



**MTU Friedrichshafen GmbH**

Maybachplatz 1  
88045 Friedrichshafen  
Germany  
T +49 7541 90-0

Kuwait Petroleum Research and Technology BV  
Paul Van De Heijning  
Moezelweg 251  
3198 LS Europoort  
THE NETHERLANDS

Contact: [REDACTED]  
[REDACTED]@rolls-royce.com

Tel. No.: +49 7541 9050370

Date: 12 March 2020  
Ref.: SQMC

### Approval of Q8 T 860 10W-40

Dear Mr [REDACTED],

Based on the information and test results you provided, as well as our laboratory analyses, the engine oil

**Q8 T 860 10W-40**

**SAE 10W-40**

which you submitted for approval meets the requirements for Oil Category 3 and is approved for use in all MTU engines (except Series 8000, 4000-03 M IMO III, 4000-04 R, 4000-05 G and M IMO III, 2000M41A IMO III, 956 TB31/32/33/34, 1163 TB32 Genset and S60).

The letter of approval does not cover Series 1000, 1100, 1300, 1500, 1800 engines.

The approval is valid until

**March 2022.**

For an extension of this approval, please inform us at least one month before expiration of the approval period.

Please note that any modification of the engine oil will invalidate the approval in accordance with our terms of approval (MTL 5044).

Yours sincerely

MTU Friedrichshafen GmbH

Kopija tikra

2021-05-14



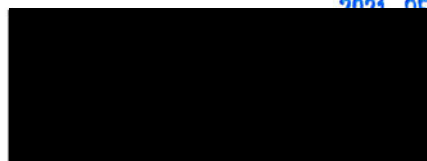
# Fluids and Lubricants Specifications

Diesel engines of all commercial MTU series (including Marine),  
DDC S60 Off Highway and two-cycle engines  
MTU Series 1000-1600, 1800 are not included

A001061/40E

Konija tikra

2021-05-14



A Rolls-Royce  
solution

### 7.1.9 Multigrade oils – Category 3, SAE grades 5W-30, 5W-40, 10W-40 and 15W-40 for diesel engines

For details and special features, see chapter "Lubricants for four-cycle engines" (→ Page 7)

#### Multigrade oils

Multigrade oils – Category 3, SAE grades 5W-30, 5W-40, 10W-40 and 15W-40 for diesel engines				
Manufacturer	Brand name	SAE viscosity class	TBN 8 to 10 mgKOH/g 10 to 12 mgKOH/g >12 mgKOH/g	Remarks
MTU Asia China	Diesel Engine Oil - DEO 5W-30	5W-30		X 20 l canister: 60808/P Available through MTU Suzhou
Addinol Lube Oil GmbH	Addinol Commercial 1040 E4	10W-40		X
	Addinol Ultra Truck MD 0538	5W-30		X
	Addinol Super Truck MD 1049	10W-40		X
Aral AG	Aral Mega Turboral	10W-40		X
	Aral Mega Turboral 10W-40	10W-40		X
	Aral Super Turboral	5W-30		X
	Aral Super Turboral 5W-30	5W-30		X
Aramco Lubricants and Retail Company	Orizon HD vA	10W-40		X
Atak Madeni Yağ Pas.San. Tic. Aş	Alpet Turbot FE	10W-40		X
	Alpet Turbot MMS	10W-40		X
Avia AG	Avia Turbosynth HT-E	10W-40		X
	Avia Turbosynth HT-U	5W-30		X
Avista Oil Deutschland GmbH	Avista pure EVO E4	10W-40		X
	Avista pure EVO SWE	5W-30		X
	Avista pure EVO SWE	10W-40		X
Bahrain Petroleum Company B.S.C.	Frontier Turbo LDX	10W-40		X
BayWa AG	Tectrol Super Truck 530	5W-30		X
	Tectrol Super Truck 1040	10W-40		X
Bucher AG Langenthal - Motorex Schmiertechnik	MC Power Plus SAE 10W/40	10W-40		X
BP p.l.c.	BP Energol IC-MT 10W-40	10W-40		X
	BP Vanellus Max	5W-30		X

Konja tikra

2021-05-14

26



Multigrade oils – Category 3, SAE grades 5W-30, 5W-40, 10W-40 and 15W-40 for diesel engines

Manufacturer	Brand name	SAE viscosity class	TBN			Remarks
			8 to 10 mgKOH/g	10 to 12 mgKOH/g	>12 mgKOH/g	
Castrol Ltd.	Castrol CRB Turbomax 10W-40 E4/E7	10W-40			X	
	Castrol Enduron MT	10W-40			X	
	Castrol Enduron Plus	5W-30			X	
	Castrol Elixion HD	5W-30			X	
	Castrol Vectron 10W-40 E4/E7	10W-40			X	
	Castrol Vectron Long Drain	10W-40			X	
	Castrol Vectron Long Drain 5W-30 E4/E7	5W-30			X	
	Castrol Vectron Long Drain 10W-40 E7				X	
	Castrol Vectron Long Drain 10W-40 E4/E7	10W-40			X	
	Castrol Vectron 5W-30 Arctic	5W-30			X	
	Castrol Vectron Fuel Saver 5W-30	5W-30			X	
	Castrol Vectron Fuel Saver E7	5W-30			X	
Cepssa	Cepssa Eurotrans SHPD	5W-30			X	
	Cepssa Eurotrans SHPD	10W-40		X		
Cepssa Comercial Petroleo Limited	Traction Advanced LD	10W-40			X	
Champion Chemicals N.V.	Champion New Energy 10W40 Ultra	10W-40			X	
Chemicis Khavremianeh Kohan	Chemicis Excel Plus	10W-40			X	
Chevron Lubricants (Caltex)	Delo Gold Ultra T SAE 10W-40	10W-40			X	
	Delo XLD Multigrade	10W-40			X	
Chevron Lubricants (Texaco)	Ursa HD	10W-40			X	
	Ursa Premium FE	5W-30			X	
	Ursa Super	10W-40		X		
	Ursa Super TDX	10W-40			X	
	Ursa TDX	10W-40			X	
Deutsche Ölwerke Lubmin GmbH	AVENO HC PT Diesel	10W-40			X	
eni S.P.A.	eni i-Sigma top	10W-40			X	
	eni i-Sigma performance E4	10W-40			X	
Enoc Marketing LLC	Enoc Vulcan 770 SLD	10W-40		X		
	Enoc Vulcan SLD	10W-40			X	

TBM-10: 0000019004 - 008

Konija tikra

2021-05-14

27

Multigrade oils – Category 3, SAE grades 5W-30, 5W-40, 10W-40 and 15W-40 for diesel engines

Manufacturer	Brand name	SAE viscosity class	TBN			Remarks
			8 to 10 mgKOH/g	10 to 12 mgKOH/g	>12 mgKOH/g	
Exxon Mobil Corporation	Mobil Delvac XHP Extra	10W-40			X	
	Mobil Delvac XHP Ultra 5W-30	5W-30			X	
	Mobil Delvac 1 SHC	5W-40			X	
	Mobil Delvac 1 SHC 5W-40	5W-40			X	
Exol Lubricants Ltd.	Taurus Extreme M3	10W-40			X	
Fabrika Maziva, FAM AD	Fenix Ultra Sint	10W-40			X	
Finke Mineralölwerk GmbH	AVIATICON Finko Truck LD	10W-40			X	
Fuchs Petrolub SE	Fuchs Titan Cargo SL	5W-30			X	
	Fuchs Titan Cargo MC	10W-40			X	
	Fuchs Max Way E4	10W-40				
	Fuchs Max Way Ultra	5W-30				
Fuchs Lubricants France S.A.	Cofran Marathon	10W-40			X	
Gazpromneft Lubricants Ltd,	G-Profi GTS	5W-30			X	
	G-Profi GT	10W-40			X	
	Gazprom Diesel Ultra Plus 10W-40	10W-40			X	
	Gazprom Diesel Ultra 15W-40	15W-40			X	
Gulf Oil International	Gulf Fleet Force synth.	5W-30			X	
	Gulf Superfleet ELD	10W-40			X	
	Gulf Superfleet XLD	10W-40			X	
	Gulf Superfleet Synth ELD	10W-40			X	
High Industrial Lubricants & Liquids Corporation	Fastroil Force Ultra High Performance Diesel (UHPD)	10W-40			X	
Huiles Berliet S.A.	RTO Extensia RXD ECO	5W-30			X	
Iranol Oil Co.	Iranol D40000-EIII	10W-40			X	
Kuwait Petroleum	Q8 T 860	10W-40		X		
	Q8 T 860 10W-40	10W-40			X	
	Q8 T 860 D	10W-40			X	
	Q8 T 860 S	10W-40			X	
	Q8 T 905	10W-40	X			
Lotos Oil	Turdus Powertec 3000	10W-40			X	
	Turdus Powertec Synthetic	5W-30			X	
Lukoil Lubricants Europe Oy	Teboil Super XLD-2	5W-30			X	Konja tikra
	Teboil Super XKD RW 10W-40	10W-40			X	
Meguin	Megol Motorenöl Super LL Dimo Premium	10W-40			X	2021-05-14

TIN-4D 0000019006 - 008

LB



Multigrade oils – Category 3, SAE grades 5W-30, 5W-40, 10W-40 and 15W-40 for diesel engines

Manufacturer	Brand name	SAE viscosity class	TBN			Remarks
			8 to 10 mgKOH/g	10 to 12 mgKOH/g	>12 mgKOH/g	
MOL-LUB Kft	MOL Synt Diesel	10W-40		X		
	MOL Dynamic Synt Diesel E4	10W-40			X	
Orlen Oil Sp.o.o.	Platinum Uitor Max	5W-30			X	
OOO LLK International	Lukoil Avantgarde Professional	5W-30			X	
	Lukoil Avantgarde Professional	10W-40			X	
	Lukoil Avantgarde Professional M5	10W-40			X	
	Lukoil Avantgarde Professional M6	5W-30			X	
	Lukoil Avantgarde Professional M6	10W-40			X	
	Lukoil Avantgarde Ultra M3	15W-40			X	
Panolin	Panolin Diesel HTE	10W-40			X	
Petrogal, S.A.	Galp Galaxia Extreme	5W-30		X		
	Galp Galaxia Ultra XHP	10W-40			X	
Petromin Corporation	Petromin Turbo Master LD	10W-40			X	
Petronas Lubricants International	Petronas Akros Synt Gold	10W-40			X	
	Arexons HD-Truck E7	10W-40			X	
	Urania Maximo	10W-40			X	
	Petronas Urania Optimo	10W-40			X	
	Urania 100 K	10W-40			X	
	Urania 5000 F	5W-30			X	
	Urania 5000 LD	10W-40			X	
	Urania FE	5W-30			X	
	Petronas Urania Maximo	5W-30			X	
PHI OIL GmbH	Motordor Silver 10W40	10W-40			X	
Raj Petro Specialities P Ltd.	Zoomol Rforce 8200 RF1	10W-40			X	
Ramoil S.p.A.	Duglas Oil Ultra HC 10W-40 UHPDO	10W-40			X	
Ravensberger Schmierstoff Vertrieb GmbH	RAVENOL Super Performance Truck	5W-30			X	
	RAVENOL Performance Truck	10W-40			X	
Repsol Lubricantes y Especialidades S.A.	Repsol Turbo UHPD	10W-40			X	
	Repsol Diesel Turbo VHPD	5W-30			X	
	Repsol Diesel Turbo UHPD Urban	10W-40			X	
RN-Lubricants, LLC	Rosneft Revolux D4	10W-40			X	
	Rosneft Revolux D4 Plus	5W-30			X	
	Rosneft Revolux D4 Plus	10W-40			X	

TMA-001-00019005-008

Konija tikra

5-14

## MAN Truck & Bus SE



MAN Truck & Bus SE Postfach 44 02 58 90207 Nürnberg

Kuwait Petroleum Research & Technology B.V.  
Herr Paul van de Heijning  
Moezelweg 251  
3198 LS Europoort Rt  
The Netherlands

Unser Hausruf  
0911/420-2713

Unser Telefax  
0911/420-1928

Abt/Kürzel  
EPTAO

E-Mail  
[bstinfo@man.eu](mailto:bstinfo@man.eu)

Nürnberg,  
28.05.2020

### **Prolongation of approval against M 3277**

Start of approval: 12.05.2005

End of approval: 20.05.2023

**Marketing area:** worldwide

Dear Sir/Madam,

we are pleased to inform you, that the approval for the diesel engine oil bearing the designation

### **Q8 T 860**

has been prolonged under MAN approval-number

### **TUC 6146/02 for SAE 10W-40**

This prolongation is only available for the unchanged formulation and in combination with the original approval letter. The approval will automatically expire at the point in time indicated above, unless an prolongation has been applied for in good time by the maker or supplier.

Yours faithfully,  
MAN Truck & Bus SE

***This letter was created electronically without signature.***

Konija tikra

2021-05-14

Vorsitzender des Aufsichtsrates: [REDACTED]

Vorstand: [REDACTED]

Sitz der Gesellschaft: München  
Commerzbank Aktiengesellschaft, Dachau · BLZ 700 400 41 · Konto 1450600  
IBAN: DE33 7004 0041 0145 0600 00 · BIC COBADEFFXXX  
Stadtparkassen München · BLZ 701 500 00 · Konto 89104400  
IBAN: DE36 7015 0000 0089 1044 00 · BIC SSKMDEMM

Registergericht: Amtsgericht München HRB 86 963 | USt-IdNr. DE811125281

MAN Truck & Bus SE

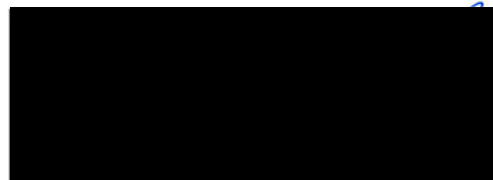
Postfach 44 02 5 · 90207 Nürnberg

Vogelweiherstrasse 33 · 90441 Nürnberg

Telefon +49 911 420-0 oder -Durchwahl  
Telefax +49 911 420 446522

[www.man-mn.com](http://www.man-mn.com)

Ein Unternehmen der MAN Gruppe





# DAIMLER



Daimler AG - 70546 Stuttgart

Kuwait Petroleum Research & Technology B.V.  
P.O. box 1310  
3180 AH ROZENBURG  
THE NETHERLANDS

Telefon/Phone  
+49 7 11 17-

Telefax/Fax  
+49 7 11 17-

Hauspost-Code/  
Internal Code

24801

59756

C651

Ihr Zeichen, Ihre Nachricht vom/  
Your reference

Unser Zeichen, unsere Nachricht vom/  
Our reference

Name  
E-Mail

Datum/Date

09.07.2018

RD/PDI-F-94680

[Redacted]

24.09.2018

## MB-Approval Certificate

New Approval - Engine Oil

**MB-Approval 228.5 for: "Q8 T 860 10W-40"**

**Oil-Code: KPL 6227, SAE-Grade: 10W-40**

Dear Sir or Madam,

The aforementioned operating fluid complies with the requirements of the Mercedes-Benz Specifications for Operating Fluids, sheet 228.5 and is therefore approved for the respective Mercedes-Benz vehicles and assemblies. The application range is shown on the MB sheet and further defined on the sheet 223.2. Further requirements, e.g. SAE grades, capacities, change intervals etc. must also be observed.

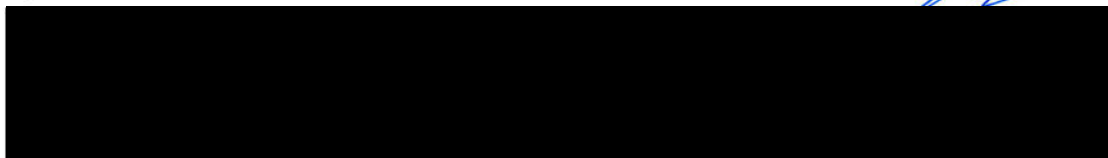
The following regulations apply for the MB-Approval:

- The MB-Approval comes into force on the date shown on this certificate
- The MB-Approval will expire in 5 years at the latest
- The MB-Approval automatically terminates on expiry of the validity period at the latest
- The MB-Approval is only valid as long as the product name is listed in MB BeVo-ONLINE <http://bevo.mercedes-benz.com>
- Applications for renewals or new approvals etc. must be made in good time
- In addition, the regulations laid down in the current "Obligations Regarding Approval for Operating Fluids" contract apply.

A 2-liter back-up sample of each formulation, which can be called upon by Daimler AG at any given moment, must be retained for at least 3 years. We will inform you of the dispatch address.

Sincerely  
Daimler AG

Konja tikra







To Lukoil Lubricants Co.  
Ms [REDACTED]  
  
Email. [REDACTED]@lukoil.com  
Date 30 October 2019  
Page(s) 1

Power. Passion. Partnership.  
Sender MTU Friedrichshafen GmbH  
Dept. SQMC  
From [REDACTED]  
Phone [REDACTED]  
Telefax No. [REDACTED]  
E-mail [REDACTED]  
@mtu-online.com

### Approval of Lukoil Avantgarde Professional SAE 5W-30: Extension

Dear Ms [REDACTED]

Based on the information and test results you provided, as well as our laboratory analyses, the engine oil

**Lukoil Avantgarde Professional  
Oil Code**

**SAE 5W-30  
Confidential**

which you submitted for approval meets the requirements for Oil Category 3 and is approved for use in all MTU engines (except Series 8000, 4000-03 M IMO III, 4000-04 C/R/T, 4000-05 C/G/T and M IMO III, 2000M41A IMO III, 956 TB31/32/33/34, 1163 TB32 Genset and S60).

The letter of approval does not cover Series 1000, 1100, 1300, 1500, 1800 engines.

The approval is valid until

**November 2021.**

For an extension of this approval, please inform us at least one month before expiration of the approval period.

Please note that any modification of the engine oil will invalidate the approval in accordance with our terms of approval (MTL 5044).

Yours sincerely,

MTU Friedrichshafen GmbH  
[REDACTED]

Konija tikra

2021-05-14  
[REDACTED]

MTU Friedrichshafen GmbH  
Maybachplatz 1  
88045 Friedrichshafen/Germany  
Phone +49 7541 90-0  
Telefax +49 7541 90-5000  
www.mtu-online.com

Vorsitzender des Aufsichtsrates/  
Chairman of the Supervisory Board:  
Axel Arendt

Geschäftsführung/Board of Management:  
Andreas Schell, Vorsitzender/President and CEO  
Wolfgang Widlewski

Sitz/Domicile: Friedrichshafen  
Handelsregister/Register Court: Ulm, Nr./No. HRB 630 227

The information contained in this telefax communication is confidential and/or may be subject to legal non-disclosure restrictions, and may also be attorney-client privileged. This telefax is intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient or is not responsible for forwarding it to the intended recipient, you are hereby notified that any dissemination, distribution or copy of this communication is strictly prohibited. If this communication has been received in error, please immediately notify us by telephone, collect if necessary, and destroy the original message. Thank you.



Refining & Marketing  
Piazzale Enrico Mattei 1  
00144 Rome  
Tel. +39 (0)6 59821  
eni.com

PDM4/cg  
May 11<sup>th</sup>, 2021

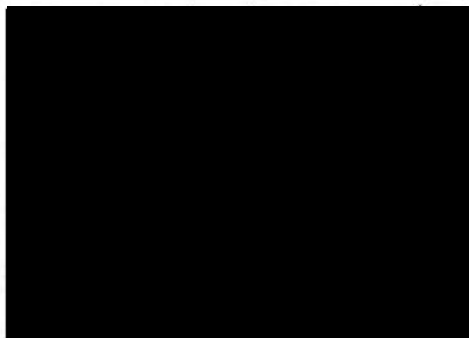
To whom it may concern

Declaration on our engine lubricant Eni i-Sigma top MS SAE 10W-40

Herewith we are declaring that our engine lubricant Eni i-Sigma top MS SAE 10W-40 meets the requirements of the Caterpillar ECF-3 performance specification.

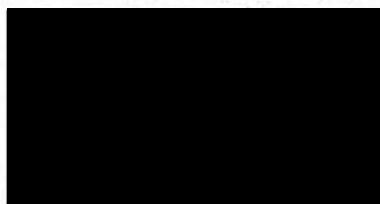
Respectfully yours

Firmato digitalmente da Carlo Gommellini:  
DN: cn=Carlo Gommellini, o=Eni SpA,  
ou=Lubricant Development and Technical  
Assistance - Automotive,  
email=carlo.gommellini@eni.com, c=IT  
Data: 2021.05.11 16:55:18 +02'00'



Kopija tikra

2021-05-14



Eni SpA  
Company share capital Euro 4,005,358,876.00 full paid up  
Rome Company Register, Tax Identification Number 0484960588  
VAT number 00905811006, R.E.A. Rome n. 756453  
Registered office,  
Piazzale Enrico Mattei, 1 - 00144 Rome - Italy  
Branches:  
Via Emilia, 1 and Piazza Ezio Vanoni, 1  
20097 San Donato Milanese (Milan) - Italy



Company Name: ENI S.P.A.  
Corporate Address: VIALE RIBOTTA 51  
ROME, RM, 00144, ITALY  
License Status: Active  
License Number: 0707  
Original License Issue Date: 27-Dec-1994  
License Effective Date: 01-Apr-2021  
License Expiration Date: 31-Mar-2022



BRAND NAME	SAE VISCOSITY GRADE	API SERVICE CATEGORY	CLASSIFICATION	ILSAC SPECIFICATION
ENI I-SIGMA TOP MS	5W-30	CK-4	CI-4 PLUS	
ENI I-SIGMA TOP MS	10W-40	CK-4	CI-4 PLUS	
ENI I-SIGMA TOP MS	15W-40	CK-4, CJ-4/SN	CI-4 PLUS	
I-SINT PROTECTION	5W-40	SN		

Konita tikra

2021-05-14

