

Engine oils

Transmission oils and Automatic transmission fluids

Engine and transmission oils

FOR MOTOR TRUCKS



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ADDINOL Engine oils	SAE	ACEA	API	International specifications and approvals
Professional 0520	5W-20			MAN M 3977, Scania LDF-5
Professional 0530 E6/E9	5W-30	E6, E7, E9, E11	CK-4/SN	MAN M 3677, MB-Approval 228.51/31, Volvo VDS-4, Renault VI RLD-3, Mack EO-O Premium Plus, Scania LDF-4, Caterpillar ECF-3, fulfils: MAN M 3477/3271-1, MTU Type 3.1, Volvo CNG, Renault VI RGD/RXD/RLD-2, Deutz DQC IV-10 LA, Mack EO-M Plus/EO-N Premium Plus, DDC 93K218, Cummins CES 20081, Scania Low Ash, MB-Approval 235.28, Voith Retarder Class B, Fiat-Iveco, DAF, JASO DH-2
Professional 0530 FA-4	5W-30		FA-4/SN Plus	MB-Approval 228.61, fulfils: Cummins CES 20087, DDC 93K223, Ford WSS-M2C-214-B1
Ultra Truck MD 0538	5W-30	E4, E7	CI-4	MAN M 3277/3377, MB-Approval 228.5, Volvo VDS-3, Renault VI RLD-2, Mack EO-N, MTU Type 3, Deutz DQC IV-18, fulfils: DAF, Cummins CES 20076/78, Caterpillar ECF-2, Scania LDF, Iveco, JASO DH-1, Global DHD-1
Commercial 0530 E6	5W-30	E6		MAN M 3677
Commercial 0540 E7	5W-40	E7, E5, E3	CI-4 Plus/SL	fulfils: MAN M 3275, MB-Approval 228.3, Volvo VDS-3, Renault VI RLD/RLD-2, Mack EO-N/EO-M Plus, MTU Type 2, Cummins CES 20077/76, Caterpillar ECF-2/1a, Global DHD-1
Professional 1030 CK-4	10W-30	E7, E9	CK-4	Volvo VDS-4.5, Renault VI RLD-3, Mack EOS-4.5, DAF PSQL-21.E, Caterpillar ECF-3, fulfils: MAN M 3575/3275, MB-Approval 228.31, MTU Type 2.1, Deutz DQC III-18 LA, DDC 93K222, Cummins CES 20086, JASO DH-2
Commercial 1030 E7	10W-30	E7, E5, E3	CI-4/SL	fulfils: MAN M 3275, MB-Approval 228.3, Volvo VDS-3, Renault VI RLD/RLD-2, Mack EO-M Plus/EO-N, MTU Type 2, Deutz DQC III-10, Cummins 20071/72/76/77/78, DAF, Caterpillar ECF-2/1a
Professional 1040 E8/E11	10W-40	E8, E11 (E6, E7, E9)	CK-4	MAN M 3775, MB-Approval 228.51, Volvo VDS 4.5, Renault VI RLD-3, Mack EOS-4.5, MTU Type 3.1, Deutz DQC IV-18 LA, Caterpillar ECF-3, fulfils: MAN 3575/3275, Cummins CES 20086/20081, DDC 93K222, JASO DH-2, Iveco, DAF, Scania Low Ash
Super Truck MD 1049	10W-40	E4, E7	CI-4	MAN M 3277, Scania LDF-3, MB-Approval 228.5, Volvo VDS-3, Renault VI RLD-2, Mack EO-N, MTU Type 3, Deutz DQC IV-18, fulfils: MB-Approval 235.28, Renault VI RXD, Cummins CES 20077/78, Voith Retarder Class B, DAF
Super Longlife MD 1047	10W-40	E7, A3/B4	CI-4/SL	MB-Approval 228.3, Volvo VDS-3, Renault VI RLD-2, Mack EO-N/EO-M Plus, Deutz DQC III-18, MTU Type 2, Caterpillar ECF-2, fulfils: MAN M 3275, Global DHD-1, Cummins CES 20076/77/78, DAF, Fiat-Iveco
Commercial 1040 E4	10W-40	E4, E7	CI-4	MAN M 3277/3377, MB-Approval 228.5, Volvo VDS-3, Renault VI RLD-2, Mack EO-N, Deutz DQC IV-18
Eco Cargo 1049 LE	10W-40	E6, E7	CI-4	fulfils: MAN M 3477/3271-1, MB-Approval 228.51/226.9, Volvo VDS-3/CNG, Renault VI RLD-2/RGD/RXD, Mack EO-N, MTU Type 3.1, Deutz DQC IV-10 LA, Caterpillar ECF-1a, Scania Low Ash, DAF HP 2, Fiat-Iveco, JASO DH-2
Professional 1540 E8/E11	15W-40	E8, E11 (E6, E7, E9)	CK-4	MB-Approval 228.31, Volvo VDS 4.5, Renault VI RLD-3, Mack EOS-4.5, Deutz DQC III-18 LA, Caterpillar ECF-3, fulfils: MAN M 3575/3275, MTU Type 2.1, Cummins CES 20086/20081, DDC 93K222, JASO DH-2, Iveco, DAF, John Deere JDQ 78x78A
Diesel Longlife MD 1548	15W-40	E7	CI-4 Plus/SL	MB-Approval 228.3, Volvo VDS-3, Renault VI RLD-2, Mack EO-N, MTU Type 2, Deutz DQC III-18, Caterpillar ECF-2, fulfils: MAN M 3275, Mack EO-M Plus, DDC 93K215, Cummins CES 20076/77/78, Global DHD-1, Fiat-Iveco, DAF
Eco Cargo 1540	15W-40	E7	CI-4 Plus/SL	fulfils: MAN M 3275, MB-Approval 228.3, Volvo VDS-3, Renault VI RLD-2, Mack EO-N/EO-M Plus, MTU Type 2, Deutz DQC III-10, Cummins CES 20076/77/78, Caterpillar ECF-2/1a, DDC 93K215, Fiat-Iveco, DAF, Global DHD-1
Super Star MX 2057	20W-50	E2	CG-4/SL	fulfils: MAN M 271, MB-Approval 228.1
Diesel Longlife MD 2058	20W-50	E7	CH-4/SJ	fulfils: MAN M 3275, MB-Approval 228.3, Caterpillar ECF-1a

Transmission oils	SAE	API	International specifications and approvals
GS 75 W 80 SL	75W-80	GL-4	MAN 341 E3/Z4, ZF TE-ML 01L, 02L, 16K, meets: Eaton Europe, DAF, Iveco 18-1807 (MGS1), MAN 341 Z5, MB-Approval 235.41, Renault, Volvo 97305/97307, Bosch TE-ML 08, ZF TE-ML 13, 24A
GS 80 W	80W	GL-4	MB-Approval 235.1, ZF TE-ML 17A, meets: Bosch TE-ML 08, MAN 341 Z2/E1, MIL-L-2105
GS 75 W 90	75W-90	GL-4	meets: Bosch TE-ML 08, MIL-L-2105
GS 80 W 90	80W-90	GL-4	ZF TE-ML 16A, 17A, 19A, meets: Bosch TE-ML 08, Iveco 18-1807 (MG), MIL-L-2105
GS 85 W 90	85W-90	GL-4	meets: MIL-L-2105
GS 85 W 140	85W-140	GL-4	meets: MIL-L-2105
GX 80 W 90	80W-90	GL-4/GL-5	ZF TE-ML 05A, 12E, 16B, 17B, 19B, 21A, meets: MAN 342 M1/342 M2, Bosch TE-ML 08, ZF TE-ML 07A, Volvo 97310, MIL-L-2105 D, NATO O-226
GX 80 W 90 ML	80W-90	GL-4/GL-5 MT-1	MAN 341 Z2/342 M2, ZF TE-ML 02B, 05A, 12L, 12M, 16B, 17H, 19B, 21A, meets: SAE J2360, Bosch TE-ML 08, MAN 341 E2/341 Z1, MB-Approval 235.0, Scania STO 1:0, Volvo 97321, ZF TE-ML 07A, Ford M2C197-A, MIL-PRF 2105 E, MIL-L-2105/2105 D
GH 75 W 90	75W-90	GL-4/GL-5	meets: Bosch TE-ML 08, ZF TE-ML 07A, VW G 050 145, G 050 150 (G 50), Volvo 97316 (G0101), MIL-L-2105 D
GH 75 W 90 SL	75W-90	GL-5 MT-1	MB-Approval 235.8, MAN 341 Z2/342 S1, ZF TE-ML 02B, 05A, 12L, 12N, 16F, 17B, 19C, 21A, meets: SAE J2360, Volvo 97312, DAF/DAF Xtreme, Iveco, Renault, Bosch TE-ML 08, ZF TE-ML 05B, 07A, 21B, Scania STO 1:0/2:0 G/2:0 A FS, MB-Approval 235.11/236.26, Mack GO-J, Kessler, MIL-L-2105 D, MIL-PRF-2105 E
GH 80 W 90	80W-90	GL-5	Voith Turbo 132.00374400, ZF TE-ML 16B, 17B, 19B, 21A, meets: Bosch TE-ML 08, ZF TE-ML 07A, MIL-L-2105 D
GH 85 W 90	85W-90	GL-5	ZF TE-ML 16C, 17B, 19B, 21A, Voith 132.00374400, Kessler, MAN 342 M1, meets: MB-Approval 235.0, ZF TE-ML 07A, Bosch TE-ML 08, MIL-L-2105 D
GH 80 W 140	80W-140	GL-5	meets: Volvo 97310, ZF TE-ML 05A, 07A, 12E, 16C, 21A, Bosch TE-ML 08, MIL-L-2105 D
GH 85 W 140	85W-140	GL-5	ZF TE-ML 05A, 12E, 16D, 21A, meets: Bosch TE-ML 08, ZF TE-ML 07A, MIL-L-2105 D
GH 80 W 90 LS	80W-90	GL-5	ZF TE-ML 05C, 21C, meets: PSA B71 2375, Fiat 9.55550-DA2, Arvin Meritor Axles, MB-Approval 235.0, MAN 342 M1 (342 N), Voith 132.00374400 (3.325-339), Volvo 97310/97311, DAF, ZF TE-ML 07A, 12C, JCO-96, MIL-L-2105 D
GH 85 W 90 LS	85W-90	GL-5	ZF TE-ML 05C, 16E, 21C, meets: PSA B71 2375, Arvin Meritor Axles, MB-Approval 235.0, MAN 342 M1 (342 N), Voith 132.00374400 (3.325-339), Volvo 97310/97311, DAF, MIL-L-2105 D
GH 89 LS	80W-90	GL-5	meets: PSA B71 2375, ZF TE-ML 05C, 07A, 12C, 21C, MB-Approval 235.0, MAN 342 M2/M1 (342 N), Voith 132.00374400 (3.325-339), Volvo 97310/97311, DAF, MIL-L-2105 D
GH 90 LS	85W-90	GL-5	meets: ZF TE-ML 05C, 07A, 12C, 21C, MB-Approval 235.0, MAN 342 M2/M1 (342 N), Voith 132.00374400 (3.325-339), Volvo 97310/97311, DAF, MIL-L-2105 D
GH 75 W 140 LS	75W-140	GL-5	meets: MIL-PRF-2105 E, MAN 342 M2, Scania STO 1:0, Ford WSL-M2C 192-A, VME, ZF TE-ML 05C, 12C, 21C

ATF	Type	International specifications
ATF XN 2	Dexron II D	ZF TE-ML 03D, 04D, 14A, 17C, meets: Allison C4/C3, Caterpillar TO-2, MAN 339 Z1/V1/L2, MB-Approval 236.1/6/7, Renk DOROMAT, Voith H55.6335.xx, Volvo 97335
ATF XN 3	Dexron III (H)	ZF TE-ML 03D, 04D, 14A, 17C, meets: Allison C4, Caterpillar TO-2, MAN 339 Z1/V1/L1, MB-Approval 236.1/5/9, Mercon, Voith H55.6335.xx, Bosch TE-ML 09, Volvo 97340
ATF XN 5	Dexron III (H)	Voith H55.6336.xx, ZF TE-ML 04D, 14B, 20B, 25B, meets: Allison C4, MAN 339 V2/Z2/Z11, Mercon V, VW G 052 162/ G 055 025/ LT 71141, JWS 3309/3314/3317, PSA AL-4, Ford FNR5/XT-5, Nissan Matic C/J/K, Subaru 5 ATF, Toyota T-III, Honda ATF-Z1, MB-Approval 236.6/11/81, Mopar +4, Volvo 97341
ATF XN HD	Dexron III (H)	Voith 150.014524.xx, ZF TE-ML 04D, 14C, 16M, 16S, 20C, 25C, meets: MAN 339 Type Z3/Z12/V2, MB-Approval 236.9/81/91, Volvo 97341, Voith H55.6336.xx/H55.6335.xx, Allison TES 295/468, ZF TE-ML 11B

Choose the right engine oil

Quick – simple – safe

Decisive for the selection are the operating instructions of your vehicle. Under the point “engine oil” the manufacturers lay down which oil is allowed to be used. Here they give details about:

- viscosity and/or SAE-grade
- approvals
- specifications

MAN, Daimler Truck, MTU, Renault, Fiat-Iveco, Mack, Scania, Volvo and Cummins have their own approvals for engine oils. Other manufacturers use international specifications like ACEA and API. The approvals and specifications have different combinations of numbers and/or letters. These combinations indicate the oil type. Thus, the respective details are given on all ADDINOL packages and in this flyer.

The combinations of numbers and letters are easy to understand

Viscosity – it describes the flow behaviour of the oil and depends on temperature. Engine and transmission oils are classified into SAE grades (Society of Automotive Engineers). Modern multi-grade oils, like ADDINOL Professional 1040 E8/E11 LE or ADDINOL Professional 0530 E6/E9, are all season oils. They provide a reliable lubrication at all temperatures.

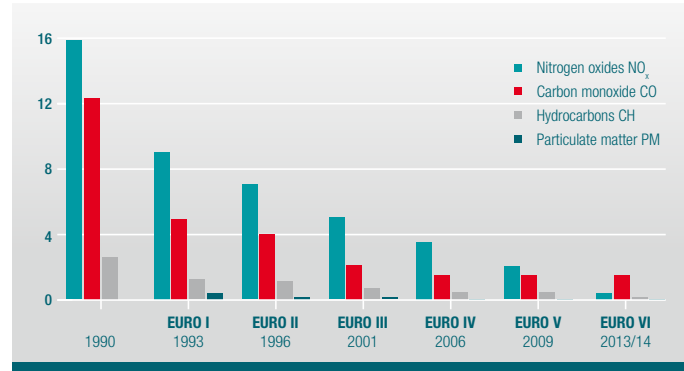
API – the specifications of the American Petroleum Institute are mainly based on tests with engines from American manufacturers. In the commercial vehicle sector, the classifications for diesel engines with the identification API C (C = Commercial) are relevant. Current specifications range from API CH-4 to API CK-4. API CA to API CG-4 apply to vehicles built before 1998. API CK-4 describes the currently highest requirements for diesel engine oils.

ACEA – the specifications of the Association of European Engine Manufacturers, ACEA (Association des Constructeurs Européens de l'Automobile), are based on the most rigorous test procedures and represent the greatest common denominator of the requirements on engine oils. The specifications for diesel engines of commercial vehicles are summarised in the category ACEA E. The currently highest specifications for vehicles with exhaust aftertreatment systems are ACEA E8 and ACEA E11. With the release of the new ACEA 2022 for Heavy Duty in May 2022, ACEA E6 and E9 were replaced by ACEA E8 and E11.

Emission standards for trucks and buses Euro I to Euro VI

Exhaust emissions

In the last years, new emission standards for heavy commercial vehicles and mobile machinery came into effect in Europe and the United States step by step. In order to achieve these increasingly strict standards, vehicle manufacturers employ modern engine technologies and exhaust treatment systems. Such systems require engine oils with a low content of ash-forming substances, so-called Low SAPS oils. Naturally, these complex requirements are reflected in the specifications of vehicle manufacturers.



If engine oils of a lower performance and minor quality are used, the limits for exhaust emissions cannot be met. This in turn poses a risk to engines and exhaust treatment systems. Their functionality is curtailed, damages might occur and operating lives are reduced!

API CK-4 engine oils meet the latest emission standards and are specifically designed to protect diesel particulate filters and other exhaust aftertreatment systems. With **API FA-4**, an additional specification for engine oils with lowered HTHS-V has been introduced in order to meet the legal requirements regarding fuel and exhaust gas savings. This specification is not backwards compatible. In Europe, modern Low and Mid SAPS oils for use in vehicles with exhaust aftertreatment systems are classified according to **ACEA E4, E7, E8 and E11** depending on their content of ash-forming components.

Differences and similarities

A short overview

	ACEA E4	ACEA E8	ACEA E7	ACEA E11
Low SAPS		✓		✓
Content Sulphated ash	≤ 2	≤ 1	≤ 2	≤ 1
Total Base Number	≥ 12	≥ 7	≥ 9	≥ 7
Euro VI		✓		✓
Diesel particulate filter		✓		✓
Selective catalytic reduction (AdBlue) Exhaust gas recirculation	✓	✓	✓	✓
Extended service intervals		✓		
Fuel B05	✓	✓	✓	✓
API CK-4		✓		✓

Our Research & Development

Keeps setting standards



Research & Development is one of the core competencies of our company. ADDINOL provides intelligent solutions which guarantee optimum lubrication and ensure responsibility towards the environment at the same time.

In close co-operation with leading vehicle manufacturers ADDINOL develops the required products at the latest state of ever progressing art, specifically tailored to modern engine technologies and exhaust treatment systems.

On the safe side

With engine oils of ADDINOL:



superior engine cleanliness by outstanding cleaning performance

reliable wear protection for long engine lifetimes

excellent starting and warming up behaviour for safe lubrication under all operating conditions

long service intervals due to low evaporation loss and high ageing stability

reduced exhaust emissions

improved friction behaviour for low fuel consumption

high operational safety and stable performance under all operating conditions

perfect protection for catalytic converters and other exhaust treatment systems (please follow instructions of your vehicle manufacturer!)



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High-performance lubricants

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GERMAN QUALITY since 1936

The ADDINOL Lube Oil GmbH develops and produces modern lubricants for highest requirements in automotive and industrial applications.

The automotive range of ADDINOL includes engine and transmission oils of the highest international specifications. More than 150 approvals of leading OEM argue for the outstanding quality of ADDINOL lubricants for all motor and commercial vehicles. Among these OEM (Original Equipment Manufacturers) are for example Mercedes-Benz, the Volkswagen group, MAN, Renault, Scania, Volvo and MTU.

With distributor partners in more than 100 countries ADDINOL is represented on all continents. Our range of more than 650 high-performance lubricants and comprehensive service provide the optimum solution for your lubrication-related applications.

ADDINOL – Strong performance

Handed over by: