





OFFICIAL LUBRICANT PARTNER

TURN YOUR CAR INTO A SPORTS CAR



MANNOL and HRT racing team PARTNERSHIP

MANNOL has been working successfully with the HRT Racing Team since 2022 and the last two seasons have resulted in remarkable victories using MANNOL oils. The collaboration has demonstrated precision and reliability, resulting in high podium positions and unforgettable moments on the track.

With the start of this season, we are looking forward to new achievements and triumphs that will underline the strength of our long-lasting co-operation. MANNOL's high-quality products have proven their performance on the world's racetracks. Try them out for an outstanding result of your car!

In a world of progressive engineering, where standards and requirements are changing at lightning speed, we are working hard to live up to our customers' expectations and needs in over 180 countries.

UAB SCT Lubricants is the biggest manufacturer of automotive lubricants, fluids, greases and additives in Northern Europe.

Our factory's history dates back to 1962. Since then, a large-scale reconstruction and modernisation process has been initiated, the most notable result of which was the expansion of departments and equipment renewal.

Our competent sales team will help you at every stage of our relationship, help you choose the products that best suit your region, arrange transportation, and advise you on the best advertising and marketing options.















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ENGINE OILS FOR CARS AND TRANSPORTERS

This line consists of oils, from the most modern, manufactured in accordance with the latest API standards for the latest cars to budget oils of previous standards, designed for vehicles with mileage. It includes fully synthetic, semi-synthetic and mineral oils.





7920 HYBRID SP

Advanced Fuel Saving Engine Oil. **Fully Synthetic**



Volume: / Art. Nr.:

		1L	MN7920-1
5L	MN7920-5	10L	MN7920-10
20L	MN7920-20	60L	MN7920-60
208L	MN7920-DR	1000L	MN7920-IBC

Innovative energy-saving low-viscosity engine oil of the latest generation on a bi-synthetic (PAO + esters) basis for modern petrol engines. Designed in accordance with the latest API SP and ILSAC GF-6 standards, it is especially recommended for hybrid cars, but it is also suitable for non-hybrid, requiring oils of such viscosity and with similar performance properties. LSPI protection.

7722 LONGLIFE 508/509

Advanced Fuel-Saving Engine Oil. **Fully Synthetic**



Volume: / Art. Nr.:

		1L	MN7722-1
5L	MN7722-5	10L	MN7722-10
20L	MN7722-20	60L	MN7722-60
208L	MN7722-DR	1000L	MN7722-IBC

Innovative energy-saving low-viscosity, fully synthetic (PAO-based) premium engine oil for the latest models of VOLKSWAGEN turbocharged petrol (distributed or direct injection) and diesel engines equipped with petrol (GPFs) or diesel (DPFs) particulate filters. LSPI protection.

Specifications:

SAE 0W-16 API SP (RC) ILSAC ĠF-6B

HONDA 08232-P99S1LHE HONDA 08216-99974 HONDA 08215-99974 HONDA Ultra Green NISSAN Hybrid engine KLANM-01A04 Extra Save X Eco

MITSUBISHI MZ102661 MITSUBISHI MZ102662 MITSUBISHI DiaQueen Eco Plus TOYOTA 08880-11005

Specifications:

SAE 0W-20 API SP API SN Plus API SP (RC) **ACEA C6-21 ACEA C5-21 ILSAC GF-6A**

VW 508 00 VW 509 00 VW TL 52 577 PORSCHE C20

7918 LEGEND ULTRA

Premium Ester-Containing Engine Oil. **Fully Synthetic**





Volume: / Art. Nr.:

1L	MN7918-1	4L	MN7918-4
5L	MN7918-5	10L	MN7918-10
20L	MN7918-20	60L	MN7918-60
208L	MN7918-DR	1000L	MN7918-IBC

Innovative energy-saving premium bi-synthetic engine oil (PAO + esters) for modern petrol engines. Designed to meet the requirements of American, Japanese and Korean car manufacturers. LSPI protection.

7921 LEGEND FORMULA C5

Premium PAO-Based Engine Oil. **Fully Synthetic**





Volume: / Art. Nr.:

		1L	MN7921-1
5L	MN7921-5	10L	MN7921-10
20L	MN7921-20	60L	MN7921-60
208L	MN7921-DR	1000L	MN7921-IBC

Innovative energy-saving, low-viscosity bi-synthetic (PAO + esters) premium engine oil for the latest models of turbocharged petrol engines (multipoint or direct injection) with gasoline particulate filters. LSPI protection.

7730 LEGEND 504/507

Longlife Engine Oil. **Fully Synthetic**





Vo	lume:	/ Art.	Nr.

1L	MN7730-1	5L	MN7730-5
20L	MN7730-20	60L	MN7730-60
208L	MN7730-DR	1000L	MN7730-IBC

Innovative energy-saving bi-synthetic (PAO + ester) premium engine oil with improved low-temperature properties for modern petrol and diesel engines (including direct injection) with and without turbocharging, including those equipped with pump-injectors (Pumpe-Düse).

Specifications:

SAE 0W-20 API SP (RC) ILSAC GF-6A

HONDA HTO-06 GM dexos1 Gen2/6094M CHRYSLER MS-6395/MS-13340 JAGUAR STJLR 51.5122 LAND ROVER STJLR.51.5122 FORD WSS-M2C947-A FORD WSS-M2C947-B1

INFINITI **LEXUS** MAZDA SUZUKI

Specifications:

SAE 0W-20 API SP (RC) ACEA C5

MB 229.71 BMW LL-17FE+ VOLVO VCC RBS0-2AE (Service Fill) GM dexos1 Gen2/dexosD/6094M JAGUAR STJLR.51.5122 LAND ROVER STJLR.51.5122 HONDA HTO-06

CHRYSLER MS-6395 CHRYSLER MS-13340 FORD WSS-M2C947-A FORD WSS-M2C947-B1 OPEL OV0401547

Specifications:

SAE 0W-30 API SN ACEA C3 ACEA C2

VW 504 00 VW 507 00 VW TL 52545 BMW LL-04 MB 229.52/229.51 MB 229.31 PORSCHE C30



ENGINE OILS FOR CARS AND TRANSPORTERS

7919 LEGEND EXTRA

Premium PAO-Based Engine Oil. **Fully Synthetic**





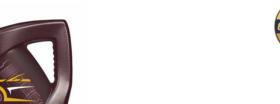
Volume: / Art. Nr.:				
1L	MN7919-1	4L	MN7919-4	
5L	MN7919-5	10L	MN7919-10	
20L	MN7919-20	60L	MN7919-60	
208L	MN7919-DR	1000L	MN7919-IBC	

Innovative universal bi-synthetic (PAO+esters) premium engine oil designed for modern petrol and diesel engines with and without turbocharging of MERCEDES-BENZ, BMW, FORD etc. passenger cars, lightweight off-road vehicles and light trucks.

7922 ENERGY FORMULA LR

Premium Synthese Engine Oil. **Fully Synthetic**





1L	MN7922-1	5L	MN7922-5
20L	MN7922-20	60L	MN7922-60
208L	MN7922-DR	1000L	MN7922-IBC

Volume: / Art. Nr.:

Innovative universal energy-saving ester-containing fully synthetic premium engine oil specially developed for diesel and petrol engines of LAND ROVER and JAGUAR vehicles.

7901 LEGEND+ESTER

Premium PAO-Based Engine Oil. **Fully Synthetic**





Volume: / Art. Nr.:				
		1L	MN7901-1	
4L	MN7901-4	10L	MN7901-10	
20L	MN7901-20	60L	MN7901-60	
2081	MNI7901_DR	10001	MNI7901-IBC	

Universal bi-synthetic (PAO + esters) premium engine oil designed for new generations of all types of engines. Designed in accordance with the requirements of German car manufacturers.

Specifications:

SAE 0W-30 API SN Plus API SP ACEA C2 ACEA C3

BMW LL-12FE MB 229.61 FORD WSS-M2C950-A OPEL OV0401547 PSA B71 2290 PSA B71 2312

Specifications:

SAE 0W-30 ACEA C2

JAGUAR STJLR.03.5007 LAND ROVER STJLR.03.5007 FORD WSS-M2C950-A

Specifications:

SAE 0W-40 API SN/CH-4 ACEA A3/B4

BMW LL-04 VW 502 00 VW 505 00 MB 229.5 MB 229.3 PORSCHE A40 FIAT 9.55535-M2

RENAULT RN0700 RENAULT RN0710 FORD WSS-M2C937-A CHRYSLER MS-10725 CHRYSLER MS-12633 GM LL-A-025/LL-B-025

Additional recommended Applications for AMG

7906 ENERGY ULTRA JP

Engine Oil for Asian and American Cars.
Synthetic





Volume: / Art. Nr.:

		1L	MN7906-1
4L	MN7906-4	5L	MN7906-5
20L	MN7906-20	60L	MN7906-60
208L	MN7906-DR	1000L	MN7906-IBC

Innovative energy-saving premium bi-synthetic engine oil (PAO + esters) for modern petrol engines. Designed to meet the requirements of American, Japanese and Korean car manufacturers.

7907 ENERGY COMBI LL

Longlife Engine Oil. Fully Synthetic











Volume:	/ Art.	Nr.:
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1L	MN7907-1	4L	MN7907-4
5L	MN7907-5	10L	MN7907-10
20L	MN7907-20	60L	MN7907-60
208L	MN7907-DR	1000L	MN7907-IBC

Innovative universal multigrade bi-synthetic (PAO + esters) premium engine oil for modern petrol and diesel engines (including those with direct injection) with and without turbocharging, including those equipped with pump nozzles (Pumpe-Duse). Designed based on VW and DAIMLER requirements.

7908 ENERGY PREMIUM

Advanced Fuel Saving Engine Oil. Fully Synthetic





Volume: / Art. Nr.:

1L	MN7908-1	4L	MN7908-4
5L	MN7908-5	7L	MN7908-7
20L	MN7908-20	60L	MN7908-60
208L	MN7908-DR	1000L	MN7908-IBC

Innovative versatile all-synthetic ester-containing premium synthetic engine oil for modern diesel and gas turbocharged and non-turbocharged engines. Designed in accordance with the requirements of European car manufacturers.

Specifications:

SAE 5W-20 API SN ACEA C5 ILSAC GF-5

FORD WSS-M2C948-A FORD WSS-M2C948-B

Specifications:

SAE 5W-30 API SN ACEA C3

VW TL 52 195 VW 504 00 Approval VW 507 00 Approval MB-Approval 229.51 BMW LL-04 PORSCHE C30

Specifications:

SAE 5W-30 API SN/CH-4 ACEA C2 ACEA C3

VW 505 01 MB 229.51/229.52 MB 226.5/229.31 BMW LL-04 GM dexos2 RENAULT RN0710 RENAULT RN0700

7715 LONGLIFE 504/507

Premium Synthese Engine Oil



APPROVAL	APPROVAL
VW 504 00	VW 507 00

Volume: / Art. Nr.:

		1L	MN7715-1
4L	MN7715-4	5L	MN7715-5
5L Met.	MN7715-5ME	10L	MN7715-10
20L	MN7715-20	60L	MN7715-60
208L	MN7715-DR	1000L	MN7715-IBC

Innovative universal premium bi-synthetic engine oil (PAO - based) for modern petrol and diesel engines of VW group cars (including direct injection) with and without turbocharging, including those equipped with pump-injectors (Pumpe-Düse). Designed for gasoline and diesel engines of EURO IV and EURO V wide fleet of vehicles (cars, light SUVs, vans and light trucks) of VW imposes additional requirements on motor oils.





DIESEL TOI 7303 5W-30

Volume: / Art. Nr.:					
		1L	MN7909-1		
5L	MN7909-5	10L	MN7909-10		
20L	MN7909-20	60L	MN7909-60		
208L	MN7909-DR	1000L	MN7909-IBC		

Innovative universal ester-containing fully synthetic premium engine oil for modern diesel and gasoline engines with and without turbocharging. Especially recommended for direct injection turbodiesel engines. Designed to meet VW requirements.

7511 ENERGY

Premium Ester-Containing Engine Oil. Fully Synthetic





Volume: / Art. Nr.:					
		1L	MN7511-1		
4L	MN7511-4	5L	MN7511-5		
7L	MN7511-7	10L	MN7511-10		
20L	MN7511-20	60L	MN7511-60		
208L	MN7511-DR	1000L	MN7511-IBC		

Innovative universal ester-containing premium engine oil for modern petrol and diesel engines with and without turbocharging. Designed based on the requirements of European car manufacturers.

Specifications:

SAE 5W-30 API SN ACEA C3

VW 504 00 Approval VW 507 00 Approval VW TL 52 195 MB 229.51 BMW Longlife-04 PORSCHE C30

Specifications:

SAE 5W-30 API SN/CH-4 ACEA C3 ACEA C2

VW 505 01 BMW LL-04 MB 229.51/229.52 MB 229.31/226.5 GM dexos2 RENAULT RN0710 RENAULT RN0700

Specifications:

SAE 5W-30 API SN/CH-4 ACEA A3/B4

VW 502 00/505 00 VW 503 01/501 01 MB 229.3/229.5 BMW LL-98 RENAULT RN0710 RENAULT RN0700 FORD WSS-M2C913-B

7720 CERAMIC

Premium Synthese Engine Oil. Fully Synthetic





Volume: / Art. Nr.:

		1L	MN7909-1
5L	MN7909-5	10L	MN7909-10
20L	MN7909-20	60L	MN7909-60
208L	MN7909-DR	1000L	MN7909-IBC

Unique innovative fully synthetic premium engine oil with special antiscuffing properties thanks to the addition of synthetic esters and hexagonal boron nitride h-BN (white graphite). Suitable for all types of car engines – diesel and petrol, four- and two-stroke.

7701 ENERGY FORMULA OP

Premium Synthese Engine Oil. Fully Synthetic





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1L	MN7701-1	4L	MN7701-4
5L	MN7701-5	10L	MN7701-10
20L	MN7701-20	60L	MN7701-60
208L	MN7701-DR	1000L	MN7701-IBC

Premium synthese ester-containing engine oil, specially developed for petrol and diesel engines of CHEVROLET, OPEL and GM vehicles. Developed for cars and light trucks of European and other manufacturers that meet EURO III, IV, V standards and are equipped with catalysts (TWC) and particulate filters (DFP/FAP).

7703 ENERGY FORMULA PSA

Premium Synthese Engine Oil. Fully Synthetic





Volume: / Art. Nr.:

		1L	MN7703-1
4L	MN7703-4	20L	MN7703-20
208L	MN7703-DR	1000L	MN7703-IBC

Innovative, universal, energy-saving, ester-containing, fully synthetic premium engine oil, specially designed for petrol and diesel engines in PEUGEOT and CITROËN vehicles, with a focus both on heavy-duty requirements and extended engine oil change intervals.

Specifications:

SAE 5W-30 API SN Plus ACEA C3 ACEA C2

VW 505 01/505 00 BMW LL-04 MB 229.51/229.52 MB 229.31 GM dexos2 PORSCHE C30 CHRYSLER MS-11106

FIAT 9.55535-S3 RENAULT RN17 PSA B71 2290 TOYOTA 08880-83388/08880-83389 IVECO 18-1811 CLASSE SC1

Specifications:

SAE 5W-30 API SN Plus ACEA C3 ACEA C2

VW 505 00/505 01 BMW LL-04 MB 229.52/229.31 MB 229.51 GM dexos2 PORSCHE C30 CHRYSLER MS-11106

FIAT 9.55535-S3 RENAULT RN17 PSA B71 2290 TOYOTA 08880-83388/08880-83389 IVECO 18-1811 CLASSE SC1

Specifications:

SAE 5W-30 API SN/CH-4 ACEA C3 ACEA C2

PSA B71 2290 FIAT 9.55535-S1 FIAT 9.55535-S3

7706 ENERGY FORMULA RN

Premium Synthese Engine Oil. **Fully Synthetic**





Volume: / Art. Nr.:

		1L	MN7706-1
4L	MN7706-4	10L	MN7706-10
20L	MN7706-20	208L	MN7706-DR

Fully synthetic ester-containing premium engine oil developed for diesel engines with DPF filters of the new generation of cars with and without a turbocharger and direct injection systems.

7707 ENERGY FORMULA FR

Fully Synthetic Engine Oil





Volume: / Art. Nr.:				
1L	MN7707-1	5L	MN7707-5	
7L	MN7707-7	10L	MN7707-10	
20L	MN7707-20	60L	MN7707-60	
208L	MN7707-DR	1000L	MN7707-IBC	

Innovative energy-saving ester-containing fully synthetic premium engine oil specially developed for modern diesel engines and a number of petrol engines in FORD and VOLVO vehicles, considering the requirements for heavy-duty operation and extended engine oil change intervals. The oil can be used in petrol and diesel engines of European and Asian car manufacturers requiring API SN and ACEA A5/B5 oils.

7917 ENERGY FORMULA C4

Synthetic Engine Oil





Volume: / Art. Nr.:

		1L	MN7917-1
5L	MN7917-5	10L	MN7917-10
20L	MN7917-20	60L	MN7917-60
208L	MN7917-DR	1000L	MN7917-IBC

Innovative universal ester-containing synthetic premium engine oil for modern diesel and petrol engines with and without turbocharger equipped with particulate filters (DFP/FAP). The product is specifically designed for professional RENAULT car maintenance.

Specifications:

SAE 5W-30 ACEA C4

RENAULT RN0720 MB 226.51/229.51 MB 229.31 LAND ROVER STJLR 03,5005

Specifications:

SAE 5W-30 API SN ACEA A5/B5

FORD WSS-M2C913-D/-C FORD WSS-M2C913-B/-A VOLVO VCC 95200377 (Service Fill) LAND ROVER STJLR.03.5003 JAGUAR STJLR.03.5003 FIAT 9.55535-G1 MB 229.6

Specifications:

SAE 5W-30 API SN ACEA C4

RENAULT RN0720 MB 226.51 MB 229.51 MB 229.31 NISSAN diesel engine with DPF

7914 ENERGY FORMULA JP

Engine Oil for Asian and American Cars. Fully Synthetic





Vo	lume:	/ Art.	Nr.:

1L	MN7914-1	4L	MN7914-4
5L	MN7914-5	7L	MN7914-7
20L	MN7914-20	60L	MN7914-60
208L	MN7914-DR	1000L	MN7914-IBC

Innovative energy-saving ester-containing fully synthetic premium engine oil for modern petrol engines. Designed in accordance with the requirements of American, Japanese and Korean car manufacturers specifically for engines with direct injection systems (GDI, D4, NEO-DI, CGI DISI, I-CDTI), turbocharged.

7709 FOR TOYOTA LEXUS

Fully Synthetic Engine Oil





Volume:	/ Art.	Nr.:
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1L	MN7709-1	4L	MN7709-4
20L	MN7709-20	60L	MN7709-60
208L	MN7709-DR	1000L	MN7709-IBC

Universal premium ester-containing synthetic engine oil specially developed for modern diesel and petrol engines of TOYOTA and LEXUS with variable valve timing technology VVT-i, with and without a turbocharger. Designed for multi-valve petrol engines of cars, SUVs, vans and light trucks, as well as light commercial vehicles, where the performance level API SN Plus (API SN), A5/B5 is required.

7713 FOR KOREAN CARS

Fully Synthetic Engine Oil





Volume: / Art. Nr.:

1	L	MN7713-1	4L	MN7713-4
2	0L	MN7713-20	60L	MN7713-60
2	08L	MN7713-DR	1000L	MN7713-IBC

Innovative energy-saving ester-containing fully synthetic premium engine oil for modern HYUNDAI and KIA turbocharged and non-turbocharged petrol engines. Developed in accordance with the requirements of Korean car manufacturers specifically for engines with the variable valve timing system CVVT by HYUNDAI starting from 2L Beta I4 engine models, Alpha II DOHC.

Specifications:

SAE 5W-30 API SN Plus ILSAC GF-5

GM dexos1 Gen2 GM6094M FORD WSS-M2C929-A FORD WSS-M2C946-A FORD WSS-M2C946-B1 CHRYSLER MS-6395 CHRYSLER MS-13340

FIAT 9.55535-CR1 HONDA HTO-06 LEXUS MAZDA SUZUKI SSANGYONG

Specifications:

SAE 5W-30 API SN Plus ACEA A5/B5

TOYOTA 08880-80845 FORD WSS-M2C913-D/-C FORD WSS-M2C913-B/-A LAND ROVER STJLR.03.5003 JAGUAR STJLR.03.5003 IVECO 18-1811 S1/-S2 FIAT 9.55535-G1 RENAULT RN0700

Specifications:

SAE 5W-30 API SN/CH-4 ACEA A3/B4 ILSAC GF-5

FORD WSS-M2C929-A FORD WSS-M2C946-A/-B1 CHRYSLER MS-6395 GM dexos1 Gen2 GM 6094M

7903 ELITE

Premium Ester-Containing Engine Oil.
Fully Synthetic





Volume:	/ Art	Mr.

1L	MN7903-1	4L	MN7903-4
5L	MN7903-5	10L	MN7903-10
20L	MN7903-20	60L	MN7903-60
208L	MN7903-DR	1000L	MN7903-IBC

Innovative universal ester-containing fully synthetic premium engine oil for modern petrol and diesel engines with and without turbocharging, including "old" brands and high mileage. Designed based on the requirements of European producers.

7904 DIESEL TURBO

Fully Synthetic Engine Oil





Volume	: /	Art.	Nr.	

1L	MN7904-1	5L	MN7904-5
10L	MN7904-10	20L	MN7904-20
60L	MN7904-60	208L	MN7904-DR

Innovative ester-containing fully synthetic premium engine oil for modern high-performance turbo diesel engines. Developed in accordance with the requirements of the VW group.

7913 ENERGY FORMULA PD

HC Synthese Engine Oil. Fully Synthetic





Volume: / Art. Nr.:

		1L	MN7913-1
5L	MN7913-5	10L	MN7913-10
20L	MN7913-20	60L	MN7913-60
208L	MN7913-DR	1000L	MN7913-IBC

Innovative universal energy-saving ester-containing fully synthetic premium engine oil for modern diesel engines (including those with direct injection) and petrol engines with and without turbocharging, including those equipped with pump nozzles (Pumpe-Duse). Designed based on VW and DAIMLER requirements.

Specifications:

SAE 5W-40 API SN/CH-4 ACEA A3/B4

MB 229,3/229.5 MB 226.5 BMW LL-01/LL-98 VW 502 00/505 00 JASO MA2 PORSCHE A40 PSA B71 2296

FIAT 9.55535-H2 FIAT 9.55535-Z2 CHRYSLER MS-10850 CHRYSLER MS-12991 GM LL-A-025/LL-B-025 RENAULT RN0710 RENAULT RN0700

Specifications:

SAE 5W-40 API CI-4/SN ACEA A3/B4 JASO MA2

MB 226.5/229.3/229.5 VW 502 00/505 00 BMW LL-01/LL-98 GM LL-A-025/LL-B-025 FIAT 9.55535-M2/9.55535-N2 FIAT 9.55535-H2/9.55535-Z2 PSA B71 2294/B71 2296

RENAULT RN0700/RN0710 CHRYSLER MS-10725/MS-10850 CHRYSLER MS-10896/MS-12991 PORSCHE A40

Specifications:

SAE 5W-40 API SN ACEA C3 ACEA C2

MB 229.51/229.31 MB 226.5 GM dexos2 BMW LL-04 VW 505 00/505 01 FIAT 9.55535-S2 FIAT 9.55535-GH2

FORD WSS-M2C917-A CHRYSLER MS-11106 PORSCHE A40 RENAULT RN0710 RENAULT RN0700

7915 EXTREME

Synthetic Engine Oil





Volume: / Art. Nr.:

1L	MN7915-1	4L	MN7915-4
5L	MN7915-5	10L	MN7915-10
20L	MN7915-20	60L	MN7915-60
208L	MN7915-DR	1000L	MN7915-IBC

Innovative universal ester-containing synthetic premium engine oil for modern petrol and diesel engines with and without turbocharging, including "old" brands and high mileage. Designed based on the requirements of European producers.

7512 SPECIAL PLUS

Synthetic Blend Engine Oil





Volume: / Art. Nr.:

1L	MN7512-1	4L	MN7512-4
5L	MN7512-5	7L	MN7512-7
20L	MN7512-20	60L	MN7512-60
208L	MN7512-DR	1000L	MN7512-IBC

Hydro-synthetic ester-containing universal engine oil for all types of petrol engines. Designed to meet VW and DAIMLER requirements. Designed for petrol and diesel engines in a wide fleet of cars (cars, light utility vehicles, vans and light trucks) of European and other manufacturers.







Volume: / Art. Nr.:

		1L	MN7501-1
4L	MN7501-4	5L	MN7501-5
7L	MN7501-7	10L	MN7501-10
20L	MN7501-20	60L	MN7501-60
208L	MN7501-DR	1000L	MN7501-IBC

Universal ester-containing HC-synthese engine oil for modern petrol and diesel engines with and without a turbocharger, both multi-valve and direct injection, including "old" brands and high mileage vehicles. Designed according to the requirements of European manufacturers.

Specifications:

SAE 5W-40 API SN/CH-4 ACEA A3/B4

MB 229.5/229.3 MB 226.5 VW 502 00/505 00 BMW LL-01/LL-98 JASO MA2 PORSCHE A40 PSA B71 2296

CHRYSLER MS-10850 CHRYSLER MS-10896 CHRYSLER MS-12991 GM LL-A-025/LL-B-025 FIAT 9.55535-H2 FIAT 9.55535-Z2 RENAULT RN0710 RENAULT RN0700

Specifications:

SAE 10W-30 API SN ACEA A3/B4

MB 229.1 VW 505 00 VW 501 01 ISUZU KJA

Specifications:

SAE 10W-40 API SN/CH-4 ACEA A3/B4 JASO MA2

VW 505 00 VW 502 00 VW 501 01 VW 500 00 MB 229.3 MB 229.1 PSA B71 2296 RENAULT RN0710 RENAULT RN0700

7507 DEFENDER

Semi-synthetic Engine Oil





	Volum			
	1L	MN7507-1	4L	MN7507-4
	5L	MN7507-5	7L	MN7507-7
	20L	MN7507-20	60L	MN7507-60
	2081	MNI7507-DR	10001	MN7507-IBC

Innovative universal ester-containing engine oil on a hydrosynthetic basis for petrol and diesel engines, both new and "old" brands and with a large mileage. Developed on the basis of the requirements of European manufacturers.

7504 DIESEL EXTRA

Semi-synthetic Engine Oil





Volum	Volume: / Art. Nr.:				
1L	MN7504-1	5L	MN7504-5		
7L	MN7504-7	10L	MN7504-10		
20L	MN7504-20	60L	MN7504-60		
208L	MN7504-DR	1000L	MN7504-IBC		

Innovative universal ester-containing engine oil on a hydrosynthetic basis for diesel engines, both new and "old" brands and with high mileage. Specially designed for turbocharged engines. Designed for diesel engines in a wide fleet of cars (cars, light SUVs, vans and light trucks) of European and other manufacturers.

7505 MOLIBDEN Semi-synthetic Engine Oil



N		BOEL	4	
1.00	MANN			

Volume: / Art. Nr.:					
1L	MN7505-1	4L	MN7505-4		
5L	MN7505-5	20L	MN7505-20		
60L	MN7505-60	208L	MN7505-DR		

Universal ester-containing engine oil on a hydro synthetic basis, specially developed for all types of petrol and diesel engines, including heavy-duty engines. Contains organic and inorganic molybdenum (MoS₂). Designed for gasoline and diesel engines in a wide fleet of cars (cars, light SUVs, vans and light trucks) of European and other manufacturers. Recommended for cars of "old" brands and with high mileage.

Specifications:

SAE 10W-40 API SN ACEA A3/B4

MB 229.3 MB 229.1 VW 505 00 VW 502 00 VW 501 01 VW 500 00 PSA B71 2294 RENAULT RN0710 RENAULT RN0700

Specifications:

SAE 10W-40 API CH-4/SN ACEA A3/B4

VW 505 00 VW 502 00 VW 501 01 VW 500 00 MB 229.3 MB 229.1 PSA B71 2296 RENAULT RN0710 RENAULT RN0700

Specifications:

SAE 10W-40 API SN/CH-4

VW 501 01 VW 505 00

7902 RACING+ESTER

Premium Synthese Engine Oil. Fully Synthetic





Volume: / Art. Nr.:

		1L	MN7902-1
4L	MN7902-4	10L	MN7902-10
20L	MN7902-20	60L	MN7902-60
208L	MN7902-DR	1000L	MN7902-IBC

Universal bi-synthetic (PAO + esters) premium engine oil designed for new generations of all types of engines operating in harsh and extreme operating conditions. Designed to meet the requirements of manufacturers of sports and racing cars.

7402 DIESEL

Universal Engine Oil





Volume: / Art. Nr.:

1L	MN7402-1	5L	MN7402-5
7L	MN7402-7	10L	MN7402-10
20L	MN7402-20	60L	MN7402-60
208L	MN7402-DR	1000L	MN7402-IBC

Highly refined ester-containing economy-class mineral engine oil for highly accelerated diesel engines with and without a turbocharger. Suits high mileage engines operating in various operating conditions. Intended for the maximum protection of diesel engines of a wide car fleet (passenger cars, light SUVs, minibuses and light trucks).



Universal Engine Oil





Volume: / Art. Nr.:

1L	MN7405-1	4L	MN7405-4
5L	MN7405-5	10L	MN7405-10
20L	MN7405-20	60L	MN7405-60
208L	MN7405-DR	1000L	MN7405-IBC

All-season ester-containing universal economy-class engine oil on a highly refined mineral basis for turbocharged and non-turbocharged petrol and diesel engines, including those with very high mileage, operating under various operating conditions.

Specifications:

SAE 10W-60 API SN/CH-4 ACEA A3/B4

MB 229.1 VW 501 01 VW 505 00 FIAT 9.55535-H3 PSA B71 2300

Specifications:

SAE 15W-40 API CH-4/SN ACEA A3/B4

VW 505 00 VW 501 01 MB 229.1 MB 226.9 MAN 271 ALLISON C4

Specifications:

SAE 15W-40 API SN/CH-4 ACEA A3/B4

VW 505 00 VW 502 00 VW 501 01 VW 500 00 MB 229.3/229.1 PSA B71 2294 RENAULT RN0700 RENAULT RN0710

7510 FAVORIT

Semi-synthetic Engine Oil



Volume: / Art. Nr.:

		1L	MN7510-1
4L	MN7510-4	5L	MN7510-5
20L	MN7510-20	60L	MN7510-60
208L	MN7510-DR	1000L	MN7510-IBC

Universal ester-containing engine oil on a hydro synthetic basis for petrol and diesel engines with and without turbocharging, modern, working in superheavy conditions, and "old" brands with high mileage. Recommended for use in engines of DAIMLER, MAN and VW vehicles.



Synthetic Blend Engine Oil



Volume: / Art. Nr.:

		1L	MN7404-1
4L	MN7404-4	5L	MN7404-5
7L	MN7404-7	10L	MN7404-10
20L	MN7404-20	60L	MN7404-60
208L	MN7404-DR	1000L	MN7404-IBC

Universal ester-containing economy-class engine oil, which is a mixture of synthetic components and a high purity mineral base, for modern highly accelerated petrol and diesel engines with and without a turbocharger used in difficult operating conditions and engines with a very high mileage used in various operating conditions.

7409 SAE 40

Universal Engine Oil

Volume: / Art. Nr.:			
1L	MN7409-1	4L	MN7409-4
5L	MN7409-5	10L	MN7409-10
20L	MN7409-20	60L	MN7409-60
208L	MN7409-DR	1000L	MN7409-IBC

7408 SAE 60

Universal Engine Oil

7407 SAE 50

Universal Engine Oil

Volume: / Art. Nr.:				
			5L	MN7407-5
	7L	MN7407-7	10L	MN7407-10
	20L	MN7407-20	60L	MN7407-60
	208L	MN7407-DR	1000L	MN7407-IBC

Volume: / Art. Nr.: MN7408-5 5L MN7408-10 20L MN7408-20 10L MN7408-60 **208L** MN7408-DR 60L

A high-efficiency monograde mineral engine oils for heavy-load dieselpowered engines with and without a turbocharger operating under very harsh conditions.

Specifications:

SAE 15W-50 API SL/CH-4

MB 229.1 MB 228.1 MAN 271 VW 501 01 VW 505 00

Specifications:

SAE 20W-50 API SN/CH-4

Specifications:

SAE 40 API CH-4/SJ

Specifications:

SAE 50 API CH-4

Specifications:

SAE 60 API CH-4 A range of oils designed specifically for vehicles equipped with powerful diesel engines: heavy trucks and buses, construction, road and agricultural machinery. Includes oils of the most sought-after specifications, ranging from the most modern and viscosities from 5W-30 to 20W-50, sorted by UHPD/SHPD.

UHPD Ultra High Performance Diesel

SHPD Super High Performance Diesel



7101 TS-1 SHPD

Universal Truck Engine Oil



Volume: / Art Nr :

5L	MN7101-5	10L	MN7101-10
20L	MN7101-20	60L	MN7101-60
208L	MN7101-DR	1000L	MN7101-IBC

Multigrade mineral ester-containing engine oil with the addition of hydrosynthetic components for modern heavy-duty and high-speed turbocharged and non-turbocharged diesel engines operating under severe conditions. Especially designed to protect your equipment and get the most out of it, regardless of its operating conditions.

7102 TS-2 SHPD

Universal Truck Engine Oil





5L	MN7102-5	10L	MN7102-10
20L	MN7102-20	60L	MN7102-60
208L	MN7102-DR	1000L	MN7102-IBC

Special multi-season, highly alloyed ester-containing mineral engine oil with the addition of hydrosynthetics for modern, heavy duty and high-speed diesel engines with and without turbocharging, operating in extremely difficult conditions (including, at high ambient temperatures). Designed to protect equipment and benefit most out of it under extreme loads.

Specifications:

SAE 15W-40 API CH-4/SL ACEA E7 ACEA A3/B4

MB 228.3/229.1 MAN M 3275-1 MTU Type 2 VOLVO VDS-2

Specifications:

SAE 20W-50 API CH-4/SL ACEA E7 ACEA A3/B4

MB 228.3/229.1 MAN M 3275-1 MTU Type 2 VOLVO VDS-2

7103 TS-3 SHPD

Universal Truck Engine Oil



Volume: / Art. Nr.:

		10L	MN7103-10
20L	MN7103-20	60L	MN7103-60
208L	MN7103-DR	1000L	MN7103-IBC

All-year-round mineral engine oil for modern heavy-duty and high-speed diesel engines with and without turbocharging operated in difficult conditions. Designed specifically to protect machinery and benefit most out of it regardless of operating conditions.

7104 TS-4 SHPD

Universal Truck Engine Oil



TS-4)
SHPD
TS-4)
MANNOL

Volume: / Art. Nr.:

1L	MN7104-1	5L	MN7104-5
7L	MN7104-7	10L	MN7104-10
20L	MN7104-20	60L	MN7104-60
208L	MN7104-DR	1000L	MN7104-IBC

Innovative all-weather mineral-synthetic (esters + HC-synthes) engine oil for modern heavy duty and high-speed diesel engines with and without turbocharging, operated in difficult conditions. The oil complies with the Global Specification GLOBAL-DHD-1.

7105 TS-5 UHPD

Semi-synthetic Truck Engine Oil





Volume: / Art. Nr.:

5L	MN7105-5	10L	MN7105-10
20L	MN7105-20	60L	MN7105-60
208L	MN7105-DR	1000L	MN7105-IBC

Innovative all-weather semi-synthetic (esters + HC-synthes) engine oil for modern heavy duty and high-speed diesel engines with and without turbocharging, operated in difficult conditions. The oil complies with the Global Specification GLOBAL-DHD-1.

Specifications:

SAE 10W-40 API CH-4/SL ACEA E7 ACEA A3/B4

MB 228.3/229.1 MAN M 3275-1 MTU Type 2 VOLVO VDS-2

Specifications:

SAE 15W-40 API CI-4 Plus API CI-4/CH-4/SL ACEA E7 ACEA A3/B4 JASO DH-1 GLOBAL DHD-1

CATERPILLAR ECF-2/ECF-1A CUMMINS CES 20076/20077 CUMMINS CES 20078 DETROIT DIESEL 93K215 MACK EO-N/EO-M Plus MAN M 3275-1 MB 228.3/228.1

MTU Type 2 RENAULT RLD-2 VOLVO VDS-3

Specifications:

SAE 10W-40 API CI-4 Plus API CI-4/CH-4 ACEA E7 ACEA A3/B4 JASO DH-1 GLOBAL DHD-1

CATERPILLAR ECF-2/ECF-1-a CUMMINS CES 20076/20077 CUMMINS CES 20078 DETROIT DIESEL 93K215 MACK EO-N/EO-M Plus MAN M 3275-1 MB 228.1/228.3

MTU Type 2 RENAULT RLD-2 VOLVO VDS-3

MANNOL.

7106 TS-6 UHPD ECO

Synthetic Truck Engine Oil



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DAIMLE	R
DTFR 15B120	

-
APPROVAL
MAN
M 3277



APPROVAL
SCANIA LDF-3

Volume: / Art. Nr.:

7L	MN7106-7	10L	MN7106-10
20L	MN7106-20	60L	MN7106-60
208L	MN7106-DR	1000L	MN7106-IBC

All-weather modern synthetic engine oil for heavy-duty and high-speed diesel engines with and without turbocharger, operating in difficult conditions. The oil has successfully passed road and laboratory tests at MERCEDES-BENZ, MAN and MTU centres and has their written approvals.

7107 TS-7 UHPD BLUE

Synthetic Truck Engine Oil







APPROVAL
VOLVO
VDS-4.5

RENAULT

VI RLD-3

Volume: / Art. Nr.:

		5L	MN7107-5
7L	MN7107-7	10L	MN7107-10
20L	MN7107-20	60L	MN7107-60
208L	MN7107-DR	1000L	MN7107-IBC

All-weather synthetic ester-containing engine oil for heavy-duty and highspeed diesel engines of the latest generation with and without turbocharger, operating in severe conditions on low sulphur fuel.

7108 TS-8 UHPD SUPER

Fully Synthetic Truck Engine Oil





Volume: / Art. Nr.:

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20L	MN7108-20	60L	MN7108-60
208L	MN7108-DR	1000L	MN7108-IBC

Energy-saving synthetic (PAO-based) engine oil for heavy duty and high-speed diesel engines of the latest generation with and without turbocharging, operating in difficult conditions. The oil has successfully passed road and laboratory tests at Daimler concern centres and has their written approvals.

Specifications:

SAE 10W-40 API CI-4 ACEA E4 ACEA E7

DAIMLER DTFR 15B120 Approval MAN M 3277 Approval MTU Type 3 Approval SCANIA LDF-3 Approval MACK EO-N MB 235.28 RENAULT RLD-2

CUMMINS CES 20077 CUMMINS CES 20078 VOLVO VDS-3 VOITH Class B

Specifications:

SAE 10W-40 API CK-4/CJ-4 ACEA E8 ACEA E11 DAF (ACEA E6) IVECO (ACEA E6)

MACK EOS-4.5 Approval
DAIMLER DTFR 15C110 Approval
RENAULT VI RLD-3 Approval
VOLVO VDS-4.5 Approval
MAN M 3775/3477
MB 228.31
CATERPILLAR ECF-3

CUMMINS CES 20086 DETROIT DIESEL DDC 93K222

Specifications:

SAE 5W-30 API CI-4 ACEA E4 ACEA E7

DAIMLER DTFR 15B120 Approval MAN M 3277 MAN M 3377 MACK EO-N MTU Type 3 RENAULT RLD-2 VOLVO VDS-3

CUMMINS CES 20076/20077 CUMMINS CES 20078 DETROIT DIESEL 93K215

7109 TS-9 UHPD NANO

Synthetic Truck Engine Oil





Volume: / Art. Nr.:

5L	MN7109-5	10L	MN7109-10
20L	MN7109-20	60L	MN7109-60
208L	MN7109-DR	1000L	MN7109-IBC

All-season ester-containing synthetic low-ash engine oil for the latest generation of highly loaded and high-speed turbocharged and non-turbocharged heavy-duty diesel engines using low-sulphur fuels. The oil complies with the GLOBAL-DHD-1 specification.

7110 TS-10 UHPD

Synthetic Truck Engine Oil



Volume: / Art. Nr.:

	0177114114111		
		20L	MN7110-20
208L	MN7110-DR	1000L	MN7110-IBC

The universal all-season synthetic engine oil for modern high-load and high-speed diesel engines with and without turbocharging, operating in harsh conditions and at low ambient temperatures.

7112 TS-12 SHPD

Semi-synthetic Truck Engine Oil



Volume: / Art. Nr.:

		7L	MN7112-7
20L	MN7112-20	60L	MN7112-60
208L	MN7112-DR	1000L	MN7112-IBC

All-weather semi-synthetic (HC synthesis) engine oil for modern heavy duty and high-speed diesel engines with and without turbocharging, operated in difficult conditions. Designed specifically to protect machinery and benefit most out of it regardless of operating conditions.

Specifications:

SAE 10W-40 API CJ-4/SN ACEA E8 ACEA E11 JASO DH-2 GLOBAL DHD-1

MB 228.31/228.51 MAN M 3477/M 3575 MACK EO-N Plus MACK EO-O Premium Plus MTU Type 3.1 RENAULT RLD-3 VOLVO VDS-4

CATERPILLAR ECF-2/ECF-3 CUMMINS CES 20076/20077 CUMMINS CES 20078 DETROIT DIESEL DDC 93K218

Specifications:

SAE 5W-40 API CI-4/SL ACEA E7 ACEA E4

MB 228.5 MACK EO-N MAN M 3277 MTU Type 3 RENAULT RLD-2 VOLVO VDS-3

Specifications:

SAE 10W-30 API CI-4 Plus API CI-4/CH-4/SL ACEA E7 ACEA A3/B4 JASO DH-1 GLOBAL DHD-1

MB 228.1/228.3 MACK EO-M Plus/EO-N MAN M 3275-1 MTU Type 2 RENAULT RLD-2 VOLVO VDS-3 CATERPILLAR ECF-1a/ECF-2

CUMMINS CES 20076/20077 CUMMINS CES 20078 DETROIT DIESEL 93K215

7114 TS-14 UHPD

Synthetic Truck Engine Oil











Volume: / Art. Nr.:

		1L	MN7114-1
5L	MN7114-5	7L	MN7114-7
20L	MN7114-20	60L	MN7114-60
208L	MN7114-DR	1000L	MN7114-IBC

All-weather ester-containing synthetic engine oil for heavy-duty and highspeed diesel engines with and without turbocharger, operating in difficult conditions. The oil has successfully passed road and laboratory tests at VOLVO, MACK and RENAULT centres and has their written approvals.

7115 TS-15 SHPD

Universal Truck Engine Oil



Volume:	/ Art	Nr
voiuille.	/ / / / / / / /	141.

		7L	MN7115-7
10L	MN7115-10	20L	MN7115-20
60L	MN7115-60	208L	MN7115-DR

Special multi-season, highly alloyed mineral engine oil with the addition of hydrosynthetics for modern, heavy duty and high-speed diesel engines with and without turbocharging, operating in extremely difficult conditions (including, at high ambient temperatures) and for engines with high mileage. The oil complies with the Global Specification GLOBAL-DHD-1.

7117 TS-17 UHPD BLUE

Fully Synthetic Truck Engine Oil





Volume: / Art. Nr.:

		5L	MN7117-5
20L	MN7117-20	60L	MN7117-60
208L	MN7117-DR	1000L	MN7117-IBC

Energy-saving synthetic (PAO-based + Esters) engine oil for heavy duty and high-speed diesel engines of the latest generation with and without turbocharging, operating in severe conditions on low sulphur fuel. Designed specifically to protect machinery and benefit most out of it regardless of operating conditions.

Specifications:

SAE 15W-40 API CK-4 ACEA E11 -22 ACEA E7 -22 ACEA E9 -16 JASO DH-2

VOLVO VDS-4.5 Approval MACK EOS-4.5 Approval RENAULT RLD-3 Approval MB 228.31 CATERPILLAR ECF-3 CUMMINS CES 20086 DETROIT DIESEL DDC 93K222 MAN M 3775

Specifications:

SAE 20W-50 API CI-4 Plus API CI-4/CH-4/SL ACEA E7 ACEA A3/B4 JASO DH-1 GLOBAL DHD-1

MACK EO-N/EO-M Plus MB 228.1/228.3 MAN M 3275-1 MTU Type 2 RENAULT RLD-2 VOLVO VDS-3 CATERPILLAR ECF-2/ECF-1-a

CUMMINS CES 20076/20077 CUMMINS CES 20078 DETROIT DIESEL 93K215

Specifications:

SAE 5W-30 API CK-4 ACEA E8 ACEA E11

DAIMLER DTFR 15C110 Approval MAN M 3677 VOLVO VDS 4.5 MACK EOS-4.5 RENAULT RLD-3 SCANIA LDF-4 IVECO (ACEA E6-2016)

DAF (ACEA E6-2016) CATERPILLAR ECF-3 CUMMINS CES 20086 DETROIT DIESEL DDC93K222

7118 TS-18 SHPD

Synthetic Truck Engine Oil



Volume: / Art. Nr.:

		10L	MN7118-10
20L	MN7118-20	60L	MN7118-60
208L	MN7118-DR	1000L	MN7118-IBC

All-weather synthetic engine oil for heavy-duty and high-speed diesel engines of the latest generation with and without turbocharger, operating in severe conditions on low sulphur fuel. Designed specifically to protect machinery and benefit most out of it regardless of operating conditions.

7120 TS-20 SHPD

Synthetic Truck Engine Oil



Volume: / Art. Nr.:

		10L	MN7120-10
20L	MN7120-20	60L	MN7120-60
208L	MN7120-DR	1000L	MN7120-IBC

All-weather synthetic engine oil for heavy-duty and high-speed diesel engines with and without turbocharger, operating in difficult conditions. The oil has successfully passed road and laboratory tests at VOLVO, MACK and RENAULT centres and has their written approvals.

<mark>7121 TS-21 SHPD</mark>

Synthetic Truck Engine Oil



APPROVAL
VOLVO
VDS-4.5

APPROVAL
RENAULT
VI RLD-3

APPROVAL
MACK
EOS-4.5

Volume: / Art. Nr.:

21-60
21-IBC

All-weather ester-containing synthetic engine oil for heavy-duty and high-speed diesel engines of the latest generation with and without turbocharger, operating in severe conditions on low sulphur fuel. The oil has successfully passed road and laboratory tests at VOLVO, MACK and RENAULT centres and has their written approvals.

Specifications:

SAE 15W-40 API CK-4 ACEA 8 ACEA E11

MB 228.31/228.51 VOLVO VDS-4.5 MAN M 3775 MACK EOS-4.5 RENAULT RLD-3 IVECO (ACEA E6-2016) DAF (ACEA E6-2016)

CATERPILLAR ECF-3 CUMMINS CES 20086 DETROIT DIESEL DDC93K222

Specifications:

SAE 10W-30 API CJ-4/CK-4 ACEA E8 ACEA E11 JASO DH-2

MB 228.31/228.51/235.28 MAN M 3677/M 3477 RENAULT Truck RLD-3 SCANIA Low Ash VOLVO VDS-4 MACK EO-O Premium Plus MACK EO-O Premium Plus -07

MTU Type 3.1 CATERPILLAR ECF-2/ECF-3 CUMMINS CES 20081 DETROIT DIESEL DDC 93K218 VOITH Retarder Class B

Specifications:

SAE 10W-30 API CK-4/SN API CJ-4/CI-4 Plus ACEA E8 ACEA E11 JASO DH-2

MACK EOS-4.5 Approval VOLVO VDS-4.5 Approval RENAULT VI RLD-3 Approval RENAULT Truck RLD-4 MAN M 3775/M 3575 MB 228.31 MTU Type 2.1

CATERPILLAR ECF-3
DETROIT DIESEL DDC93K222
DETROIT DIESEL DDC93K223
CUMMINS CES 20086/20087
FORD WSS-M2C171-F1
ALLISON TES-439

7123 TS-23 UHPD

Synthetic Truck Engine Oil

Volume: / Art. Nr.:

		20L	MN7123-20
208L	MN7123-DR	1000L	MN7123-IBC

Innovative energy-saving synthetic (contains PAO) low-viscosity engine oil developed for the latest generation of turbocharged diesel engines operating under severe conditions, using ultra-low sulphur fuel (15 ppm or less) and equipped with exhaust gas aftertreatment systems: SCR, EGR and DPF. Provides engine protection in accordance with EPA 2010 and GHG 17. Developed to meet the requirements of Volvo and Daimler.



7124 TS-24 UHPD

Synthetic Truck Engine Oil

Volume: / Art. Nr.:

		20L	MN7124-20
208L	MN7124-DR	1000L	MN7124-IBC

Innovative energy-saving synthetic (contains PAO) ultra-low viscosity engine oil developed for the latest generation of turbocharged diesel engines operating under severe conditions, running on low and ultra-low sulphur fuels, and equipped with exhaust gas aftertreatment systems: SCR, EGR and DPF, as well as diesel oxidation catalysts (DOC). Developed to meet the requirements of Scania and MAN.



7125 TS-25

Synthetic Truck Engine Oil

Volume: / Art. Nr.:

		20L	MN7125-20
208L	MN7125-DR	1000L	MN7125-IBC

Innovative energy-saving synthetic (contains PAO) low-viscosity engine oil developed for the latest generation of turbocharged diesel engines operating under severe conditions, using ultra-low sulphur fuel (15 ppm or less) and equipped with exhaust gas aftertreatment systems: SCR, EGR and DPF. Provides engine protection in accordance with EPA 2010 and GHG 17. Developed to meet the requirements of Volvo and Daimler.

Specifications:

SAE 5W-30 API CK-4 ACEA E4-22/E7-22 ACEA E8-22/E11-22 JASO DH-2/DH-1/DL-0

DAIMLER 15C120 (MB228.52) MB 228.51/228.31 MAN M 3777/M 3677 MAN M 3775/M 3477/M 3271-1 SCANIA LDF-4 MTU Category 3.1/2.1 VOLVO VDS-4.5/VDS-5

MACK EOS-4.5 RENAULT RLD-4 CATERPILLAR ECF-3 CUMMINS CES 20086/20081 DETROIT DIESEL DFS 93K222 DETROIT DIESEL DFS 93K218 DAF Extender Drain

Specifications:

SAE 5W-20

SCANIA LDF-5 MAN M 3977

Specifications:

SAE 5W-30 API FA-4

CUMMINS CES 20087 DETROIT DIESEL DFS 93K223 DAIMLER DFTR 15C130 (MB-228.61) VOLVO VDS 5222

A range of oils of the most popular viscosities and specifications for motor vehicles (motorcycles, mopeds, scooters and off-road vehicles), outboard motors and garden equipment and petrol tools. Includes oils for two- and four-stroke, air- and liquid-cooled engines.



7202 4-TAKT PLUS

Semi-synthetic 4-Stroke Engine Oil



Specifications:

SAE 10W-40 API SL JASO MA/MA2



Volume: / Art. Nr.:				
1L	MN7202-1	4L	MN7202-4	
20L	MN7202-20	60L	MN7202-60	
208L	MN7202-DR	1000L	MN7202-IBC	

A high-quality ester-containing synthetic-based engine oil for modern 4stroke engines of two-wheeled vehicles with and without an integrated gearbox and with an oil bath clutch, with air and liquid cooling. It may be used in engines with a dry type clutch. It was designed for a guaranteed protection of the engine and the durability of the gearbox.

7812 4-TAKT MOTORBIKE

Synthetic 4-Stroke Engine Oil





Volume: / Art. Nr.:

		1L	MN7812-1
4L	MN7812-4	10L	MN7812-10
20L	MN7812-20	60L	MN7812-60
208L	MN7812-DR	1000L	MN7812-IBC

An innovative ester-containing synthetic engine oil for 4-stroke high-load engines of motorcycles, pit bikes, motards, etc. for off-road (enduro, motocross, trials, etc.) and highway (stuntriding, supermoto, etc.) driving under extreme loads. It was designed for a guaranteed protection of the engine and the durability of the gearbox.

Specifications:

SAE 10W-40 API SN JASO MA/MA2

HONDA HUSABERG KAWASAKI SUZUKI YAMAHA

7813 4-TAKT MOTORBIKE

Synthetic 4-Stroke Engine Oil





Volume: / Art. Nr.:

1L	MN7813-1	4L	MN7813-4
20L	MN7813-20	60L	MN7813-60
208L	MN7813-DR	10001	L MN7813-IBC

An innovative synthetic ester-containing engine oil for 4-stroke high-load engines of motorcycles, pit bikes, motards, etc. for off-road (enduro, motocross, trials, etc.) and highway (stuntriding, supermoto, etc.) driving under extreme loads. It was designed for a guaranteed protection of the engine and the durability of the gearbox.

7814 4-TAKT MOTORBIKE

Synthetic 4-Stroke Engine Oil





Volume: / Art. Nr.:

1L	MN7814-1	4L	MN7814-4
10L	MN7814-10	20L	MN7814-20
60L	MN7814-60	208L	MN7814-DR

An innovative synthetic ester-containing engine oil for 4-stroke high-load engines of motorcycles, pit bikes, motards, etc. for off-road (enduro, motocross, trials, etc.) and highway (stuntriding, supermoto, etc.) driving under extreme loads. It was designed for a guaranteed protection of the engine and the durability of the gearbox.

7832 4-TAKT POWERBIKE

Synthetic 4-Stroke Engine Oil





Volume: / Art. Nr.:

1L	MN7832-1	4L Met.	MN7832-4ME
10L	MN7832-10	20L	MN7832-20
208L	MN7832-DR	1000L	MN7832-IBC

An innovative synthetic ester-containing engine oil for 4-stroke high-load engines of motorcycles, pit bikes, motards, etc. for off-road (enduro, motocross, trials, etc.) and highway (stuntriding, supermoto, etc.) driving under extreme loads. It was designed for a guaranteed protection of the engine and the durability of the gearbox.

Specifications:

SAE 10W-30 API SN JASO MA/MA2

HONDA HUSABERG KAWASAKI SUZUKI YAMAHA

Specifications:

SAE 10W-50 API SN JASO MA/MA2

HONDA HUSABERG KAWASAKI SUZUKI YAMAHA

Specifications:

SAE 15W-50 API SN JASO MA/MA2

DUCATI KAWASAKI YAMAHA SUZUKI HONDA

7860 4-TAKT POWER PLUS

Semi-Synthetic 4-Stroke Engine Oil



Volume: / Art. Nr.:

MN7860-1 1L

Innovative semi-synthetic ester-containing engine oil for 4-stroke highloaded engines of motorbikes and pitbikes, motards etc. for off-road (enduro, motocross, trials etc.) and road (stunt riding, supermoto etc.) riding with extreme loads. Designed for reliable engine protection and gearbox durability.

7209 4-TAKT PREMIUM

Universal 4-Stroke Engine Oil



Volume: / Art. Nr.:

		1L	MN7209-1
20L	MN7209-20	208L	MN7209-DR

A high-quality ester-containing synthetic-based engine oil for modern 4stroke engines of two-wheeled vehicles with and without an integrated gearbox and with an oil bath clutch, with air and liquid cooling. It may be used in engines with a dry type clutch. It was designed for a guaranteed protection of the engine and the durability of the gearbox.

7830 4-TAKT HD MOTORBIKE

Universal 4-Stroke Engine Oil





Volume: / Art. Nr.:

1L	MN7830-5	10L	MN7830-10
20L	MN7830-20	60L	MN7830-60
208L	MN7830-DR	1000L	MN7830-IBC

A universal all-season ester-containing synthetic-based engine oil for 4stroke normal- and high-load engines (including 2-cylinder V-type) for highway, off-road and racing motorcycles. It was designed for a guaranteed protection of the engine and the durability of the gearbox.

Specifications:

SAE 15W-50 API SN JASO MA/MA2

DUCATI HONDA KAWASAKI SUZUKI YAMAHA

Specifications:

SAE 20W-40 API SN JASO MA2

Specifications:

SAE 20W-50 API SN JASO MA/MA2

7820 4-TAKT AQUA JET

Semi-synthetic 4-Stroke Engine Oil





Volume: / Art. Nr.:

1L MN7820-1

A high-quality ester-containing synthetic-based engine oil for modern 4-stroke engines of sport and tourist jet skis with and without a turbocharger, it is recommended for use under increased loads and high ambient temperatures.

7207 OUTBOARD MARINE

Universal 2-Stroke Engine Oil



Volume: / Art. Nr.:

1L	MN7207-1	4L	MN7207-4
20L	MN7207-20	60L	MN7207-60
208L	MN7207-DR	10001	_ MN7207-IBC

A high-quality synthetic-based engine oil for modern 2-stroke outboard engines with water cooling. It is designed for 2-stroke outboard engines, water scooters and jet skis, as well as for all 2-stroke engines with the required oil level of APITC or NMMATC W3®.

7208 OUTBOARD UNIVERSAL

Universal 2-Stroke Engine Oil



Volume: / Art, Nr.:

1L	MN7208-1	4L	MN7208-4
10L	MN7208-10	20L	MN7208-20
60L	MN7208-60	208L	MN7208-DR

A high-quality mineral engine oil for modern 2-stroke petrol-powered outboard engines with water cooling that use petrol-oil mix. It is produced from a highly-purified basic oil and a special ashless additive package.

Specifications:

SAE 10W-40 JASO MA2 NMMA FC-W

API SL BRP ROTAX HONDA KAWASAKI POLARIS SEA DOO SUZUKI YAMAHA

Specifications:

API TC JASO FC NMMA TC-W3

Specifications:

API TC NMMA TC-W2

7204 2-TAKT PLUS

Semi-synthetic 2-Stroke Engine Oil





Volume: / Art. Nr.:

100ml _{Met.}	MN7204-1ME	1L	MN7204-1
4L	MN7204-4	10L	MN7204-10
20L	MN7204-20	60L	MN7204-60
208L	MN7204-DR	1000L	MN7204-IBC

A universal high-quality ester-containing synthetic-based engine oil for modern high-load and high-speed 2-stroke engines with air and liquid cooling. It is suitable for the lubrication by a pre-mixed blend and an automatic mixing in an engine intake.

7205 2-TAKT UNIVERSAL

Universal 2-Stroke Engine Oil



Volume: / Art. Nr.:

		1L	MN7205-1
4L	MN7205-4	10L	MN7205-10
20L	MN7205-20	60L	MN7205-60
208L	MN7205-DR	1000L	. MN7205-IBC

A universal ester-containing high-quality mineral-based engine oil for modern high-load and high-speed 2-stroke engines with air cooling. It is suitable for the lubrication by a pre-mixed blend and an automatic mixing in an engine intake.

7201 2-TAKT SNOWPOWER

Synthetic 2-Stroke Engine Oil





Volume: / Art. Nr.:

		1L	MN7201-1
4L	MN7201-4	20L	MN7201-20
60L	MN7201-60	208L	MN7201-DR

A unique ester-containing synthetic engine oil for 2-stroke engines with air and liquid cooling operating at low temperatures with various fuel and oil mixing (input) systems (with both a separate oil input and lubrication by a fuel-oil mixture). It was developed in compliance with heightened requirements for last-generation engines.

Specifications:

API TC JASO FD ISO L-EGD TISI

HUSQVARNA 242 Chainsaw

Specifications:

APITC JASO FB ISO L-EGB

Specifications:

APITC+ JASO FD ISO L-EGD

BRP ROTAX 253 Snowmobile **BOMBARDIER** SKI-DOO LYNX ARCTIC CAT **POLARIS** YAMAHA

7203 4-TAKT AGRO

Universal 4-Stroke Engine Oil



Volume: / Art. Nr.:

1L	MN7203-1	4L	MN7203-4
20L	MN7203-20	60L	MN7203-60
208L	MN7203-DR	1000	L MN7203-IBC

A high-quality mineral engine oil for modern small 4-stroke engines of gardening equipment. It is designed for gardening equipment equipped with petrol-powered 4-stroke engines with air and liquid cooling: electric lawn-mowers, power cultivators, mini tractors, generators, powered pumps, etc.

7206 AGRO

Universal 2-Stroke Engine Oil



Volume: / Art. Nr.:

1L	MN7206-1	20L	MN7206-20
60L	MN7206-60	208L	MN7206-DR

A special high-quality mineral engine oil for 2-stroke HUSQVARNA engines. It is suitable for the lubrication by a pre-mixed blend and a mixing in an engine intake.

7858 AGRO FORMULA S

2-Stroke Chainsaw Engine Oil





Volume: / Art. Nr.:

		120ml P	ot. MN7858-012
1L _{Ds}	MN7858-1	1L Pet.	MN7858-1
20L	MN7858-20	60L	MN7858-60
208L	MN7858-DR	1000L	MN7858-IBC

A special high-quality synthetic-based ester-containing engine oil for modern 2-stroke engines operating at high speeds and under intensive use.

Specifications:

SAE 30 API SL JASO MA/MA2

Specifications:

API TC JASO FB

Specifications:

API TC JASO FB ISO L-EGB Others 2-stroke engines

7859 AGRO FORMULA H

2-Stroke Chainsaw Engine Oil



Volume: / Art. Nr.:

		120ml Pet. MN7859-012		
1L _{Ds}	MN7859-1	1L Pet.	MN7859-1	
20L	MN7859-20	60L	MN7859-60	
208L	MN7859-DR	1000L	MN7859-IBC	

A special high-quality synthetic-based ester-containing engine oil for 2stroke HUSQVARNA engines. It is suitable for the lubrication by a premixed blend and an automatic mixing in an engine intake.



1101 KETTENOEL

Chainsaw Chain Oil



Volume: / Art. Nr.:

		1L	MN1101-1
4L	MN1101-4	10L	MN1101-10
20L	MN1101-20	60L	MN1101-60
208L	MN1101-DR	1000L	. MN1101-IBC

A highly-purified mineral-based oil for the lubrication of cutting edges of petrol and electric saws with a manual and automatic oil supply. The oil has high adhesion properties, which ensures good adhesion of oil to the chain during operation. High anti-wear and lubricity characteristics extend the life of the chain. Greasing of the chain can be made both directly by immersing it in a container with the oil, and by an automatic oil supply. Ensures reliable lubrication up to -15 °C. Designed for the lubrication of chains of both petrol and electric saws.

Specifications:

API TC JASO FB HUSQVARNA 2-stroke engines

Specifications:

ISO Viscosity Grade 100

Arange of oils for all types of automatic transmissions: classic cars, CVTs and dual-clutch robots. It includes universal oils, oils of the most popular OEM specifications and oils for automatic transmissions of the latest generations.



8221 ATF SPECIAL FLUID

Automatic Transmission Fluid. Synthetic



Volume: / Art. Nr.:

 1L Met.
 MN8221-1ME
 20L
 MN8221-20

 208L
 MN8221-DR
 1000L
 MN78221-IBC

Low-viscosity synthetic transmission oil (ATF) specially developed for 9-speed automatic transmissions (AT) of the latest generation 9G-TRONIC W9A 700 series, also designated NAG3 models 725.XXX XXXXXX, MERCEDES BENZ cars. Ensures smooth operation of the automatic transmission, guarantees minimal wear, long service life of transmissions and fuel economy. Developed based on the requirements of DAIMLER AG.



Automatic Transmission Fluid. Synthetic



Volume: / Art. Nr.:

		1L	MN8215-1
20L	MN8215-20	60L	MN8215-60
208L	MN8215-DR	10001	L MN8215-IBC

A special low-viscosity synthetic transmission fluid (ATF) for automatic gearboxes of vehicles. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear, a lasting service life of transmissions and fuel economy.

Specifications:

MB 236.17 MB 236.16

Specially designed for 9G-Tronic NAG3 SSANGYONG

Specifications:

MB 236.15

MB 722.9 MB NAG2FE+ MB 0019897903 MB 001989780310 MB 001989780311 SSANGYONG **AUTOMATIC TRANSMISSION FLUIDS**

8208 ATF T-IV

Automatic Transmission Fluid. Synthetic



	Volume: / Art. Nr.:					
	1L	MN8208-1	4L	MN8208-4		
	20L	MN8208-20	60L	MN8208-60		
	208L	MN8208-DR	1000L	MN8208-IBC		

A special synthetic transmission fluid (ATF) for automatic gearboxes of TOYOTA/LEXUS vehicles with new-generation TOYOTA and AISIN AW gearboxes. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear, a lasting service life of transmissions and fuel economy. It was developed on the basis of the requirements set by the company AISIN WARNER.

8209 ATF SP-III

Automatic Transmission Fluid. **Synthetic**



Volume: / Art. Nr.:					
		1L	MN8209-1		
1L Met.	MN8209-1ME	4L	MN8209-4		
20L	MN8209-20	60L	MN8209-60		
208L	MN8209-DR	1000L	MN8209-IBC		

A special synthetic transmission fluid (ATF) for automatic gearboxes of MITSUBISHI, HYUNDAI, KIA vehicles. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear, a lasting service life of transmissions and fuel economy. It is designed on the basis of the requirements set by Korean car manufacturers.



Automatic Transmission Fluid. **Synthetic**



Volume: / Art. Nr.:					
1L	MN8211-1	4L	MN8211-4		
10L	MN8211-10	20L	MN8211-20		
60L	MN8211-60	208L	MN8211-DR		

A special all-season synthetic transmission fluid (ATF) for modern 4-5-speed automatic transmission gearboxes of the ZF Group. It is not suitable for 6-speed automatic transmissions. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear, a lasting service life of transmissions and fuel economy even under maximum loads. It was developed taking into account special requirements of the group VW G 052 162.

Specifications:

JASO M315, Type 1A

TOYOTA ATF JWS 3309 TOYOTA ATF Type T/T-II/T-III
TOYOTA ATF Type T-IV, 08886-81015 TOYOTA ATF Type D-II

Specifications:

JASO M315, Type 1A

HYUNDAI ATF RED -1K **HYUNDAI JWS 3314** HYUNDAI 00232-19023 HYUNDAI 04500-00140 HYUNDAI UM040 CH20 Red-1 HYUNDAI SP/SP-II/SP-III

KIA ATF RED-1K **KIA JWS 3314** KIA 00232-19023 KIA 04500-00140 KIA UM040 CH20 Red-1 KIA SP/SP-II/SP-III

MITSUBISHI ATF-J2 MITSUBISHI Dia Queen AW MITSUBISHI DII/DIII MITSUBISHI SP, MS991156 MITSUBISHI SP-II/SP-III

Specifications:

JASO M315, Type 1A

VW/AUDI G US 000 162 VW/AUDI LT 71141/G 052 162 [AG4] VW/AUDI G 052 990-A2/G 055 025-A2 MB 236.1/2/5/6/7/8/9/91/10/11 MB A 0019892203/ATF 3403-M115 BMW ATF4/LA 2634/LT 71141 BMW ETL-7045/7045 E/8072B

BMW P/N 81 22 9 400 272/275 BMW P/N 81 22 9 407 858/859 BMW P/N 83 22 9 407 765/807 BMW P/N 83 22 0 024 249/359 BMW P/N 83 22 0 026 922 BMW P/N 83 22 0 403 248/249

BMW P/N 83 22 7 542 290 BMW P/N 83 22 2 220 438/440/442 BMW/MINI P/N 83 22 0 402 413 MINI ATF JWS 3309 RENAULT DP-0/Matic D2/SATF-D

For complete list of specifications please visit www.mannol.de

8212 ATF AG-55

Automatic Transmission Fluid.
Synthetic



Volume: / Art. Nr.:

	1L	MN8212-1	4L	MN8212-4
	4L Met.	MN8212-4ME	10L	MN8212-10
	20L	MN8212-20	60L	MN8212-60
	208L	MN8212-DR	1000L	MN8212-IBC

A special all-season synthetic transmission fluid (ATF) for new-generation 6-speed automatic gearboxes of the ZF Group. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear, a lasting service life of transmissions and fuel economy even under extreme loads. It was developed taking into account special requirements G 055 005 set by the VW Group.

8213 ATF AG-60

Automatic Transmission Fluid. Synthetic



Volume: / Art. Nr.:

		1L	MN8213-1
4L	MN8213-4	10L	MN8213-10
20L	MN8213-20	60L	MN8213-60
208L	MN8213-DR	1000	LMN8213-IBC

A special all-season synthetic transmission fluid (ATF) for modern 8-speed automatic gearboxes of all types and 6-speed automatic gearboxes of the ZF Group. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear, a lasting service life of transmissions and fuel economy. It was developed taking into account special requirements set by the VW Group.

8216 ATF CVT

Continuously Variable Transmission Fluid. Synthetic



Volume: / Art. Nr.:

		1L	MN8216-1
4L	MN8216-4	10L	MN8216-10
20L	MN8216-20	60L	MN8216-60
208L	MN8216-DR	10001	_ MN8216-IBC

A special synthetic gear oil for CVT (Continuously Variable Transmission) – variable-speed gears. It was specially developed for use in continuously variable transmissions with a rigid articulated chain or a steel pull chain. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear, a lasting service life of a transmission and fuel economy.

Specifications:

JASO Type 1A

AUDI/VW G 052 025-A2/G 052 990-A2/ G 052 055/G 052 162/-A1/-A2/ G G 055 025-A2/G 055 005 MB 236.5/ 236.10/236.11 GM Dexron II-E/-III/-II-D/III-G/III-H/ T-IV/19 40 700/21005966 Transaxle/ 22717466/88900925/Type A Suffix A/ 9986195/19 40 767

BMW/MINI 81 22 9 400 272/ 83 22 9 407 765/81 22 9 407 858/ 83 22 0 024 249/83 22 0 026 922/ 83 22 0 402 413/83 22 0 403 248/ 83 22 7 542 290/83 22 9 407 807/ 81 22 9 400 275/81 22 9 407 859/ 83 22 0 024 359/83 22 0 403 249

ZF TE-ML 11A/TE-ML 11B FORD XT-2-QDX (M)/XT-2-QSM [Syn]

For complete list of specifications please visit www.mannol.de

Specifications:

JASO M315, Type 1-A-LV

ACURA ATF Type 3.1 ALLISON C4 VW/AUDI G 060 162 BMW 83 22 2 152 426 BMW 83 22 2 305 397 BMW ATF +3 FIAT 9.55550-AV5

GM T-IV/ATF Type A Suffix A HONDA ATF Type 3.1 LAND ROVER LR023288 LAND ROVER LR023289 MAN 339 A ZF S671 090 310/S671 090 311 ZF S671 090 312/TE-ML 11

Additional Recommended Applications ATF L 12108/ZF Lifeguard fluid 8/ Shell ATF 3353

Specifications:

VW G 052 180 BMW/MINI 83 22 0 429 154 BMW/MINI CVT EZL 799A CHRYSLER CVT FLUID NS-2 DAIHATSU AMIX CVT FLUID DC FORD WSS M2C928-A/M2C933-A FORD CVT FLUID 23/30/Mercon C

HONDA HMMF (08260-99904)/HCF-2 HYUNDAI/KIA ATF SP-III JEEP CVT FLUID NS-2 GM DEX-CVT MB 236.20 MAZDA CVT FLUID JWS 3320 NISSAN/INFINITI CVT FLUID NS-1

NISSAN/INFINITI NS-2 (KLE52-00004) TOYOTA/LEXUS CVT FLUID TC/FE SUZUKI SCVT FLUID/CVT OIL SUZUKI CVT FLUID GREEN 1/2

For complete list of specifications please visit www.mannol.de

AUTOMATIC TRANSMISSION FLUIDS

8217 ATF WS

Automatic Transmission Fluid. Synthetic



Volume: / Art. Nr.:

		1L	MN8217-1
4L	MN8217-4	20L	MN8217-20
60L	MN8217-60	208L	MN8217-DR

A special low-viscosity synthetic transmission fluid (ATF) for automatic gearboxes of TOYOTA/LEXUS vehicles with latest-generation TOYOTA and AISIN AW gearboxes, including sequential. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear of ball bearings, stuffing boxes and gears, a lasting service life of the whole transmission and fuel economy. It was developed on the basis of the requirements set by the company AISIN WARNER.

8218 ATF MULTIVEHICLE

Automatic Transmission Fluid. Universal



Volume: / Art. Nr.:

		1L	MN8218-1
4L	MN8218-4ME	10L	MN8218-10
20L	MN8218-20	60L	MN8218-60
208L	MN8218-DR	1000L	MN8218-IBC

Universal all-season high-viscosity synthetic transmission fluid (ATF) for automatic gearboxes. It was specially developed for all modern automatic gearboxes equipped with and without a hydraulic converter lock-up. It is recommended for automatic gearboxes produces by American, Asian and European manufacturers.



Automatic Transmission Fluid. **Synthetic**



Volume: / Art. Nr.:

		1L	MN8219-1
1L _{Met.}	MN8219-1ME	4L	MN8219-4
20L	MN8219-20	60L	MN8219-60
208L	MN8219-DR	1000L	MN8219-IBC

Special low viscosity synthetic gear oil (ATF) with a special additive package for HYUNDAI 6-speed automatic transmissions. Designed based on the requirements of Korean car manufacturers.

Specifications:

JAMA JASO M315, Class 1-A-LV L A

AISIN WARNER JWS 3324 AISIN WARNER NWS-9638 AISIN WARNER NWS-9638 T5 FCA ATF+/ATF+2/ATF+3/ATF+4 FCA ACRC/AB/Type 9602 FCA 8 & 9 Speed ATF, 68218925AA FCA 236.10/236.12, 05127382AA

FCA 68333587AA/SP-III/Type 7176E TOYOTA/LEXUS ATF WS Lifetime/ 08886-02303/08886-02305/ 08886-80803/08886-80807/08886-81210 CHRYSLER ATF+3/ATF+4/AS68RC GM 88863400/88863401 LAND ROVER LR0022460

MAN 339 Type Z1 VOITH ATs 55.6335 VW G055 540 (A2) For complete list of specifications please visit www.mannol.de

Specifications:

JASO M315, Type 1A

AISIN WARNER JWS 3309 JATCO ATF 3100 PL085 FORD Mercon V/SP/LV/ATF Type F FORD XT-8-QMM5 [FRN5] GM Dexron II/II D/II E/III F/III G/III H MB 236.1/2/3/5/6/7/9/10/11 MAN 339 F/V1/V2/Z1/Z2

VW G 052 025-A2/G 052 162-A1/ G 052 990-A1/-A2/G 055 025-A1/ G 055 025-A2 HONDA ATF-Z1 (not for CVT)/ATF DW-1 HYUNDAI/KIA SP-II/SP-III NISSAN/INFINITI MATIC D/-J/-K NISSAN/TEXACO N402 (JATCO FWD)

MITSUBISHI DIAMOND SP-II/SP-III MAZDA ATF-M III/ATF-MV TOYOTA ATF Type T/T-II/T-III/T-IV

For complete list of specifications please visit www.mannol.de

Specifications:

JASO M315, Class 1-A-LV

HONDA/ACURA DW-1 HONDA ATF Type 3.0/ATF Type 3.1 NISSAN/INFINITI Matic S/Matic W BMW/MINI 83 22 0 142 516 (1375.4)/ 83 22 0 397 114/83 22 2 152 426/ 83 22 2 289 720/83 22 2 163 514/ 83 22 2 305 397

FORD XT-10-QLVC/XT-6-QSP/XT-6-DSP HYUNDAI/KIA NWS-9638 T-5/SP-IV/ HYUNDAI/KIA SPH-IV/SP-IV-RR HONDA ATF Type 3.0/ 3.1/DW-1 NISSAN/INFINITI Matic S/W MAZDA FZ/FW 6A EL/FW 6AX EL MB 236.12/236.14/236.15/236.41

MITSUBISHI ATF-J3/Dia Queen ATF-PA TOYOTA Scion FZ/Type WS/JWS 3324

For complete list of specifications please visit www.mannol.de

8220 CVT NS-3

Variable Transmission Fluid. Synthetic



Volume: / Art. Nr.:

		1L	MN8220-1
1L Met.	MN8220-1ME	4L	MN8220-4
20L	MN8220-20	208L	MN8220-DR

Special synthetic transmission oil for continuously variable transmissions with CVTF V-belt variator (Continuously Variable Transmission Fluid). Ensures smooth operation of automatic transmissions, guarantees minimum wear, long transmission life and fuel economy in all operating conditions and modes.

8222 ATF ULV

Automatic Transmission Fluid. Fully-synthetic



Volume: / Art. Nr.:		
	11	MNI8222-

Special ultra-low viscosity synthetic gear oil with a special additive package for the latest AISIN 8-speed gearboxes including those equipped with a slip lock-up clutch.



8205 DEXRON II

Automatic Transmission Fluid. Universal

Volume: / Art. Nr.:

		1L	MN8205-1
4L	MN8205-4	10L	MN8205-10
20L	MN8205-20	60L	MN8205-60
208L	MN8205-DR	1000L	MN8205-IBC

A universal all-season mineral-based transmission fluid (ATF) for automatic gearboxes, hydraulic power steering systems, cab tilt mechanisms, car hydraulic clutches and other hydraulic devices, including the ones operating under heavy-duty conditions in trucks and off-road vehicles. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear, a lasting service life of transmissions and fuel economy. It was developed on the basis of the requirements set by the GM group.

Specifications:

BMW/MINI 83 22 0 136 376/ZF CVT V1 83 22 0 429 154/EZL 799A/EZL 799/ Punch EZL 799A/Punch EZL799 VW G 052 180/G 052 516 MB 236.20/CVT28 CHRYSLER CVTF+4 HONDA HMMF (Without starting clutch) HONDA HMMF HCF-2/CVTF

FORD MOTORCRAFT XT-7-QCFT FORD WSS-M2C933-A/MERCON C FORD CVT23/CFT30 MITSUBISHI DiaQueen CVTF-J1/-J4 NISSAN Matic W/NS-1/NS-2/NS-3 MAZDA CVTF 3320 RENAULT ELFMATIC

SUBARU LINEARTRONIC CVTF II/CVTF SUBARU E-CVTF/I-CVTF/CV-30 TOYOTA CVT Fluid TC/FE

For complete list of specifications please visit **www.mannol.de**

Specifications:

JASO M315, Class 1-A-LV (1)

ATF 134/3353/D971/L12108 ATF M-1375.4/M-1375.6 BENTLEY PY112995PA AUDI G 052 533/G 053 001 A2 AUDI G 055 005 A2/G 055 162 A2, A6 AUDI G 055 540 A2/G 060 162 A2 AUDI G 060 540 A2

BMW ATF 3+/ATF 7/ATF 6 BMW M-L12108/83 22 0 142 516 BMW 83 22 0 397 114/83 22 2 152 426 BMW 83 22 2 163 514/83 22 2 289 720 BMW 83 22 2 305 396/83 22 2 305 397 BMW 83 22 2 355 599/83 22 2 355 601 BMW 83 22 2 413 477

HYUNDAI/KIA ATF SP-IV/040000C90SG HYUNDAI/KIA SP4-M1/SPH-IV/SP-IV HYUNDAI/KIA SP-IV-RR

For complete list of specifications please visit www.mannol.de

Specifications:

ALLISON C4 CATERPILLAR TO-2 GM Dexron II D MAN 339 V1/339 Z1 MB 236.5/236.7 RENK

VOITH H 55.6335,xx (G607) ZF TE-ML 03D/TE-ML 04D ZF TE-ML 11A/TE-ML 14A ZF TE-ML 17C

8206 DEXRON III

Automatic Transmission Fluid. Synthetic



Volume:	1	Art.	Nr.:

		1L	MN8206-1
4L	MN8206-4	10L	MN8206-10
20L	MN8206-20	60L	MN8206-60
208L	MN8206-DR	1000L	MN8206-IBC

A universal all-season synthetic-based transmission fluid (ATF) for automatic gearboxes, hydraulic converters, hydraulic power steering systems, car hydraulic clutches and hydraulic devices, including the ones operating under heavy-duty conditions in trucks and off-road vehicles. It is designed for the majority of automatic gearboxes for GM, FORD Company and other brands manufactured up to 2006.



Automatic Transmission Fluid. Synthetic



Volume: / Art. Nr.:

		1L	MN8207-1
4L	MN8207-4	10L	MN8207-10
20L	MN8207-20	60L	MN8207-60
208L	MN8207-DR	10001	_ MN8207-IBC

A universal all-season synthetic transmission fluid (ATF) for automatic gearboxes, hydraulic converters, hydraulic power steering systems, car hydraulic clutches and other hydraulic devices, including the ones operating in heavy-duty conditions in trucks and off-road vehicles. It ensures a flawless operation of an automatic gearbox, guarantees minimal wear, a lasting service life of transmissions and fuel economy. It was developed on the basis of the requirements set by GM and FORD groups.

Specifications:

ALLISON C4 CATERPILLAR TO-2 FORD Mercon V FORD ESP-M2C138-CJ FORD ESP-M2C166-H GM Dexron III H/G/F MB 236.1

VOITH H 55.6335.xx (G607) ZF TE-ML 09/TE-ML 11 ZF TE-ML 14

Specifications:

JASO M315, Class 1-A-LV

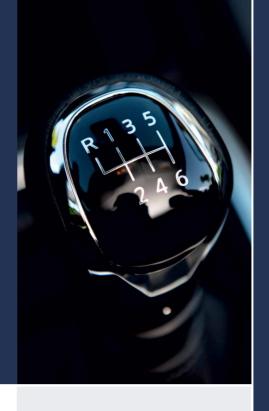
AISIN WARNER JWS 3309/ JWS 3324/ATF-0T4/ATF-0WS ALLISON C4/C3/C2/389 BENTLEY PY112995PA BOSCH TE-ML 09 CITROEN Z 000169756 FORD Mercon LV

FORD ESP-M2C138-CJ/ ESP-M2C166-H/XT-10-QLV [LV]/ XT-2-QDX M]/XT-2-QSM [Syn]/ XT-5-QM [V]/XT-5-QSM [V Syn]/ XT-6-QSP [SP]/XT-8-QAW [Premium]/ XT-9- QMM5 [FRN5]/WSS-M2C922-A1 GM Dex-VI [GMW 16444]

GM Dex [GM 6032M]/Dex-B [GM 6032M] GM Dex-IIC [6137M]/Dex-IID [GM 6137M]

For complete list of specifications please visit www.mannol.de

A range consisting of oils for manual transmissions with and without synchronizers and oils for main gears, including gears with high-friction LS differentials, transfer cases and on-board gearboxes and other gear mechanisms of cars and trucks, buses, construction, road and agricultural machinery.



8115 MTF-3

Special Transmission Fluid. Fully Synthetic



Volume: / Art. Nr.:

		1L MN8115-1	
20L	MN8115-20	60L	MN8115-60
208L	MN8115-DR	1000L MN8115-IBC	

Universal energy-saving all-season transmission fully synthetic oil of the latest generation specially developed for use in robotic and manual gearboxes of TOYOTA and FORD cars (Attention! Not for all manual transmissions). Applicable for transfer cases and differentials. Developed based on the requirements of the TOYOTA group.



Gear Transmission Fluid. Fully Synthetic





Volume: / Art. Nr.:

850ml MN8100-085

The special synthetic transmission oil is developed for Haldex couplings of all generations, as well as for Allroad, Quattro and 4motion couplings and ensures long and smooth operation of these mechanisms. Designed to meet the special requirements of the VW group G 060 175.

Specifications:

SAE 75W API GL-4

TOYOTA LV/08885-81081 NISSAN LV MTF-1 FORD WSS-M2C200-D2 BMW MTF LT-3/LT-2 BMW 83 22 3 396 706 BMW 83 22 7 533 818 BMW 2300 7533 818

MB 235.71 VW G 052 727/052 749/052 798 VW TL 521 71 (G 052 171 A1) VW TL 521 71 (G 052 171 A2) VW TL 521 78 (G 052 178 A2) VW TL 525 12 (G 052 512 A2) VOLVO 1161838/1161839

Others JWS 2271

For complete list of specifications please visit **www.mannol.de**

Specifications:

VW G 060 175 A2 VW G 055 175 A2 VW G 052 175 A2 VW G 052 175 A2 BMW 8322 2413513 GM 93165387 LAND ROVER LR 003136 LAND ROVER LR 054941 OPEL/VAUXHALL 1940057 VOLVO 31367940

8103 EXTRA GEAR OIL

Synthetic Gear Oil





Volume: / Art. Nr.:	Vo	lume:	/ Art.	Nr.:
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		1L	MN8103-1
4L	MN8103-4	10L	MN8103-10
20L	MN8103-20	60L	MN8103-60
208L	MN8103-DR	10001	MN8103-IBC

A universal last-generation energy-conserving all-season synthetic gear oil for all types of manual transmissions. It is recommended for use in all types of synchronized manual transmissions (including heavy-duty), in differentials (including LS with excessive friction), steering equipment and other transmission parts where an excessive pressure and impact load is encountered and in which the use of standards GL-4 and/or GL-5 is prescribed.

8104 MTF-4 GEAR OIL

Synthetic Gear Oil





	Vol	ume:	1	Art.	Nr.
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1L	MN8104-1	4L	MN8104-4
20L	MN8104-20	60L	MN8104-60
208L	MN8104-DR	10001	_ MN8104-IBC

A latest-generation energy-conserving synthetic gear oil for manual transmissions. It is recommended for use in all types of 5- and 6-speed synchronized manual transmissions, including transmissions with an incorporated differential of front wheel drive vehicles, transfer cases and main gears, in which the application of the standard GL-4 is prescribed. It was developed on the basis of the requirements set by the BMW group.

8108 BASIC PLUS

Fully Synthetic Gear Oil





Volume: / Art. Nr.:

		1L Met.	MN8108-1ME
1L	MN8108-1	4L	MN8108-4
20L	MN8108-20	60L	MN8108-60
208L	MN8108-DR	1000L	MN8108-IBC

An all-season universal last-generation energy-conserving gear oil (containing PAO) designed specially for the lubrication of manual transmissions with an incorporated differential of front drive vehicles. It is suitable for all types of synchronized and non-synchronized manual transmissions (including heavy-loaded). It was developed on the basis of the requirements set by the VW Group.

Specifications:

SAE 75W-90 API GL-4 API GL-5 LS (Limited Slip)

MACK GO-J MACK GO-J Plus MAN 342 Type M1 MAN 342 Type M2 MAN 342 Type M3 SCANIA STO 1:0

Specifications:

SAE 75W-80 API GL-4

BMW MTF LT-1/MTF LT-2 BMW MTF LT-3/MTF LT-4 VW G 009 317/G 052 171 VW G 052 178/G 052 512 VW G 052 532/G 052 527 VW G 052 726/G 052 798 VW G 055 726

FORD WSS-M2C200-D2 MB 235.10 MITSUBISHI MZ312644 3005401 NISSAN 999MP-MTF20P KE91699932R PEUGEOT 9730A2/9730A8 PSA B71 2330 TOYOTA JWS 227

Specifications:

SAE 75W-90 API GL 4+ MIL L 2105

VW 501 50

8102 MAXPOWER 4x4

Fully Synthetic Gear Oil





Volume: / Art. Nr.:

1L	MN8102-1	10L	MN8102-10
20L	MN8102-20	60L	MN8102-60
208L	MN8102-DR	10001	L MN8102-IBC

All-season last-generation gear oil (contains PAO) specially designed for the lubrication of all types of differentials, including excessive friction differentials where the oil "Limited Slip Oil API GL5" is required. It was developed for hypoid, bevel and spiral gears.



8109 UNIGEAR

Synthetic Gear Oil





Volume: / Art. Nr.:

1L	MN8109-1	10L	MN8109-10
20L	MN8109-20	60L	MN8109-60
208L	MN8109-DR	10001	_ MN8109-IBC

A universal energy-conserving synthetic gear oil. It may be used in all manual transmission devices, including 5- and 6-speed synchronized manual transmissions, transmissions with an incorporated differential of front wheel drive vehicles, transfer cases and main gears, including hypoid.



8202 DCT FLUID

Synthetic Gear Oil



Volume: / Art. Nr.:

1L	MN8202-1	10L	MN8202-10
20L	MN8202-20	60L	MN8202-60
208L	MN8202-DR	1000L	. MN8202-IBC

A special synthetic gear oil (containing PAO) for DCT - dual clutch transmission/DSG - Direct Shift Gearbox or "robots". It is not recommended for gearboxes with a "dry" clutch. It ensures a flawless operation of a gearbox, guarantees minimal wear, a lasting service life and fuel economy.

Specifications:

SAE 75W-140 API GL-5 LS (Limited Slip) MIL L 2105 D

MAN 342 SCANIA STO 1:0

Specifications:

SAE 75W-80 API GL-4/GL-5 LS MIL L 2105 C

FORD WSD-M2C200-C MACK GO-J Plus PSA B71 2330

Specifications:

VW G 052 182/G 052 529/6-speed BMW 83 22 2 148 578/83 22 2 148 579 BMW 83 22 0 440 214/83 22 2 147 477 BMW Drivelogic 7-speed (Getrag)
BMW DCTF-1/ DCTF-1+/6-speed DCT FORD WSS-M2C936-A NISSAN WSS-M2C936-A

MB 236.21/001 989 85 03 MITSUBISHI MZ320065 MITSUBISHI TC-SST 6-speed (GFT) PORSCHE 999.917.080.00 RENAULT EDC 6-speed (Getrag) RENAULT EDC-7/Talisman R7D PSA 9734.S2

PEUGEOT DCS 6-speed (GFT) VOLVO 1161838/1161839 FERRARI 7-speed (Getrag)/TF DCT-3 PENTOSIN FFL-8 CASTROL BOT 341/BOT 450 Others SHELL TF DCT-F3 BORGWARNER/BUGATTI VEYRON

8107 UNIVERSAL GEAR OIL

Universal Gear Oil

Specifications:

SAE 80W-90 API GL-4 MIL L 2105



Volume: / Art. Nr.:

		1L	MN8107-1
4L	MN8107-4	10L	MN8107-10
20L	MN8107-20	60L	MN8107-60
208L	MN8107-DR	10001	_ MN8107-IBC

A universal all-season mineral-based gear oil. It was developed for all types of synchronized and non-synchronized manual transmissions, drive axles and other components of manual transmissions operating under sustainable and heavy loads.

8101 FWD GEAR OIL

Semi-synthetic Gear Oil



Volume: / Art. Nr.:

		1L	MN8101-1
4L	MN8101-4	20L	MN8101-20
60L	MN8101-60	208L	MN8101-DR

A latest-generation energy-conserving all-season semi-synthetic gear oil for manual transmissions. It is recommended for use in all types of synchronized manual transmissions (including transmissions with an incorporated differential in front wheel drive vehicles) and in heavy-duty non-synchronized manual transmissions, transfer cases and main gears, in which the application of the standard GL-4 and/or MT-1 is prescribed.

8118 ULTRA GEAR OIL

Semi-synthetic Gear Oil



Volume: / Art. Nr.:

1L	MN8118-1	5L	MN8118-5
20L	MN8118-20	60L	MN8118-60
208L	MN8118-DR	10001	L MN8118-IBC

Universal energy-saving all-season semi-synthetic gear oil of the latest generation, meeting the latest international standards. Suitable for all types of main gears with hypoid and bevel gears, transfer cases, wheel reduction gears as well as for manual gearboxes and other transmission units where GL-5 grade oil is required. Meets the requirements of the latest global J2360 standard for gear oils.

Specifications:

SAE 75W-85 API GL-4 API MT-1

ISO 12925-1 (CKC) ISO 6743-6 (CKC) DIN 51517-3 (CLP) ANSI AGMA 250.04 MIL L 2105 US STEEL 224

Specifications:

SAE 75W-90 API GL-5

FORD WSD-M2C200-C MACK GO-J/GO-J Plus SCANIA STO 1:0 MAN 342 Type M1/342 Type M2 MAN 342 Type M3/342 Type S1 MAN 342 Type S2 ZF TE-ML 5A/TE-ML 7A ZF TE-ML 8A/TE-ML 16B-D ZF TE-ML 17B SAE J2360

8105 HYPOID LSD

Universal Gear Oil



Volume:	/ A	۱rt.	Nr.	
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4L	MN8105-4	10L	MN8105-10
20L	MN8105-20	60L	MN8105-60
208L	MN8105-DR	1000L	MN8105-IBC

A universal all-season high-viscosity mineral-based gear oil for manual transmissions. It was developed for a safe and reliable operation of self-locking differentials (differentials with excessive friction/limited slip – LS), main gears with hypoid pinions and other manual transmission parts with bevel, worm and cylindrical pairs withstanding extreme (including impact) loads and high operating temperatures.

8106 HYPOID GEAR OIL

Universal Gear Oil



Volume: / Art. Nr.:

			1L	MN8106-1
	4L	MN8106-4	10L	MN8106-10
	20L	MN8106-20	60L	MN8106-60
	208L	MN8106-DR	1000L	MN8106-IBC

A universal all-season mineral-based gear oil. It was developed for hypoid gears withstanding extreme loads; in heavy-duty bevel, cylindrical and worm pairs. It is recommended for use in differentials (including excessive friction — LS). It may be used for all types of manual transmissions, including the ones withstanding extremely heavy loads and high temperatures.

8113 SAE 90 Universal Gear Oil



Volume: / Art. Nr.:

4L	MN8113-4	20L	MN8113-20
208L	MN8113-DR	10001	L MN8113-IBC

A mineral simple-composition gear oil for mild operating conditions (low loads and sliding velocities). It may be recommended for the lubrication of accessory equipment to be installed in special vehicles (reducers in autocranes, mechanisms of garbage trucks, side lifting components, etc.) when operating at temperatures no lower than $-18\,^{\circ}\text{C}$.

Specifications:

SAE 85W-140 API GL-5 LS (Limited Slip) MIL L 2105 D

Specifications:

SAE 80W-90 API GL-4/GL-5 LS (Limited Slip) API MT-1 MIL L 2105 D

MACK GO-J MAN 342

Specifications:

SAE 90 API GL-4/GL-5

8114 SAE 140

Universal Gear Oil

Specifications:

SAE 140 API GL-4/GL-5



Volume: / Art. Nr.:

4L	MN8114-4	20L	MN8114-20
208L	MN8114-DR	1000L	MN8114-IBC

A mineral simple-composition gear oil for mild operating conditions (low loads and sliding velocities). It may be recommended for the lubrication of accessory equipment to be installed in special vehicles (reducers in autocranes, mechanisms on garbage trucks, side lifting components, etc.) when operating at temperatures no lower than 0°C.

8111 TG-1 UNIVERSAL

SyntheticTruck Gear Oil



Volume: / Art. Nr.:

		10L	MN8111-10
20L	MN8111-20	60L	MN8111-60
208L	MN8111-DR	10001	_ MN8111-IBC

A latest-generation universal energy-conserving completely synthetic allseason gear oil in compliance with the newest world standards. It is suitable for all synchronized and non-synchronized manual transmission types operating under heavy loads and at high speed in extremely low temperatures. It is developed on the basis of the requirements of European and American truck manufacturers.

8112 TG-2 HYPOID

Synthetic Truck Gear & Axle Oil



Volume: / Art. Nr.:

		10L	MN8112-10
20L	MN8112-20	60L	MN8112-60
208L	MN8112-DR	10001	L MN8112-IBC

A latest-generation universal energy-conserving completely synthetic all-season gear oil in compliance with the newest world standards. It is suitable for all types of synchronized and non-synchronized manual transmissions (especially heavy-load), transfer cases and main gears with hypoid gears. It is developed on the basis of the requirements of European and American truck manufacturers.

Specifications:

SAE 75W-80 API GL-4

EATON Manual Transmission MAN 341 Type Z4 MAN 341 Type E3 VOLVO 97307 ZF TE-ML 01L ZF TE-ML 02L ZF TE-ML 16K

Specifications:

SAE 75W-90 SAE J2360 API GL-4/GL-5 API MT-1 MIL L 2105 D/PRF 2105 E

EATON Europe MAN 341 Z2 MAN 341 S1 MB 235,8 MERITOR O-76-N SCANIA STO 1:0 VOLVO 97312

ZF TE-ML 02B ZF TE-ML 05A ZF TE-ML 12L ZF TE-ML 12N ZF TE-ML 16F ZF TE-ML 17B ZF TE-ML 19C ZF TE-ML 21A This range includes a complete set of fluids necessary for the operation of mobile equipment: concentrates and ready-made solutions of cooling fluids (mineral, organic, hybrid and lobrid), brake and hydraulic fluids, including the latest generations.



3003 DOT-3
Brake Fluid

Specifications:

SAE J1703 FMVSS 116 DOT 3 Others IRAM-AITA-6H3 TIPO 3



Volume: / Art. Nr.:

0,48kg MN3003-05

Universal synthetic brake fluid based on polyglycols and esters containing corrosion and oxidation inhibitors. It is recommended for use in cars and trucks of early years with drum brakes (and front disc brakes), which are not subjected to too active operation. Provides reliable operation of the brake system at all ambient temperatures due to the increased boiling point (>215 $^{\circ}$ C) and excellent low-temperature properties (down to -40 $^{\circ}$ C).

3002 DOT-4
Brake Fluid

Specifications:

SAE J1703/J1704 ISO 4925 FMVSS 116 DOT 4 JIS JAPAN K2233



Volume: / Art Nr ·

	,		
		0,455kg	MN3002-05
0.849ka	MN3002-1	4.87ka	MN3002-5

Synthetic brake fluid based on polyglycols and esters, containing corrosion and oxidation inhibitors. Designed for hydraulic systems of all traditional brake devices and clutches. Provides reliable operation of the brake system at any ambient temperature due to the increased boiling point (>245 °C) and excellent low-temperature properties (up to -40 °C).

8990 CENTRAL HYDRAULIC FLUID

Hydraulic Fluid



Volume:	1	Art.	Nr.:	

		450ml	MN8990-045
1L	MN8990-1	208L	MN8990-DR

High-quality and highly effective multi-purpose synthetic hydraulic fluid with ashless additives, developed for central hydraulic systems of modern cars — Central Hydraulic Fluid (CHF). Designed based on the highest requirements of car manufacturers for use over the entire life of the vehicle.

8301 LHM+ FLUID

Hydraulic Fluid



Volume:	/ Art.	Nr.:

		1L	MN8301-1
20L	MN8301-20	60L	MN8301-60
208L	MN8301-DR	10001	_ MN8301-IBC

Special synthetic low-viscosity green fluid for centralized (combined) brake and hydraulic systems, power steering systems, hydropneumatic suspension systems and brakes in CITROËN, MERCEDES-BENZ, PEUGEOT and VOLKSWAGEN vehicles.

8302 LDS FLUID

Hydraulic Fluid



Volume: / Art. Nr.:

		1L	MN8302-1
20L	MN8302-20	60L	MN8302-60
208L	MN8302-DR	10001	L MN8302-IBC

Synthetic red fluid based on carefully selected base oils of the highest quality. Designed for CITROËN passenger cars equipped with HYDRActive 3 hydraulic systems, as well as electrohydraulic power steering systems (EHPS) installed on PSA CITROËN, PEUGEOT, RENAULT and other vehicles where PSA Standard B71 2710 is required.

Specifications:

VW TL 52 146 VW G 004 000 VOLVO 8713089 MAN M 3289 BMW 81 22 9 407 758 GM B 040 0070 OPEL B 040 0070

FIAT 9.55550-AG3 ZF TE-ML 02K ZF TE-ML 09B

Specifications:

DIN 51524-3 ISO 7308

FIAT 9.55597 IVECO 18-1823 NEW HOLLAND NH-610A PSA B71 2710 SDFG OF1611S

Specifications:

DIN 51 524-3 ISO 7308 PSA S71 2710

8203 ATF-A PSF

Power Steering Fluid

Specifications:

ALLISON C3 CATERPILLAR TO-2 GM ATF Type A Suffix A



Volume: / Art. Nr.:

		1L	MN8203-1
4L	MN8203-4	10L	MN8203-10
20L	MN8203-20	60L	MN8203-60
208L	MN8203-DR	10001	_ MN8203-IBC

Universal all-season mineral oil for power steering systems, automatic transmissions of older generations, torque converters and hydraulic clutches of all types of vehicles. Designed following GM requirements.

8970 POWER STEERING FLUID

Power Steering Fluid

Specifications:

HONDA Ultra PSF-II HONDA PSF Type S HONDA PSF Type V HONDA 08206-9002 ACURA 08206-9002A



Volume: / Art. Nr.:			
450ml	MN8970-045	1L	MN8970-1

Special synthetic fluid (contains PAO) for HONDA and ACURA power steering systems developed in accordance with HONDA standards.

8980 POWER STEERING FLUID

Power Steering Fluid



Volume: / Art. Nr.:

450ml MN8980-045 **208L** MN8980-DR

High-quality synthetic hydraulic fluid designed for modern power steering systems and clutch hydraulic systems of VOLKSWAGEN, MERCEDES-BENZ and CHRYSLER vehicles. Designed based on DAIMLER requirements.

Specifications:

MB 236.3 ZF TE-ML 03D ZF TE-ML 04D ZF TE-ML 09 ZF TE-ML 11 ZF TE-ML 14A ZF TE-ML 17C

4011/4111 ANTIFREEZE AG11

Ready-to-use Longterm Coolant Fluid (-40 °C)
Concentrated Longterm Coolant Fluid



4211 COOLANT G11

Ready-to-use Coolant Fluid (-10 °C)

Volume: / Art. Nr.:

		1L	MN4011/MN4111/MN4211-1
5L	MN4011/MN4111/MN4211-5	10L	MN4011/MN4111/MN4211-10
20L	MN4011/MN4111/MN4211-20	60L	MN4011/MN4111/MN4211-60
208L	. MN4011/MN4111/MN4211-DR	1000	L MN4011/MN4111/MN4211-IBC

A silicate (inorganic – IAT Inorganic Acid Technology) solution, designed for a year-round use in any modern cooling systems containing copper, brass and aluminium components for which the use of an ethylene-glycol-based antifreeze is recommended.

4012/4112 ANTIFREEZE AF12+

Ready-to-use Longlife Coolant Fluid (-40 °C)
Concentrated Longlife Coolant Fluid



4212 COOLANT G12+

Ready-to-use Coolant Fluid (-10 °C)

Volume: / Art. Nr.:

		1L	MN4012/MN4112/MN4212-1
5L	MN4012/MN4112/MN4212-5	10L	MN4012/MN4112/MN4212-10
20L	MN4012/MN4112/MN4212-20	60L	MN4012/MN4112/MN4212-60
208L	MN4012/MN4012/MN4012-DR	1000L	. MN4012/MN4112/MN4212-IBC

A carboxylated (organic – OAT Organic Acid Technology) solution, designed for a year-round use in any modern cooling systems for which the use of ethylene-glycol-based antifreeze is recommended. It ensures a reliable protection of any cooling system.

4013/4113 ANTIFREEZE AG13

Ready-to-use Hightec Coolant Fluid (-40 °C)
Concentrated Hightec Coolant Fluid



4213 COOLANT G13

Ready-to-use Coolant Fluid (-10 °C)

Volume: / Art. Nr.:

		1L	MN4013/MN4113/MN4213-1
5L	MN4013/MN4113/MN4213-5	10L	MN4013/MN4113/MN4213-10
20L	MN4013/MN4113/MN4213-20	60L	MN4013/MN4113/MN4213-60
208L	. MN4013/MN4013/MN4013-DR	10001	MN4013/MN4113/MN4213-IBC

A hybrid (HOAT – Hybrid Organic Acid Technology) high-technology antifreeze with excellent operating characteristics intended for a year-round use in any modern cooling system for which the use of monoethylene-glycol-based antifreeze is recommended.

Specifications:

ASTM USA D3306 AFNOR FRANCE NF R15-601 BS 6580:2010

VW TL 774 C OPEL/VAUXHALL GME L1301 BMW/MINI GS 94000 CHRYSLER MS-7170 MAN 324 Typ NF MTU MTL 5048 TESLA

Specifications:

SAE J1034 ASTM USA D3306/D4656 ASTM USA D4985/D6210 AFNOR FRANCE NF R15-601 (except for RA) BS 6580:2010

FVV GERMANY Heft R443 KSM SOUTH KOREA 2142 MIL BELGIUM BT-PS-606-A MIL FRANCE DCSEA 615/C MIL ITALY E/L-1415b MIL SWEDEN FSD 8704 NATO S-759

OENORM AUSTRIA V5123 UNE SPAIN 26-361-88/1 ASTON MARTIN VW TL 774 D/TL 774 F

For complete list of specifications please visit **www.mannol.de**

Specifications:

SAE J1034 ASTM USA D3306/D4340 ASTM USA D4985 AFNOR FRANCE NF R15-601 BS 6580:2010

BMW/MINI GS 94000 OPEL/VAUXHALL GME L1301 OPEL GM QL130100 CHRYSLER MS-7170 FORD ESE-M978B4H-A FORD AF Plus GM 1825M/1899M/SATURN

JAGUAR JOHN DEERE MAN 324 Typ NF MTU MTL 5048 NATO S-759 MB 325.0

4014/4114 ANTIFREEZE AG13+

Ready-to-use Advanced Coolant Fluid (-40 °C) Concentrated Advanced Coolant Fluid



4214 COOLANT G13+

Ready-to-use Coolant Fluid (-10 °C)

Volume: / Art. Nr.:

		1L	MN4014/MN4114/MN4214-1
5L	MN4014/MN4114/MN4214-5	10L	MN4014/MN4114/MN4214-10
20L	MN4014/MN4114/MN4214-20	60L	MN4014/MN4114/MN4214-60
208L	. MN4014/MN4114/MN4214-DR	10001	_ MN4014/MN4114/MN4214-IBC

A hybrid (HOAT – Hybrid Organic Acid Technology) high-technology solution with excellent operating characteristics intended for a year-round use in any modern cooling system for which the use of monoethylene-glycol-based antifreeze is recommended.

4015/4115 ANTIFREEZE AF13++



Ready-to-use High-performance Coolant Fluid (-40 °C) Concentrated High-performance Coolant Fluid

Volume:	Art.	Nr.
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		1L	MN4015/MN4115-1
5L	MN4015/MN4115-5	10L	MN4015/MN4115-10
20L	MN4015/MN4115-20	60L	MN4015/MN4115-60
208L	MN4015/MN4115-DR	1000L	MN4015/MN4115-IBC

Low-hybrid (LOBRID) high-technology ecological solution (not requiring being diluted and protecting the vehicle cooling system at up to -40 °C) with excellent operating characteristics, designed for a year-round use in any modern cooling system for which the use of mono-ethylene-glycol-based antifreeze is recommended.

4414 PRO COOL

Ready-to-use Coolant Fluid for Motorbikes (-40 °C)



Volume: / Art. Nr.:

		1L	MN4414-1
5L	MN4414-5	10L	MN4414-10
20L	MN4414-20	60L	MN4414-60
208L	MN4414-DR	1000L	MN4414-IBC

A hybrid (HOAT — Hybrid Organic Acid Technology) high-technology ready-to-use solution for two-wheeled motor vehicles (not requiring being diluted and protecting the cooling system at up to -40 °C) with excellent operating properties designed for a year-round use in any modern cooling system for which the use of mono-ethylene-glycol-based antifreeze is recommended. It ensures a reliable protection of any cooling system of two-wheeled motor vehicles.

Specifications:

SAE J1034 ASTM USA D3306/D4340 ASTM USA D4985 AFNOR FRANCE NF R15-601 BS 6580:2010

BMW/MINI GS 94000 CHRYSLER MS-7170 FORD ESE-M978B4H-A FORD AF Plus GM 1825 M/1899 M GM SATURN NATO S-759

JAGUAR
JOHN DEERE
MAN 324 NF
MB 325.0
MTU MTL 5048
OPEL/VAUXHALL GME L1301
OPEL GM OI 130100

Specifications:

SAE J1034 ASTM USA D3306/D4656 ASTM USA D4985 AFNOR FRANCE NF R15-601 (except for RA) BS 6580:2010

CUNA ITALY NC 956-16 FVV GERMANY Heft R443 UNE SPAIN 26-361-88/1 VW TL 774 G/TL 774 J CUMMINS CES 14603 NATO S-759 IRIZAR

LIEBHERR Minimum LH-01-COL3A MAN 324 Si-OAT MB 325.5/325.6 SMART MB 326.0 SCANIA

Specifications:

SAE J1034 ASTM USA D3306/D4656 AFNOR FRANCE NF R15-601 BS 6580

JIS JAPAN K2234 KSM SOUTH KOREA 2142

8303 FORK OIL

Hydraulic Fluid

Specifications:

SAE 10W



Volume: / Art. Nr.:

1L MN8303-1

Universal, synthetic, all-season oil for motorbike forks and shock absorbers with the most popular SAE 10W viscosity. Intended for use in classic and inverted forks of road and off-road motorbikes, mopeds, scooters and other motorbike vehicles where these devices are present.

9894 AIR BRAKE ANTIFREEZE

Air Brake Coolant Fluid



Volume: / Art. Nr.:

450ml MN9894-045

Antifreeze for pneumatic brake systems based on aliphatic alcohols and anti-corrosion additives. Designed for pneumatic brake systems with a tank for the dehumidifier, all types of cars, heavy-duty vehicles, off-road (construction, mining, agricultural) and special equipment.



AD3001 AdBlue®

Fuel System Additive

Volume: / Art. Nr.:

		10L	AD3001-10
20L	AD3001-20	1000L	AD3001-IBC

AdBlue® is a high-purity 32,5 % w/w urea solution which is used as an additional working fluid in diesel cars and trucks equipped with SCR technology (Selective Catalytic Reduction). The composition of AdBlue® is specified in DIN 70070. The use of such systems optimises engine performance, reduces the emission of harmful particles in exhaust gases and complies with the environmental standards Euro 4, Euro 5 and Euro 6.

Specifications:

DIN 70070 ISO 22241-1 ISO 22241-2 ISO 22241-3 This range consists of oils for industrial units of the most used viscosities and specifications: compressor, turbine and stationary internal combustion engines. It also includes mineral hydraulic oils for heavy machinery with different characteristics and for different operating conditions.



Volume: / Art. Nr.:		3101	SAE	10W
		10L	MN310)1-10
20L	MN3101-20	60L	MN310)1-60
208L	MN3101-DR	1000L	MN310	1-IBC

		3102	SAE ZUW
		10L	MN3102-10
20L	MN3102-20	60L	MN3102-60
208L	MN3102-DR	1000L	MN3102-IBC

		31	<u>U3</u>	SAE	30
		10L	1M	N3103	-10
20L	MN3103-20	60L	1M	V3103	-60
208L	MN3103-DR	1000L	1M	V3103	-IBC

M.O. SERIES

Industrial Engine Oil

2104 CAE 40

		3 U4 3AE 40		
		10L	MN3104-10	
20L	MN3104-20	60L	MN3104-60	
208L	MN3104-DR	1000L	_MN3104-IBC	

		37	U 5	SAE	5 0
		10L	١M	N3105-	10
20L	MN3105-20	60L	١M	V 3105-	-60
208L	MN3105-DR	10001	_ MI	J3105-	IBC

A special highest-quality monograde mineral engine oils for medium-load diesel-powered engines with and without a turbocharger operating under various conditions. It was designed especially for VOLVO and CATERPILLAR equipment that requires the presence of corresponding specifications.

Volume: / Art. Nr.:		21	01	ISO	32
5L	MN2101-5	10L	MN	2101-	-10
20L	MN2101-20	60L	MN	2101-	-60
208L	MN2101-DR	1000L	MN	2101-	-IBC

		21		120	46
5L	MN2102-5	10L	MN	2102-	-10
20L	MN2102-20	60L	MN	2102-	-60
208L	MN2102-DR	1000L	. MN	2102-	-IBC

		2 1		120	68
		10L	MN	2103-	10
20L	MN2103-20	60L	MN	2103-	60
208L	MN2103-DR	1000L	- MN	2103-	IBC

HYDRO SERIES

Industrial Hydraulic Oil

		Z 10	J/4 ₃	12	U	100
		10L	M	N2	104	4-10
20L	MN2104-20	60L	M	N2	104	4-60
208L	MN2104-DR	1000L	_ M	N2	104	4-IBC

		21	J 5	150	150
		10L	М	N210	5-10
20L	MN2105-20	60L	М	N210	5-60
208L	MN2105-DR	10001	LM	N210	5-IBC

Special all-season mineral hydraulic oils created for hydraulic devices of stationary or mobile equipment operating at high and very high operating temperatures. It was developed taking into account the requirements for industrial hydraulic systems operating in the conditions of very high loads, pressures, temperatures and/or velocities.

Specifications:

SAE 10W/20W/30/40/50 API CH-4 MIL L 2104 C

CATERPILLAR Series 3 DAVID BROWN DB OM 616 VOLVO B20 MACK EO-J

Specifications:

ISO VG 32/46/68/100/150 ISO 11158 (HM) DIN 51524-2 (HLP)

AFNOR FRANCE NF E 48-603
AIST Industrial Hydraulic Oil
CONESTOGA ISO 20763
EATON I-286-S
MAG CINCINNATI P-68/P-69/P-70
PARKER DENISON HF-0/HF-1/HF-2
PARKER DENISON Filterability TP 02100

SPERRY VICKERS I-286-S US STEEL 126/127

HYDRO HV SERIES

Industrial Hydraulic Oil

Volun	ne: / Art. Nr.:	2201	HV	ISO	32
		10L	MN	2201-	10
20L	MN2201-20	60L	MN	2201-	60
208L	MN2201-DR	1000L	. MN	2201-	IBC

		<u>7272U3</u> 3	HV	120	68
		10L	MN	2203-	-10
20L	MN2203-20	60L	MN	2203-	-60
208L	MN2203-DR	1000L	. MN	2203-	-IBC

		2202	HV	ISO	46
		10L	MN	2202-	10
20L	MN2202-20	60L	MN	2202-	-60
208L	MN2202-DR	1000L	. MN	2202-	IBC

		2204	HV	ISO	22
		10L	MN	2204-	10
20L	MN2204-20	60L	MN	2204-	60
208L	MN2204-DR	1000L	.MN	2204-	IBC

All-season mineral paraffin hydraulic oils with a high-viscosity index created for the hydraulic equipment of a mobile or stationary equipment operating at high and extra-high operating temperatures. It was developed taking into account the requirements for industrial hydraulic systems operating in the conditions of extra-high loads, pressures, temperatures and/ or velocities and especially in the conditions of strongly varying temperatures.

HYDRO HV ZINC FREE SERIES

Industrial Hydraulic Oil

Volum	ne: / Art. Nr.:	220 8	HV	ISO	32
		10L	MN	2208-	10
20L	MN2208-20	60L	MN	2208-	-60
208L	MN2208-DR	10001	_ MN	2208-	-IBC

		2205	HV 15U 46
		10L	MN2206-10
20L	MN2206-20	60L	MN2206-60
208L	MN2206-DR	1000L	MN2206-IBC

All-season mineral hydraulic oils created on the basis of highly-purified basic oils with a high viscosity index and a zinc-free (low-ash) additive package for the most full compliance with specific operating requirements of modern high-load and heat-stressed precision hydraulic systems, including the ones equipped with servo mechanisms and servo valves used in industrial and mobile equipment for which the manufacturer recommends using "zinc-free" hydraulic oils.

COMPRESSOR OIL SERIES

Industrial Compressor Oil

Volun	ne: / Art. Nr.:	29	901	ISO	46
1L	MN2901-1	10L	MN	2901	-10
20L	MN2901-20	60L	MN	2901	-60
208L	MN2901-DR	1000L	- MN	2901	-IBC

		290	<mark>02</mark> ISO 100	
1L	MN2902-1	10L	MN2902-10	_
20L	MN2902-20	60L	MN2902-60	_
208L	MN2902-DR	1000L	_MN2902-IBC	;

		290	K	150	150
		10L	М	N290	3-10
20L	MN2903-20	60L	М	N290	3-60
208L	MN2903-DR	1000L	. M	N290	3-IBC

		2290	0/4	ISO	220
		10L	М	N290	4-10
20L	MN2904-20	60L	М	N290	4-60
208L	MN2904-DR	1000L	_ M	N290	4-IBC

Specials highly-purified paraffin ashless mineral compressor oils with an extended replacement age. It ensures a stable and continuous operation of the equipment throughout the entire operation period.

Specifications:

ISO VG 32/46/68/22 ISO 11158 (HM/HV/HVLP) SAE MS 1004 DIN 51524-2 (HM) DIN 51524-3 (HVLP)

AIST 126/127 ASTM USA D6158 ANSI AGMA 9005-E02-RO BOSCH REXROTH RE 90220 JCMAS P041 HK Hydraulic specification EATON M-2950-S/I-286-S3 GERMAN STEEL INDUSTRY SEB 181222

MAG CINCINNATI P-68/P-69/P-70 PARKER DENISON HF-0/HF-1/HF-2 SPERRY VICKERS M-2950-S/I-286-S3 GM I S2

Specifications:

ISO VG 32/46 ISO 11158 (HM/HV/HVLP) SAE MS 1004 DIN 51524-2 (HM) DIN 51524-3 (HVLP)

AIST 126/127
ASTM USA D6158
ANSI AGMA 9005-E02-RO
BOSCH REXROTH RE 90220
JCMAS P041 HK Hydraulic specification
GERMAN STEEL INDUSTRY
SEB 181222

EATON M-2950-S/I-286-S3 MAG CINCINNATI P-68/P-69/P-70 PARKER DENISON HF-0/HF-1/HF-2 SPERRY VICKERS M-2950-S/I-286-S3 GM LS2

Specifications:

ISO VG 46/100/150/220 ISO DP 6521 (L-DAA/L-DAB) ISO DP 6521 (L-DAG/L-DAH) DIN 51506 (VBL/VCL/VDL) DIN 51515-1 (L-TD)/-2 (L-TG) DIN 51517-2 (CL)/51524-1/-2

AFNOR FRANCE NF E 48-603 BROWN BOVERI HTGD 90117 BSI GB BS 489 GE GEK 32568 A/GEK 32568 C CEGB 207001 MAG CINCINNATI P-38/P-55/P-54 MAG CINCINNATI P-57/P-62

MITSUBISHI E00-87182 MIL L 17672 D PARKER DENISON HF-0 SIEMENS TLV 9013 VDMA 24568 US STEEL 120

TURBINE SERIES

Industrial Turbine Oil

Volun	ne: / Art. Nr.:	23	301	ISO	32
		10L	MN	2301-	10
20L	MN2301-20	60L	MN	2301-	-60
208L	MN2301-DR	1000L	. MN	2301-	IBC

		23	302 ISO 46
		10L	MN2302-10
20L	MN2302-20	60L	MN2302-60
208L	MN2302-DR	1000L	MN2302-IBC

		23	303	ISO	68
		10L	MN	2303-	10
20L	MN2303-20	60L	MN	2303-	-60
208L	MN2303-DR	1000L	. MN	2303-	IBC

All-season mineral paraffin hydraulic oils with a high-viscosity index created for the hydraulic equipment of a mobile or stationary equipment operating at high and extra-high operating temperatures. It was developed taking into account the requirements for industrial hydraulic systems operating in the conditions of extra-high loads, pressures, temperatures and/or velocities and especially in the conditions of strongly varying temperatures.

GEAR OIL

Industrial Gear Oil

Volun	ne: / Art. Nr.:	28	01	ISO	220
20L	MN2801-20	60L	М	N280	1-60
208L	MN2801-DR	1000	L M	N280	1-IBC

		226	304	150	64
20L	MN2804-20	60L	MN:	2804-	-60
2081	MN2804-DR	10001	MN	2804	JBC

		400	190	IUU
20L	MN2805-20	60L	MN280	5-60
208L	MN2805-DR	1000L	. MN280	5-IBC

An industrial mineral reduction gear oil for use in gear transmissions of modern imported and domestic equipment requiring the use of high-quality oils with enhanced antiwear and anti-scuffing EP (Extreme Pressure) properties.

1103 EMULSION

Water-miscible Emulsion



Volume: / Art. Nr.:

20L MN1103-20 **208L** MN1103-DR

Water-miscible greasing and cooling fluid (GCF) with a high content of mineral oil and a highly effective additive package, providing multi functionality and stability of the emulsion for machining ferrous and non-ferrous metals.

Specifications:

ISO VG 32/46/68 ISO DP 6521 (DAA/DAB) ISO DP 6521 (DAH/DAG) DIN 51506 (VBL/VDL/VCL) DIN 51524-1/-2/-3/51517-2 DIN 51515-1 (L-TD)/-2(TG)

AFNOR FRANCE NF E 48-603 BSI GB BS 489 BROWN BOVERI HTGD 90117 GE GEK 32568 A/GEK 32568 C CEGB 207001 MIL L 17672 D VDMA 24568

MAG CINCINNATI P-38/P-55/P-54 MAG CINCINNATI P-57/P-62 MITSUBISHI E00-87182 PARKER DENISON HF-0

For complete list of specifications please visit **www.mannol.de**

Specifications:

ISO VG 64/100/220 ISO 6743-6 (CKC) ISO 12925-1 Type CKC/CKD DIN 51517-3

ANSI AGMA 252.04 US STEEL 224 This range of oils includes oils with special properties for agricultural and construction machinery: transmission and hydraulic oils that meet the requirements of CATERPILLAR TO-4, STOU universal engine and transmission oils and UTTO universal tractor transmission oil.



TO-4 POWERTRAIN OIL SERIES

Heavy Duty off-highway Fluid

Volun	ne: / Art. Nr.:	2601	SAE	10W
		10L	MN260)1-10
20L	MN2601-20	60L	MN260)1-60
208L	MN2601-DR	1000L	MN260	1-IBC

		26	02 SAE 30
		10L	MN2602-10
20L	MN2602-20	60L	MN2602-60
208L	MN2602-DR	1000L	MN2602-IBC

		20US SAE JU		
		10L	MN2603-10	
20L	MN2603-20	60L	MN2603-60	
208L	MN2603-DR	1000L	MN2603-IBC	

Special all-season transmission-hydraulic mineral oil designed for use in hydraulic systems, transmissions and gearboxes (including power ones), on-board gearboxes of other devices of off-road equipment with and without low-load brakes (clutches).

MULTIFARM STOU SERIES

Agricultural Machinery Oil



Volum	ne: / Art. Nr.: 2	501 S	AE 10W-30
5L	MN2501-5	10L	MN2501-10
20L	MN2501-20	60L	MN2501-60
208L	MN2501-DR	1000L	MN2501-IBC

	25	<u>02</u> S/	AE 10W-40
		10L	MN2502-10
20L	MN2502-20	60L	MN2502-60
208L	MN2502-DR	10001	MN2502-IBC

Genuinely universal engine-transmission all-season semi-synthetic (HC-synthese) engine oil for modern diesel-powered engines of agricultural equipment with and without a turbocharger operating under harsh conditions as well as for manual transmissions, "wet"-type brake systems and even hydraulic systems of tractors.

Specifications:

SAE 10W/30/50

ALLISON C4 (off-road) CATERPILLAR TO-4 KOMATSU KES 07.868.1

Specifications:

SAE 10W-30/10W-40 API CG-4/CF-4/CF/CE/CD/SF API GL-4 ACEA E3 DIN 51524-3 HVLP

ALLISON C4 CASE I H MS 1204/1206/1207/1209 CASE NEW HOLLAND MAT 3525/3526 CATERPILLAR TO-2 EATON M-2950-S/I-286-S FORD ESN-M2C86-B/ESN-M2C86-C FORD ESN-M2C134-D

FORD M2C159-B/WSS-M2C159-C FORD NEW HOLLAND: 82009201/82009202/82009203 JOHN DEERE J27/J20C/J20D MASSEY FERGUSON: M1135/ M1139/M1143/M1144/M1145

For complete list of specifications please visit **www.mannol.de**

2701 MULTI UTTO WB101

Agricultural Machinery Oil

Volume: / Art. Nr.:

		10L	MN2701-10
20L	MN2701-20	60L	MN2701-60
208L	MN2701-DR	1000L	MN2701-IBC

Universal and multi-functional mineral all-season tractor oil for farm holdings and tractors, agricultural vehicles with very high operating characteristics. Its main purpose: an oil for on-board gearboxes with a standard replacement interval. It complies with VOLVO 97303 requirements. It is also suitable for mechanical gearboxes with and without synchronizers, transmissions (including power transmissions), back axles, hydraulic systems (including the ones integrated with a mechanical gearbox) and other equipment that requires Universal Tractor Transmission Oil (UTTO) grade oil. It is particularly suitable for the reduction of vibration in "wet" brake systems and power-take off.

2703 AGROFARM U

Universal Agricultural Machinery Oil (UTTO)

Volume: / Art. Nr.:

		10L	MN2703-10
20L	MN2703-20	208L	MN2703-DR

All-season mineral gear-hydraulic oil for tractors and other agricultural machinery with high viscosity and performance characteristics. Main purpose: oil for transmissions, including final reduction gears fitted with wet brakes and clutches. Also suitable for use in manual gearboxes with and without synchronisers, transmissions (including power transmissions), rear axles, hydraulic systems (including those combined with a gearbox) and in other equipment requiring a "Universal Tractor Transmission Oil" (UTTO).

7406 TRAKTOR SUPEROIL

Agricultural Machinery Oil



Volume:	/ Art. Nr.:	
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5L	MN7406-5	10L	MN7406-10
20L	MN7406-20	60L	MN7406-60
208L	MN7406-DR	1000L	MN7406-IBC

An all-season economy-class mineral engine oil for modern high-load and high-speed 4-stroke diesel-powered engines of tractors with and without a turbocharger operating under harsh conditions. It was developed specially for ensuring the protection of the agricultural equipment and receiving the maximum return regardless of its operating conditions.

Specifications:

API GL-4 DIN 51524-2

ALLISON C4 VOLVO VCE WB 101/97303 CASE I H MS 1204/MS 1206 CASE I H MS 1207/ MS 1209 CASE NEW HOLLAND MAT 3525 CATERPILLAR TO-2

PARKER DENISON HF-0/HF-1 PARKER DENISON HF-2 FORD NEW HOLLAND: ESN-M2C41-B/M2C86-A/-B/-C ESN-M2C134-A/-C/-D ZF TE-ML 03E/TE-ML 05F ZF TE-ML 06E/TE-ML 06F

ZF TE-ML 06K/TE-ML 17E/ ZF TE-ML 21F

For complete list of specifications please visit www.mannol.de

Specifications:

ISO Viscosity Grade 100 API GL-4 DIN 51524-2 (HLP)

JOHN DEERE J20C CATERPILLAR TO-2 FORD ESN-M2C134-D MASSEY FERGUSON CMS M1135 MASSEY FERGUSON CMS M1143 MASSEY FERGUSON CMS M1145

Specifications:

SAE 15W-40 API SG/CD A range of oils of various viscosities with high neutralising properties for marine diesels of various types and operating on fuels of different composition and quality in terms of viscosity and sulphur content.



MARINE 12-SERIES

Marine Oil

Specifications:

SAE 30/40 API CF TBN 12

1230 SAE 30 Volume: / Art. Nr.: 10L MN2404-10

1240 SAE 40

208L MN2404-DR 1000L MN2404-IBC

208L MN2405-DR 1000L MN2405-IBC

High performance diesel engine oils developed for use on low sulphur distillate fuels in marine and industrial applications. Product is formulated to have excellent resistance to oxidation and viscosity increase over a long period of service. They have superior water separating properties and provide excellent corrosion protection. Formulated with base oils having proven successful performance in diesel engines. The additive system is balanced to provide excellent resistance to thermal degradation under moderately severe operating conditions. They provide good engine cleanliness and superior wear protection.

> **2406 MARINE 3040** Marine Oil

Specifications:

SAE 40 API CF-4 **TBN 30**

Volume: / Art. Nr.:

208L MN2406-DR 1000L MN2406-IBC

High-alkaline mineral motor oil for medium-speed heavy marine diesel engines operating on fuel oil with a sulfur content of up to 4.0 %.

Applicable for auxiliary engines. It is intended for use in general and separate lubrication systems of medium-speed diesel engines of ships of the sea transport, fishing and river fleets and in industry and power plants. It is suitable both for lubricating cylinders and bearings of a cylinderpiston group of some types of crosshead diesel engines.

The MANNOL high-tech product range includes the latest developments in car cares products, oil additives and greases.

Our speciality is the thorough and detailed analysis of every individual situation, depending on the complexity of the intended purpose, the type of materials used as well as the climatic and other conditions in different world regions. Thanks to the professional approach to product development we have created affordable and extremely effective products that help save vehicle owners' time and money.



8028 / 8048 / 8115 / 8125

UNIVERSAL MULTI-MoS2 GREASE EP2 ESTER





Weight: / Art. Nr.:

100g	8028-01	230g	8028-023	4,5kg	8028-4,5	9kg	8048
400a	8028-04	800a	8028-08	18ka	8115	180ka	8115

Universal ester containing multipurpose extreme pressure plastic lithium grease based on highly refined mineral oil base with extreme pressure and wear-resistant additives of molybdenum disulfide and lubricating graphite, which has high heat resistance, sealing ability and provides excellent anti-friction and extreme pressure characteristics.

8100 / 8094 / 8029 / 8049

HIGH TEMPERATURE GREASE LC2 ESTER





 Weight: / Art. Nr.:

 100g 8100
 230g 8094

 400g 8029-04
 9kg 8049

 18kg 8029-18
 18kg 8029-180

Universal ester containing heat-resistant anti-wear grease made on the basis of highly refined mineral oils with a thickener based on thermostable complex lithium soap with the addition of special anti-wear, antioxidant and anti-corrosion additives, designed for long-term lubrication of ball and roller bearings operating under high thermal and mechanical loads.

Specifications:

NLGI 2 DIN 51502 KPF2N-30

Specifications:

NLGI 2 DIN 51502 KP2P-30

meets: MB 265.1 MAN TL 284 8026 / 8093 / 8046 / 8127

MARINE LONG TERM GREASE WR2 ESTER





Weight: / Art. Nr.:

100g	8026-01	230g	8093
400g	8026-04	9kg	8046
18kg	8026-18	180kg	8127

Multipurpose ester containing waterproof grease made on the basis of highly refined mineral oils with a thickener based on mixed lithium-calcium soap with the addition of special adhesive, antioxidant and anticorrosive additives.

8098 / 8095 / 8106 / 8027 / 8047 / 8114 / 8124

UNIVERSAL MULTIPURPOSE GREASE MP2 ESTER





Weight: / Art. Nr.:

100g	8098	230g	8095
400g	8027-04	800g	8106
4,5kg	8027	9kg	8047
18kg	8114	180kg	8124

Multi-purpose long-life lithium grease based on ester technology, contains special anti-oxidation and anti-corrosion additives.

8050 / 9985 / 9987

LOW VISCOSITY GREASE ESTER





Weight: / Art. Nr.:

		800g	9985
9kg	8050	18kg	9987

Lithium-calcium ester containing semi-fluid grease for the lubrication of slow-speed gearboxes and centralized lubrication systems (CCS) of trucks and buses, meeting the DAIMLER-BENZ requirements (sheet 264) for truck lubricants and the requirements of MAN TL 283. Produced on the basis of highly refined mineral oils with the application of antiwear, depressant, anticorrosive and antioxidant additives.

Specifications:

NLGI 2 DIN 51502 KP2K-30

meets: NATOG460

Specifications:

NLGI 2 DIN 51502 K2K-30

Specifications:

Li-EP 00/000

meets: MAN TL 283 MB 264

8117 UNIVERSAL MULTI-MoS2 GREASE EP3 ESTER





Volume: / Art. Nr.:

18kg 8117

Universal multipurpose extreme pressure plastic lithium grease based on highly refined mineral oil base with extreme pressure and wear-resistant additives of molybdenum disulfide and lubricating graphite, which has high heat resistance, sealing ability and provides excellent anti-friction and extreme pressure characteristics.

8401 EXTREME PRESSURE MULTIPURPOSE GREASE EPO ESTER





Volume: / Art. Nr.:

18kg 8401

Semi-liquid multipurpose anti-scuffing lithium-calcium premium class grease with extended service life, based on selectively purified high-viscosity oils and group V oils with the addition of anti-wear, anti-oxidant and anti-corrosive organic additives.

8402 EXTREME PRESSURE MULTIPURPOSE GREASE EP1 ESTER





Volume: / Art. Nr.:

18kg 8402

Semi-liquid multipurpose anti-scuffing lithium-calcium premium class grease with extended service life, based on selectively purified high-viscosity oils and group V oils with the addition of anti-wear, anti-oxidant and anti-corrosive organic additives. Intended for centralised lubrication systems of friction units of transport, agricultural, off-road and other equipment exposed to medium and high loads.

Specifications:

MAN TL 283 MB 264 Others Li-EP 00/000

Specifications:

NLGI 0 DIN 51502 MP0K-40 ISO 6743-9 L-XDCEA 0

Specifications:

NLGI 1 DIN 51502 KP1K-30 ISO 6743-9 L-XBCEA 1

8031 LITHIUM GREASE LT-43 ESTER





Volume: / Art. Nr.:

		400g	8031-04
800g	8031-08	4.5kg	8031-4.5
9kg	8031-9	18kg	8031-18

Multipurpose automotive grease for general use, made on the basis of highly refined mineral oils with a thickener based on lithium soap with the addition of synthetic esters and a functional additive package. Has consistency class NLGI 3.

8121 WHITE GREASE

White Lithium Grease



Volume: / Art. Nr.: 450ml MN8121

White mineral grease based on lithium soap, which has excellent heat resistance and resistance to leaching. Designed for machining parts of mechanisms, bearings, joints, gears and other gears, threaded connections. The product reduces friction, repels moisture, prevents dampening, protects against corrosion, and prevents freezing of elements. The tool is applicable in the car and in everyday life.

9881 LITHIUM SPRAY

Lithium Aerosol Grease



Weight: / Art. Nr.:
400ml MN9881

Universal water-resistant lithium grease in the form of an aerosol for lubricating metal, plastic and rubber parts of cars, motorcycles, electrical equipment and other equipment, as well as in the office and at home. Effectively protects against moisture, corrosion and wear.

Specifications:

NLGI 3

DIN 51502: K3K 30 ISO 6743-9: CCH-3

MOTOR DOCTOR

9943 MOTOR DOCTOR +ESTER

Engine Oil Additive



Volume: / Art. Nr.: 450ml MN9943-045

Innovative multifunctional engine protectant by stabilising the pressure in the lubrication system — an additive for engine oils based on synthetic esters (Group V oils). It is a complex product: a viscosity stabiliser protecting the oil from liquefaction, a sealant of the engine lubrication system and a friction modifier. It is suitable for all types of four-stroke engines — diesel and petrol engines and all types of oils — synthetic, semi-synthetic, mineral, including those containing esters.

9957 INJECTOR CLEANER

Fuel Additive



Volume: / Art. Nr.: 250ml MN9957-025

Universal cleaner for fuel systems of gasoline engines (atmospheric and turbocharged). Designed for multipoint injection (MPI) and direct (GDI) injection engines, suitable for carburetor engines. Developed with the latest generation detergent. Recommended for gasoline engines equipped with exhaust gas cleaning systems, including catalytic converters.

9955 CETANE PLUS

Fuel Additive



Volume: / Art. Nr.: 450ml MN9955-045

A special additive in diesel fuel that increases the cetane number and has cleaning properties. It is suitable for any type of diesel fuel and all types of diesel engines (atmospheric and turbocharged) with any fuel systems, equipped and not equipped with diesel particulate filters and catalysts.

9950 BENZIN ESTER **ADDITIVE**

Fuel Additive



Volume: / Art Nr ·

		100ml	MN9950-01	
250ml	MN9950-025	450ml	MN9950-045	

The latest development - a lubricating additive in petrol. It is intended for all types of fuel systems of petrol engines, first of all - for engines with direct fuel injection into cylinders. In diesel engines, such a power system was introduced earlier and showed its effectiveness, but also found a number of problems related to the lack of quality of lubrication of moving metal parts of the fuel system, and especially the high pressure fuel gump.

9939 BURNING BOOSTER

Fuel Additive



Volume: / Art. Nr.:

450ml MN9939-045

Fuel combustion Activator for all types of gasoline engine fuel systems based on synthetic esters. Designed to reduce fuel consumption and protect the engine from the consequences of using low-quality (surrogate) gasoline. When mixed with gasoline, it weakens intermolecular bonds, orders the spatial structure of hydrocarbons and makes it more uniform, which makes it easier for oxygen molecules to access them, which increases the completeness of combustion (oxidation) of gasoline and reduces its consumption.

9954 OCTANE PLUS

Fuel Additive



Volume: / Art. Nr.: **450ml** MN9954-045

A special additive in gasoline that increases the octane number and has detergent properties. Suitable for all types of gasoline and all types of gasoline engines (atmospheric and turbocharged), with any number of valves, equipped and not equipped with gasoline particulate filters and catalysts.

9991 MOLIBDEN ADDITIVE

Engine Oil Additive



Volume: / Art. Nr.: 300ml MN9991-030ME

An additive in engine and/or transmission (for mechanical transmissions) oil to reduce friction and wear, which is provided by an extremely stable colloidal dispersion of natural molybdenum disulfide (MoS_2) in the base oil. It forms a strong layered film with an unsurpassed anti-friction effect on all rubbing surfaces, which persists even when the oil is completely leaked.

9900 MOTOR FLUSH

Engine Oil Additive



Volume: / Art. Nr.: 300ml MN9900-030ME

Special cleaner for removing sediments, dirt, sludge and wear products of engine parts, including the most inaccessible elements of the oil system. Product properties: Cleans the oil system and filter nets of oil pumps. During the washing process, it provides reliable lubrication, preventing wear of engine parts. Due to the unique composition of detergent-dispersing additives, it guarantees highly effective and safe removal of carbon deposits, including from the bottom of the piston. Removes both oil-soluble and non-oil-soluble contaminants.

9990 MOTOR DOCTOR

Engine Oil Additive



Volume: / Art. Nr.: 300ml MN9990-030ME

Modern multifunctional additive in engine oil – a viscosity stabilizer designed to restore oil pressure and reduce its consumption in engines with high mileage.

Product properties: a special modifier increases the oil viscosity index, which prevents oil from entering the combustion chamber, which in turn reduces soot formation and eliminates exhaust gas smoke. Anti-wear components minimize wear on engines with any mileage and extend their service life. Improves the stability and strength of the oil film on the rubbing parts of the engine, which facilitates cold start and reduces starting wear.

9932 RUST DISSOLVER

Rust-Dissolving Molybdenum Disulfide Solution



Volume: / Art. Nr.:

450ml MN9932

A fast – penetrating and fast-acting rust dissolving and removing agent with excellent anti-friction and water-repellent properties. It allows you to quickly and safely mount and dismantle hardware of all types, as well as lubricates and protects various movable joints from corrosion: door locks and hinges; levers for driving carburetor dampers; telescopic antennas; fasteners for body and chassis elements, etc. Contains substances which gradually release, during the operation, the molybdenum disulfide.

9887 / 9880 COPPER SPRAY

Copper Paste Aerosol



Volume: / Art. Nr.:

250ml MN9887 **500ml** MN9880

Universal separating copper aerosol lubricant for various equipment elements operating under any loads (including high loads), and exposed to high temperatures and/or high humidity and/or aggressive environments. It is used to ensure easy disassembly of connections after long-term operation. Eliminates their coupling with each other under the influence of a variety of factors.



9672 MONTAGE CLEANER

Assembly and parts cleaner

Volume: / Art. Nr.: 600ml MN9672

A special high — performance cleaner for metal car parts. Suitable for parts made of any metals and alloys; has excellent cleaning properties; applicable to brake pads and discs, clutch and transmission parts, tools, etc. Application: Spray the cleaner on the dirty parts and in their joints and let it drain. After the solvents have evaporated, the parts remain clean and fat-free.

9668 TAR REMOVER

Tar and Insect Remover



Volume: / Art. Nr.: 450ml MN9668

An additive in engine and/or transmission (for mechanical transmissions) oil to reduce friction and wear, which is provided by an extremely stable colloidal dispersion of natural molybdenum disulfide (MoS_2) in the base oil. It forms a strong layered film with an unsurpassed anti-friction effect on all rubbing surfaces, which persists even when the oil is completely leaked.

9931 TEXTILE FOAM

Engine Oil Additive



Volume: / Art. Nr.: 650ml MN9931

Textile Foam is a highly effective foam cleaner for textiles. Removes various dirt from textile elements of the car interior (seats, doors, etc.), furniture upholstery, carpets, fabrics, etc.)

9895 / 9898 / 9892 / 9899 / 9889

M-40 LUBRICANT

Multifunction Lubricant



Weight: / Art. Nr.:

		100ml	9895
200ml	9898	400ml	9892
450ml	9899	5l	9889

M-40 Lubricant is a universal (penetrating, cleaning, anticorrosive, moisture — displacing, anti-squeaking, etc.) aerosol lubricant. It has unique lubricating and protective properties and has a wide range of applications. Ideal for professional and home use. It is a highly effective mixture of fast-penetrating active solvents and oils.

The main classifications of oils are:

by viscosity - SAE

by quality - ACEA API

ILSAC

The level of quality directly depends on the basis on which the oil is made, synthetic, semi-synthetic or mineral. Oils may contain special additives and have specific properties, such as low viscosity.



1.1. SAE classification

Viscosity is the most important characteristic of motor oils. For them today, the classification according to the SAE J-300 standard established by SAE (Society of Automotive Engineers) is considered generally accepted. It contains 6 winter classes (with the letter W) and the latest edition of 9 summer classes (table 1.1.). All-season oils have a double designation, and the class indicated by the first gives a winter characteristic, and the second summer: SAE 0W-40; 10W-40; 20W-50. The second figure characterizes the kinematic viscosity (KV) which is measured by special instruments – viscometers at a temperature of 100 °C for motor oils. It is impossible to correctly evaluate KV in other ways - including "by eye"!

Table 1.1 SAE I 200 angine oil classification

				Table 1.1 SAE J-300 e	ngine oil classification	
Class	Low temperature	dynamic viscosity	High temperature viscosity			
Class	Turnability	Pumpability	KV a	t 100 °C	HTHS	
By SAE	Maximum viscosity, MPa * s, a	at the appropriate temperature	Min	Max	Min	
0W	6200 at – 35 °C	60000 at -40 °C	3,8			
5W	6200 at - 30 °C	6200 at - 35 °C	3,8			
10W	6200 at – 25 °C	6200 at - 30 °C	4,1			
15W	6200 at - 20 °C	6200 at – 25 °C	5,6			
20W	6200 at – 15°C	6200 at - 20 °C	5,6			
25W	6200 at - 10 °C	6200 at - 15°C	9,3			
8			4,0	<6,1	1,7	
12			5,0	<7,1	2,0	
16			6,1	<8,2	2,3	
20			6,9	<9,3	2,6	
30			9,3	<12,5	2,9	
40			12,5	<16,3	3,5 (1)	
40			12,5	<16,3	3,7 (2)	
50			16,3	<21,9	3,7	
60			21,9	<26,1	3,7	

(1)- for classes SAE 0W-40, 5W-40, 10W-40

1.1. API classification

The most known classification by scope and level of performance is the classification of the API (American Petroleum Institute). It subdivides oils into two categories: "Ś" (Service) - oils for gasoline engines of cars and "C" (Commercial) - diesel oils for trucks, tractors, buses, off-road construction and agricultural machinery. In each of these categories, performance levels (classes) are indicated in Latin letters alphabetically in accordance with the increase in performance levels, for example: SL, SM, SN, SP. Universal oils for use in both types of engines are denoted by a slash: SL/SF. Classes in their respective categories are backward compatible, with the exception of FA-4. As a rule, the last 5 classes are valid; they are presented in table 1.2.

Table 1.2. API motor oil classification

Class API	Scope and conditions of use
Service Cate	egory
SL	In accordance with the requirements of automobile manufacturers, motor oils of this class are used in multi-valve, turbocharged engines operating on lean fuel mixtures that meet modern high environmental requirements as well as energy conservation.
SM	Motor oils of modern gasoline (multi-valve, turbocharged) engines. They, in comparison with API SL, have increased indicators of resistance to oxidation and premature wear of engine parts, as well as improved low-temperature properties.
SN	The main difference between this class and the previous ones is the limited phosphorus content for compatibility with modern systems for neutralizing GH, as well as integrated energy saving. Oils of this class approximately correspond to ACEA C3, C4 without correction for HTHS viscosity. The API SN class was approved in October 2010.
SN+	The SN + class has all the properties of the SN class and is designed to prevent the phenomenon of premature ignition of fuel in turbocharged engines – LSPI (Low Speed Pre-Ignition).

Legend: KV, mm²/s or cSt-kinematic viscosity;

HTHS, MPa*s - dynamic viscosity measured at high temperature – 150 °C and high shear rate of 106 s-1. Using this indicator, it is customary to evaluate the energy loss to overcome the internal friction of the oil film when the engine is running. The lower the HTHS, the more energy-efficient the oil. However, this indicator has a limit below which the oil film becomes unstable - 2.6 MPa *s;

EG - exhaust gases; EGR - EG recirculation system (Exhaust Gas Recirculation);

DPF - diesel particulate filter:

TWC - Three-way catalytic converters.

Class API	Scope and conditions of use
SP	The class came into effect on May 1, 2020 for the latest small-sized engines with direct injection of gasoline (GDI), turbocharging and diesel particulate filters (GPFs). These oils are highly resistant to LSPI (Low Speed Pre-Ignition) throughout the entire replacement interval, minimize engine and chain wear, provide excellent corrosion protection, and increased oxidation stability, thereby minimizing deposits, varnishes, and sludge. Compatible with all EG neutralization systems.
Commercial	Category
CG-4	Oils designed for 4-T diesel engines of off-road vehicles and trucks that comply with toxic emissions standards established in the United States since 1994. Compared with the oils of the previous classes, they have better detergent, anti-wear, anti-corrosion properties, less foaming at high temperatures and are well combined with low-sulfur (less than 0.05%) diesel fuel. Replace CF-4 oils in previously released engines.
CH-4	Oils designed for 4-T diesel engines of off-road vehicles and trucks that comply with toxic emissions standards established in the United States since 1998. Compared to CG-4 oils, viscosity growth is better prevented when there is a large accumulation of soot. Ensure the cleanliness of composite pistons with a steel head and a light alloy skirt. Combine well with fuels containing varying amounts of sulfur. Have an increased replacement interval. Backward compatible.
CI-4	Oils designed for 4-T diesel engines of off-road vehicles and trucks, performing according with toxic emissions requirements and equipped with an EGR system. Provide better protection for conventional diesel engines, being backward compatible. They have: improved anticorrosion properties (since water vapor condenses during the cooling of hot gases and a large amount of corrosive acids are formed), increased washing properties (fuel with sulfur content up to 0.5 weight % is allowed in EGR engines, which contributes to the accumulation of corrosive acids during the combustion of sulfur dioxide); increased dispersing properties (lowering the maximum combustion temperature leads to the formation of more soot); increased thermo-oxidative stability (operating oil temperature increased to 130 °C); low volatility (loss of evaporation under the influence of gases at a working temperature of 370 °C is reduced).
CI-4 +	CI-4 + oils have the same properties as CI-4, but have a higher level of protection against the increase in viscosity associated with soot and the loss of viscosity associated with shear.
CJ-4	The class was introduced in 2006 for high-speed 4-T engines designed to comply with the 2007 EG toxicity standards on highways. CJ-4 oils allow the use of fuels with sulfur contents up to 500 ppm (0.05% of mass). However, working with fuels in which the sulfur content exceeds 15 ppm (0.0015% of mass) may affect the performance of exhaust gas purification systems and / or oil change intervals. These oils are compatible with all EG neutralization systems.
CK-4	The class was introduced in 2016 for use in high-speed 4-T diesel engines designed to meet 2017 EG emissions standards on the highway and Tier 4 off-road standards. These oils are formulated for use with diesel fuels with sulfur content up to 500 ppm in all types of equipment. However, their use with fuels greater than 15 ppm sulfur may affect the durability of the EG neutralization systems and / or the oil change interval. API CK-4 oils ensure compatibility and consistency of all EG neutralization systems and especially DPF. They have even higher antioxidant stability, do not lose viscosity due to shear and aeration of the oil, better protect the engine from wear and deposits on the pistons. Do not lose low and high temperature properties and do not increase viscosity when filled with soot. Protect catalyst and DPF.
FA-4	Introduced along with CK-4 for some XW-30 oils, specially developed for use in some models of high-speed 4-T diesel engines that meet the standards of EG emissions on highways of 2017 and for use on main heavy vehicles when using diesel fuel with sulfur content up to 15 ppm (0.0015% of mass). The main difference from the CK-4 is reduced HTHS and increased fuel efficiency. These oils are not interchangeable or do not have backward compatibility with oils of other classes.

1.2. ACEA classification

Since 2016, a new European classification of motor oils has been in force – ACEA (European Automobile Manufacturers Association). Table 1.3 shows the ACEA classes for diesel and low power gasoline engines described in this catalog.

Table 1.3. ACEA engine oil classification

	Table 1.5. AGEA digitie of diagonisation
Class ACE	A Scope and conditions of use
Oils for cars	and vans with gasoline and diesel engines not equipped with EG neutralization systems and with increased resistance to destruction
A5/B5-21	Energy-saving oils 2.9 ≥ HTHS ≤ 3.5 For highly accelerated engines with extended drain intervals that allow the use of friction-reducing energy-saving oils. These oils may not be suitable for some engines, and their use must be guided by the operating instructions and technical manuals.
A3/B4-21	For engines with direct fuel injection. HTHS ≥ 3,5.
A7/B7-21	For turbocharged DI gasoline engines as well as turbocharger compressor deposit (TCCD) protection for modern DI diesel engines.
and with in	nly accelerated gasoline and diesel engines of cars and vans equipped with TWC and / or DPF requiring the use of low-ash oils creased resistance to destruction. Extend the life of TWC and / or DPF. May not be suitable for some types of engines. May be for some engines; when using them, it is necessary to follow the operating instructions and technical manuals.
C2-21	Energy-saving, low-viscosity oils with an average ash, sulfur and phosphorus content (Mid SAPS). HTHS≥2.9. Provide fuel economy.
C3-21	Oils that do not fall under the category of energy-saving with an average content of ash, sulfur and phosphorus (Mid SAPS). HTHS≥3.5.
C4-21	Oils that do not fall under the category of energy-saving with a low content of ash, sulfur and phosphorus (Low SAPS).
C5-21	Energy-saving, low-viscosity oils with an average ash, sulfur and phosphorus content (Mid SAPS). Provide fuel economy.
C6-21	Providing low speed pre-ignition and wear protection for turbocharged DI gasoline engines as well as diesel turbocharger compressor deposit (TCCD) protection for low SAPS class, being compatible with catalyst & GPF/DPF exhaust aftertreatment systems.

1.3. ILSAC classification of motor oils for passenger cars

Japanese and American automakers have created the international classification of motor oils for passenger cars ILSAC (International Lubricants Standardization and Approval Committee). The main classes today are classes GF-4, GF-5, GF-6 (A/B). These classes are almost identical to the corresponding API classes: SL, SN and SP, but surpass them in energy-saving properties and, accordingly, fuel efficiency.

1.4. Gear (transmission) Oil Classification

Transmission oils are intended for the lubrication of mechanical and automatic transmissions. Unlike motor oils, they do not come into contact with the hot surfaces of the combustion chamber, do not have contact with the combustion products of the fuel, but are exposed to high contact pressure with a high shear rate in the mating surfaces.

OILS FOR MECHANICAL (MANUAL) TRANSMISSIONS

For the classification of oils for mechanical transmissions by viscosity, the SAE system is most widely used. As for motor oils, for them there is a winter and summer series of viscosities. It contains 4 winter (with the letter W) and in the latest edition of 10 summer classes (table 1.4.). The double-labeled oil is multi grade (all seasons).

Viscosity	Maximum temperature at	KV at 100 °C mm²/c (2)			
by SAE	viscosity 150000 cP, (°C) (1)	Min ⁽³⁾	Max		
70W	- 55	3,8			
75W	- 40	3,8			
80W	-20	8,5			
85W	-12	11,00			
65	-	3,8	<5,0		
70	-	5,0	<6,5		
75	-	6,5	<8,5		
80	-	8,5	<11,0		
85	-	11,0	<13,5		
90	-	13,5	<18,5		
110	-	18,5	<24,0		
140	=	24,0	<32,5		
190	-	32,5	<41,0		
250	-	41,0	-		

Table 1.4. Classification of viscosity of gear oils for drive axles and gearboxes SAE J-306

(1)- ASTM D 2983

(2)- ASTM D 445

(3)— The limit must be maintained after 20 hours of testing. CEC L-45-T-93. Method C.

Also, oils are classified according to their performance according to API classification. For modern cars, API GL-4 and GL-5 class oils are used. These classes are conventionally called "gearbox oils" - GL-4 b and "hypoid gear oils" - GL-5. The oils used in limited slip differentials - limited-slip differential (LSD) – are designated by the letters LS.

Table 1.5. API Classification of Mechanical (manual) Transmission Oils

	·
Class GL	Application conditions, type of gear and composition
GL-4	Oils for gears operating in conditions of varying severity from light to heavy contain 4.0% effective extreme pressure additives. Designed for bevel and hypoid gears with small axle displacement, for gearboxes of trucks, for drive axles; for unsynchronized gearboxes of North American trucks, tractors and buses (commercial vehicles), for main and other gears of all vehicles; At the moment, they are also used for synchronized gearboxes in Europe, but the data sheet should include a note about this purpose and confirmation of compliance with the requirements of machine manufacturers. They are used in gears where contact pressures reach 2100 MPa, and sliding speeds from 1.5-3.0 to 9.0-12.0 m/s. Operating temperatures - 80-90 °C at peaks up to 150 °C.
GL-5	Oils for the most loaded gears operating in harsh conditions; contain up to 6.5% effective extreme pressure and other multifunctional additives. The main purpose is the lubrication of hypoid gears with a significant displacement of the axles. They are used as universal oils for other units of mechanical transmissions (except for gearboxes with synchronizers). Only oils with special confirmation of compliance with the requirements of machine manufacturers are used for them. They are used in gears where contact pressures exceed 2100 MPa and sliding speeds are higher than 15.0 m/s. Operating temperatures can reach 300 °C.

OILS FOR AUTOMATIC TRANSMISSIONS

A special kind of oil. They are subject to higher requirements for viscosity, frictional, anti wear and antioxidant properties than for other aggregates. Since automatic transmissions include several completely dissimilar units – a torque converter, a gear transmission box, a complex control system - the spectrum of oil functions is very wide and contradictory. The oil lubricates, cools, transmits torque and provides friction clutch.

The main ones for automatic transmissions are two types of oils that meet the requirements of two major car manufacturers – General Motors and Ford, bearing the brand names DEXRON and MERCON. Varieties and stages of development of the oils of these automakers are shown in tables 1.6. and 1.7.

Table 1.6. Varieties and stages of development of oils for automatic transmissions "GM"

				•		
License Number	DEXRON II D (min) GM 6137-M 1978 D	DEXRON II E (synt) GM 6137-M 1990 E	DEXRON III GM 6297-M 1993 F	DEXRON III GM 6417-M 1998 G	DEXRON III GM 2004 H	DEXRON VI GM 2006
Loop test	+	++	+++	+++	++++	+++++
Frictional properties	+	++	+++	+++	++++	+++++
Oxidation test	+	++	+++	+++	++++	++++
Wear test	+	++	++	+++	+++	++++
Foaming	+	++	+++	+++	+++	+++
Low temperature viscosity	+	++	++	++	++	+++
Flash point	+	++	+++	+++	+++	+++
Compatibility with seals	+	++	++	++	+++	+++

Modification
M2C33-B
M2C33-D
M2C33-F (Type F)
SQM-2C9007A, M2C33-G (Type G)
SQM-2C9007A, M2C138-CJ (Type CJ)
ESPM-2C166-H (Type H)
Mercon
Mercon
Mercon V (M2C202B, Type B)

Table 1.7

Varieties and stages of development of oils or automatic transmissions "FORD".

Oils for automatic gearboxes are painted (e. g. DEXRON red) to distinguish them from other oils and to detect leaks.



COOLANTS

The main operational properties of coolants are:

- high thermal conductivity;
- high boiling point;
- optimal chemical stability;
- the absence of corrosive effects on the structural materials of the radiator and engine;
- protection of parts of the cooling system from cavitation destruction;
- inertness to rubber products;
- lack of foaming at elevated temperatures.

Automotive coolants are conventionally divided into five main groups, depending on the composition of additives that provide corrosion protection for parts of the cooling system:

- Silicate (inorganic) G-11 according to the classification of the Volkswagen concern. As a rule, they are painted in blue, green or blue-green. Designated as: traditional coolants, conventional coolant, IAT (inorganic acid technology).
- Carboxylate (organic) G-12 according to the classification of the Volkswagen concern. As a rule, they are painted in red with all shades from orange to lilac. Indicated as: carboxilate coolant, OAT (organic acid technology).
- **Hybrid** which in addition to organic additives contain inorganic (silicates, nitrites or phosphates) G-12 +. As a rule, they are painted in red with all shades from orange to lilac. Designated as: hybrid coolant, HOAT (hybrid organic acid technology).
- **Lobrid (low hybrid) G-12** ++, containing more mineral components. They are painted in the same colors as carboxylate and hybrid. Designated as: lobrid coolant, SOAT (Silicon enhanced Organic Acid Technology).
- Antifreezes of class G-13, unlike antifreezes based on poisonous ethylene glycol base, are created on the basis of a harmless, environmentally friendly propylene glycol base. They are painted in purple or pink, but theoretically they can be painted in any color.

If a car radiator is made of copper or brass, it is better to fill in red - carboxylate antifreeze, if from aluminum - green or blue silicate. G-12 ++ and G-13 antifreezes will be suitable for any engines.

ACEA is the main standard for European manufacturers of engine oils for cars and trucks. On its basis, the specifications of OEM car manufacturers are developed.



ACEA- Specificati	ons Use	HTHS- Viscosity	Sulphate- Ash %	Phosphor in %	Sulfur in %	Low- SAPS*	Full- SAPS*	Fuel Economy
A3/B4-21	Gasoline Engines/ Diesel Engines	≥3,5 mPa.s	≥1,0 / ≤1,6				Х	
A5/B5-21	Gasoline Engines/ Diesel Engines	≥ 2.9 & ≤ 3.5Pa.s	≤1,6					X
A7/B7-21	Gasoline Engines/ Diesel Engines	≥ 2.9 & ≤ 3.5Pa.s	≤1,6					Х
C2-21	Gasoline Engines and Diesel Engines with exhaust gas aftertreatment system (DPF*)	≥2,9 mPa.s	≤0,8	≥0,07≤ 0,09	≤0,3			X
C3-21	Gasoline Engines and Diesel Engines with exhaust gas aftertreatment system (DPF*)	≥3,5 mPa.s	≤0,8	≥0,07≤ 0,09	≤0,3	X		
C4-21	Gasoline Engines and Diesel Engines with exhaust gas aftertreatment system (DPF*)	≥3,5 mPa.s	≤0,5	≤0,09	≤0,2	X		
C5-21	Gasoline Engines and Diesel Engines with exhaust gas aftertreatment system (DPF*)	≥2,6 & ≤2,9Pa.s	≤0,8	≥0,07; ≤0,09	≤0,3			X
C6-21	Gasoline Engines and Diesel Engines with exhaust gas aftertreatment system (DPF*)	≥2,6 & ≤2,9Pa.s	≤0,8	≥0,07; ≤0,09	≤0,3			X
E4-22	Utility vehicles and Building machines	≥3,5 mPa.s	≥2,0				Х	
E8-22	Utility vehicles and Building machines with exhaust gas aftertreatment system (DPF*)	≥3,5 mPa.s	≤1,0	≤0,08	≤0,3	X		
E7-22	Utility vehicles and Building machines	≥3,5 mPa.s	≤2,0				Х	
E11-22	Utility vehicles and Building machines with exhaust gas aftertreatment system (DPF*)	≥3,5 mPa.s	≤1,0	≤0,12	≤0,4	X		

¹⁾ Specification withdrawn in October 2004. Replaced by superseding specifications: ACEAA3; B3 or B4; E7 *DPF = Diesel particle filter *SAPS = Chemical limits Sulphate-Ash, Phosphor, Sulfur

ENGINE OILS FOR CARS		7832 4-Takt Powerbike	27	4214 Coolant G13+	49
AND TRANSPORTERS	. 06	7860 4-Takt Power Plus	28	4015 Antifreeze Af13++	49
7920 Hybrid SP	. 06	7209 4-Takt Premium	28	4115 Antifreeze Af13++	49
7722 Longlife 508/509	. 06	7830 4-Takt HD Motorbike	28	4414 Pro Cool	. 49
7918 Legend Ultra		7820 4-Takt Aqua Jet	29	8303 Fork Oil	50
7921 Legend Formula C5	. 07	7207 Outboard Marine	. 29	9894 Air Brake Antifreeze	50
7730 Legend 504/507	. 07	7208 Outboard Universal	. 29	AD3001 AdBlue	.50
7919 Legend Extra		7204 2-Takt Plus	30		
7922 Energy Formula LR		7205 2-Takt Universal	30	INDUSTRIAL OILS	. 51
7901 Legend+Ester		7201 2-Takt Snowpower		3101, 3102, 3103, 3104, 3105 M.O. Series	. 51
7906 Energy Ultra JP		7203 4-Takt Agro		2101, 2102, 2103, 2104, 2105 Hydro Series	. 51
7907 Energy Combi LL		7206 Agro		2201, 2202, 2203, 2204 Hydro HV Series	. 52
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7701 Energy Formula OP		8221 ATF Special Fluid	33	1103 Emulsion	
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7512 Special Plus	. 15	8222 ATF ULV		2406 Marine 3040	
7501 Classic	. 15	8205 Dexron II			
7507 Defender	. 16	8206 Dexron III		GREASES, ADDITIVES AND CAR CARE	
7504 Diesel Extra	. 16	8207 Dexron VI	38	PRODUCTS	57
7505 Molibden	. 16	GEAR OILS	20	8028, 8048, 8115, 8125	
7902 Racing+Ester	. 17	8115 MTF-3		Universal Multi-MoS2 Grease EP2 Ester	57
7402 Diesel	. 17			8100, 8094, 8029, 8049	0.
7405 Universal		8100 AWD		High Temperature Grease LC2 Ester	57
7510 Favorit		8103 Extra Gear Oil			. 51
7404 Safari		8104 MTF-4 Gear Oil		8026, 8093, 8046, 8127	
7409 SAE 40		8108 Basic Plus		Marine Long Term Grease WR2 Ester	. 58
7407 SAE 50		8102 Maxpower 4x4		8098, 8095, 8106, 8027, 8047, 8114, 8124	
7408 SAE 60		8109 Unigear		Universal Multipurpose Grease MP2 Ester	. 58
7400 OAL 00	. 10	8202 DCT Fluid		8050, 9985, 9987	
ENGINE OILS AND ADDITIVES FOR		8107 Universal Gear Oil	42	Low Viscosity Grease Ester	. 58
TRUCKS, BUSES AND MIXED VEHICLE		8101 FWD Gear Oil	. 42	8117 Universal Multi-MoS2	
FLEET	19	8118 Ultra Gear Oil		Grease Ep3 Ester	. 60
7101 TS-1 SHPD	. 19	8105 Hypoid LSD	43	8401 Extreme Pressure Multipurpose	
7102 TS-2 SHPD	. 19	8106 Hypoid Gear Oil	43	Grease EP0 Ester	59
7103 TS-3 SHPD	. 20	8113 SAE 90	43	8402 Extreme Pressure Multipurpose	. 00
7104 TS-4 SHPD		8114 SAE 140	44	Grease EP1 Ester	50
7105 TS-5 UHPD		8111 TG-1 Universal	. 44		
7106 TS-6 UHPD Eco		8112 TG-2 Hypoid	44	8031 Lithium Grease LT-43 Ester	
7107 TS-7 UHPD Blue				8121 White Grease	
7108 TS-8 UHPD Super		SERVICE FLUIDS		9881 Lithium Spray	
7109 TS-9 UHPD Nano		3003 DOT-3 Brake Fluid		9943 Motor Doctor+Ester	
7110 TS-10 UHPD		3002 DOT-4 Brake Fluid	45	9957 Injector Cleaner	.61
7112 TS-12 SHPD		8990 Central Hydraulic Fluid	46	9955 Cetane Plus	61
7114 TS-14 UHPD		8301 LHM+ Fluid	46	9950 Benzin Ester Additive	. 62
7115 TS-15 SHPD		8302 LDS Fluid	46	9939 Burning Booster	. 62
7117 TS-17 UHPD Blue		8203 ATF-A PSF	47	9954 Octane Plus	
7117 TS-17 OHPD Blue		8970 Power Steering Fluid	47	9991 Molibden Additive	
		8980 Power Steering Fluid		9900 Motor Flush	
7120 TS-20 SHPD		4011 Antifreeze AG11 Longterm		9990 Motor Doctor	
7121 TS-21 SHPD		4111 Antifreeze AG11 Longterm		9932 Rust Dissolver	
7123 TS-23 UHPD		4211 Coolant G11		9887, 9880 Copper Spray	
7124 TS-24 UHPD		4012 Antifreeze AF12+ Longlife			
7125 TS-25	25	4112 Antifreeze AF12+ Longlife		9672 Montage Cleaner	
OILS FOR MOTORBIKES, OUTBOARDS	6	4212 Coolant G12+		9668 Tar Remover	
AND ATVs		4013 Antifreeze AG13 Hightec		9931 Textile Foam	. 65
7202 4-Takt Plus		4113 Antifreeze AG3 Hightec		9895, 9898, 9892, 9899, 9889	
7812 4-Takt Motorbike		4213 Coolant G13		M-40 Lubricant	. 65
7813 4-Takt Motorbike		4014 Antifreeze AG13+ Advanced		The Concise Guide to Lubricants	66
7814 4-Takt Motorbike		4114 Antifreeze AG13+ Advanced		ACEA Specifications	70
TOTAL TUNE MOTORDING	1	7117/1111110020/10101 Auvailueu	3	, to E, t opening in	, 0

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