

MAN



Fuels, Lubricants and Coolants for MAN Diesel Engines

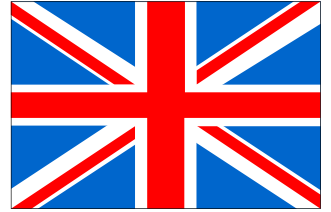
Betriebsstoffe für MAN-Dieselmotoren

Sustancias de servicio para motores Diesel MAN

Ingrédients pour moteurs Diesel MAN

Materiali d'esercizio per motori Diesel MAN

Fuels, Lubricants and Coolants for
MAN Industrial and Marine Diesel Engines





Dear Customer,

MAN Diesel engines are developed to the state of the art and built using the latest production technology.

This results in significant properties such as:

- Economical operation owing to low fuel and lubricating oil consumption
- Low weight
- Limited extent of maintenance and spare part requirements and a high service life
- Future-oriented environmental compatibility
- Quick load pickup
- Compact design

However, trouble-free operation and high performance can be achieved only if the specified maintenance intervals are observed and the fuels, lubricants and coolants approved by MAN are used.

Please observe the guideline for the protection of the environment when handling fuels, lubricants and coolants.

Yours, faithfully,
MAN Nutzfahrzeuge Aktiengesellschaft
Nuremberg works

We reserve the right to make technical modifications in the course of further development.

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Fuels, lubricants and coolants are poisonous, inflammable and also harmful to the environment if they are not used properly. Do not allow them to seep into the ground or into the sewerage system. Hand used oil over to old oil disposal companies or dispose of them as special waste.

Comply with safety regulations.

Follow the instruction sheet for handling used engine oil.

Engine oil

- Hand old oil over to old oil disposal companies only.
- Ensure without fail that oil does not seep into the sewerage system and/or into the ground.
Caution:
Risk of contamination of potable water.

- Dispose of used filter elements and cartridges as special waste.

Coolant

- Dispose of undiluted anti-corrosion protection and/or antifreeze agents as special waste.
- The regulations of the respective local authorities must be observed when used coolant is disposed of.

Diesel fuel

- Ensure without fail that Diesel fuel does not seep into the sewerage system and/or into the ground.
Caution:
Risk of contamination of potable water.
- Dispose of used filter elements and cartridges as special waste.



Engine oils approved by MAN

The engine oils to be used for industrial and marine diesel engines must be approved to

- Works Standard MAN 271, see table on page 83
- Works Standard M 3275, see table on page 91
- Works Standard M 3277, see table on page 99

Single-grade engine oils (table on page 105)

SAE 30 or 40 single-grade engine oils to works standard MAN 270 should be used only if multi-grade engine oils are not available or if the use of single-grade oils is explicitly required.

Heed the operating temperature range.

High-performance diesel engine oils (table on pages 91 and 99)

High-performance diesel engine oils to works standards M 3275 (supersedes QC 13-017, table on page 91) and M 3277 (table on page 99) have a considerably higher performance level than engine oils to works standards MAN 270 (table on page 105) and 271 (table on page 83).

In supercharged diesel engines in particular, high-performance diesel engine oils bring major advantages in terms of piston cleanliness, wear and tear and power reserves.

In the interest of greater engine life expectancy we recommend using such oils for turbocharged and non-turbocharged engines.

Caution:

In high-performance marine Diesel engines extreme operating conditions (full-load operation and high air temperatures) may lead to deposits in the charge-air area that reduce the engine output.

The following engine models are high-performance marine Diesel engines.

- D 2866 TE, LE..
- D 2876 LE4..
- D 2848 LXE, LE4..
- D 2840 LXE, LE4..
- D 2842 LYE, LZE, LE2.., LE3.., LE4..

For these engines the following low-deposit engine oils are particularly recommended:

Worldwide (except for the USA):

- **All** approved M 3277 high-performance Diesel engine oils,
- MAN 270 SAE 30 and 40 single-grade Diesel engine oils.

As for the USA, also see table on page 109.

Conditions of approval

The approval for engine oils is valid for two years and can be extended by another two years at the request of the manufacturer / supplier provided that the quality of the oil in question has not changed.

Before purchasing a product, make sure that it is still approved by having the supplier produce the MAN letter of approval.

Engine oils without MAN approval

If in certain countries MAN-approved engine oils are not available, use only engine oils for which the manufacturer or supplier confirms in writing that their quality level complies at least with ACEA E2-96 (for MAN 270 / 271) or ACEA E3-96 (for M 3275) or API-CE, CF 4, CG 4 / SF, SG, SH.

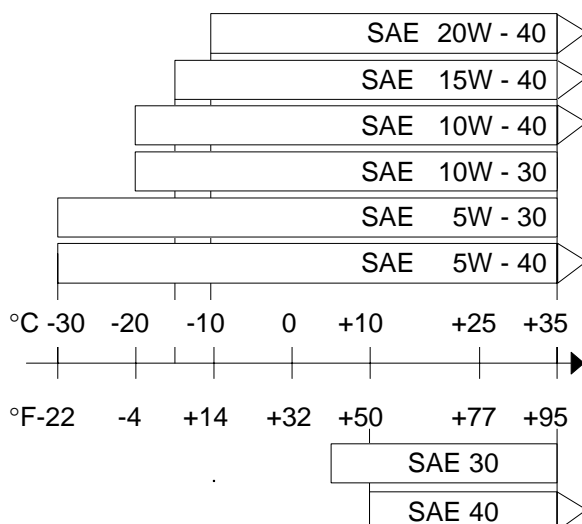
If these engine oils are used the oil change intervals stated in the Service Board Book / service booklet can be reduced by agreement.

Caution:

If the sulphur content is over 1.0%, the oil change intervals are to be halved.

SAE viscosity classes

SAE viscosity class is dependent on ambient air temperatures (see diagram).





Engine oils

Engine oil additives

The formula of the engine oils approved by MAN Nutzfahrzeuge Aktiengesellschaft as per MAN Works Standards 270, 271, M 3275 and M 3277 is such that they meet the demands of driving operations in every case, provided the specified oil change intervals are observed.

Any additives – no matter what kind – **subsequently** added to the engine oil result in changes which cannot be calculated and may cause damage to the engine.

Using such additives will render any warranty claim against MAN Nutzfahrzeuge Aktiengesellschaft null and void, if the damage depends on such additives.

Oil change intervals

The oil change intervals are stated in the Service Board Book / service booklet.

Diesel fuel satisfying the following specifications may be used in MAN engines:

- European norm EN 590
- DIN EN 590 (Germany)
- ÖNORM EN 590
- ASTM D 975 No. 1 D (USA)
- BS 2869 Part 1 Class A 1 (Great Britain)
- BS MA 100 DMX (Marine Diesel Fuel)

High / low sulphur content in Diesel fuel

Sulphur content above 1%

If the sulphur content is over 1%, the oil change intervals indicated in the Service Board Book / service booklet are to be halved.

Sulphur content below 0.05%

Low-sulphur Diesel fuels with a sulphur content of less than 0.05% may be used only if additives are added to ensure sufficient lubricity with a max. wear diameter of 460 µm (request written confirmation from supplier).

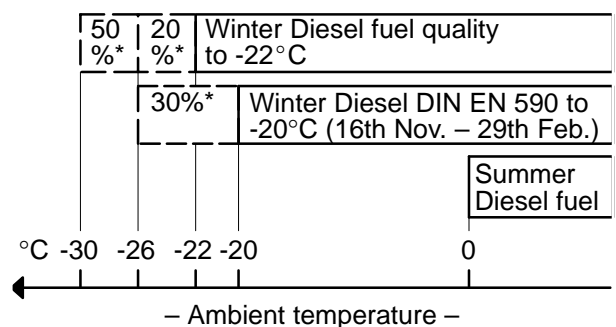
Winter operation

As ambient temperatures fall Diesel fuel deposits paraffin crystals which increase the flow resistance in the fuel filter so much that an adequate fuel supply is no longer guaranteed.

Summer-grade fuel to DIN EN 590 guarantees cold-flow behaviour down to 0°C, winter-grade fuel to DIN EN 590 to temperatures down to -20°C.

In Germany manufacturers of winter-grade Diesel fuel guarantee operational reliability down to -22°C over and above DIN N 590. There is no need to add kerosene at temperatures above -22°C.

If cold-flow behaviour is still not adequate or if ambient temperatures fall below -22°C, we recommend using an MAN fuel filter heater and / or adding kerosene.



* Recommended kerosene content of the mixture

Do not use gasoline!

In countries where even lower ambient temperatures are reached (Alpine or Arctic quality) special Diesel fuel is available.

Danger classes as per VbF (regulation for combustible fluids)

Applies only in the Federal Republic of Germany. Country-specific regulations must be observed.

Diesel fuel / RME:

Danger class A III (flash point above 55°C)

Number 30

Designation no. 1202

Petroleum:

Danger class A II (flash point 21°C to 55°C)

Number 30

Designation no. 1223

Diesel fuel additives

No fuel additives of any kind are necessary for the operation of MAN engines if the Diesel fuel meets the requirements of the above specifications. As the use of such additives may negatively affect the performance of the engine, the exhaust gas opacity, the emission of harmful substances, the extent of maintenance and the service life of the engines, any warranty claims against MAN Nutzfahrzeuge Aktiengesellschaft become null and void if the damage can be traced back to the use of such additives.

Use of biodiesel (vegetable oil methylester PME / RME)

MAN engines may be run on biodiesel provided this fuel meets the tentative standard DIN V 51 606.

As biodiesel attacks the elastomer materials (seals, fuel lines etc) installed for normal operation with Diesel fuel as per EN 590, operation is possible only with the so-called RME package for seals etc.

For information concerning the engines eligible for conversion and on how vehicles already delivered can be converted, contact your local service agency.

RME has a boiling range different from that of Diesel fuel. This causes the engine oil to dilute the fuel. To avoid any critical drop in viscosity, the usual engine oil change intervals (including those for the engine oil filter) must be halved.

All notes apply also to mixtures of Diesel fuel and RME.

Microorganisms in fuel systems running on Diesel fuel and biodiesel

In favourable conditions microorganisms (bacteria, fungi, yeast) contained in Diesel fuel and biodiesel (RME) are likely to multiply. For their growth, water, which is found in the form of condensation in any fuel or storage tank, as well as vital elements (eg sulphur, phosphorus, nitrogen, oxygen and trace elements) in chemically bound form are needed. Fuel additives too may be conducive to their growth.

Depending on the temperature, they multiply fast or slowly, which leads to the formation of fibrous fungal meshwork, sludge and microbial corrosion.

The consequences are: rusting of tanks, clogging-up of fuel pre-filters with rust and fibres (fibrous fungal meshwork) and, as a result of this, frequent filter changes. This leads to reductions in output and, in extreme cases, to complete engine failure.

Remedial measures in the event of an attack by microorganisms

In the event of an attack by microorganisms we recommend you combat them by using the following disinfectants:

Product: **MAR 71**

Manufacturer: Schülke & Mayr

D-22840 Norderstedt

Tel.: 040 / 521 00-0

Fax.: 0 40 / 521 00-108

or:

Product: **BAKZID**

Manufacturer: Bodechemie Hamburg

Melanchthonstr. 27

D-22525 Hamburg

Tel.: 0 40 / 540 06-0

Fax.: 0 40 / 540 06-200

Both products are soluble in Diesel fuel, biodiesel (RME) and water. They form no corrosive products after combustion. Owing to their alkalinity, acids formed as a result of microbial growth are neutralised.



Fuel

Application:

Fuel tank:

In filling operations, add 50ml (0.05 %) disinfectant to every 100l diesel fuel or biodiesel. Repeat this procedure three times and check the fuel pre-filter while doing so.

Storage tank:

If the tank sump shows no heavy water or sludge contamination, it is not necessary to flush the tank. In this case, it is sufficient to add 1 litre disinfectant per m³ tank content.

Caution:

Before using the disinfectants mentioned, observe the EU datasheets on safety (latest version) without fail.

If necessary, contact the manufacturer (eg for information on supply sources abroad).

General recommendations

The cooling system functions properly only if it works at a positive pressure. It is therefore absolutely necessary that it is kept clean and tight, that the radiator closing and working valves function correctly and the required coolant level is maintained.

Anti-freeze agents tested and approved by us guarantee sufficient protection against frost, corrosion and cavitation. They do not attack seals and hoses and do not foam.

The cooling systems of the engine must be filled for the whole year with a mixture of 60% water and 40% anti-freeze providing frost protection down to -27°C .

Coolants

Coolants which contain unsuitable anti-freeze agents or which are prepared insufficiently or incorrectly, are liable to cause failure of machinery and components in the cooling circuit due to cavitation or corrosion damage. Besides, heat insulating deposits may occur on heat transferring components, so that in the end the engine is overheated and fails.

To guarantee reliable operation of MAN Diesel engines, the coolant must generally consist of 60% water and 40% anti-freeze over the whole year. This guarantees adequate corrosion protection. In special cases, corrosion inhibitors (chemicals) according to MAN 248 may be used. As a matter of fundamental principle, emulsive anti-corrosion protection oils are not permitted.

Specified ingredients of the coolant

Water

Potable tap water with the following restricted analytical data may be used:

Appearance: colourless, transparent, free of mechanical contaminants

Hardness: max 20° German total hardness

□ 35.6° French hardness

□ 25° British hardness

□ 358 ppm USA hardness

Chlorides: max. 100 ppm

Sulphates: max. 150 ppm

pH-value at 20°C : 6.5 to 8.5

Enquires on potable water analyses are to be addressed to the competent authorities.

Where no such tap water is available, mix demineralized water or distillate or condensate until the the analytic values are reached.

Anti-freeze with corrosion inhibitor according to MAN 324 (tables on page 115)

- Use only such anti-freeze agents which have been approved according to MAN 324. A minimum concentration must always be maintained at 40% b.v. as corrosion protection is inadequate below that level.
- The cooling system is designed such that in Central Europe a coolant charge with max 40% b.v. anti-freeze (frost protection down to -27°C) can be left in the system during the summer months as well, providing the cooling system is in good working order.
- At the beginning of the cold weather months the anti-freeze content of the coolant may have to be increased for the outside temperatures to be expected (see mixing table).

Mixing table

Outside temperature down to $^{\circ}\text{C}$	Water %	anti-freeze %
-27	60	40
-31	55	45
-37	50	50

Checking and renewal

- Coolant losses should be made up always with a mixture of water and a minimum of 40% by volume anti-freeze.
- The concentration should be checked once every three months by means of a hydrometer or refractometer.
- Never allow anti-freeze concentration to drop below 40% by volume.
- Renew complete coolant after 4 years at the latest.

Corrosion inhibitor according to MAN 248

For certain applications, where the use of anti-freeze agents is not mandatory (e.g. stationary engines, tropical climate), corrosion inhibitors according to MAN 248 must be used.

Approved corrosion inhibitor for engine cooling systems according to Works standard MAN 248	
Approval granted to	Product designation
Caltex (UK) Ltd.	Caltex XL Corrosion Inhibitor Concentrate
Fleetguard	Fleetguard DCA II Fluid
Texaco	Havoline XLI (ETX 6282)

The following mixture ratio applies to Fleetguard DCA II Fluid:

- Maintain the concentration of 0.8 to 1.5 DCA II units per 4 litres of water equalling 240 to 450 ml fluid to 10 litres of water (2.4 to 4.5% b.v.).
- Change all the coolant after one year or after 1500 operating hours, whichever period ends earlier.
- Check the concentration of Fleetguard DCA II fluid by means of the Fleetguard Test Kit 3300-846 S after every 300 operating hours.

The following mixture ratio applies to Havoline XLI (ETX 6262):

- Maintain the concentration of 10 per cent by volume (check by means of a refractometer).
- Change all the coolant after two years or after 3000 operating hours, whichever period ends earlier.

Caution:

It is not permissible to mix MAN 324 antifreeze and MAN 248 corrosion inhibitor.

When changing from antifreeze to an corrosion inhibitor or vice versa, all the coolant is to be drained out. It is not necessary to flush the system.

Disposal of antifreeze and corrosion inhibitors

Undiluted anti-freeze and corrosion inhibitors are to be treated as special waste. Regarding the disposal of used-up coolants (mixture of anti-freezing compound with water) the regulations of the competent local authorities have to be observed.



Notes

A series of horizontal dotted lines for writing notes, spanning the width of the page.

<p align="center">Multigrade engine oils approved to works standard MAN 271 Mehrbereichsmotorenöle zugelassen nach Werknorm MAN 271 Aceites de motor multigrados autorizados conforme a la norma de fábrica MAN 271 Huiles moteur multigrades autorisées selon norme usine MAN 271 Oli motore multigrado approvati secondo la norma interna MAN 271</p>		
<p align="center">Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il</p>	<p align="center">Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto</p>	<p align="center">Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE</p>
Abu Dhabi National Oil Company	Adnoc High Performance Super Diesel Engine Oil (HPSD)	15W-40
Addinol Lube Oil GmbH	ADDINOL Premium Star MX 1048 Addinol Super star MX 1547 Addinol Super Diesel plus MD 1545 P Addinol Super star MX 1047	10W-40 15W-40 15W-40 10W-40
Agip Petroli S.P.A. / ROM	Agip Universal Multifleet Agip Universal Extra Agip Sigma TFE Agip Superdiesel Multigrade	15W-40 15W-40 10W-40 15W-40
Agip Schmiertechnik GmbH	Autol Valve Turbo FE Autol Extra CPM HD S3 Autol Spezial CPM HD S3	10W-40 15W-40 15W-40
Amalie Oil Company	Amalie Super XLO Amalie XLO Fleet Xcel Super Duty Plus Xcel Super Duty	15W-40 15W-40 15W-40 15W-40
Aral Lubricants GmbH	Aral Multi Turboral	15W-40, 20W-50
Ashland Oil Nederland B.V.	Ashland A.P.B. Turbo Guard DDK	15W-40
Avia Mineralöl AG	AVIA MULTI CFE PLUS Avia Multi HDC Extra Avia Multi HDC Avia Multi CFE	10W-40 15W-40 15W-40 10W-40
BayWa AG	BayWa Motorenöl Universal HD 1040 MC BayWa Motorenoel HDC 1540 BayWa Motorenöl Rennklasse Turbo 2000 BayWa Motorenöl HD Superior 1540	10W-40 15W-40 10W-40 15W-40
BP Oil International Ltd.	Vanellus FE Vanellus C3 Multigrade Vanellus FE Extra BP Super V Turbo Visco Diesel	10W-40 15W-40 10W-40 15W-40 15W-40



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

Multigrade engine oils approved to works standard MAN 271

Mehrbereichsmotorenöle zugelassen nach Werknorm MAN 271

**Aceites de motor multigrados autorizados conforme a la
norma de fábrica MAN 271**

Huiles moteur multigrades autorisées selon norme usine MAN 271

Oli motore multigrado approvati secondo la norma interna MAN 271

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
BP Schmierstoff GmbH	Vanellus Multigrad Leichtlaufmotorenöl 1040	15W-40 10W-40
Bremin Mineralöl GmbH	Gold Star Testa LL HD	10W-40
Calpam Mineralöl GmbH	PAM Multifleet Longlife	15W-40
Caltex (UK) Ltd.	Caltex Delo 500 Multigrade Caltex Delo 350 Multigrade Caltex Delo 600 Multigrade	15W-40 15W-40 15W-40
Castrol Ltd. / England	Castrol CVX Castrol RX Super Plus Castrol RX Super SP Castrol RX Super E	10W-40 15W-40 15W-40 15W-40
CEPSA Lubricantes S.A.	Cepsa Supermultigrado SHPD ERTOIL MULTIRRUTA TD SHPD ERTOIL SHPD Cepsa Diesel Turbo SHPD	15W-40 15W-40 15W-40 15W-40
Conoco Inc.	HYDROCLEAR® Power-D	15W-40
Conoco Mineralöl GmbH	Jet High Level Diesel Jet Basic Level	10W-40 15W-40
DEA Mineraloel AG	DEA Cronos Super DX DEA Cronos Premium FX DEA Cronos Premium XL Lubroviscol Supreme Mehrbereich Lubroviscol Superior Leichtlauf FX	15W-40 10W-40 10W-40 15W-40 10W-40
De Oliebron B.V.	Tor Mixfleet SJ/SHPD	15W-40
Deutsche Calypsolgesellschaft	Calypsol Bison HD Calypsol Bison Turbo S3	15W-40 10W-40
Deutsche Shell AG	Shell Engine Oil DG 1040 MAC HD Superior Shell Rimula TX	10W-40 15W-40 15W-40
Dupont-Conoco / Ungarn	Jet Action Turbo	15W-40
Eggert Mineraloel AG	EmoTron M	15W-40
EKO	EKO FORZA	15W-40

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Elf Lubrifiants	Antar Traxolia Z	15W-40
	Elf Disola W	15W-40
	Elf Performance Super D	15W-40
	Elf Performance 3D	15W-40
Elf Mineralölwerk Osnabrück GmbH	IROKAL plus CX	15W-40
Eller-Montan-Comp. GmbH	ELLMOTOL HD Super C3	15W-40
EMKA Schmiertechnik GmbH	EMKA Universal HD-C	15W-40
	EMKA Supergrade LL-X	10W-40
Engen Petroleum Limited	Engen Dieselube 500 Super	15W-40
ESSO LUBRICANTS AMERICAS	Essolube XT 311	15W-40
ESSO Lubricants Europe	Essolube XT 301	15W-40
	OK MAX DIESEL	15W-40
	Essolube XTS 301	10W-40
ESSO Marine Lubricants Europe	EXXMAR CM	15W-40
ESSO S.A.P.A. / Argentinien	Essolube XD-3+ Multigrade	15W-40
ESSO Singapore Ltd.	Essolube XT 331	15W-40
EVVA Schmiermittel-Fabrik GmbH	Evvarol Multi GFP	15W-40
FL Iberia	ECOROIL SHPD	15W-40
	ECOROIL TD	15W-40
FUCHS Petrolub AG	FUCHS TITAN HYDRAMOT SL	10W-40
	Fuchs Titan Unic MC	10W-40
	Fuchs Titan LD Extra	10W-40
	Fuchs Titan Universal HD	15W-40
	Fuchs Titan Formel Plus	15W-40
GENOL GmbH & Co.	GENOL Multigrade 1540 PL	15W-40
HGK	SVG Universal C 3	15W-40
Hilbert GmbH	XORBOL Mehrbereichsöl HDC	15W-40
Hunold Schmierstoffe GmbH	Turbostar 15W/40	15W-40
ICPA	ICPA Extra Universal	15W-40
IGOL France	IGOL Trans Turbo 4X	15W-40
IGP-Warenverkauf	igp-Super-Motorenöl HDC	15W-40
Kamion Oil Ltd.	Bizon Lider	15W-40
Karl Käßler GmbH u. Co. KG	Selectol TOP 2000 HD	15W-40
Karl Pohlmann – Mineralölwerk	Rektol Turbo-Plus HD	15W-40



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

Multigrade engine oils approved to works standard MAN 271

Mehrbereichsmotorenöle zugelassen nach Werknorm MAN 271

**Aceites de motor multigrados autorizados conforme a la
norma de fábrica MAN 271**

Huiles moteur multigrades autorisées selon norme usine MAN 271

Oli motore multigrado approvati secondo la norma interna MAN 271

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Kompressol-Oel Verkaufs GmbH	Kompressol-Ultralub C Kompressol-FE	15W-40 10W-40
KRAFFT S.A. / Spanien	Krafft Multigrado DMOK 15W-40	15W-40
Kuwait Petroleum B.V.	Q8 T 500	15W-40
Liqui Moly GmbH	Nova Super HD Touring High Tech Diesel Specialoil Liqui Moly Formula 3 Protech	15W-40 15W-40 15W-40
Lümann GmbH & Co.KG	CLASSIC Motorenöl HDC	15W-40
Meguín GmbH	megol Motorenoel HD-C3 megol Motorenoel HD-C3 Super Turbo	15W-40 15W-40
Magneti Marelli S.p.A.	Urania Turbo	15W-40
Mineralöl-Raffinerie Dollbergen GmbH	Haco Multigrade Extra C Haco Multigrade Extra E Pennasol Longlife Dieselöl Pennasol Multigrade Extra C Pennasol Multigrade Extra E Terra Rec Multigrade Extra C Terra Rec Longlife Dieseloel E Terra Rec Longlife Dieseloel Terra Rec Multigrade Extra E	15W-40 15W-40 15W-40 15W-40 15W-40 15W-40 15W-40 15W-40 15W-40
Mobil Oil	Mobil Delvac MX Mobil Delvac Super 1300 Mobil Universal FL	15W-40, 20W-50 15W-40, 20W-50 10W-40
MOL Hungarian Oil and Gas Co.	Carrier Maximol-99 Diesel Carrier Turbo Diesel MOL TRANSIT 15W-40	15W-40 15W-40, 20W-40 15W-40
Motor Oil (Hellas)	EMO Turbo Champion Plus	15W-40
MOTUL S.A.	MOTUL MARINE 4T Motul HP4D-LD Motul Tekma Supra	15W-40 15W-40 15W-40

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Müller, Hubert Math. Handelsges. mbH.	ARISTOKRAT Motorenöl SUPER KTX Turbo HD OTP PLUS Universal-Motorenöl TOP X Turbo 15 W 40	15W-40 15W-40 15W-40
NIS Oil Refinery Beograd	GALAX UNIA	15W-40
Nitz Oil GmbH	IMPORTOL All Climate HD-C	15W-40
Oest, Georg Mineralölwerk	Oest Gigant Universal HD Motorenöl	15W-40
Olie Maatschaappij / NL	OMAN Multifleet Special Motoroil	15W-40
Ölwerke Julius Schindler	Econo-Veritas HDC Econo-Veritas HDE Veritas Super Turbo	10W-40 10W-40 15W-40
OMV Aktiengesellschaft	OMV con trol OMV truck M plus	15W-40 15W-40
OPET PETROLCÜLÜK A.S.	Opet Turbo Omega SHPD	15W-40
Paramo a.s.	TRYSK SUPER TURBO	15W-40
Pennzoil Products Europe GmbH	Pennzoil Long-Life 2000 Motor Oil	15W-40, 20W-50
Petrogal, s.a.	Galp Camius 15W40	15W-40
Petrol d.d., Ljubljana	Proton Diesel	15W-40
Petrol Ofisi A.S.	P.O. Turbo Dizel S	15W-40
Petrex / Polen	Veco Super Turbo Diesel	15W-40
Petromin Lubricating Oil Co.	Petromin Super Fleet LD	15W-40
Petronas DAGANGAN / Malaysia	Petronas Motolub CS 3	15W-40
Präg GmbH & Co. KG	Prägol Motorenöl Supreme Prägol Superior	15W-40 10W-40
Prista Oil	Prista® Leader	15W-40
Protech	Meister-Öl Hochleistungsmotorenöl	15W-40
Raiffeisen Central-Genossenschaft Nordwest eG	Raiffeisen Super Universal Plus	15W-40
Rafineria Gdanska S.A.	Lotos Diesel CE/SF Lotos Diesel 1 CE/SF Turdus 2 SHPD Turdus 1 LOTOS DIESEL CG-4/SH	15W-40 15W-40 15W-40 15W-40 15W-40



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

Multigrade engine oils approved to works standard MAN 271

Mehrbereichsmotorenöle zugelassen nach Werknorm MAN 271

**Aceites de motor multigrados autorizados conforme a la
norma de fábrica MAN 271**

Huiles moteur multigrades autorisées selon norme usine MAN 271

Oli motore multigrado approvati secondo la norma interna MAN 271

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Rafineria Trzebinia S.A.	Aquila Diesel Turbo Aquila Diesel Turbo Max	15W-40 15W-40
Ravensberger Schmierstoffvertriebs GmbH	RAVENOL Turbo C	15W-40
Repsol Distribucion S.A.	Repsol MULTI-G DIESEL	15W-40
SAEL	Gulfleet Multi Trailer (EP) Gulf Multi Duty (EP)	15W-40 15W-40
Shell International London	Shell Sirius Multigrade Shell Rimula Super Shell Rimula TX Shell Rimula X Shell Myrina X CG-4 Shell Universal Engine Oil	15W-40 15W-40 15W-40 15W-40, 20W-50 15W-40 15W-40
SIPS Dieter Döcker GmbH	SIPS-MULTI-PLUS HD	15W-40
SRS GmbH	Wintershall TFE Wintershall Multi Rekord Plus Wintershall Primalub Wintershall Rekord 15/40 Wintershall Multi Rekord Wintershall Magnum Turbo	10W-40 15W-40 15W-40 15W-40 15W-40 15W-40
Statoil Marketing Lubricants R&D	Statoil Power Way	15W-40
Südöl Mineralöl Raffinerie GmbH	Südöl Recycling Super Motorenöl Turbo	15W-40
TAMOIL Lubes GmbH	Tamoil Formula SP Plus	15W-40
TEDEX Oil Sp.z.o.o.	TEDEX Diesel Truck Motor Oil TEDEX Multifleet FE Motor Oil	15W-40, 20W-50 15W-40
TEDEX Vertriebs GmbH	TEDEX Diesel Truck Motor Oil TEDEX Multifleet FE Motor Oil	15W-40, 20W-50 15W-40
Texaco Technology Ghent	Ursa Super LA Multigrade	15W-40

<p align="center">Multigrade engine oils approved to works standard MAN 271 Mehrbereichsmotorenöle zugelassen nach Werknorm MAN 271 Aceites de motor multigrados autorizados conforme a la norma de fábrica MAN 271 Huiles moteur multigrades autorisées selon norme usine MAN 271 Oli motore multigrado approvati secondo la norma interna MAN 271</p>		
<p align="center">Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il</p>	<p align="center">Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto</p>	<p align="center">Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE</p>
TOTALFINA	Fina Kappa Supra Fina Kappa Supra Plus Fina Kappa Turbo DI Total Rubia 4400 Total Rubia 4400 TSA TOTAL Rubia XT	15W-40 15W-40 10W-40, 15W-40 15W-40 15W-40 15W-40
Unil International	UNIL OPAL Intercooler 400 UNIL OPAL Intercooler 450 UNIL OPAL MEDOS 600	15W-40 15W-40 15W-40
V.W. Günther	Masterclass Gamma 1540	15W-40
Valvoline International Europe	Valvoline All Fleet Plus Valvoline Premium Blue E	15W-40 15W-40
Veba Oel AG	Veba Logenta Universal Motoröl Veba Virada Longlife Motoröl	15W-40 15W-40
Veedol International Ltd.	Veedol Dieselstar	15W-40
Voitländer GmbH	Argon-Leichtlauföl 10W40 SHPD Argon-Hochleistungs-Mehrbereichsöl	10W-40 15W-40
Wecotect GmbH	Weco HDC-IL Multigrade	15W-40
Westfalen AG	Westfalen Corda Motoröl	15W-40
Wunsch Öle GmbH	Wunsch Record Multi HD-E2	15W-40
Würth, Adolf GmbH & Co. KG	Würth Triathlon Diesel	15W-40
YACCO S.A.	YACCO TRANSPRO 30 Yacco Transpro 25	15W-40 15W-40
Zeller & Gmelin GmbH & Co.	Divinol turbo Divinol Multimax C 3	15W-40 15W-40



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High-performance diesel engine oils approved to works standard M 3275

Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3275

**Aceites de motor diesel de alto rendimiento autorizados
conforme a la norma de fábrica M 3275**

Huiles moteur diesel hautes performances autorisées selon norme usine M 3275

**Oli ad alte prestazioni per motori diesel approvati
secondo la norma interna MAN 3275**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Abu Dhabi National Oil Company	Adnoc Super High Performance Diesel Engine Oil SHPD 15W/40 Adnoc Extra Super Plus Engine Oil	15W-40 15W-40
Addinol Lube Oil GmbH	Addinol Diesel Longlife MD 1546 Addinol Super Longlife MD 1046	15W-40 10W-40
Agip Petroli S.P.A. / ROM	Agip Sigma Super TFE Agip Sigma Turbo Agip Blitum T	10W-40 15W-40 15W-40
Agip Schmiertechnik GmbH	Autol Valve Turbo FE Plus Autol Valve SHP	10W-40 15W-40
ALUCHEM SRL	ALUSYNT® 10W/40	10W-40
Amalie Petroquímica S.A.	Amalie Superturbo Diesel SHPD 15W-40/ASPA	15W-40
Aral Lubricants GmbH	Aral HighTurboral Aral PlusTurboral Aral ExtraTurboral	10W-40 15W-40 10W-40
Ashland Oil Nederland B.V.	A.P.B. Super Turbo SHPD DDE	15W-40
Auto-Teile-Ring GmbH	CARTECHNIC SHPD Motorenöl	15W-40
Avia Mineralöl AG	Avia Multi HDC Plus Avia Turbosynth CFE	15W-40 10W-40
BayWa AG	BayWa Super Truck 1540 BayWa Motorenöl Turbo 4000	15W-40 10W-40
Bechem, Carl GmbH	HESSOL Turbo Diesel HDC Bechem Staroil Super HPD PLUS	15W-40 15W-40
Blaser Swissslube AG	Blasol MHTO	10W-40
BP Oil International Ltd.	Vanellus HT Vanellus C3 Extra	10W-40 15W-40
Bremin Mineralöl GmbH	Gold Star Testa HD	15W-40
Bucher AG	Motorex MC Plus Motorex Turbo SK	10W-40 10W-40
Calpam Mineralöl GmbH	Calpam Turbo Fleet Calpam Truck-FE	15W-40 10W-40
Caltex (UK) Ltd.	Caltex Delo SHP Multigrade	15W-40



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

High-performance diesel engine oils approved to works standard M 3275

Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3275

**Aceites de motor diesel de alto rendimiento autorizados
conforme a la norma de fábrica M 3275**

Huiles moteur diesel hautes performances autorisées selon norme usine M 3275

**Oli ad alte prestazioni per motori diesel approvati
secondo la norma interna MAN 3275**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Castrol Ltd. / England	Castrol Dynamax Castrol Dynamax HD Motorenöl XP 54 A Castrol Turbomax Light Castrol Turbomax	10W-40 10W-40 15W-40 10W-40 15W-40
Chevron Lubricants	DELO SHP Multigrade	15W-40, 20W-50
CEPSA Lubricantes S.A.	CEPSA ALTO RENDIMIENTO MAN M 3275 ERTOIL SUPER HPD LD	15W-40 15W-40
Compania Española de Petroleos	Cepsa Ultra SHPD	15W-40
De Oliebron B.V.	Tor Synfleet SHPD	10W-40
DEA Mineraloel AG	DEA Cronos Super TDL Lubroviscol Turbo Extra D DEA Cronos Premium HC	15W-40 15W-40 10W-40
Delek Ltd.	Delkol Turbomotor	15W-40
Deutsche Calypsolgesellschaft	Calypsol Bison FE Plus Calypsol Bison Truck	10W-40 15W-40
Deutsche Shell AG	MAC HD Superior Motorenöl Plus Shell Myrina X	15W-40 15W-40
Deutsche Tamoil GmbH	HEM Super Diesel Turbo SHPD	15W-40
EKO	EKO PETRON	15W-40
Elf Lubrificants	Elf Performance Trophy DX Antar Grapholia TX Elf Ecomax FE Plus Elf Ecomax FE	15W-40 15W-40 10W-40 10W-40
Eller-Montan-Comp. GmbH	Ellmotol Turbo HD	15W-40
EMKA Schmiertechnik GmbH	EMKA Turbo Super SHPD	15W-40
Engen Petroleum Limited	Engen Dieselube 600 Super	15W-40
ESSO / Argentinien	Essolube XD-3 Extra+	15W-40
ESSO LUBRICANTS AMERICAS	ESSOLUBE XT 411	15W-40

High-performance diesel engine oils approved to works standard M 3275

Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3275

**Aceites de motor diesel de alto rendimiento autorizados
conforme a la norma de fábrica M 3275**

Huiles moteur diesel hautes performances autorisées selon norme usine M 3275

**Oli ad alte prestazioni per motori diesel approvati
secondo la norma interna MAN 3275**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
ESSO Lubricants Europe	ESSOLUBE XT 501	15W-40
	OK TALUS DIESEL	15W-40
	Essolube TDX	10W-40
	Essolube XT 401	15W-40
ESSO Marine Lubricants EUROPE	EXXMAR CM SUPER	15W-40
ESSO Singapore Ltd.	Essolube XD-3 Extra+	15W-40
	Essolube XT 431	15W-40
	Essolube Pickup Turbospeed	15W-40
EVVA Schmiermittel-Fabrik GmbH	Evvarol Multi SHPDO	15W-40
	EVVA GALAX FE	10W-40
FL Iberia	ECOROIL SHPD SUPER	15W-40
Fuchs Petrolub AG	Fuchs Titan Truck	15W-40
	Fuchs Titan Unic Plus MC	10W-40
GENOL GmbH & Co.	Genol Long-Truck 1540	15W-40
HGK	SVG Uniplus Turbo SHPD	15W-40
	SVG ESVAUGOL FE	10W-40
Hilbert GmbH	Xorbol Super Mehrbereichsöl HDC	15W-40
Hunold Schmierstoffe GmbH	Hunold HD 4 CX Plus	15W-40
	Hunold Multitec 10W/40	10W-40
IGOL France	IGOL Trans Turbo 5X	15W-40
INA Maziva Rijeka	INA SUPER TURBO	15W-40
Karl Käßpler GmbH u. Co. KG	Selectol Turbo SHPD Mehrbereich-Motorenöl	15W-40
Kompressol-Oel Verkaufs GmbH	Kompressol-Ultralub C Plus	15W-40
KORAMO a.s.	Mogul Diesel DTT 15W-40	15W-40
KRAFFT S.A. / Spanien	MOLYCOTE SHPD	15W-40
	Multigrado SHPD DMOK	15W-40
Kuttenkeuler GmbH	Mega Truck	15W-40
Kuwait Petroleum B.V.	Q8 T 710	15W-40
	Q8 T 720	15W-40
	Q8 T 800	10W-40
	KUWAITOIL Ultra Diesel API CG-4	15W-40



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

High-performance diesel engine oils approved to works standard M 3275

Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3275

**Aceites de motor diesel de alto rendimiento autorizados
conforme a la norma de fábrica M 3275**

Huiles moteur diesel hautes performances autorisées selon norme usine M 3275

**Oli ad alte prestazioni per motori diesel approvati
secondo la norma interna MAN 3275**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Liqui Moly GmbH	Liqui Moly Profi Leichtlauf 10W-40 Motorenöl Touring High Tech SHPD	10W-40 15W-40
Lümann GmbH & Co. KG	CLASSIC Motorenöl TD CLASSIC Motorenöl Plus	15W-40 10W-40
Magneti Marelli S.p.A.	Urania Turbo LD	15W-40
Meguin GmbH	megol Motorenoel SHPD megol Motorenoel Super Leichtlauf FAMO	15W-40 10W-40
Millers Oils Ltd. / England	Magnafleet SHPD Truckmaster Global XD Truckmaster XHPD	15W-40 15W-40 15W-40
Mineralöl-Raffinerie Dollbergen GmbH	TERRA REC Turbo Super Pennasol Turbo Super E Pennasol Turbo Super	15W-40 15W-40 15W-40
Mobil Oil	Mobil Delvac 1400 Super Mobil Delvac Excel Mobil Delvac HP Mobil Delvac XHP Mobil Turbofleet	15W-40 15W-40 15W-40 10W-40, 15W-40 15W-40
Motor Oil (Hellas)	EMO SHPD Plus	15W-40, 20W-50
MOTUL S.A.	Motul Tekma Mega Motul Tekma Mega X	15W-40 15W-40
Müller, Hubert Math. Handelsges. mbH	OTP PLUS Universal Leichtlauföl	10W-40
Neste Oy Lubrication	Neste Turbo LE 15W/40	15W-40
New-Process AG / Schmierstoffe	New-Process SHPD Super SK New Process Super Dallas	15W-40 10W-40
NIS Oil Refinery Beograd	Galax Super Long	15W-40
Oest, Georg Mineralölwerk	Oest Dimo Super S3	15W-40
Olie Maatschappij / NL	OMAN Super CD Multigrade Motoroil	15W-40
Ölwerke Julius Schindler	Veritas Super HDC-N Econo-Veritas HDE Plus	15W-40 10W-40

High-performance diesel engine oils approved to works standard M 3275

Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3275

**Aceites de motor diesel de alto rendimiento autorizados
conforme a la norma de fábrica M 3275**

Huiles moteur diesel hautes performances autorisées selon norme usine M 3275

**Oli ad alte prestazioni per motori diesel approvati
secondo la norma interna MAN 3275**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
OMV Aktiengesellschaft	OMV Truck LD OMV eco truck extra	15W-40 10W-40
Oswald Kluth	Kluth-Mehrbereichsmotorenöl Super HDC	15W-40
OY TEBOIL AB / Finland	Teboil Super HPD	15W-40
Panolin AG	Panolin Universal FE Panolin Universal SFE	10W-40 10W-40
Paramo a.s.	TRYSK TOP TIR	15W-40
Pennzoil Products Europe GmbH	Pennzoil FLEETMASTER® SHPD Motor Oil Pennzoil PENNFORCE® Motor Oil	15W-40 10W-40
Petrol d.d., Ljubljana	Proton Turbo Diesel	15W-40
Petrol Ofisi A.S.	P.O. Turbo Dizel Ekstra SAE 15W/40 E	15W-40
Petrolex / Polen	Veco Challenger SHPD	15W-40
Präg GmbH & Co. KG	Prägol Supreme Prägol Motorenöl	10W-40 15W-40
Raffineries Imperator / Frankreich	Imperator RAFF Super HPDO	15W-40
Rafineria Gdanska S.A.	TURDUS 1 SHPD	15W-40
Raiffeisen Central-Genossenschaft Nordwest eG	Raiffeisen Turbo Leichtlauf	10W-40
Repsol Distribución S.A.	Repsol Super Turbo Diesel	15W-40
SAEL	Gulfleet Long Road (EP)	15W-40
Shell International London	Shell Rimula Super Shell Rimula Plus Shell Normina Plus Shell Myrina X	15W-40 15W-40 15W-40 15W-40
SIPS Dieter Döcker GmbH	Sips-Record Turbo T	15W-40
Slovnaft Vúrup	Madit Tirman Madit Tirman II	15W-40 15W-40
Sonol Israel Ltd.	Sadol S-600	15W-40



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

High-performance diesel engine oils approved to works standard M 3275

Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3275

**Aceites de motor diesel de alto rendimiento autorizados
conforme a la norma de fábrica M 3275**

Huiles moteur diesel hautes performances autorisées selon norme usine M 3275

**Oli ad alte prestazioni per motori diesel approvati
secondo la norma interna MAN 3275**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
SRS GmbH	Wintershall TFF	10W-40
	Wintershall Turbo-Rekord	15W-40
	Wintershall TFX	10W-40
	Wintershall Magnum Turbo D 3	15W-40
Statoil Marketing Lubricants R&D	Statoil Max Way	15W-40
Südöl Mineralöl Raffinerie GmbH	Südöl SHPD	15W-40
Sun Oil Company N.V.	Super HPD	15W-40
TEDEX Oil Sp.z.o.o.	Tedex Diesel Truck FE Motor Oil	15W-40
	Tedex Diesel Trucks Special Motor Oil	15W-40
TEDEX Vertriebs GmbH	Tedex Diesel Trucks Special Motor Oil	15W-40
Texaco Technology Ghent	Ursa Super TD	15W-40
TOTALFINA	Fina Kappa Extra	15W-40
	Total Rubia TIR 6400	15W-40
	Total Rubia TIR MAX	15W-40
	Fina Kappa FE	10W-40
	Total Rubia TIR XLD	15W-40
Turbotank Mineralölhandel Börsche & Bödeker GmbH	Turbo HD Motorenöl SHPD Plus	15W-40
Unil Deutschland GmbH	UNIL MANTO TD	15W-40
Unil Lubrifiants	UNIL OPAL MEDOS 650	15W-40
V.W. Günther	master class Taurus 1540	15W-40
Valvoline (Deutschland) GmbH	Valvoline All Fleet Extra FE	10W-40
Valvoline International Europe	All Fleet Extra	15W-40
Veba Oel AG	Veba Logenta Super Truck Dieselmotorenöl	15W-40
Veedol International Ltd.	Veedol Turbostar	15W-40
	Veedol Dynastar	10W-40
Voitländer GmbH	Argon-Hochleistungs- Dieselmotorenöl SHPD	15W-40
Wecotect GmbH	WECO Super Motorenöl HDC-LD	15W-40
Westfalen AG	Westfalen Turbo Plus Motoröl	15W-40
	Westfalen Universa XT	10W-40

<p align="center">High-performance diesel engine oils approved to works standard M 3275 Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3275 Aceites de motor diesel de alto rendimiento autorizados conforme a la norma de fábrica M 3275 Huiles moteur diesel hautes performances autorisées selon norme usine M 3275 Oli ad alte prestazioni per motori diesel approvati secondo la norma interna MAN 3275</p>		
<p align="center">Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il</p>	<p align="center">Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto</p>	<p align="center">Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE</p>
Wisura GmbH & Co.	WISURA Premium MC 10W/40	10W-40
	WISURA Multi TS	15W-40
Wolf Motor Oils	Wolf Masterlube Longdrain Turbo	15W-40
Wunsch Öle GmbH	Wunsch Turbo Rekord	15W-40
	Wunsch TLM	10W-40
Würth, Adolf GmbH & Co. KG	Triathlon Dynamik	10W-40, 15W-40
	Triathlon Longlife	15W-40
YPF S.A. – Lubricants Division	Diesel Movil Extra Vida	15W-40
	Diesel YPF Extra Vida	15W-40
Zeller & Gmelin GmbH & Co.	Divinol Multimax Top	15W-40



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High-performance diesel engine oils approved to works standard M 3277

Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3277

**Aceites de motor diesel de alto rendimiento autorizados
conforme a la norma de fábrica M 3277**

Huiles moteur diesel hautes performances autorisées selon norme usine M 3277

**Oli ad alte prestazioni per motori diesel approvati
secondo la norma interna MAN 3277**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Addinol Lube Oil GmbH	ADDINOL Super Truck MD 1048	10W-40
Agip Petroli S.P.A. / ROM	Agip Sigma Trucksint TFE	5W-30
	Agip Sigma Ultra TFE	10W-40
Agip Schmiertechnik GmbH	Autol Valve Ultra FE	10W-40
ARAL Lubricants GmbH	Aral SuperTurboral	5W-30
	Aral MegaTurboral	10W-40
Avia Mineralöl AG	AVIA Turbosynth HT-E	10W-40
BayWa AG	BayWa Super Truck 1040 MC	10W-40
BP Oil International Ltd.	BP Vanellus HT Extra	10W-40
	BP Vanellus E4 Plus	10W-40
	BP Vanellus HT Ultra	5W-30
	BP MAN Extra	10W-40
Bucher AG	MC Power 3	10W-40
Castrol Ltd. / England	Castrol Syntruck	5W-40
	Castrol Dynamax	10W-40
	Castrol Synmax	5W-40
CEPSA Lubricantes S.A.	Cepsa MAN Supertruck 3277	10W-40
	Cepsa Eurotrans SHPD	10W-40
De Oliebron B.V.	Tor Turbosynth	10W-40
DEA Mineraloel AG	DEA Cronus Synth	5W-40
	DEA Cronus Premium LD	10W-40
Deutsche Calypsolgesellschaft	Calypsol Bison Cargo	10W-40
Deutsche Tamoil GmbH	HEM Extra Spezial HD SAE 10W-40 UHPD	10W-40
Elf Lubrifiants	Elf Performance Experty	10W-40
	Antar Maxolia	10W-40
	Elf Performance Experty FE	5W-30
EMKA Schmiertechnik GmbH	EMKA Cargo MC	10W-40
ESSO Lubricants Europe	Essolube XTS 501	10W-40
ESSO Marine Lubricants EUROPE	Exxmar SCM	10W-40
EUROL Mineralöl Handelsges.m.b.H.	Eurol Concept LD 10W/40	10W-40
FUCHS Petrolub AG	Fuchs Titan Cargo MC	10W-40



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

High-performance diesel engine oils approved to works standard M 3277

Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3277

**Aceites de motor diesel de alto rendimiento autorizados
conforme a la norma de fábrica M 3277**

Huiles moteur diesel hautes performances autorisées selon norme usine M 3277

**Oli ad alte prestazioni per motori diesel approvati
secondo la norma interna MAN 3277**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Ginouves Georges S.A.	YORK 847	10W-40
HAFA Lubrifiants	HAFA EURODEX	10W-40
HGK	SVG ESVAUGOL SHPD-O	10W-40
Hunold Schmierstoffe GmbH	Multicargo 10W/40	10W-40
IGOL France	IGOL Trans Turbo 6X	10W-40
INA Industrija Zagreb / Kroatien	INA SUPER EKO	10W-40
INA Maziva Rijeka	INA Super 2000	10W-40
Japan Energy Corporation	JOMO Delcion	5W-40
Kompressol-Oel Verkaufs GmbH	Kompressol-FX	10W-40
KORAMO a.s.	Mogul Diesel DTT Plus	10W-40
KROON OIL B.V.	ARMADO SYNTH	10W-40
Kuttenkeuler GmbH	Master Truck	10W-40
Kuwait Petroleum B.V.	Q8 T 850	10W-40
Liqui Moly GmbH	LKW-Langzeit-Motorenöl	10W-40
Lümann GmbH & Co.KG	CLASSIC Motorenöl Super	10W-40
Magneti Marelli S.p.A.	Urania 100K	10W-40
Meguin GmbH	megol Motorenoel Super Leichtlauf DIMO	10W-40
Mineralöl-Raffinerie Dollbergen GmbH	PENNASOL Performance Truck	10W-40
Mobil Oil	Mobil Delvac XHP Extra Mobil Delvac 1 SHC Mobil Delvac XHP Ultra Mobil MAN Extra	10W-40 5W-40 5W-30 10W-40
MOL Hungarian Oil and Gas Co.	Mol Synt Diesel	10W-40
MOTUL S.A.	Motul Tekma Ultima	10W-40
Müller, Hubert Math. Handelsgesellschaft mbH	OTP PLUS Super-Leichtlauf-Motorenöl	10W-40
New-Process AG / Schmierstoffe	New-Process Dallas Plus 3	10W-40
Noviol B.V.	Kennoco Eurosynth HP	10W-40
Ölwerke Julius Schindler	Veritas Spezial HD Extra	10W-40
OMV Aktiengesellschaft	OMV truck FE plus	10W-40
Oswalt Kluth	KLUTH-Mehrbereichs Superleichtlaufmotorenöl UHPD	10W-40

<p align="center">High-performance diesel engine oils approved to works standard M 3277 Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3277 Aceites de motor diesel de alto rendimiento autorizados conforme a la norma de fábrica M 3277 Huiles moteur diesel hautes performances autorisées selon norme usine M 3277 Oli ad alte prestazioni per motori diesel approvati secondo la norma interna MAN 3277</p>		
<p align="center">Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il</p>	<p align="center">Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto</p>	<p align="center">Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE</p>
Panolin AG	Panolin Diesel HTE	10W-40
Pennzoil Products Europe GmbH	Pennzoil SUPREME DUTY® SYN 2000 Full Synthetic Diesel Oil	5W-40
Petro-Oil Sp.z.o.o.	Petro-Oil Diesel XHPDO CF	10W-40
Petrol d.d. Ljubljana	PROTON Turbo Diesel Super	10W-40
Raiffeisen Central-Genossenschaft Nordwest eG	Raiffeisen Power Truck	10W-40
SAEL	Gulfleet Highway (EP)	10W-40
	Gulfleet Supreme	5W-30
Shell International London	Shell Normina Extra	10W-40
	Shell Rimula Ultra	5W-30, 10W-40
SIPS Dieter Döcker GmbH	TSL 4 Motorenoel	10W-40
Slovnaft Vúrup	MADIT MISTRAL	10W-40
SRS GmbH	Wintershall TFG	10W-40
Statoil	Statoil TruckWay	10W-40
Sun Oil Company N.V.	SUNOCO Ultra HPD	10W-40
Tamoil Lubes Marketing S.A.	Tamoil Diesel Premium FE	10W-40
TEDEX Oil Sp.z.o.o.	Tedex Diesel Truck UHPD MOTOR OIL	10W-40
TEDEX Vertriebs GmbH	Tedex Diesel Truck UHPD MOTOR OIL	10W-40
Texaco Technology Ghent	URSA Super TDX	10W-40
TOTALFINA	TOTAL Rubia TIR 8600	10W-40
	TOTAL RUBIA TIR 9200	5W-30
	Fina Kappa Ultra	10W-40
	Fina Kappa First	5W-30
Turbotank Mineralölhandel Bösche & Bödecker GmbH	Turbo-Leichtlauföl KM	10W-40
Unil Lubrifiants	Unil Opal LCM 800	10W-40
Valvoline International Europe	Valvoline ProFleet	10W-40
Veba Oel AG	Veba Virada ECO-Truck Dieselmotoröl	10W-40
Veedol International Ltd.	Veedol Dynastar	10W-40
	Veedol Dynastar FS	5W-40



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

High-performance diesel engine oils approved to works standard M 3277

Hochleistungsdieselmotorenöle zugelassen nach Werknorm M 3277

**Aceites de motor diesel de alto rendimiento autorizados
conforme a la norma de fábrica M 3277**

Huiles moteur diesel hautes performances autorisées selon norme usine M 3277

**Oli ad alte prestazioni per motori diesel approvati
secondo la norma interna MAN 3277**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Westfalen AG	Epicent Motoröl	10W-40
Wolf Motor Oils	Wolf Masterlube Long Drain Ultra	10W-40
Wunsch Öle GmbH	Wunsch TSL – Diesel	10W-40
Würth, Adolf GmbH & Co. KG	Würth Triathlon Cargo	10W-40
	Triathlon Super Cargo	10W-40
YACCO S.A.	Yacco Transpro 45	10W-40
Zeller & Gmelin	Divinol Multimax Synth 10W/40	10W-40



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<p align="center">Single-grade engine oils approved to works standard MAN 270 Einbereichsmotorenöle zugelassen nach Werknorm MAN 270 Aceites de motor monogrados autorizados conforme a la norma de fábrica MAN 270 Huiles moteur monogrades autorisées selon norme usine MAN 270 Oli motore monogrado approvati secondo la norma interna MAN 270</p>		
<p align="center">Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il</p>	<p align="center">Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto</p>	<p align="center">Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE</p>
Abu Dhabi National Oil Company	Adnoc Engine Oil XD3+	30, 40, 50
Addinol Lube Oil GmbH	Addinol Turbo Diesel MD 205 Addinol Turbo Diesel MD 305 Addinol Turbo Diesel MD 405 Addinol Turbo Diesel MD 505	20W-20 30 40 50
Aral Lubricants GmbH	Aral BasicTurboral	20W-20, 30
Avia Mineralöl AG	AVIA Special HDC	20W-20, 30
Caltex (UK) Ltd.	Caltex Delo 500 Caltex Delo 600 Caltex Delo 350	30, 40 30, 40 30, 40
Castrol Ltd. / England	Castrol CRD-DB	20W-20, 30
CEPSA Lubricantes S.A.	Cepsa RETTO Super Serie 3	30, 40
DEA Mineraloel AG	DEA Cronus Super Lubroviscol Supreme HD-D	20W-20, 30 20W-20, 30
Deutsche Shell AG	MAC HD Superior Shell Rimula X Monograde	20W-20, 30 20W-20, 30
EKO	EKO MARSA	30, 40
ELF Lubrifiants	ELF Disola MT ELF Performance Super D ELF Performance 3D Antar Grapholia MS Antar Traxolia Z	30 30 30, 40 30 30
Engen Petroleum Limited	Engen Dieselube 500 Series Engen Dieselube 630	30, 40 30
ESSO LUBRICANTS AMERICAS	ESSOLUBE X 311	30, 40
ESSO Lubricants Europe	Essolube X 301 Essolube XD-3+	30, 40 30
ESSO MARINE LUBRICANTS EUROPE	EXXMAR CM	30
ESSO S.A.P.A. / Argentinien	Essolube XD-3+	40
FUCHS Petrolub AG	Fuchs Titan Universal HD	20W-20, 20W-30, 30, 40
KRAFFT S.A. / Spanien	Krafft Monogrado DMOK 3040	30



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

Single-grade engine oils approved to works standard MAN 270

Einbereichsmotorenöle zugelassen nach Werknorm MAN 270

**Aceites de motor monogrados autorizados
conforme a la norma de fábrica MAN 270**

Huiles moteur monogrades autorisées selon norme usine MAN 270

Oli motore monogrado approvati secondo la norma interna MAN 270

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Mineralöl-Raffinerie Dollbergen GmbH	Haco HD-Motorenöl Extra C Terra Rec Motoroil Extra C Pennasol Motoroil Extra C	20W-20, 30 20W-20, 30 20W-20, 30
Mobil Oil	Mobil Motrex 1300	30
MOL Hungarian Oil and Gas Co.	Carrier Turbo S	20W-20, 30, 40, 50
Motor Oil (Hellas)	EMO Turbo Champion Plus	30, 40
OMV Aktiengesellschaft	OMV Truck	20W-20, 30, 40
Petrol Ofisi A.S.	P.O. Turbosarj	30
Petromin Lubricating Oil Co.	Petromin Super Fleet LDM 40	40
Rafineria Gdanska S.A.	IBIS HPDO	40
SAEL	Gulfleet Super Trailer	30, 40
Shell International London	Shell Sirius Shell Rimula X 30 Shell Rimula X 40 Shell Myrina X Monograde	30, 40 30 40 30, 40
SRS GmbH	Wintershall Rekord	20W-20, 20W-30, 30, 40, 50
Statoil Marketing Lubricants R&D	Statoil Diesel Way	20W-30, 30, 40
Texaco Technology Ghent	Ursa Super LA	20W-20, 30
TOTALFINA	Fina Kappa Super TOTAL Rubia K	20W-20, 30, 40 20W-20, 30, 40
Valvoline International Europe	Valvoline All Fleet Plus	20W-20, 30
Veba Oel AG	Veba Movara Extra-Motoroel	20W-20, 30
Veedol International Ltd.	Veedol Diesel HDC	20W-20, 30
Westfalen AG	Westfalen C 3 20 Motoröl Westfalen C 3 30 Motoröl	20W-20 30



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Engine oils for high-performance marine diesel engines available on the US market.

Motorenöle für Hochleistungs-Schiffsdieselmotoren, verfügbar auf dem US-Markt.

Aceites para motores diesel marinos de alto rendimiento disponibles en el mercado de los E.E.U.U..

Huiles moteur pour moteurs Diesel marins de grande puissance, disponibles sur le marché américain

Oli per motori diesel marini potentissimi disponibili sul mercato statunitense

<p align="center">Engine oils with MAN 270 / 271 quality Motorenöle mit MAN 270 / 271 - Niveau Aceites de motor con nivel MAN 270 / 271 Huiles moteur de niveau MAN 270 / 271 Oli motore con qualità MAN 270 / 271</p>		
<p align="center">Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il</p>	<p align="center">Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto</p>	<p align="center">Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE</p>
BP	Vanellus C3 Extra	30
Kendall	Super D 3	30, 40
Mobil	Delvac 1 SHC	5W-40
Pennzoil	Supreme Duty Fleet Motor Oil	30, 40
Unocal	Extra Duty Guardol Motor Oil 1300 Series	30, 40
Quaker State Corp.	HDX Plus Universal Fleet	40
Tennessee Farmers Agrotection		30
Valvoline	All Fleet Extra	30



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

Engine oils for high-performance marine diesel engines available on the US market.

Motorenöle für Hochleistungs-Schiffsdieselmotoren, verfügbar auf dem US-Markt.

Aceites para motores diesel marinos de alto rendimiento disponibles en el mercado de los E.E.U.U..

Huiles moteur pour moteurs Diesel marins de grande puissance, disponibles sur le marché américain

Oli per motori diesel marini potentissimi disponibili sul mercato statunitense

Engine oils with SHPD quality Motorenöle mit SHPD - Niveau Aceites de motor con nivel SHPD Huiles moteur de niveau SHPD Oli motore con qualità SHPD		
Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Clase di viscosità SAE
Cato Oil	Mystik JT-8 Extra	30, 40
Chevron	Delo 300 Motor Oil	30, 40
Drydene	Series IV Motor Oil	30, 40
Mobil	Delvac 1330 und 1340	30, 40
Quaker State Corp.	Quaker Super Diesel	30, 40
Unocal	Extra Duty Guardol Motor Oil 1500 Series	30, 40
Valvoline	All Fleet Super	30

Engine oils for marine diesel engines, available on the US market.

Multigrade engine oils from the US market for engines subject to lower stress.

Motorenöle für Schiffsdieselmotoren, verfügbar auf dem US-Markt.

Mehrbereichsmotorenöle des US-Marktes für weniger belastete Motoren.

Aceites de motor para motores diesel marinos, disponibles en el mercado de los E.E.U.U..

Aceites de motor multigrados del mercado de los E.E.U.U. para motores menos cargados.

Huiles moteur pour moteurs Diesel marins, disponibles sur le marché américain.

Huiles moteur multigrades du marché américain pour moteurs soumis à des sollicitations moins importantes.

Oli per motori marini diesel, disponibili negli USA.

Oli motore multigrado del mercato americano per motori poco sollecitati.

Engine oils with MAN 271 quality Motorenöle mit MAN 271 - Niveau Aceites de motor con nivel MAN 271 Huiles moteur de niveau MAN 271 Oli motore con qualità MAN 271		
Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Amalie	Super XLO	15W-40
BP	Vanellus C3-Extra	15W-40
Cato Oil	Mystik Synguard SX-8	15W-40
Chevron	Delo 300 Motor Oil	15W-40
Kendall	SHP Super D 3	15W-40 15W-40
Mobil	Delvac 1300 Super	15W-40
Pennzoil	Supreme Duty Fleet Motor Oil	15W-40
Quaker State Corp.	HDX Plus Universal Fleet HDX Multi-Grade Universal Fleet	15W-40 15W-40
Tennessee Farmers Agrotection		15W-40
Texaco	Ursa Premium	15W-40
Unocal	Extra Duty Guardol Motor Oil 1300 Series Royal Triton QLT	15W-40 15W-40
Valvoline	All Fleet Extra	15W-40



**Engine oils / Motorenöle /
Aceites de motor / Huiles moteur / Oli motore**

Engine oils for marine diesel engines, available on the US market.

Multigrade engine oils from the US market for engines subject to lower stress.

Motorenöle für Schiffsdieselmotoren, verfügbar auf dem US-Markt.

Mehrbereichsmotorenöle des US-Marktes für weniger belastete Motoren.

Aceites de motor para motores diesel marinos, disponibles en el mercado de los E.E.U.U..

Aceites de motor multigrados del mercado de los E.E.U.U. para motores menos cargados.

Huiles moteur pour moteurs Diesel marins, disponibles sur le marché américain.

Huiles moteur multigrades du marché américain pour moteurs soumis à des sollicitations moins importantes.

Oli per motori marini diesel, disponibili negli USA.

Oli motore multigrado del mercato americano per motori poco sollecitati.

Engine oils with SHPD quality Motorenöle mit SHPD - Niveau Aceites de motor con nivel SHPD Huiles moteur de niveau SHPD Oli motore con qualità SHPD		
Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación producto Désignation du produit Denominazione prodotto	Viscosity class SAE Viskositätsklasse SAE Clase viscosidad SAE Viscosité SAE Classe di viscosità SAE
Amalie	Super SHP-LD	15W-40
Cato Oil	Mystik JT-8 Extra	15W-40
Drydene	Series IV Motor Oil	15W-40
Quaker State Corp.	Quaker Super Diesel	15W-40
Unosal	Extra Duty Guardol Motor Oil 1500 Series	15W-40
Valvoline	All Fleet Super	15W-40



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Antifreezes with anti-corrosion agents for engine cooling systems

Gefrierschutzmittel mit Korrosionsschutz für Motorkühlsysteme

Anticongelantes con protección anticorrosiva para sistemas de refrigeración de motor

Antigel avec protection anticorrosion pour systèmes de refroidissement moteur

Antigelo con anticorrosivo per impianti di raffreddamento motore

Approved to works standard MAN 324 Type N (containing nitrite) Zugelassen nach Werknorm MAN 324 Typ N (nitrihaltig) Autorizados conforme a la norma de fábrica MAN 324 Typ N (contiene nitrito) Autorisé selon norme usine MAN 324, type N (contient des nitrites) Approvato secondo la norma interna MAN 324 tipo N (contenenti nitriti)	
Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación del producto Désignation du produit Denominazione prodotto
Agip Schmiertechnik GmbH	Agip / Autol Langzeitfrostschutz
Aral Lubricants GmbH	Aral Antifreeze T
Arteco N.V.	Havoline AF 007400+B
Avia Mineralöl AG	Avia Frostschutz
BASF AG	BASF Kühlerfrostschutz G 03 BASF Coolant D 824-13F BASF Coolant D 542 Glysantin 9313
Bucher AG	Motorex Frostschutz G03
Clariant GmbH	Genantin Extra B
Elf Lubrifiants	Elf Glacelf SX
EUROL Mineralöl Handelsges.m.b.H.	Eurol Afrostin
EVVA Schmiermittel-Fabrik GmbH	EVVA Antifreeze
Freiberg Chemikalien GmbH	Pro Car NKW
FUCHS Petrolub GmbH	Fuchs Fricofin Kühlerfrostschutz
GENOL GmbH & Co.	GENOL ANTIFREEZE
Huntsman Corporation Australia Pty Ltd.	Glycool 007/81/126
INA Industrija Zagreb / Kroatien	INA Antifriz AI Super
KRAFFT S.A. / Spanien	Krafft REFRIGERANTE ACU 2300
Petrol Ofisi A.S.	P.O. Antifriz
Shell Aseol AG	Aseol Antifreeze 26-30
TOTALFINA	OZO Frostschutz S



**Coolants / Kühlflüssigkeit / Líquidos refrigerantes /
Liquide de refroidissement / Liquido di raffreddamento**

Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il	Product designation Produktbezeichnung Denominación del producto Désignation du produit Denominazione prodotto
Addinal Lube Oil GmbH	ADDINOL Antifreeze Super
Agip Petroli S.P.A. / ROM	Agip Antifreeze Plus
Aral Lubricants GmbH	Aral Antifreeze Extra
Arteco N.V.	Havoline AF 542 Havoline AFC
Avia Mineralöl AG	Avia Antifreeze APN
BASF AG	Glysantin® mit Protect Plus Glysantin G 48
BP Southern Africa Ltd.	BP Isocool CT
Bucher AG	Motorex Antifreeze Protect Plus G48
Caltex (UK) Ltd	Caltex CX Engine Coolant
Castrol Ltd. / England	Castrol ANTIFREEZE NF
DEA Mineralöl AG	DEA Kühlerfrostschutz
Elf Lubrifiants	Elf AF Special GLACELF MDX Glacelf Plus
Engen Petroleum Ltd. Südafrika	Engen Antifreeze and Summer Coolant
EVVA Schmiermittel-Fabrik GmbH	EVVA Antifreeze B
Ginouves Georges S.A.	York LT 716
OMV Aktiengesellschaft	OMV Kühlerfrostschutz
Shell Chemicals	GlycoShell
TEDEX Oil Sp.z.o.o.	Tedex Antifreeze
TEDEX Vertriebs GmbH	Tedex Antifreeze
TOTALFINA	Fina Termidor Total Multiprotect
TOTAL South Africa Ltd.	TOTAL Summer Coolant TOTAL Antifreeze
Unico Manufacturing Co. Ltd. Südafrika	Engmans Antifreeze and Summer Coolant A.P. Lockheed Ultra Coolant
Valvoline International Europe	G 48 Antifreeze/Coolant
Veedol International Ltd.	Veedol ANTIFREEZE NF



<p align="center">Approved to works standard MAN 324 Type SNF (silicate- / nitrite-free) Zugelassen nach Werknorm MAN 324 Typ SNF (silikat- / nitritfrei) Autorizados conforme a la norma de fábrica MAN 324 Typ SNF (libre de silicatos / nitritos) Autorisé selon norme usine MAN 324, type SNF (exempt de silicates et de nitrites) Approvato secondo la norma interna MAN 324 tipo SNF (esente da nitriti e silicati)</p>	
<p align="center">Approval granted to Zulassung erteilt an Autorización entregada a Homologation décernée à Approvazione conferita il</p>	<p align="center">Product designation Produktbezeichnung Denominación del producto Désignation du produit Denominazione prodotto</p>
Agip Petroli S.P.A. / ROM	Agip Antifreeze Spezial
Aral Lubricants GmbH	Aral Antifreeze Silikatfrei
Artego N.V.	Texaco Havoline XLC+B(D) Havoline XLC
BASF AG	Glysantin ALU PROTECT Glysantin G 30
Caltex (UK) Ltd.	Caltex Extended Life Coolant
Elf Lubrifiants	Glacelf Auto Supra
Texaco Technology Ghent	Havoline XLC+B
TOALFINA	TOTAL Organicool Fina Termidor Plus
WIGO WERK Kreuznach, Chem. Fabrik GmbH	ERONEX Kühlerfrostschutz DB/MAN VP 2425
YACCO S.A.	Yacco LR Organique



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