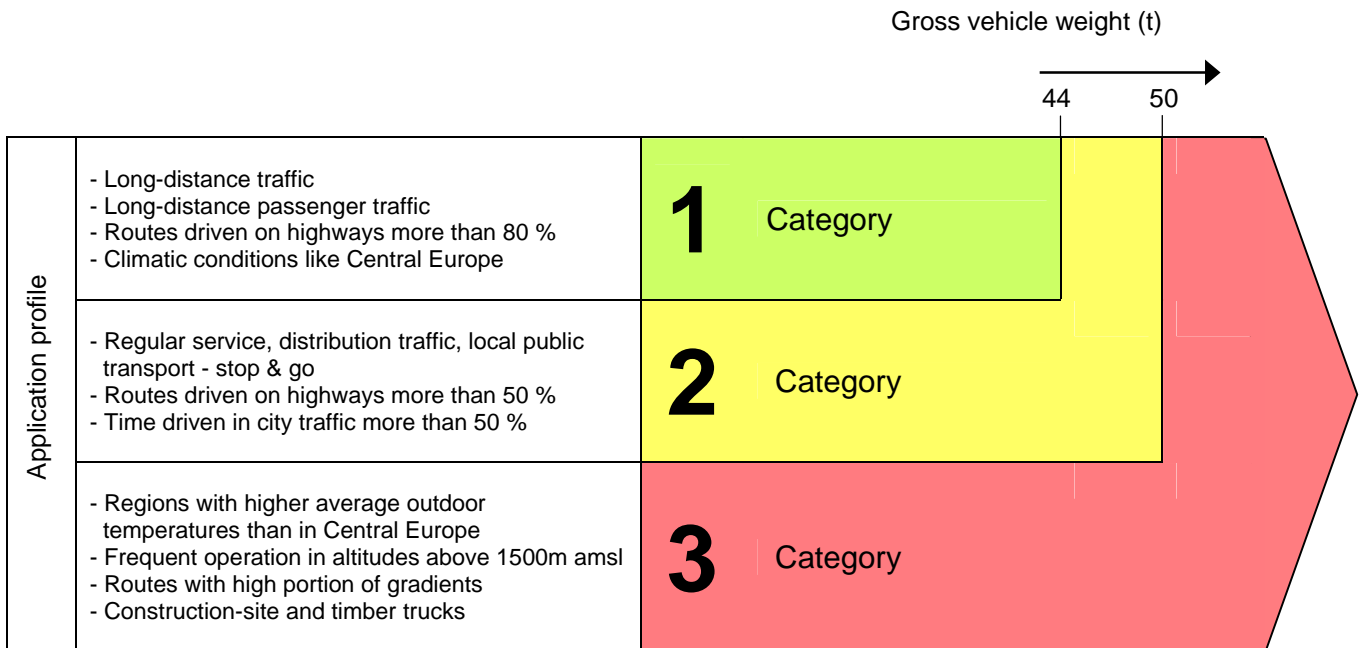


Voith Retarder Oil Changing Intervals / Oil Selection List Status February 2008

Determination of Application Category



Truck Oil Change Intervals

	Oil class		
	A	B	C
	Mileage in km; every 2 years, at the latest		
1	90,000 120,000 (only VR 3250)	135,000 150,000 (only VR 3250)	180,000 225,000 (only VR 3250)
2	65,000	90,000	135,000
3	45,000	65,000	90,000

Bus - Oil Change Intervals

Application category	Oil class		
	A	B	C
	Mileage in km; every 2 years, at the latest		
1	135,000	180,000	240,000 300,000 (only VR 115 E and VR 3250)
2	90,000	120,000	180,000
3	65,000	90,000	135,000

Important information:

Only the released lubricants listed in the attachment are allowed to be used for the Voith Retarder operation.

Use of oils not registered in the attachment is to be released by Voith.

If the vehicle manufacturer (OEM) specifies shorter maintenance intervals, these need to be adhered to.

Consider each individual additional factor possibly affecting the oil aging and shorten the change intervals accordingly.

The operator has to ascertain correct oil level in the Retarder between the oil change intervals.

Only the single-grade oils listed in the attachment are allowed to be used for Retarder type VR 115 HR.

Information for the lubricant suppliers:

Immediately inform Voith Turbo, Retarder Engineering, about any alteration in the technical composition or the brand name of the released products.

<i>Hersteller/ Manufacturer</i>	<i>Produktbezeichnung</i>	<i>SAE-Klasse</i>	<i>Ölklasse</i>
Lieferant / Supplier	Brand	SAE class	Oil Class
Aral AG	Aral Basic Turboral	10W	A ⁽¹⁾
Aral AG	Aral Basic Turboral	20W-20	A
Aral AG	Aral Extra Turboral	10W-40	B
Aral AG	Aral Mega Turboral	10W-40	B
Aral AG	Aral Mega Turboral LA	10W-40	A
Aral AG	Aral Giga Turboral	10W-40	B
Aral AG	Aral Super Turboral	5W-30	B
Aral AG	Aral Getriebeöl SNS-B	75W-80	C
Avia	Avia Special HDC	10W	A ⁽¹⁾
Avia	Avia Special HDC	20W-20	A
Avia	Avia Motor Oil HD	10W	A ⁽¹⁾
Avia	Avia Motor Oil HD	20W-20	A
Avia	Avia Turbosynth CFE	10W-40	B
Avia	Avia Turbosynth HT-E	10W-40	B
Avia	Avia Multi CFE PLUS	10W-40	B
Avia	Aviasynth	5W-40	A
BayWa AG	BayWa HDC Motorenöl HD 2020	20W-20	A
BayWa AG	BayWa Motorenöl Universal HD 1040 MC	10W-40	A
BayWa AG	BayWa Super Truck 1040 MC	10W-40	A
BayWa AG	BayWa Motorenöl Rennklasse Turbo 2000	10W-40	A
BayWa AG	BayWa Motorenöl Turbo 4000	10W-40	A
BayWa AG	BayWa Super Truck 530 SL	5W-30	B
BP plc	Vanellus C3 Mono	10W	A ⁽¹⁾
BP plc	Vanellus C3 Mono	20W	A ⁽¹⁾
BP plc	Vanellus C8 Ultima	5W-30	B
BP plc	Vanellus E7 Plus	10W-40	B
BP plc	Vanellus E7 LE	10W-40	A
BP plc	Vanellus E7 Ultra	5W-30	B
BP plc	Vanellus E8 ULTRA	5W-30	B
BP plc	Vanellus Eco	10W-40	A
Castrol Limited	Assuron T Plus	10W	A ⁽¹⁾
Castrol Limited	Assuron T Plus	20W-20	A
Castrol Limited	Tecticon HD	10W-30	A
Castrol Limited	Enduron	10W-40	B
Castrol Limited	Enduron Plus	5W-30	B
Castrol Limited	Enduron Plus	5W-40	A
Castrol Limited	Enduron Euro 4 Low SAPS	10W-40	A
Castrol Limited	Elixion	5W-30	B
Castrol Limited	Enduron New Technology	10W-40	A
Cepsa	Cepsa Eurotrans SHPD	5W-30	B
Cepsa	Cepsa Eurotrans SHPD	10W-40	A

<i>Hersteller/ Manufacturer</i>	<i>Produktbezeichnung</i>	<i>SAE-Klasse</i>	<i>Ölklasse</i>
Lieferant / Supplier	Brand	SAE class	Oil Class
Cepsa	Cepsa Eurotech LS	10W-40	A
Cepsa	MAN Mega Gear	75W-80	C
Caltex Chevron Texaco	Caltex Delo XLD	10W-40	A
Caltex Chevron Texaco	Chevron Delo XLD	10W-40	A
Caltex Chevron Texaco	Chevron Delo 400 Synthetic	5W-40	A
Caltex Chevron Texaco	Texaco Ursa Super LA	10W	A ⁽¹⁾
Caltex Chevron Texaco	Texaco Ursa Super LA	10W	A ⁽¹⁾
Caltex Chevron Texaco	Texaco Ursa Super LA	20W-20	A
Caltex Chevron Texaco	Texaco Ursa Super LA	20W-20	A
Caltex Chevron Texaco	Texaco Ursa Premium FE	5W-30	B
Caltex Chevron Texaco	Texaco Ursa Super TD	10W-40	A
Caltex Chevron Texaco	Texaco Ursa Super TDS	10W-40	A
Caltex Chevron Texaco	Texaco Ursa TDX	10W-40	A
Caltex Chevron Texaco	Texaco Ursa Ultra X	10W-40	A
Caltex Chevron Texaco	Multigear MTF 97307	75W-80	C
Cognis	Cognis Emgard MTF 4200	75W-80	C
ENI S.p.A. / AGIP	Autol Valve Ultra FE	10W-40	A
ENI S.p.A. / AGIP	Agip Sigma TFE	10W-40	B
ENI S.p.A. / AGIP	Agip Sigma Super TFE	10W-40	A
ENI S.p.A. / AGIP	Agip Sigma Trucksint TFE	5W-30	B
ENI S.p.A. / AGIP	Agip Sigma Ultra TFE	10W-40	A
Exxon Mobil	Essolube XTS4	10W-40	B
Exxon Mobil	Essolube XTS 5	10W-40	A
Exxon Mobil	Essolube XTS501	10W-40	B
Exxon Mobil	Mobil Delvac 1	5W-40	A
Exxon Mobil	Mobil Delvac 1 SHC	5W-40	A
Exxon Mobil	Mobil Delvac 1 ESP	5W-40	A
Exxon Mobil	Mobil Delvac XHP Extra	10W-40	A
Exxon Mobil	Mobil Delvac MX Extra	10W-40	B
Exxon Mobil	Mobil Delvac XHP	10W-40	A
Exxon Mobil	Mobil Delvac XHP LE	10W-40	A
Exxon Mobil	Mobil Delvac XHP Ultra	5W-30	B
Exxon Mobil	Mobiltrans SHC V30	75W-80	C
Fuchs Petrolub AG	TITAN UNIVERSAL HD SAE 20W-20	20W-20	A
Fuchs Petrolub AG	TITAN CARGO MAXX SAE 10W-40	10W-40	B
Fuchs Petrolub AG	TITAN CARGO MAXX SAE 5W-30	5W-30	B
Fuchs Petrolub AG	TITAN CARGO SL SAE 5W-30	5W-30	B
Fuchs Petrolub AG	TITAN CARGO LD SAE 10W-40	10W-40	A
Fuchs Petrolub AG	TITAN CARGO MC SAE 10W-40	10W-40	A
Fuchs Petrolub AG	TITAN UNIC MC SAE 10W-40	10W-40	A
Fuchs Petrolub AG	TITAN UNIC ULTRA MC SAE 10W-40	10W-40	A
Kuwait Petroleum	Q8 T 860	10W-40	A
Kuwait Petroleum	Q8 Super Truck FE	5W-30	B

<i>Hersteller/ Manufacturer</i>	<i>Produktbezeichnung</i>	<i>SAE-Klasse</i>	<i>Ölklasse</i>
Lieferant / Supplier	Brand	SAE class	Oil Class
Liqui Moly GmbH	LKW Langzeit Motoröl	10W-40	A
Liqui Moly GmbH	LKW-Langzeit-Motoröl FE	5W-30	B
Meguin GmbH (Mineralölwerke)	Diesel Truck Performance	5W-30	B
Meguin GmbH (Mineralölwerke)	Megol Motorenöl Low SAPS	10W-40	A
Meguin GmbH (Mineralölwerke)	Megol Motorenöl Super LL DIMO Premium	10W-40	A
Meguin GmbH (Mineralölwerke)	Megol Motorenoel Low SAPS	10W-40	A
Motul	Motul Tekma Optima 5W-30	5W-30	B
Motul	Motul Tekma Ultima	10W-40	A
Oel-Brack AG	Midland Nova	10W-40	A
Oel-Brack AG	Midland Synqron Diesel	10W-40	A
Oest Freudenstadt	Oest Leichtlauföl FE	10W-40	A
Oest Freudenstadt	Oest DIMO HDC	20W-20	A
Oest Freudenstadt	Oest Dimo HT Super	10W-40	A
OMV	OMV gear oil MPX SAE 75W-80	75W-80	C
OMV	OMV super truck SAE 5W-30	5W-30	B
OMV	OMV truck blue SAE 10W-40	10W-40	A
OMV	OMV truck SAE 10W	10W	A ⁽¹⁾
OMV	OMV truck SAE 20W-20	20W-20	A
OMV	OMV eco truck SE 10W-40	10W-40	A
OMV	OMV eco truck extra SAE 10W-40	10W-40	A
OMV	OMV truck FE plus SAE 10W-40	10W-40	A
Pakelo Motor Oil S.r.l.	VR Fluid	20W-20	A
Pakelo Motor Oil S.r.l.	VR Fluid S	10W-40	B
Pakelo Motor Oil S.r.l.	VR Fluid RED S	75W-80	C
PETROLIOS DE PORTUGAL Galp Energia	GALP GALAXIA ULTRA EC	10W-40	A
PETROLIOS DE PORTUGAL Galp Energia	GALP GALAXIA EXTREME	5W-30	B
POAS	PO Maximus Diesel	10W-40	B
Ravenol (Ravensberger Schmierstoffvertrieb)	Performance Truck	10W-40	B
Ravenol (Ravensberger Schmierstoffvertrieb)	Expert SHPD	10W-40	B
Ravenol (Ravensberger Schmierstoffvertrieb)	Super Performance Truck	5W-30	B
Red Line Synthetic Oil Corp.	Synthetic Motor Oils	5W-30	B
Red Line Synthetic Oil Corp.	Synthetic Motor Oils	10W-30	A
Red Line Synthetic Oil Corp.	Synthetic Motor Oils	10W-40	A
Renault Truck Oils	Extensia RXD	10W-40	A
Renault Truck Oils	Extensia RXD ECO	5W-30	B

<i>Hersteller/ Manufacturer</i>	<i>Produktbezeichnung</i>	<i>SAE-Klasse</i>	<i>Ölklasse</i>
Lieferant / Supplier	Brand	SAE class	Oil Class
Renault Truck Oils	Longevia BXI Eco	75W-80	C
Repsol YPF Lubrificantes y Especialidades S.A.	Repsol Diesel Turbo UHPD MID SAPS	10W-40	A
Repsol YPF Lubrificantes y Especialidades S.A.	Repsol Turbo VHPD	5W-30	B
Repsol YPF Lubrificantes y Especialidades S.A.	Repsol Turbo UHPD	10W-40	A
Shell	Shell Rimula X 10W	10W	A ⁽¹⁾
Shell	Shell Rimula X 20W-20	20W-20	A
Shell	Shell Normina Extra	10W-40	A
Shell	Shell Rimula Super FE	10W-40	B
Shell	Shell Rimula Ultra	10W-40	B
Shell	Shell Rimula Ultra	5W-30	B
Shell	Shell Rimula Signia	10W-40	A
Shell	Shell Rimula D	10W	A ⁽¹⁾
Shell	Shell Rimula D	20W-20	A
Shell	Shell Rimula D	10W-30	A
Shell	Shell SL 0807	10W-40	A
SRS Schmierstoff Vertrieb GmbH	Wintershall TFG	10W-40	B
SRS Schmierstoff Vertrieb GmbH	Wintershall TFX	10W-40	B
SRS Schmierstoff Vertrieb GmbH	Wintershall TFF	10W-40	A
SRS Schmierstoff Vertrieb GmbH	Wintershall TLA	10W-40	A
SRS Schmierstoff Vertrieb GmbH	Wintershall TFL	5W-30	B
SRS Schmierstoff Vertrieb GmbH	Wintershall Getriebefluid MTS	75W-80	C
Svenska Statoil AB	Statoil TruckWay	10W-40	A
Svenska Statoil AB	Statoil TruckWay	5W-30	B
Svenska Statoil AB	Statoil TruckWay E6	10W-40	A
Total, Fina, Elf	Antar Maxolia	10W-40	A
Total, Fina, Elf	Antar Maxolia FE	5W-30	B
Total, Fina, Elf	Elf Competition ST	10W-40	A
Total, Fina, Elf	Elf Competition STI	10W-40	A
Total, Fina, Elf	Elf Evolution	5W-30	B
Total, Fina, Elf	Elf Evolution SXR	5W-40	A
Total, Fina, Elf	Elf Excellium GM	5W-30	B
Total, Fina, Elf	Elf Excellium LDX	5W-40	A
Total, Fina, Elf	Elf Excellium XLL	5W-40	A
Total, Fina, Elf	Elf Solaris LLX	5W-30	B
Total, Fina, Elf	Elf Sporti TXI	10W-40	A
Total, Fina, Elf	Elf Turbo Diesel	10W-40	A
Total, Fina, Elf	Elf Performance Polytrafic	10W-40	B
Total, Fina, Elf	Elf Performance Experty FE	5W-30	B
Total, Fina, Elf	Elf Performance Experty	10W-40	A
Total, Fina, Elf	Elf Performance Experty LSX	10W-40	A
Total, Fina, Elf	Elf Extensia	5W-30	B

<i>Hersteller/ Manufacturer</i>	<i>Produktbezeichnung</i>	<i>SAE-Klasse</i>	<i>Ölklasse</i>
Lieferant / Supplier	Brand	SAE class	Oil Class
Total, Fina, Elf	Fina Kappa First	5W-30	B
Total, Fina, Elf	Fina Kappa Ultra	10W-40	A
Total, Fina, Elf	Total Quartz INEO ECS	5W-30	B
Total, Fina, Elf	Total Quartz INEO MC3	5W-30	B
Total, Fina, Elf	Total Quartz INEO 504-507	5W-30	B
Total, Fina, Elf	Total Quartz Future 9000	5W-30	B
Total, Fina, Elf	Total Quartz 9000	5W-40	A
Total, Fina, Elf	Total Quartz 7000	10W-40	A
Total, Fina, Elf	Total Rubia TIR 8600	10W-40	A
Total, Fina, Elf	Total Rubia TIR 8900	10W-40	A
Total, Fina, Elf	Total Rubia TIR 9200FE	5W-30	B
Total, Fina, Elf	Total Rubia Polytrafic	10W-40	B
Total, Fina, Elf	Total Extensia Eco	5W-30	B ⁽²⁾
Total, Fina, Elf	Transmission XSV FE	75W-80	C
Volvo Truck	Volvo Semi Synthetic Diesel Engine Oil VDS-3 p/n 85102467/-8/-9	10W-40	B
Volvo Truck	Volvo Synthetic Gearbox Oil 97307 p/n 85111057/-8	75W-80	C

A⁽¹⁾: für Einsatzgebiete mit häufig Minustemperaturen (T < -10° C)

B⁽²⁾: Ölwechselintervall für LKW bis 160.000 km

A⁽¹⁾: for areas with frequent temperatures below zero (T < -10° C)

B⁽²⁾: Oil exchange interval for trucks up to 160,000 km