTER

Torque converter fluid

DEXRON III with valid approval number.

3.7 HYDRAULICALLY DRIVEN FAN

DEXRON III with valid approval number

3.8 HYDRAULIC GEARBOX AND CLUTCH

Brake fluid DOT 3 or DOT 4

FLUIDS AND LUBRICANTS

Drive and chassis

3.9 DRY-PLATE CLUTCH

Clutch plate axle connection	lithium based grease, NLGI 3
Thrust bearing:	
Thrust bearing with plastic inner sleeve:	dry mounting
Thrust bearing with steel inner sleeve:	lithium based grease, NLGI 3
Clutch lever thrust bearing	
Clutch lever with rollers (manually operated gearboxes):	dry mounting
Clutch lever without rollers (AS Tronic gearbox):	lithium based grease, NLGI 3

3

3.10 UNIVERSAL JOINT, PROP SHAFT

Shell Retinax LX 2
Renolit LX PEP 2B

3.11 DRIVEN FRONT AXLE

Explanation of overview:

V = may be used.

Type of axle	API GL 4 Synthetic oil SAE 85W-140	API GL 5 SAE 85W-140	API GL 5 Synthetic oil SAE 80W-140	Note
2235V		V	V	See explanation

Explanation

For extremely cold regions, where the temperature remains below 0°C for long periods, it is recommended to use the viscosity of SAE 80W-140.

3.12 FRONT AXLE HUB

Oil lubricated front axle hubs:
Greased front axle hubs:

SAE 80W-140 to API GL4 or GL5
Lithium complex based EP additive grease,
NLGI 2 (or better), such as:
Castrol LMX BP ENERGREASE LC2
MOBILGREASE HP2
Q8 RUBENS
SHELL RETINAX LX
TEXACO STARPLEX EP2
Renolit LX PEP 2B
TOTAL MULTIS COMPLEX EP2
or equivalent.

3

3.13 REAR AXLE WITHOUT HUB REDUCTION

Explanation of overview:
V = may be used.

Type of axle	API GL 5 Mineral oil	API GL5 or GL4/GL 5 Synthetic oil	Note
1132 1132T 1339 1346 1347 Standard changing interval	V	V	
1132 1132T 1339 1347 Extended changing interval		V	Consult the relevant maintenance manual as to whether an extended changing interval is permitted
1355 low-deck Standard changing interval		V	See explanation

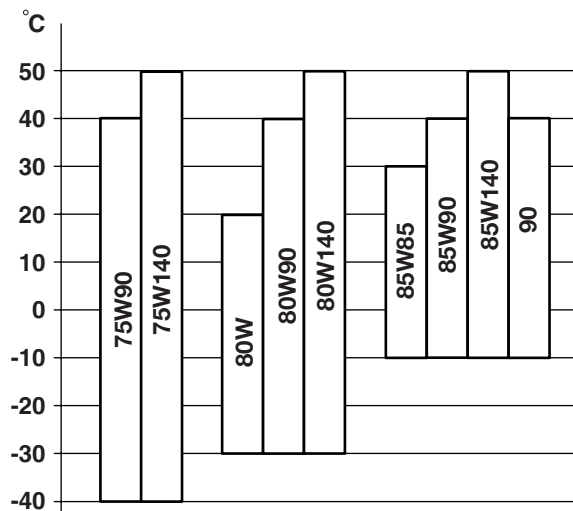
Explanation

The oil supplier should guarantee a continuous
use temperature of 125°C.
This oil should be changed every 120,000 km.

FLUIDS AND LUBRICANTS

Drive and chassis

3



M201385

Type of axle	API GL 4 Mineral oil	API GL 4 Synthetic oil	API GL 5 Mineral oil	API GL 5 Synthetic oil	Note
5.10 5.12 Standard changing interval	V		V		See explanation
5.10 5.12 Extended changing interval		V		V	Consult the relevant maintenance manual as to whether an extended changing interval is permitted
5.14 7.20 8.20 10.20 10.26 11.20 11.26 Standard changing interval			V		See explanation
5.14 7.20 8.20 10.20 10.26 11.20 11.26 Extended changing interval				V	Consult the relevant maintenance manual as to whether an extended changing interval is permitted
V200/V400 Standard changing interval			V		

Overview of permitted viscosity

Explanation

Wheel hub, 5.10 and 5.12 axle

W90 (normal use)

W90 (low temperatures)

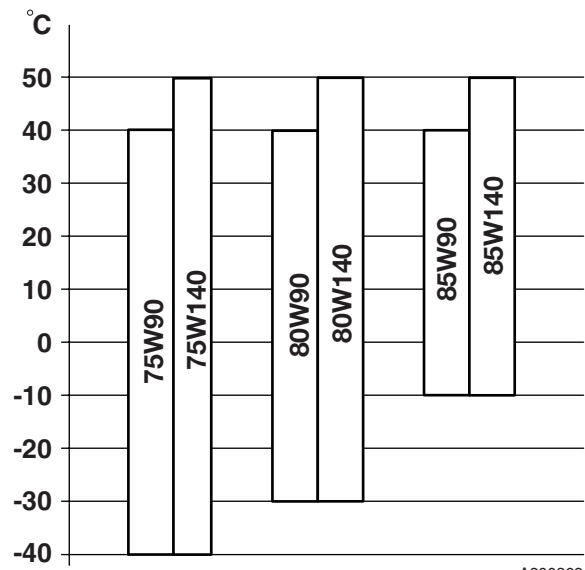
W90 (synthetic)

Viscosity, all other axles

W140 (normal use)

W140 (low temperatures)

W140 (synthetic)



A800368

FLUIDS AND LUBRICANTS

Drive and chassis

3.14 REAR AXLE WITH HUB REDUCTION

Type of axle	API GL5 Mineral oil	API GL5 or GL4/GL5 Synthetic oil	Notes
1354 Standard changing interval	V	V	See explanation
1355T Standard changing interval	V	V	

Explanation

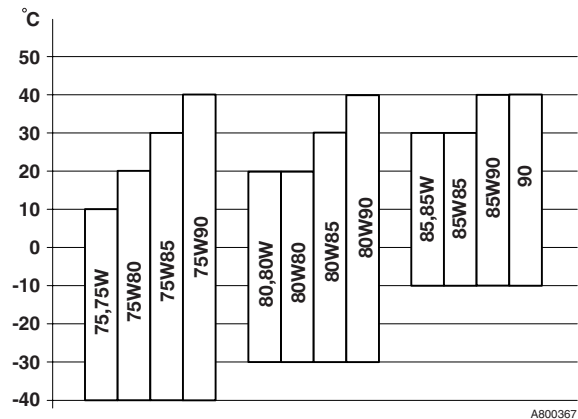
Depending on the circumstances in which the vehicle is used, a synthetic oil must be used. See text below.

Vehicle weight (GCW) ≤ 40 tons

Ambient temperature often ≥ 30°C due to hilly/mountainous terrain and poor roads and/or unmetalled terrain

Vehicle weight (GCW) ≥ 40 tons and ≤ 54 tons

Ambient temperature often ≥ 30°C
Hilly/mountainous terrain
Poor roads and/or unmetalled terrain



Overview of permitted viscosity for rear axles with hub reduction

3.15 REAR AXLE HUB

Greased rear axle hubs:

Lithium complex based EP additive grease,
NLGI 2 (or better), such as:
Castrol LMX
BP ENERGREASE LC2
MOBILGREASE HP2
Q8 RUBENS
SHELL RETINAX LX
TEXACO STARPLEX EP2
RENOLIT LX PEP 2B
TOTAL MULTIS COMPLEX EP2
or equivalent.

3

3.16 TRAILING AXLE LOAD TRANSFER DEVICE

Lifting gear oil:

DEXRON III with valid approval number

3.17 CENTRAL TANDEM AXLE

Quality
Viscosity

API GL4 or GL5
SAE 80W-90

3.18 CHASSIS LUBRICATION

Lubricating grease

Lithium based grease, NLGI 0
EP quality

Automatic greasing system

Lithium based EP additive grease, NLGI 0

FLUIDS AND LUBRICANTS

Drive and chassis

3

4. STEERING GEAR AND BRAKE SYSTEM

4.1 STEERING BOX

Hydraulic power steering
Hydraulic power steering V 200/400:
Steering box V 200/400 (model without power steering):

DEXRON III with valid approval number.
DEXRON III
SAE 80W-90 or SAE 90 according to API GL5

TRW steering box with angular drive

When a plug is present:

the same oil as in the steering box.

4.2 IDLER ARM

Lithium complex based EP additive grease, NLGI 2 (or better), such as:
Castrol LMX
BP ENERGREASE LC2
MOBILGREASE HP2
Q8 RUBENS
SHELL RETINAX LX
TEXACO STARPLEX EP2
RENOLIT LX PEP 2B
TOTAL MULTIS COMPLEX EP2
or equivalent.

4.3 EVS

Oil for hydraulic steering gear:
Accumulator:

DEXRON III with valid approval number.
nitrogen, industrial quality, 99% pure.

4.4 EMAS

Oil for hydraulic steering gear:

DEXRON III with valid approval number.

FLUIDS AND LUBRICANTS

Steering gear and brake system

4.5 RAS-EC

Oil for hydraulic steering gear:

DEXRON III with valid approval number.

4.6 BRAKING SYSTEM

Brake fluid:

DOT 4

Lubricating grease for brake claw guide sleeves in disc brake systems

Renolit HLT2, Syntheso GL EP1

3

CONTENTS

	Page	Date
1. PERMITTED OIL PRODUCTS	1-1.....	200424
1.1 ZF	1-1.....	200424

PERMITTED OIL PRODUCTS, ZF

Contents

4

1. PERMITTED OIL PRODUCTS

1.1 ZF

Lubricant class 02B

Transmission oil viscosity, SAE 80W / 80W-85 /
80W-90 / 75W-80 / 75W-85 / 75W-90
(not suitable for intarder)

Make	Brand name
ADDINOL LUBE OIL GMBH, LEUNAD	ADDINOL GETRIEBEÖL GX 80 W 90 ML
AGIPPETROLI, ROME/I	ROTRA TRUCK GEAR 80W-90
ARAL LUBRICANTS GMBH & CO. KG, BOCHUM/D	ARAL GETRIEBEÖL EP PLUS SAE 80W-90
ARMORINE S.A., LANESTER CEDEX/F	BM 80
AVIA MINERALÖL-AG, MÜNCHEN/D	AVIA SYNTOGEAR FE 75W-90 EP
AVIA MINERALÖL-AG, MÜNCHEN/D	AVIA SYNTOGEAR FE 80W-90
BAYWA AG, MÜNCHEN/D	BAYWA SUPER 8090 MC
BP INTERNATIONAL, PANGBOURNE, READING/GB	ENERGEAR SHX-M SAE 75W-90
BP INTERNATIONAL, PANGBOURNE, READING/GB	BP ENERGEAR DL 80W
BP INTERNATIONAL, PANGBOURNE, READING/GB	BP ENERGEAR DL 80W-90
BP INTERNATIONAL, PANGBOURNE, READING/GB	BP ENERGEAR HT 80W
BP INTERNATIONAL, PANGBOURNE, READING/GB	BP ENERGEAR HT 80W-90
BP INTERNATIONAL, PANGBOURNE, READING/GB	FRONTOL GETRIEBEÖL FE SAE 80W-90
BUCHER AG LANGENTHAL, LANGENTHAL/CH	MOTOREX UNISYNT TX
CALPAM MINERALÖL-GMBH, ASCHAFFENBURG/D	CALPAM MULTI GEAR OIL FE 80W90
CALTEX (UK) LIMITED, LONDON/GB	CALTEX TRANSLUBE LD SAE 80W
CALTEX (UK) LIMITED, LONDON/GB	CALTEX TRANSLUBE LD SAE 85W-90
CASTROL INTERNATIONAL, PANGBOURNE READING/GB	CASTROL DYNADRIVE
CEPSA LUBRICANTS S.A., MADRID/E	CEPSA TRANSMISIONES EP FE+LD 75W-90
DEA MINERALOEL AG, HAMBURG/D	DEAGEAR MZ
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	ESSO GEAR OIL TDL 75W-90
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	MOBILUBE S 80W-90
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	MOBILUBE 1 SHC 75W-90

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Make	Brand name
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	ESSO GEAR OIL TDL 80W-90
FUCHS PETROLUB AG, MANNHEIM/D	TITAN SUPERGEAR MC 80W-90
GENOL GMBH & CO., WIEN/A	GENOL GEAR-SYN 80W-90
GINOUVES GEORGES SA, LA FARLEDE/F HAFA, PARIS/F	YORK 896 EUROGEAR SAE 75W-90
HUILES BERLIET S.A., SAINT PRIEST/F	HRD LONGEVIA P 80W-90
HUILES BERLIET S.A., SAINT PRIEST/F	HRD LONGEVIA PXD 75W-90
KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL	Q8 GEAR OIL XG SAE 80W-90
LIQUI MOLY GMBH, ULM/D	HYPOID GETRIEBEÖL TDL SAE 80W-90
MEGUIN GMBH & CO. KG MINERALOELWERKE, SAARLOUIS/D	MEGOL HYPOID-GETRIEBEOEL TDL SAE 80W-90
MILLERS OILS LIMITED, BRIGHOUSE/GB	SYNTRAN FE/MILLERS TRX SYNTH 75W/90
MINERALÖL-RAFFIN. DOLLBERGEN, UETZE-DOLLBERGEN/D	PENNASOL MEHRZWECK-GETRIEBEOEL GL 4 SAE 80W
MINERALÖL-RAFFIN. DOLLBERGEN, UETZE-DOLLBERGEN/D	PENNASOL LONGLIFE GEAR GL 4 SAE 80W
MORRIS LUBRICANTS, SHREWSBURY/GB	SERVOL EP 80W/90
MORRIS LUBRICANTS, SHREWSBURY/GB	LODEXOL SS 80W
NEW PROCESS AG, TÜBACH/CH	GEAR OIL SYNTH
OEL-BRACK AG, HUNZENSCHWIL/CH	QUAKER STATE SUPER Q 5 SAE 80W-90
OEST, GEORG MINERALÖLWERK, FREUDENSTADT/D	OEST SYNTH GETRIEBEÖL SAE 75W-90
OMV AG, SCHWECHAT/A	OMV UNIGEAR SAE 80W-90
OMV AG, SCHWECHAT/A	OMV UNIGEAR S SAE 75W-90
OMV AG, SCHWECHAT/A	OMV GEAR OIL XD-4 SAE 80W-85
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO GLOBAL GEAR SA SAE 80W
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO GLOBAL GEAR SA SAE 80W/85
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO GLOBAL GEAR SA SAE 80W/90
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO GLOBAL MULTIGEAR TS SAE 75W/90
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO GLOBAL GEAR CBS SAE 75W/85
PANOLIN AG, MADETSWIL/CH	PANOLIN TOPGEAR 80W/90
PANOLIN AG, MADETSWIL/CH	PANOLIN SUPER DUTY SYNTH 75W/90
RAFINERIA NAFTY JEDLICZE SA, JEDLICZE/PL	HIPOL EXTRA GL-4 80W-90
RAFINERIA NAFTY JEDLICZE SA, JEDLICZE/PL	HIPOL EXTRA GL-5 80W-90

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Make	Brand name
S.A.E.L., MADRID/E	GULF SYNTHETIC GEAR LUBRICANT 75W-90
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL SPIRAX GX 80W
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL SPIRAX GX 80W-90
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL SPIRAX MX 80W-90
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D	WINTERSHALL GETRIEBEFLUID SML 80W-90
STATOIL LUBRICANTS, NYNÄSHAMN/S	GEARWAY G4 80W
STRUB + CO AG, REIDEN/CH	STRUB MULTIGEAR SGO 80W-90
STRUB + CO AG, REIDEN/CH	VULCOGEAR SYNT SGX 75W-90
TEXACO BELGIUM N.V., GHENT/B	MULTIGEAR 80W-90
TEXACO BELGIUM N.V., GHENT/B	MULTIGEAR S 75W-90
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	TOTAL TRANSMISSION SYN FE 75W-90
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	FINA PONTONIC FDL 75W-90
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	TRANSELF SYNTHESE FE 75W-90
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	TOTAL TRANSMISSION MDL 80W-90
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	FINA PONTONIC MDL 80W-90
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	TOTAL TRANSMISSION RS FE 80W-90
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	ANTAR UNIVERSAL FE 80W-90
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	TRANSELF UNIVERSAL FE 80W-90
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	ANTAR EPS 75W-90
VALVOLINE EUROPE, DORDRECHT/NL	SYNPOWER GEAR OIL TDL 75W-90
YACCO, ST PIERRE LES ELBEUF/F	BVX 1000
ZEPPELIN BAUMASCHINEN GMBH, GARCHING/D	ZEPPELIN SPEZIALGETRIEBEÖL GL-4/GL-5 80W-90

Note:

For regions with low outside temperatures the shifting quality is adversely affected at a viscosity above SAE 80W.

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Lubricant class 02C

Monograde engine oil: SAE 30
(mineral base oil, suitable for intarder)

Make	Brand name
ADDINOL LUBE OIL GMBH, LEUNA/D	ADDINOL TURBO DIESEL MD 305 SAE 30
ARAL LUBRICANTS GMBH & CO. KG, BOCHUM/D	ARAL BASICTURBORAL SAE 30
AVIA MINERALÖL-AG, MÜNCHEN/D	AVIA SPECIAL HDC SAE 30
BLASER SWISSLUBE AG, HASLE-RÜEGSAU/CH	BLASOL 30
BUCHER AG LANGENTHAL, LANGENTHAL/CH	MOTOREX MULTI DF 30
BUCHER AG LANGENTHAL, LANGENTHAL/CH	MOTOREX EXTRA 30
CASTROL INTERNATIONAL, PANGBOURNE READING/GB	CRF 30
DEA MINERALOEL AG, HAMBURG/D	DEA CRONOS SUPER SAE 30
FUCHS LUBRICANTS (UK) PLC, HANLEY/GB	HARDWICK 30
FUCHS PETROLUB AG, MANNHEIM/D	TITAN UNIVERSAL HD 30
GENOL GMBH & CO., WIEN/A	GENOL MULTI-TURBO 30
GINOUVES GEORGES SA, LA FARLEDE/F	YORK 730 SAE 30
INA MAZIVA RIJEKA, RIJEKA/HR	INA SUPER 5 30
INA MAZIVA RIJEKA, RIJEKA/HR	INA SAGARTIA 30
INA MAZIVA RIJEKA, RIJEKA/HR	INA GORGONELA S 30
LIQUI MOLY GMBH, ULM/D	TOURING HIGH TECH MOTOROIL SAE 30
MEGUIN GMBH & CO. KG MINERALOELWERKE, SAARLOUIS/D	MEGOL MOTORENOEL HD-C3 SG SAE 30
OMV AG, SCHWECHAT/A	OMV TRUCK SAE 30
ORLY INTERNATIONAL G.I.E., VIEUX-THANN/F	ORLY DRACO 3001 SAE 30
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO PKO HD 4 SAE 30
PANOLIN AG, MADETSWIL/CH	PANOLIN EXTRA DIESEL 30
SHELL ASEOL AG, BERN 5/CH	ASEOL MONOGRADE CF 30
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL RIMULA X 30
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL GADINIA 30
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D	WINTERSHALL REKORD 30
STATOIL LUBRICANTS, NYNÄSHAMN/S	DIESELWAY 30
STRUB + CO AG, REIDEN/CH	TURBO HD SAE 30
TEXACO BELGIUM N.V., GHENT/B	URSA SUPER LA 30
VALVOLINE EUROPE, DORDRECHT/NL	ALL FLEET PLUS 30

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Lubricant class 02D

Transmission oil viscosity, SAE 75W-80 /
SAE 75W-85 / 75W-90
(semi-synthetic oil, suitable for intarder)

Make	Brand name
AGIP SCHMIERTECHNIK GMBH, WÜRZBURG/D	AUTOL GETRIEBEÖL VSL-4 75W-80
ARAL LUBRICANTS GMBH & CO. KG, BOCHUM/D	ARAL GETRIEBEÖL SNS SAE 75W-80
BUCHER AG LANGENTHAL, LANGENTHAL/CH	MOTOREX PRISMA TF 75W/80
CEPSA LUBRICANTS S.A., MADRID/E	CEPSA TRANSMISIONES FE+LD 75W-80
DEA MINERALOEL AG, HAMBURG/D	DEAGEAR LD
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	ESSO GEAR OIL 1074
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	MOBILTRANS SHC 30
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	MOBILUBE XHP 75W-80
FL ITALIA S.P.A., VILLASTELLONE/I	TUTELA TRUCK GEARLITE SAE 75W80
FUCHS PETROLUB AG, MANNHEIM/D	TITAN CYTRAC LD 75W-80
HUILES BERLIET S.A., SAINT PRIEST/F	HRD LONGEVIA 75W-80
INA MAZIVA ZAGREB, ZAGREB/HR	INA TRANSMOL HD 75W-80
KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL	Q8 T 60 SAE 75W-80
OMV AG, SCHWECHAT/A	OMV GEAR OIL LDI SAE 75W-80
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO GOLDENGEAR LD SAE 75W/80
PANOLIN AG, MADETSWIL/CH	PANOLIN TRANSGEAR 75W/80W
S.A.E.L., MADRID/E	GULF INTARDER GEAR OIL 75W-80
TEXACO BELGIUM N.V., GHENT/B	MULTIGEAR MTF 75W-80W
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	FINA PONTONIC TI 75W-80
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	TRANSELF LD 75W-80
TOTALFINAELF LUBRIFIANTS S.A.; PARIS/F	TOTAL TRANSMISSION TI 75W-80

Note:

Product group **Ecolite**:

For regions with low outside temperatures the shifting quality is adversely affected at a viscosity above SAE 75W-80.

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Lubricant class 02F

ATF corresponding to group standard ZFN 13015 and special conditions.

Make	Brand name
ADDINOL LUBE OIL GMBH, LEUNA/D	ADDINOL ATF D II D
ADDINOL LUBE OIL GMBH, LEUNA/D	ADDINOL ATF D III
ARAL LUBRICANTS GMBH & CO. KG, BOCHUM/D	ARAL GETRIEBEÖL ATF 55 F-30589
CALTEX (UK) LIMITED, LONDON/GB	CALTEX ATF-HDM
CALTEX (UK) LIMITED, LONDON/GB	CALTEX TEXAMATIC 7045
CASTROL INTERNATIONAL, PANGBOURNE READING/GB	CASTROL TQ DEXRON III (F-30520)
DEA MINERALOEL AG, HAMBURG/D	DEAFLUID 3003
FL ITALIA S.P.A., VILLASTELLONE/I	TUTELA CAR GI/E
FL ITALIA S.P.A., VILLASTELLONE/I	TUTELA GI/A
FUCHS PETROLUB AG, MANNHEIM/D	TITAN ATF 4000
GINOUVES GEORGES SA, LA FARLEDE/F	YORK 686
IGOL FRANCE SA, AMIENS/F	ATF 420
IGOL FRANCE SA, AMIENS/F	ATF 430
KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL	Q8 AUTO 14
KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL	Q8 AUTO 15
MORRIS LUBRICANTS, SHREWSBURY/GB	LIQUIMATIC SUPER ATF
OMV AG, SCHWECHAT/A	OMV ATF III
PANOLIN AG, MADETSWIL/CH	PANOLIN ATF DEXRON III
PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN	MERCON V ATF
PRZEDSIĘBIORSTWO MODEX-OIL, KWIDZYN/PL	VECO MATIC IID
RAFINERIA NAFTY JEDLICZE SA, JEDLICZE/PL	HIPOL ATF II D
RAFINERIA NAFTY JEDLICZE SA, JEDLICZE/PL	HIPOL ATF III
TEXACO BELGIUM N.V., GHENT/B	TEXTRAN PSM
TEXACO BELGIUM N.V., GHENT/B	TEXAMATIC 7045E
TEXACO BELGIUM N.V., GHENT/B	TEXAMATIC 7045
TEXACO BRASIL S.A., RIO DE JANEIRO/BR	TEXAMATIC 7045E
VEEDOL INTERNATIONAL, PANGBOURNE READING/GB	VEEDOL ATF DEXRON III (F-30521)

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Lubricant class 02G

Transmission oil corresponding to ZF order specification ZFB 864 (ZF number 0671 071 010)
Viscosity: SAE 75W (mineral base oil, not suitable for intarder).

Make	Brand name
FUCHS PETROLUB AG, MANNHEIM/D	TITAN GEAR ZF
TEXACO BELGIUM N.V., GHENT/B	MULTIGEAR MTF LT

Lubricant class 02H

Transmission oil: SAE 80W-90
(mineral base oil, suitable for intarder)

Make	Brand name
FL ITALIA S.P.A., VILLASTELLONE/I	TUTELA TRUCK ZC 90

Lubricant class 02L

Transmission oil viscosity, SAE 75W-85
(synthetic, suitable for intarder)

Make	Brand name
BP INTERNATIONAL, PANGBOURNE, READING/GB	BP ENERGEAR SHX 30
CASTROL INTERNATIONAL, PANGBOURNE READING/GB	CASTROL SYNTRANS
VEEDOL INTERNATIONAL, PANGBOURNE READING/GB	VEEDOL SYN MESH

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Lubricant class 14A

Mineral based ATF according to ZFN 13015

Make	Brand name
ADDINOL LUBE OIL GMBH, LEUNA/D	ADDINOL ATF D II D
ADDINOL LUBE OIL GMBH, LEUNA/D	ADDINOL ATF D III
AGIP SCHMIERTECHNIK GMBH, WÜRZBURG/D	AGIP ATF D 309
ARAL AG, BOCHUM/D	ARAL GETRIEBEÖL ATF 22
ARAL AG, BOCHUM/D	ARAL GETRIEBEÖL ATF 55 F-30589
AVIA MINERALÖL-AG, MÜNCHEN/D	AVIA FLUID ATF 86
AVIA MINERALÖL-AG, MÜNCHEN/D	AVIA FLUID ATF 98
BAYWA AG, MÜNCHEN/D	BAYWA ATF 3000
BLASER SWISSLUBE AG, HASLE-RÜEGSAU/CH	ATF GM
BP INTERNATIONAL, PANGBOURNE, READING/GB	BP AUTRAN MBX
BUCHER AG LANGENTHAL, LANGENTHAL/CH	MOTOREX ATF SUPER
CALTEX (UK) LIMITED, LONDON/GB	CALTEX ATF-HDM
CALTEX (UK) LIMITED, LONDON/GB	CALTEX TEXAMATIC 1322S
CASTROL INTERNATIONAL, PANGBOURNE READING/GB	CASTROL TQ DEXRON III (F-30520)
CASTROL INTERNATIONAL, PANGBOURNE READING/GB	CASTROL TQ-D (21289)
CASTROL INTERNATIONAL, PANGBOURNE READING/GB	CASTROL TQ-D (22765)
CASTROL INTERNATIONAL, PANGBOURNE READING/GB	CASTROL TRANSMAX T
CHEVRONTEXACO, GHENT/B	TEXAMATIC 4291
CHEVRONTEXACO, GHENT/B	TEXTRAN PSM
CYCLON HELLAS S.A., MAROUSSI ATHENS/GR	ATF TYPE D
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	ESSO ATF D2
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	MOBIL ATF 220
FL ITALIA S.P.A., VILLASTELLONE/I	TUTELA CAR GI/E
FL ITALIA S.P.A., VILLASTELLONE/I	TUTELA GI/A
FUCHS PETROLUB AG, MANNHEIM/D	TITAN ATF 3000
FUCHS PETROLUB AG, MANNHEIM/D	TITAN ATF 4000
GENOL GMBH & CO., WIEN/A	GENOL ATF MULTIFLUID
GINOUVES GEORGES SA, LA FARLEDE/F	YORK 686
GINOUVES GEORGES SA, LA FARLEDE/F	YORK 785
HYDROTEX, CARROLLTON, TEXAS/USA	HY-TORQUE Z (ATF)

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Make	Brand name
IGOL FRANCE SA, AMIENS/F	ATF 420
IGOL FRANCE SA, AMIENS/F	ATF 430
KRAFFT S.A., ANDOAIN/E	ATF SYNTHETIC D3
KRAFFT S.A., ANDOAIN/E	KRAFFT ATF 21247
KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL	Q8 AUTO 14
KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL	Q8 AUTO 15
MAZIVA ZAGREB D.O.O, ZAGREB/HR	INA ATF SUPER
MEGUIN GMBH & CO. KG MINERALOELWERKE, SAARLOUIS/D	MEGOL HYDRAULIKOEL ATF DEXRON II D
MINERALÖL-RAFFIN. DOLLBERGEN, UETZE-DOLLBERGEN/D	PENNASOL FLUID GETRIEBEOEL TYP P/CN
MORRIS LUBRICANTS, SHREWSBURY/GB	LIQUIMATIC D II
MORRIS LUBRICANTS, SHREWSBURY/GB	LIQUIMATIC SUPER ATF
OEL-BRACK AG, HUNZENSCHWIL/CH	QUAKER STATE ATF Q3 PLUS
OMV AG, SCHWECHAT/A	OMV ATF D II (D22427)
OMV AG, SCHWECHAT/A	OMV ATF III
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO MULTIPURPOSE TRANSMISSION FLUID II D
PANOLIN AG, MADETSWIL/CH	PANOLIN ATF DEXRON III
PETROGAL S.A., LISBOA/P	GALP TRANSMATIC D II
PRZEDSIĘBIORSTWO MODEX-OIL, KWIDZYN/PL	VECO MATIC IID
RAFINERIA NAFTY JEDLICZE SA, JEDLICZE/PL	HIPOL ATF II D
RAFINERIA NAFTY JEDLICZE SA, JEDLICZE/PL	HIPOL ATF III
S.A.E.L., MADRID/E	GULF ATF D II D
SHELL & DEA OIL GMBH, HAMBURG/D	DEAFLUID 3003
SHELL & DEA OIL GMBH, HAMBURG/D	DEAFLUID 4011
SHELL & DEA OIL GMBH, HAMBURG/D	DEAMATIC
SHELL ASEOL AG, BERN 5/CH	ASEOL ATF DB UNIVERSAL
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL DONAX TA (D-21631)
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL DONAX TA (D-21666)
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL DONAX TA (D-21774)
SLOVNAFT VURUP A.S., BRATISLAVA/SK	MADIT AUTOMATIC
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D	WINTERSHALL ATF III

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Make	Brand name
STATOIL LUBRICANTS, STOCKHOLM/S	STATOIL TRANSWAY DX III
SUN OIL COMPANY (BELGIUM) N.V., AARTSELAAR/B	SUNAMATIC 149
SUN OIL COMPANY (BELGIUM) N.V., AARTSELAAR/B	SUNAMATIC 153
TERPEL BUCARAMANGA S.A., BUCARAMANGA /CO	TERMATIC HD
TOTALFINAELF LUBRIFIANTS S.A., PARIS/F	ELFMATIC G3
TOTALFINAELF LUBRIFIANTS S.A., PARIS/F	FINAMATIC II D
TOTALFINAELF LUBRIFIANTS S.A., PARIS/F	TOTAL FLUIDE ATX
UNIL S.A., SAUMUR CEDEX/F	MATIC D
VALVOLINE EUROPE, DORDRECHT/NL	VALVOLINE ATF TYPE D
VALVOLINE EUROPE, DORDRECHT/NL	VALVOLINE DURABLEND ATF
VEEDOL INTERNATIONAL, PANGBOURNE READING/GB	VEEDOL ATF DEXRON III (F-30521)
VEEDOL INTERNATIONAL, PANGBOURNE READING/GB	VEEDOL ATF-M (22764)
VEEDOL INTERNATIONAL, PANGBOURNE READING/GB	VEEDOL UNITRANS S PLUS (F30359)
ZELLER + GMELIN GMBH & CO., EISLINGEN/D	DIVINOL FLUID III F

Lubricant class 14B

Semi-synthetic ATF according to ZFN 13015

Make	Brand name
CHEVRONTEXACO GLOBAL LUBRICANTS, SAN RAMON/USA	CHEVRON SYNTHETIC AUTOMATIC TRANSMISSION FLUID HEA
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	AAMCO SYNTHETIC BLEND ATF
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	ESSO ATF LT 71141
FL ITALIA S.P.A., VILLASTELLONE/I	TUTELA HP 20
GINOUVES GEORGES SA, LA FARLEDE/F	YORK 886
KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL	Q8 AUTO 15 ED
PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN	MERCON V ATF
PETRO-CANADA LUBRICANTS, MISSISSAUGA/CDN	VHVI DEXRON III ATF
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL DONAX TX (G-32003)
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL DONAX TX (G-34077)
STATOIL LUBRICANTS, STOCKHOLM/S	SYNTOMATIC

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Make	Brand name
STATOIL LUBRICANTS, STOCKHOLM/S	TRANSWAY S DX II
TOTALFINAELF LUBRIFIANTS S.A., PARIS/F	ELFMATIC G3 SYN
TOTALFINAELF LUBRIFIANTS S.A., PARIS/F	TOTAL FLUIDEMATIC SYN

Lubricant class 14C

Synthetic ATF according to ZFN 13015

Make	Brand name
ARAL AG, BOCHUM/D	ARAL GETRIEBEÖL ATF E-S (*)
AVIA MINERALÖL-AG, MÜNCHEN/D	AVIA FLUID ATF 92 S (*)
BP INTERNATIONAL, PANGBOURNE, READING/GB	BP AUTRAN LTF (*)
BUCHER AG LANGENTHAL, LANGENTHAL/CH	MOTOREX ATF II E SYNTHETIC (*)
CASTROL INTERNATIONAL, PANGBOURNE READING/GB	CASTROL TRANSMAX Z
CEPSA LUBRICANTS S.A., MADRID/E	CEPSA ATF SYNTHETIC (*)
CHEVRONTEXACO, GHENT/B	TEXAMATIC S (*)
EXXON MOBIL CORPORATION, FAIRFAX, VIRGINIA/USA	MOBIL ATF SHC (*)
FL ITALIA S.P.A., VILLASTELLONE/I	TUTELA TRUCK ATF 90 (*)
FUCHS PETROLUB AG, MANNHEIM/D	TITAN ATF 5000 SL (*)
HUILES BERLIET S.A., SAINT PRIEST/F	HRD STARMATIC S2 (*)
KOMPRESSOL-OEL VERKAUFS GMBH, KÖLN/D	KOMPRESSOL-DEXRON SYNTH LTF (*)
KUWAIT PETROLEUM R&T B.V., EUROPOORT RT/NL	Q8 AUTO 14 SYNTHETIC (*)
MAZIVA ZAGREB D.O.O, ZAGREB/HR	INA ATF EKSTRA (*)
NEW PROCESS AG, TÜBACH/CH	ATF SYNTH (*)
OMV AG, SCHWECHAT/A	OMV ATF-S (*)
ORLY INTERNATIONAL G.I.E., VIEUX-THANN/F	ORLY MATIC ATF DEXRON II E (*)
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO AUXON II E (*)
PAKELO MOTOR OIL S.R.L, SAN BONIFACIO (VR)/I	PAKELO DX FLUID II TS (*)
PANOLIN AG, MADETSWIL/CH	PANOLIN ATF SYNTH (*)
RAFINERIA NAFTY JEDLICZE SA, JEDLICZE/PL	HIPOL ATF II E (*)
REPSOL LUBRICANTES, MADRID/E	MATIC SINTETICO (*)
S.A.E.L., MADRID/E	GULF ATF SYNT (*)
SHELL & DEA OIL GMBH, HAMBURG/D	DEAFLUID S
SHELL INTERNATIONAL PETROLEUM COMP LTD, LONDON/GB	SHELL ATF XS (*)

PERMITTED OIL PRODUCTS, ZF

Permitted oil products

Make	Brand name
SLOVNAFT VURUP A.S., BRATISLAVA/SK	MADIT AUTOMATIC II E (*)
SRS SCHMIERSTOFF VERTRIEB GMBH, SALZBERGEN/D	WINTERSHALL ATF DEXRON S (*)
SUOMEN PETROOLI OY, HAMINA/FIN	TEBOIL FLUID ES-MAX (*)
TOTALFINAELF LUBRIFIANTS S.A., PARIS/F	ELFMATIC G2 SYN (*)
TOTALFINAELF LUBRIFIANTS S.A., PARIS/F	FINAMATIC S 6726 (*)
TOTALFINAELF LUBRIFIANTS S.A., PARIS/F	TOTAL FLUIDE SYN FE (*)
VALVOLINE EUROPE, DORDRECHT/NL	VALVOLINE SYNPOWER ATF (*)
VEEDOL INTERNATIONAL, PANGBOURNE READING/GB	VEEDOL UNITRANS Z
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/D	ZF ECOFLUID A

Lubricant class 14E

Synthetic ATF

Make	Brand name
ZF FRIEDRICHSHAFEN AG, FRIEDRICHSHAFEN/D	ZF ECOFLUID A

4

PERMITTED OIL PRODUCTS, EATON

Contents

CONTENTS

	Page	Date
1. PERMITTED OIL PRODUCTS	1-1.....	200424
1.1 Eaton.....	1-1.....	200424

PERMITTED OIL PRODUCTS, EATON

Contents

5

1. PERMITTED OIL PRODUCTS

1.1 EATON

Synthetic and semi-synthetic oil

Synthetic oil

The following three synthetic oil brands are approved for the use in Eaton transmissions.

1. COGNIS (HENKEL/EMERY) MTF 4200
2. CASTROL SYNTRANS
3. MOBILUBE 1 SHC

Semi-synthetic oil

The following nine semi-synthetic oil brands are approved for the use in Eaton transmissions.

1. ELF TRANSELF 75W80W
2. MOBIL MOBILUBEXHP
3. KUWAIT Q8 T 60
4. FUCHS DEA DEAGEAR LD & TITAN
CYTRAC LD
5. FIAT LUBRIFICANTI TUTELA TRUCK
GEAR FE
6. DE OLIEBRON TOR MT/LD GEAR OIL
7. OMV AKTIENGESELLCHAFT OMVLDL
75W-80
8. PAKELO MOTOR OIL PAKELO
GOLDENGear LD
9. TEXACO MULTIGEAR MTF 75W80W

PERMITTED OIL PRODUCTS, EATON

Permitted oil products

5

PERMITTED OIL PRODUCTS, ALLISON

Contents

CONTENTS

	Page	Date
1. PERMITTED OIL PRODUCTS	1-1.....	200424
1.1 Allison	1-1.....	200424

PERMITTED OIL PRODUCTS, ALLISON

Contents

6

1. PERMITTED OIL PRODUCTS

1.1 ALLISON

ABU DHABI NATIONAL OIL CO.	ADNOC TRANSMISSION OIL T4 SAE 10W ADNOC TRANSMISSION OIL T4 SAE 30 ADNOC A.T.F.
ABU DHABI NATIONAL OIL CO. ADNOC-FOD AGIP PETROLI S. P. A.	ADNOC HPSD 15W-40 ATF DEXRON-III AGIP MULTITECH 2000 D AGIP SUPERTRACTOR UNIVERSAL AGIP ROTRA A.T.F. AGIP AUTOMATIC TRANSMISSION PLUS AGIP DEXRON III AGIP SUPERDIESEL MULTIGRADE ROTRA JD/F
AMALIE MOTOR OIL	AMALIE DEXRON III/MERCON A.T.F. AMALIE DEXRON III/MERCON A.T.F.
AMOCO OIL CO.	AMOCO 300 AMOCO 300
AMPOL LIMITED	AMPOL LONGHAUL AMPOL LONGHAUL PREMIUM
AMSOIL INC. ARAL AKTIENGESELLSCHAFT ARCHER PETROLEUM	AMSOIL SYNTHETIC A.T.F. ARAL MULTI TURBORAL MOTOROL ARCHER DEXRON III/MERCON AUTOMATIC MULTI-PURPOSE ATF
ATLANTIC REFINING BALMER LAWRIE & CO. LTD.	ATLANTIC DEXRON III / MERCON BALMEROL PROTOMAC C4 SAE10 BALMEROL PROTOMAC C4 SAE30
BALMER LAWRIE FUCHS LTD.	TITAN FLEX C4 10W TITAN FLEX C4 30
BHARAT PETR. CORP. LTD.	BHARAT HYDRAULIC TRANSMISSION FLUID C-4 SAE 10W BHARAT HYDRAULIC TRANSMISSION FLUID C-4 SAE 30
BP AUSTRALIA BP OIL CO. BP OIL INTERNATIONAL LTD.	BP AUTRAN DX III TRACTRAN UTH VANELLUS C3 MULTIGRADE AUTRAN GM-MP AUTRAN DX III TERRAC TRACTRAN 9 AUTRAN 4 AUTRAN DX III TERRAC EXTRA VANELLUS C3 30 VANELLUS C3 30
CALTEX PETROLEUM CORP.	TF434 TORQUE FLUID 444A
CALTEX SERVICES CORP.	TEXAMATIC 1322 ATF-HDP ATF-HDF CALTEX RPM TRACTOR HYDRAULIC FLUID CALTEX TORQUE FLUID 410 CALTEX TORQUE FLUID 430 CALTEX TORQUE FLUID 440

PERMITTED OIL PRODUCTS, ALLISON

Permitted oil products

6

CASTROL AUSTRALIA PTY LTD	DELO 500 MULTIGRADE SAE 15W-40
CASTROL INC.	DELO 500 SAE 30
CASTROL IND. N. AMER. INC.	DELO 500 SAE 40
CASTROL INTERNATIONAL	TEXAMATIC 1205A
CASTROL LTD.	TORQUE FLUID 444P
	CALTEX DELO K1 MULTIGRADE SAE 15W-40
	SYNTHETIC TRANSMISSION FLUID HD
	ATF-HD
	ATF-HDA
	CALTEX A.T.F. HDM
	TEXAMATIC 1278
	TEXAMATIC 7045
	TEXAMATIC FLUID DEXRON III/MERCON
	CASTROL TQ DEXRON III
	CASTROL TRANSMAX S
	CASTROL SYNTEC
	CASTROL RX SUPER PLUS
	CASTROL TRANSMAX M
	CASTROL TRANSMAX T
	MULTIPLANT
	DEUSOL TFC 430
	CASTROL AMX
	CASTROL TFC 410
	CASTROL TFC 430
CATO OIL & GREASE CO. INC	MYSTIK DIMENSION SAE 15W-40
	MYSTIK JT-8 SAE 10W
	MYSTIK JT-8 SAE 15W-40
	MYSTIK JT-8 SAE 30
	MYSTIK DEXRON-III/MERCON A.T.F.
CEPSA	CEPSA RETTO 15W-40D
	CEPSA SUPER SERIE 3 SAE 30
CHEMOLEUMS PVT. LTD.	CHEMOLEUM TRANSMISSION OIL C4 10W
	CHEMOLEUM TRANSMISSION OIL C4 30
CHEMPRO	CHEMPRO A.T.F. H D M
CHEVRON PRODUCTS COMP.	CHEVRON A.T.F.
CITGO PETROLEUM CORP.	CITGARD 500 MOTOR OIL SAE 10W-30
	CITGARD 500 MOTOR OIL SAE 15W-40
	CITGARD 500 MOTOR OIL SAE 30
	CITGO MP A.T.F. DEXRON III /MERCON
	CITGO TRANSGARD TRACTOR HYDRAULIC FLUID
	CITGO TRANSGARD TRACTOR HYDRAULIC FLUID
	TRANSGARD TRACTOR HYDRAULIC FLUID
	CITGARD 500 SAE 30
	CITGO MP A.T.F. DEXRON III /MERCON
	CITGO TRANSGARD TRACTOR HYDRAULIC FLUID
	CITGO TRANSPower FLUID, SAE 10W
	CITGO TRANSPower FLUID, SAE 30
	CITGO TRANSGARD TRACTOR HYDRAULIC FLUID
	CITGO TRANSPower, 30
COASTAL UNILUBE INC.	COASTAL UNILUBE DEXRON III / MERCON
	COASTAL UNILUBE TH FLUID
	COASTAL UNILUBE TH FLUID

PERMITTED OIL PRODUCTS, ALLISON

Permitted oil products

COFRAN RECHERCHE SARL CONOCO INC.	COASTAL UNILUBE COFRAN SINTOFLUID HYDROCLEAR (TM) POWERDRIVE FLUID SAE 10W HYDROCLEAR (TM) POWERDRIVE FLUID SAE 30 HYDROCLEAR(TM) POWERTRAN FLUID POWER-TRAN III FLUID
DEA MINERALOEL AG	DEAFLUID 3000 DEAFLUID 4011
DEA MINERALOEL AG DEERE & COMPANY	DEAMATIC HYGARD HYGARD HYGARD HYGARD HYGARD HYGARD HYGARD HYGARD HYGARD HYGARD HYGARD HYGARD HY-GARD HY-GARD HY-GARD
DELEK-THE ISRAEL FUEL CORP DELTA PETROLEUM CO. INC. DELTA ROCKY MOUNT. PETR. DELTAVEN S.A. DEUTZ ALLIS CORP. ELF AQUITAINE	DELKOL TURBO DIESEL DEXRON III/MERCON M TRACTOR HYDRAULIC FLUID TRANSFLUIDO D III POWER FLUID 821-XL PERFORMANCE SUPER MILANTAR 3C ELF PERFORMANCE SUPER D ELF PERFORMANCE SUPER D XT 3060 XT 3061 ELF XT 3050
ELF LUBRICANTS INDIA LTD.	TRANSELF C4 10W
ELF LUBRIFIANTS	TRANSELF C4 30 TRANSELF C4 10W TRANSELF C4 30 ELFMATIC G3/TRANSANTAR DF3/H. RENAULT DIESEL STARMATIC
ELF LUBRIFIANTS ENGEN PETROLEUM LTD. EQUILON ENTERPRISES LLC ESSO PETROLEUM COMP. LTD. ESSO SINGAPORE PRIVATE LTD EXXON CHEMICAL CO. EXXON COMPANY INTERNAT.	ELFMATIC G3 ENGEN A.T.F. 22D HAVOLINE ATF MERCON / DEXRON III UNIFARM 10W-30 ESSOLUBE XD-3 EXTRA ESSO ATF - DEXRON-III ESSOLUBE MHX ESSOLUBE XD-3+ EUROTRANS UNIFARM SAE 15W-40 ESSOLUBE X 301 ESSOLUBE X 301 ESSOLUBE XT 301 ESSOLUBE XT 301 ESSOLUBE XT 401 ESSOLUBE XT 401

PERMITTED OIL PRODUCTS, ALLISON

Permitted oil products

6

FIAT LUBRIFICANTI S.R.L.
FINA EUROPE LUBRICANTS
FINA EUROPE MARKETING DEPT
FINA EUROPE S.A.

FINA OIL & CHEMICAL CO.
FIRST BRANDS CORP.
FUCHS MIN.-OELWERKE GMBH

GARD CORPORATION
GENERAL MOTORS CORP.

GINOUVES S. A.
GULF INDIA LTD.
GULF OIL G.B. LTD.

GULF OIL INDIA LTD.
HINDUSTAN PETR. CORP. LTD

HONAM OIL REFIN. CO., LTD.
IBP CO. LIMITED

IGOL FRANCE S.A.

INDIAN OIL CORP. LTD.

ESSOLUBE XD-3+ MULTIGRADE
ESSOLUBE XD-3+ MULTIGRADE
UNIFARM
UNISITE
ESSO A.T.F.
ESSO TORQUE FLUID 56
ESSO TORQUE FLUIDO 56
TORQUE FLUID 56
ESSOLUBE XD-3 +10W
ESSOLUBE XD-3 +30
ESSOLUBE XD-3 EXTRA+ 15W-40
ESSOLUBE XD-3 EXTRA+ 15W-40
ESSOLUBE XD-3+ MULTIGRADE 15W-40
ESSO A.T.F.
ESSO TORQUE FLUID 10
ESSO TORQUE FLUID 30
ESSO TORQUE FLUID 56
ESSOLUBE MHX
ESSOLUBE XD-3+ MULTIGRADE
ESSOLUBE XD-3+ MULTIGRADE
ESSOLUBE XD-3+ MULTIGRADE
(SAE 15W-40)
ESSOLUBE XT 331
ESSOLUBE XT 431
ESSO TORQUE FLUID 56
TD-591007
FINA PURFIMATIC FLUID
FINA SUPER UNIVERSAL OIL
FINA KAPPA SUPRA
GULF MULTITRAILER
FINA KAPPA SUPRA
FINA KAPPA SUPRA PLUS
FINA KAPPA TURBO DI
FINA DEXRON III/MERCON ATF
STP 15W-40
TITAN FORMEL PLUS 1540
TITAN UNIVERSAL HD 1540
GARD DEXRON-III A.T.F./GARD C4 FLUID
AC DELCO DEXRON-III/MERCON ATF
GOODWRENCH A.T.F. DEXRON-III
YORK 740
GULF HT FLUID C4 SAE 30
GULF UNIFLUID
GULF UNIFLUID
ATF SYNTHETIC
GULF HT FLUID C4 SAE 10W
POWERGLIDE C-410
POWERGLIDE C-430
SUPER DYNAMIC
IBP TF C-4 10W
IBP TF C4 30
IGOL TRANS TURBO 4X
IGOL TICMA FLUID TO-4
SERVO TRANSMISSION C4 SAE 10
SERVO TRANSMISSION C-4 SAE 30
SERVO TRANSMISSION C4 SAE 10W

PERMITTED OIL PRODUCTS, ALLISON

Permitted oil products

INDIAN OIL CORPORATION
INDUSTRO CHEMIE BEN. B.V.
INTERNATIONAL PETROL. CO.
ITALIANA PETROLI
KENDALL AM.DIV.WITCO CRP.

SERVO TRASCLEAN C4 SAE 30
SERVO TRANSMISSION C4 SAE 30
WELLRUN A.T.F. TYPE A SUFFIX A
INTERNATIONAL PETROLEUM
IP TRANSMISSION FLUID
AMALIE AMATRAN
AMALIE AMATRAN
AMALIE XLO 10W
AMALIE XLO 10W-30
AMALIE XLO 30
ARCHER ARPECO POWER-TRAN
ARCHER ARRECO POWER-TRAN
KENDALL POWER SHIFT TRANSMISSION
FLUID
KENDALL POWER SHIFT TRANSMISSION
FLUID
KENDALL SUPER-D III 10W
KENDALL SUPER-D III 10W-30
KENDALL SUPER-D III 30
AMALIE XLO 15W-40
KENDALL HYKEN 052
KENDALL SUPER-D III 15W-40
ALL TRAC TRACTOR FLUID
HYKEN 052
KENDALL DEXRON-III/MERCON A.T.F.
KENDALL DEXRON-III/MERCON A.T.F.
KENDALL FOUR SEASONS DEXRON III/
MERCON A.T.F.
KENDALL FOUR SEASONS DEXRON III/
MERCON A.T.F.
SELECT DEXRON III/MERCON A.T.F.
SELECT DEXRON III/MERCON A.T.F.
Q8 AUTO 15
Q8 AUTO 14
Q8 AUTO 14
Q8 AUTO 14
76 HT/4 FLUID
76 HYDRAULIC/TRACTOR FLUID
POLO
POLO
POLO
POLO C-4 FLUID
AR30072 TRACTOR FLUID
MEXLUB ATF DEXRON-III/MERCON
MOBIL A.T.F.
MOBIL MULTIPURPOSE ATF
MOBILFLUID 424
MOBIL DELVAC MULTISERVICE 10W-40
DELVAC 1300 SUPER
DELVAC 1200 SUPER
DELVAC 1300 SUPER
DELVAC 1300 SUPER SAE 15W-40
MOBIL DELVAC 1200 SUPER
MOBIL DELVAC 1300 SUPER
MOBIL DELVAC 1300 SUPER
MOBIL DELVAC 1310

KENDALL MOTOR OIL

KUWAIT PETROLEUM CORP.
KUWAIT PETR. R&D TECHN.

76 LUBRICANTS COMPANY

LUBRICATING SPECIAL. CO.

LYONDELL LUBRICANTS
MEXIC. DE LUBRIC.SA DE C.V.
MOBIL OIL CORPORATION

6

PERMITTED OIL PRODUCTS, ALLISON

Permitted oil products

6

	MOBIL DELVAC 1310
	MOBIL DELVAC 1310
	MOBIL DELVAC 1330
	MOBIL DELVAC 1330
	MOBIL DELVAC 1330
	MOBIL DELVAC 1330
	MOBIL DELVAC 1330
	MOBIL DELVAC 1330
	MOBIL DELVAC 1330
	MOBIL DELVAC 1330
	MOBIL DELVAC 1330
	MOBIL DELVAC 1400 SUPER
	MOBIL DELVAC HP 10
	MOBIL DELVAC HP 30
	MOBIL DELVAC MX
	MOBIL DELVAC SUPER 1300
	MOBIL DELVAC SUPER 1300
	MOBIL DELVAC SUPER 1300
	MOBIL DELVAC SUPER 1300
	MOBIL DELVAC SUPER 1300
	VANELLUS C3 MULTIGRADE
	MOBIL A.T.F. 220
	RING FREE XHD 15W-40
	MOTUL MTO 4
MORRIS LUBRICANTS	UNIVERSAL TRANSDRAULIC FLUID
MOTUL S.A.	UNIVERSAL TRANSDRAULIC FLUID for JOHN
NORTHLAND PROD. COMP.	DEERE
	PEAK PERFORMANCE PRODUCTS ATF
	DEXRON-III/MERCON
	PEAK PERFORMANCE PRODUCTS ATF
	DEXRON-III/MERCON
	OMV ATF III
OMV-AKTIENGESELLSCHAFT	MULTIPAZ C4 15W-40
PAZ LUBRIC. AND CHEM.	PENNZOIL C4 FLUID SAE 10W
PENNZOIL INDIA LTD.	PENNZOIL C4 FLUID SAE 30
	PENNZOIL SUPREME DUTY
PENNZOIL PRODUCTS CO.	PENNZOIL SUPREME DUTY
	PENNZOIL A.T.F.
	PENNZOIL A.T.F.
	PENNZOIL A.T.F.
PERTAMINA	MEDITRAN-S
	MEDITRAN-S, SAE 30
PETRO-CANADA INC.	SUPER PLUS 15W-40
	SUPER PLUS 10W
	PETRO-CANADA DEXRON III/MERCON A.T.F.
	SUPER PLUS 10W-30
	SUPER PLUS 15W-40
PETRO-CANADA LUBR.	PETRO-CANADA HEAVY DUTY A.T.F.
	DEXRON III / MERCON ATF
	DEXRON-III/MERCON
PETROBRAS DISTRIBUIDORA	LUBRAX TAC-4 SAE 30
PETROGAL SA	GALP TRANSMATIC A
PETROLEOS DE PORTUGAL	GALP TRANSMATIC DII
PETROLEUM PACKERS INC.	RALLYE DEXRON III MERCON
	XCEL DEXRON III MERCON
	PEPAC C4 FLUID
	PEPAC C4 FLUID

PERMITTED OIL PRODUCTS, ALLISON

Permitted oil products

PETROMIN LUBRICATING OIL	PEPAC C4 FLUID XCEL C4 FLUID XCEL C4 FLUID XCEL C4 FLUID FLUID DEXRON III
PHILLIPS 66 CO.	PETROMIN TURBO DIESEL C SAE 15W-40 PHILLIPS 66 HG FLUID PH 53130 HG FLUID PH49591 SIP HD II 15W-40 PHILLIPS HG FLUID
QUAKER STATE CORP.	QUAKER STATE HDX UNIVERSAL FLEET MOTOR OIL QUAKER STATE DEXRON III/MERCON A.T.F.
REPSOL DISTRIBUCION S. A.	CS DIESELGRADO CS MIZAR SERIE-3 CS MIZAR SERIE-3
SCOT LUBRICANTS	MACMILLAN RING-FREE UNI-GARD
SHELL BRASIL S.A. PETROLEO SHELL CANADA LTD.	SHELL DONAX TC SAE30 DONAX TG DONAX TG DONAX TG DONAX TC 10W DONAX TC 30
SHELL INTERN. PETR. CO. LTD	DONAX TM SHELL DONAX TD SHELL HARVELLA T 10W-30 DONAX TG SHELL RIMULA X 10W SHELL RIMULA X 10W-30 SHELL RIMULA X 10W-30 SHELL RIMULA X 15W-40 SHELL RIMULA X 15W-40 SHELL RIMULA X SAE 15W-40 SHELL RIMULA X SAE 30 SHELL RIMULA X SAE 30 SHELL RIMULAX SAE 15W-40 SHELL DONAX TD SHELL HARVELLA S 10W-30 SHELL OIL SL-0197 SHELL RIMULA X SAE 10W SHELL RIMULA X SAE 10W-30 SHELL RIMULA X SAE 15W-40 SHELL RIMULA X SAE 30 DONAX TX HARVELLA T 10W-30 HARVELLA T 15W-40 HARVELLA TX SHELL DONAX TD SHELL DONAX TG SHELL DONAX TG SHELL DONAX TG SHELL DONAX TX SHELL HARVELLA T 10W/30 SHELL HARVELLA T 15W/40 SHELL HARVELLA TX10W/40

PERMITTED OIL PRODUCTS, ALLISON

Permitted oil products

SLASKIE ZAKLADY RAFINER.
SLEA
SMEERMIDDELEN INDUSTRIE
SOUTHCOAST TERMINAL
SOUTHWESTERN PETR. CORP.
SSANG YONG OIL REFIN. CO.
STATOIL

SUN COMPANY INC

SUN OIL CO. BELGIUM N.V.

SUNSTAR LUBRICANTS LTD.

SUOMEN PETROOLI OY
SVENSKA STATOIL AB
TEXACO BRASIL S.A.
TEXACO INC.

TEXACO LUBRICANTS CO.

TEXACO LUBR. CO. N. AMER.

TEXACO R & D GHENT

GERAX TKD - 10W
MILANTAR 3C
TOR A.T.F. DMM
1127 ULTRALUBE ENGINE OIL 15W-40
TRANSDRAULIC OIL #709
DRAGON CG
STATOIL DIESELWAY D4 10W
STATOIL DIESELWAY D4-30
STATOIL POWERWAY D4 15W-40
SUNOCO TH FLUID
SUNOCO TH FLUID
SUNOCO MULTIPURPOSE A.T.F. DEXRON III/
MERCON
SUNOCO MULTIPURPOSE A.T.F. DEXRON III/
MERCON
SUNOCO MULTIPURPOSE A.T.F. DEXRON III/
MERCON
SUNOCO MULTIPURPOSE A.T.F. DEXRON III/
MERCON
EXEL A.T.F.-A
EXEL BULFRAM SAE 15W-30
SUNOCO A.T.F. TYPE A SUFFIX A
SUNOCO BULTRAC SAE 15W-30
SUNAMATIC 165
SUNOCO FORZA
LIQUI MOLY TRANS FLUID C-4 SAE 10W
LIQUI MOLY TRANS FLUID C-4 SAE 30
TEBOIL FLUID E
STATOIL TRANSWAY DX III
TEXTRAN HD SAE 30
TDH OIL
URSA SUPER PLUS API CG-4 SAE 30
HAVOLINE SUPERIOR GRADE HEAVY DUTY
TRUCK OIL SAE 15W-40
HAVOLINE SUPERIOR GRADE HEAVY DUTY
TRUCK OIL SAE 15W-40
URSA SUPER PLUS SAE 15W-40
URSA SUPER PLUS SAE 15W-40
URSA OIL EXTRA DUTY SAE 30
URSA PREMIUM SAE 15W-40
HAVOLINE ATF MERCON(R)/DEXRON(R)-III
TEXACO ATF MERCON(R)/DEXRON(R)-III
HAVOLINE SUPERIOR GRADE TRUCK OIL
SAE 15W-40
HAVOLINE SUPERIOR GRADE TRUCK OIL
SAE 30
URSA SUPER PLUS SAE 30
TEXACO A.T.F. MERCON/DEXRON-III
HAVOLINE ATF MERCON(R)/DEXRON(R)III
HAVOLINE A.T.F. MERCON/DEXRON-III
TEXACO ATF MERCON(R)/DEXRON(R)III
TEXACO A.T.F. MERCON/DEXRON-III
TEXACO A.T.F. MERCON/DEXRON-III
TEXACO A.T.F. MERCON/DEXRON-III
TEXAMATIC 7045
TEXAMATIC 7080

PERMITTED OIL PRODUCTS, ALLISON

Permitted oil products

TEXACO TECHN. - GHENT	URSA SUPER LA MULTIGRADE 15W-40
TEXACO TECHN. EUR. GHENT	URSA SUPER LA
	T TEXTRAN TDH
	URSA SUPER LA MULTIGRADE 15W-40
	URSA SUPER LA MULTIGRADE 15W-40
THE SHELL CO. OF AUSTRAL.	SHELL A.T.F. DEXRON III
TIDE WATER OIL CO. (INDIA)	HMEED - GENUINE OIL POWERPAK H-C4T
	VEEDOL TRANSGEAR C-4 SAE 10
	VEEDOL TRANSGEAR C-4 SAE 30
TOTAL PETROLEUM, INC.	TOTAL 404 FLUID - UNIVERSAL TRACTOR FLUID
TOTAL RAFFINAGE DISTR.	TOTAL MULTAGRI MAX
	TOTAL MULTI TP
	TOTAL RUBIA XT
	TOTAL RUBIA XT MONOGRADE
	TOTAL U.P.O. EXTRA
	TOTAL TRANSMISSION MP
	TOTAL TRANSMISSION MP
	TOTAL MULTAGRI MAX
	TOTAL MULTAGRI MAX
	TOTAL MULTAGRI MS
	TOTAL MULTAGRI TM
	TOTAL TRANSMISSION AC
	TOTAL TRANSMISSION AC
	TOTAL RUBIA S
	TOTAL DEXRON III/MERCON
	TOTAL DEXRON III/MERCON
	TOTAL FLUIDE AT 42
UNION OIL COMP. OF CALIF. (dba UNOCAL)	UNOCAL HYDRAULIC/TRACTOR FLUID
	UNOCAL HT/4 FLUID SAE 10W
	UNOCAL HT/4 FLUID SAE 30
	UNOCAL HYDRAULIC/TRACTOR FLUID
	UNOCAL HT/4 FLUID SAE 10W
	UNOCAL HT/4 FLUID SAE 30
	UNOCAL GUARDOL MOTOR OIL, SAE 15W-40
	UNOCAL SUPER A.T.F.
	UNOCAL GUARDOL MOTOR OIL, SAE 15W-40
	UNOCAL GUARDOL MOTOR OIL, SAE 30
	UNOCAL GUARDOL MOTOR OIL, SAE 30
VALVOLINE AUSTRAL. PTY. VALV. OIL CO. DIV. ASHLAND	VALTORQUE C4-30
	ASHLAND 400M PLUS 30
	VALVOLINE ALL FLEET PLUS
	VALVOLINE ALL FLEET PLUS
	VALVOLINE ALL FLEET PLUS 30
	VALVOLINE ALL FLEET 15W-40
VEEDOL INTERNATIONAL	VEEDOL UNITRANS S PLUS
	VEEDOL ATF DEXRON III / MERCON
	VEEDOL AFX

PERMITTED OIL PRODUCTS, ALLISON

Permitted oil products

WESTLAND OIL CO. INC.

GILCO, E-Z MART, DIAMOND SHAMROCK
LUBRIGUARD, CERTIFIED, GENUINE,
SUPRATECH
LUBRIGUARD C-4 GRADE 30
LUBRIGUARD, FCI, GENUINE, CERTIFIED,
SUPRATECH, WAL-MART
LUBRIGARD CERTIFIED GENUINE SUPRA
TECH WALMART
LUBRIGARD CERTIFIED GENUINE SUPRA
TECH WALMART
LUBRIGARD CERTIFIED GENUINE SUPRA
TECH WALMART
AMALIE ALL-TRAC
KENDALL HYKEN 052
YACCO TRANSMI 4
YUKONG SD-5000

WITCO CORP.

YACCO S.A.
YUKONG LTD.

PERMITTED OIL PRODUCTS, VOITH

Contents

CONTENTS

	Page	Date
1. PERMITTED OIL PRODUCTS	1-1.....	200424
1.1 Voith	1-1.....	200424

PERMITTED OIL PRODUCTS, VOITH

Contents

7

1. PERMITTED OIL PRODUCTS

1.1 VOITH

Single-grade mineral oil

Agip:	Agip Diesel Sigma S Agip Motor Oil HD
Aral:	Aral Turboral Aral Super Kowal
Avia:	Avia Special HDC Avia Motor Oil HD
BP:	BP Vanellus C3
Burmah Oil:	Castrol CRD-DB 10 Castrol CRD-DB 20 Castrol CRD-DB 30
DEA:	DEA Cronos Super
Elf:	Performance XC Monograde
Esso:	Essolube HDX Plus+ Essolube XD-3+
Fina:	Fina Kappa Super Fina Kappa TC
Mobil Oil:	Mobil Delvac 1300 series
Motorex:	Extra Corbra
Repsol:	Repsol Serie 3 SAE 10W CS Mizar Serie 3 SAE 10W CS Mizar HD SAE 20 (W) CS Mizar Serie 3 SAE 30 Repsol Serie 3 SAE 30
Shell:	Shell Rimula X Monograde Shell Rotella X
Sofomil:	Galp Diesel Galp Orion
SRS:	Wintershall Rekord
Texaco:	Havoline Motor Oil Ursa Super LA
Total:	Total Rubia H Total Rubia S

Multi-grade mineral oil

Agip:	Agip Superdiesel Multigrade Agip Sigma Multi Agip Sigma Turbo Agip Blitum T Agip Universal Motoröl
Aral:	Aral Multi Turboral
Avia:	Avia Multi HDC Avia Super 365
BP:	BP Vanellus Multigrad BP Vanellus C3 Multigrad BP Vanellus C 3 Extra
Burmah Oil:	Castrol RX Super Plus 15W-40 Castrol CVX SAE 10W-40
DEA:	DEA Cronos Super DX DEA Cronos Super TDL

PERMITTED OIL PRODUCTS, VOITH

Permitted oil products

Elf:	Performance 3D Performance XC
Esso:	Essolube TDS Essolube MHX Essolube TDX Essolube MHC
Fina:	Fina Kappa Supra Fina Kappa LDO Fina Kappa FE Fina Kappa DFE
Mobil Oil:	Mobil Delvac Super 1300 Mobil Delvac 1400 Super Mobil Delvac Super FL 10W-40
Motorex:	Universal SAE 15W-40 Multi SAE 20W-40 Turbo Sk SAE 15W-40 Cobra SAE 15W-40
Repsol:	Repsol Super Gasolina 20W-50 Repsol Super Turbo Diesel 15W-40 Repsol Multi G Gasolina 10W-30 Repsol Multi G Gasolina 20W-40 Repsol Multi G Diesel 20W-40 CS Todogrado 20W-50 CS Dieselgrado 20/40 Repsol Telex W 10W-20
Shell:	Shell Rimula TX Shell Myrina Shell Rimula X
Sofomil:	Galp Camius 15W/40 Galp Camius 20W/40 Galp Galaxia LD
SRS:	Wintershall Multi-Rekord Wintershall TFE
Texaco:	Eurotex Multigrade HD Havoline Multigrade Dieseltex
Total:	Ursa Super LA Total Rubia XT Total Rubia XLD

Synthetic oil

Agip:	Agip Sigma TFE
Aral:	Aral Multi Turboral DLX
Avia:	Avia Synth 5W-40 Avia Multi CFE 10W-40
BP:	BP Vanellus FE 10W-40 BP Vanellus HT 10W-40
Burmah Oil:	Castrol Syntruck Castrol Transmax Z*
DEA:	DEA Cronos Synth DEA Cronos Premium HC DEA Cronos Premium XL
Esso:	ESSO Ultra Oil ESSO Ultra Synthetic Oil Motorenöl LDX

PERMITTED OIL PRODUCTS, VOITH

Permitted oil products

Fina:	Fina Kappa Ultra Fina First
Klüber:	Klübersynth GEM 4-68
Mobil Oil:	Mobil Delvac XHP Mobil Delvac 1 SHC
Motorex:	MC plus SAE 10W-40 Star Synt SAE 5W-40
Multimiles:	Multimiles 10W-40
Repsol:	Repsol Competicion 5W-40 Repsol Sintetico Gasolina 10W-40 Repsol Sintetico Diesel 10W-40
Shell:	Shell Myrina TX
Sofomil:	Galp Synth D 1040
SRS:	Wintershall Primalub Alpha Wintershall TFE
Texaco:	Havoline Synthetic 5W-40 Havoline X1 10W-40
Total:	Total rubia TIR 8200 Total rubia FE Total quartz 9000 Total quartz 7000
Wameco:	Wameco Green Rallenter Fluid N Wameco Red Rallenter Fluid N

PERMITTED OIL PRODUCTS, VOITH

Permitted oil products

7

