

Mobil Delvac™

Performance by ExxonMobil

A Guide to Mobil Delvac™

Setting the benchmark for lubrication

Energy lives here™



We've been keeping the industry moving for over 90 years

ExxonMobil has specialised in heavy-duty lubricants since 1925, providing long engine life and high performance protection for truck engines and drivelines throughout the world in all conditions.

new range of Commercial Light Duty engine oils – specifically designed to deliver long engine life, excellent protection and fuel economy retention, in challenging start-stop, city driving conditions.

To showcase our innovation and to address gaps within the Light Duty engine oils market, we've introduced our exciting



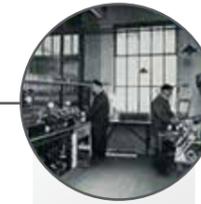
Throughout our history, Mobil Delvac™ has set the benchmark for lubrication

Our timeline of lubrication excellence

1925

Pioneering new technology

With the use of diesel engines growing significantly in the trucking industry, the Vacuum Oil Company files the patent for one of the first diesel engine oils, named Delvac: Diesel Engine Lubricant VAC-uum.



We have obtained over **2000** builder approvals

1930s

An age of expansion

To keep pace with the explosive growth of the trucking industry, Mobil Delvac™ formulators make ground-breaking improvements in wear and corrosion protection.



We have endorsements from over

300

original equipment manufacturers

1950s

Shifting global demands

With a potential shortage of crude oil looming, Mobil Delvac™ synthetic diesel engine lubricant is developed to ensure product supply for truckers.



1990s

Solutions for new challenges

As rising fuel costs and increasing competition create tough challenges for the trucking industry, Mobil Delvac™ formulators discover innovative ways to help protect engines for long life*, helping truckers protect their investments.



Today

Expanded service and innovation

Innovations continue with customised solutions such as oil analysis, an express oil-change service, maintenance consultancy and the launch of our new range of Commercial Light Duty engine oils.



In **2015** we celebrated 90 years of excellence

*Well-formulated oils, like Mobil Delvac™, that meet or exceed industry or Original Equipment Manufacturers (OEM) specifications, can help protect engines or equipment. Consult OEM for optimum fluid selection. Actual results may vary depending on OEM requirements, type of equipment or engine and its maintenance, application and service conditions, and prior lubricant used. For more information, go to mobil.com/pds

Take your fleet further with performance tailored to the extremes

Our state-of-the-art technology is specifically designed to help protect and extend the life of diesel engines, making Mobil Delvac™ and Mobil Delvac 1™ the trusted brands of choice for many successful businesses



Engine Protection

The reliability, performance and lifetime of your vehicle's driveline ultimately depends on an extremely thin lubricant film that separates moving parts and reduces friction. Synthetic basestocks help to provide an effective oil film across a wider temperature range. Selecting the right Mobil Delvac™ Synthetic engine oil will help to protect your engine from the harmful effects of contaminants. The correct combination of these attributes enables Mobil Delvac™ technology to help extend the life of heavy-duty equipment.

Fuel Economy Potential

Fuel represents a large proportion of commercial vehicles' operating costs. When used in combination with synthetic gear oils and greases or used separately, Mobil Delvac™ synthetic engine oils have the potential to offer fuel economy advantages versus conventional lubricants.

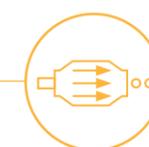


Extended Drain Potential

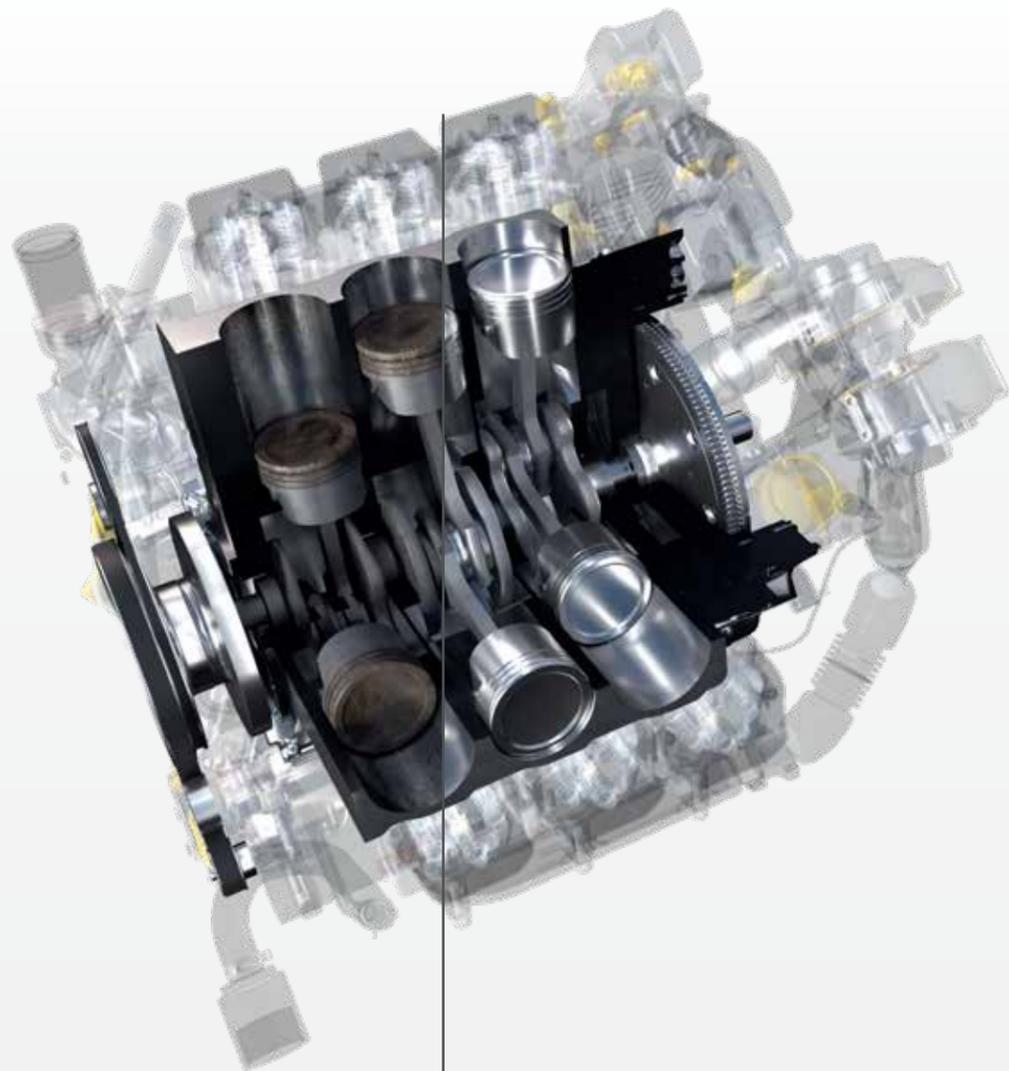
Our synthetic lubricants are more stable at high temperatures. That means they have better resistance to thermal degradation that can lead to performance-sapping sludge, deposit build-up and viscosity breakdown. Mobil Delvac™ synthetics offer long drain performance, saving you time and money.

Emission System Protection

Mobil Delvac™ synthetic engine oils are designed to lubricate and protect modern low-emission engine designs. These designs often include low oil-consumption rates, use of Exhaust Gas Recirculation, Selective Catalytic Reduction and sometimes Diesel Particulate Filters. For Commercial Vehicles fitted with Diesel Particulate Filters, we have developed a range of outstanding low-ash synthetic oils.



Mobil Delvac™ diesel engine oils deliver excellent protection and fuel economy for vehicles that keep on running



Mineral-based oil

Mobil Delvac™ synthetic oil

Proven performance attributes

Turbo charger protection

To lubricate a turbocharger is a big challenge for the oil. It has to withstand very high speeds (film thickness) in combination with very high temperature. The improved oxidation and thermal stability in Mobil Delvac™ synthetic lubricants together with the use of high performance additive systems helps to protect the turbocharger. We test that: the viscosity under High Temperature and High Shear conditions (HT/HS) and in the Thermal-Oxidation Engine Oil Simulation Test (TEOST).



Source: ISP Salzbergen GmbH

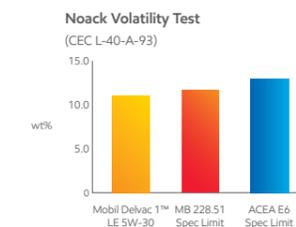
Viscosity stability

A higher viscosity index translates to a more stable viscosity across a broad temperature range. As well as their superior low temperature performance, Mobil Delvac™ synthetic lubricants resist thinning at elevated temperatures, resulting in superior protection across a greater operating temperature range.



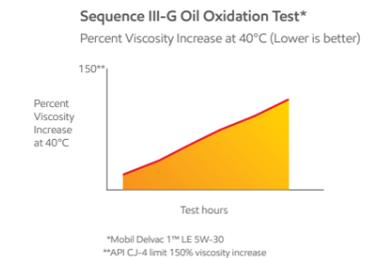
Oil consumption control

Mobil Delvac™ engine oil uses high performance additives in combination with synthetic base oils to provide excellent wear control, which helps to minimise oil consumption and to reduce top-ups between oil drains.



Improved oxidation and thermal stability

Improved oxidation stability and thermal stability in Mobil Delvac™ synthetic lubricants results in less viscosity increase with age and better deposit control. This means fewer oil changes and less downtime, and the potential for extended oil drain intervals, which ultimately saves you time and money.



Our products from bumper-to-bumper



Engine oil

Always remember to check product selection against OEM specification requirements and service intervals appropriate to your application and operating conditions.

A Mobil™ product for all your Commercial Vehicle needs



Manual and automatic transmissions

Mobil™ transmission oils include synthetic products and offer excellent protection against high-temperature and high speed wear whilst also providing outstanding cold-temperature performance.

Engine oil

- Mobil Delvac 1™ LE 5W-30
- Mobil Delvac 1™ 5W-40
- Mobil Delvac 1™ SHC 5W-40
- Mobil Delvac™ XHP Ultra LE 5W-30
- Mobil Delvac™ XHP ESP 10W-40
- Mobil Delvac™ XHP Extra 10W-40

Transmission

- Mobilube 1™ SHC 75W-90
- Mobil Delvac 1™ Transmission Fluid 75W-80
- Mobilube™ GX-A 80W
- Mobilube™ GX 80W-90
- Mobil Delvac 1™ ATF
- Mobil ATF™ SHC
- Mobil ATF™ 320

Clutch Throw Out Bearings and Greasing Points

- Mobilux™ EP2
- Mobilgrease™ Special
- Mobilgrease XHP™ 222

Differential and Final Drive

- Mobilube 1™ SHC 75W-90
- Mobil Delvac 1™ Gear Oil 75W-90
- Mobil Delvac 1™ Gear Oil 75W-140
- Mobilube™ HD-A 85W-90
- Mobilube™ HD-N 80W-140
- Mobilube™ HD 85W-140

Fifth Wheel and Universal Joints

- Mobilgrease XHP™ 220

Automatic Chassis Lubrication

- Mobil™ Chassis Grease LBZ

Wheel Hub Bearings

- Mobilith™ SHC 220
- Mobilgrease XHP™ 222

Power Steering

- Mobil ATF™ 320
- Mobil ATF™ 220



Rear axle

Mobil Delvac™ lubricants have been specially developed for truck transmissions, axles and final drives that operate even under the most demanding conditions.

Mobil Delvac™ technology helps extend the life of heavy-duty equipment



Power steering

Mobil ATF™ lubricants can help to ensure long service life, improved gearbox cleanliness, a smoother gear change and long gearbox life under all operating conditions.

Specifications and technical details

The reason Mobil Delvac™ is chosen by some of the world's leading Original Equipment Manufacturers (OEMs) and

Commercial Vehicle Owner Operators is quite simple – it's proven record and leading edge technology.

Benefits at a glance		 Engine Protection	 Fuel Economy Potential	 Extended Drain Interval	 Low Temperature Start Up	Additional Features
Mobil Delvac 1™ LE 5W-30	Advanced Engine & Emission System Protection, Fuel Economy Formula Heavy Duty 5W-30 Diesel Engine Oil	★★★★	★★★★	★★★★	★★★★	DPF Compatible
Mobil Delvac 1™ 5W-40	Ultimate Engine Protection	★★★★	★★	★★★★	★★★★	
Mobil Delvac™ XHP ESP 10W-40	Advanced Engine and Emission System Protection	★★★★	★	★★★★	★★	DPF Compatible
Mobil Delvac™ XHP Extra 10W-40	Long Oil Drain 10W-40 Heavy-Duty Engine Oil	★★★★		★★★★	★★	

These ratings are a general guide only and should not be used in place of correct matching of product to application and correct oil change interval indicated by use of OEM documentation, taking into account operating conditions and severity of service.

DPF compatibility

Since Euro 6, modern Trucks are equipped with a Diesel Particulate Filter and other after-treatment devices to protect both the environment and people. Therefore, the oil used has to be compatible. Low sulfur, low ash and low phosphorus oils protect the equipment. Our advanced additive systems are tested and demonstrate excellent protection.

Advanced synthetic engine oils for heavy-duty commercial, light commercial, agricultural and utility vehicles



Engine oils for Commercial Vehicles

Engine Oils	Specifications
Oils for Commercial Vehicles	
Mobil Delvac 1™ LE 5W-30 Mobil Delvac 1™ LE 5W-30 is a fully synthetic, heavy-duty diesel engine oil that combines advanced engine protection for modern low emissions vehicles with enhanced fuel economy potential ¹ and other sustainability-related benefits such as engine durability, emissions system protection and extended drain capability.	Meets or exceeds the requirements of: ACEA E9, ACEA E7, ACEA E6, API CJ-4, API CI-4 PLUS, API CI-4, API SN, JASO DH-2, Caterpillar ECF-3, Cummins CES 20081, DAF Extended Drain, Ford WSS-M2C171-E, Scania LDF-4 Builder approvals: MB-Approval 235.28, MB-Approval 228.51, MB-Approval 228.31, MAN M 3677 / M 3477 / M 3271-1, Volvo VDS-4, Volvo VDS-3, Voith Retarder Oil Class B, Deutz DQC IV-10 LA, Detroit Fluids Specification 93K218, Mack EO-O Premium Plus, MTU Oil Category 3.1, Renault Truck RLD-3, Renault Truck RLD-2, Scania LDF-4, Avtodisel YaMZ-6-12 Recommended for use in applications requiring: Renault Truck RGD, Renault Truck RXD
Mobil Delvac 1™ 5W-40 Mobil Delvac 1™ 5W-40 is a fully synthetic high performance heavy duty diesel engine oil that helps towards long engine life while providing long drain capability for modern diesel engines operating in severe applications. Mobil Delvac 1™ 5W-40 delivers excellent performance in modern low emission engines, including refrigerated units, as well as older, well-maintained engines.	Meets or exceeds the requirements of: API CI-4 PLUS/CI-4/CH-4/SL/SJ, ACEA E7/E4, Cummins CES 20078/20077/20076, Ford WSS-M2C171-D, Renault Trucks RXD, Global DHD-1, JASO DH-1 Builder approvals: Detroit Fluids Specification 93K214, Mack EO-N Premium Plus 03, EO-M Plus, MB-Approval 235.28, MB-Approval 228.5, Scania LDF, Voith Retarder Oil Class B, Volvo VDS-3, VDS-2 Recommended for use in applications requiring: API CG-4/CF-4/CF, Caterpillar ECF-1-a, Cummins CES 20072/20071/20075
Mobil Delvac™ XHP Ultra LE 5W-30 Mobil Delvac™ XHP Ultra LE 5W-30 is an extra high performance diesel engine oil engineered to provide outstanding protection in modern, high performance, low emissions engines used in severe on-highway applications. This engine oil is formulated with high quality base oils which provide excellent low temperature fluidity, high temperature viscosity retention and volatility control.	Meets or exceeds the requirements of: ACEA E6, DAF Extended Drain Builder approvals: MTU Oil Category 3.1, MB-Approval 228.51, MB-Approval 235.28, MAN M 3677/M 3477/ M 3271-1, Voith Retarder Oil Class B
Mobil Delvac™ XHP Ultra 5W-30 Mobil Delvac™ XHP Ultra 5W-30 is a synthetic, extra high performance diesel engine oil engineered to provide outstanding protection for modern heavy duty diesel engines used in severe on-highway applications. This diesel engine oil is designed using advanced technology base oils which provide excellent low temperature fluidity, high temperature viscosity retention and volatility control.	Meets or exceeds the requirements of: ACEA E4 Builder approvals: MB-Approval 228.5/235.28, MAN M 3277/M 3377, MTU Oil Category 3, Voith Retarder Oil Class B
Mobil Delvac™ XHP ESP 5W-30 Mobil Delvac™ XHP ESP 5W-30 is an extra high performance diesel engine oil engineered to provide outstanding protection in modern, high performance, low emissions engines used in severe on-highway applications. This engine oil is formulated with high quality base oils which provide excellent low temperature fluidity, high temperature viscosity retention and volatility control.	Builder approvals: MB-Approval 228.61
Mobil Delvac™ XHP ESP 10W-40 Mobil Delvac™ XHP ESP 10W-40 is a synthetic extra high performance diesel engine oil engineered to provide lubrication to modern, high performance, low emissions engines used in severe applications. This engine oil is designed using high performance base oils which provide excellent low temperature fluidity, high temperature viscosity retention and volatility control.	Meets or exceeds the requirements of: ACEA E9/E7/E6/E4, API CJ-4/CI-4 Plus/ CI-4, JASO DH-2, DAF Extended Drain, Cummins CES 20081, CAT ECF-3, Isuzu DEO (w/DPD Equipped Vehicles) Builder approvals: MB-Approval 228.51, MB-Approval 235.28, MAN M 3477/ M 3575/ M 3271-1, MTU Oil Category 3.1, Volvo VDS-4/ VDS-3, Renault Truck RLD-3/ RLD-2, Deutz DQC IV-10 LA, Scania Low Ash, Voith Retarder Oil Class B, Kamaz Euro-3,-4 & -5 engines, Avtodisel YaMZ-6-12 Recommended for applications requiring: Renault Trucks RXD/RGD

¹ Mobil Delvac 1™ LE 5W-30 achieved an average fuel economy gain of 1.8 percent. A fuel economy evaluation was conducted using two Volvo FM440 Euro V trucks, loaded to 75% payload (circa 32 000kg). Testing was conducted on track at the Millbrook Proving Ground, Ltd. in the United Kingdom. Statistically significant fuel economy benefits were observed in the Volvo trucks, when comparing Mobil Delvac 1™ LE 5W-30 to a mineral 15W-40 engine oil, with an average fuel economy gain of 1.8% for highway driving conditions. Corrections were applied when changes in test environment had a statistically significant impact on fuel economy. Fuel economy improvements are dependent on vehicle/equipment type, outside temperature, driving conditions and your current fluid viscosities.

Engine oils for Commercial Vehicles

Engine Oils	Specifications
Oils for Commercial Vehicles – <i>continued</i>	
Mobil Delvac™ XHP Extra 10W-40 Mobil Delvac™ XHP Extra 10W-40 is a synthetic extra high performance diesel engine oil engineered to provide outstanding lubrication to modern, high performance diesel engines used in severe on and off-highway applications. This diesel engine oil is designed using high performance base oils which provide excellent low temperature fluidity, high temperature viscosity retention and volatility control.	Meets or exceeds the requirements of: ACEA E7/E4, Renault Trucks RXD Builder approvals: MAN M 3277, MB-Approval 228.5, MB-Approval 235.27, Volvo VDS-3 /VDS-2, MTU Oil Category 3, Scania LDF-3, ZF TE-ML 04C, Voith Retarder Oil Class A Recommended for applications requiring: Cummins CES 20072, API CF, Scania LDF-2
Mobil Delvac™ MX ESP 10W-30 Mobil Delvac™ MX ESP 10W-30 is an extra high performance diesel engine oil that helps extend engine life in the most severe on and off-highway applications while delivering outstanding performance in modern, high-output, low-emission engines including those with Exhaust Gas Recirculation (EGR) and Aftertreatment Systems with Diesel Particulate Filters (DPFs) and Diesel Oxidation Catalysts (DOCs).	Meets or exceeds the requirements of: API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4, SN, SM, ACEA E9, E7, Caterpillar ECF-3, JASO DH-2, Cummins CES 20086 / 20081, Isuzu DEO (w/DPD Equipped Vehicles) Builder approvals: Volvo VDS-4.5 /VDS-4 / VDS-3, MB-Approval 228.31, Deutz DQC II-10 LA, MAN M 3575, Mack EOS-4.5 / EO-O Premium Plus, Renault Trucks RLD-4 / RLD-3, Detroit Fluids Specification 93K222/93K218 Recommended for applications requiring: API CG-4, CF
Mobil Delvac™ MX ESP 15W-40 Mobil Delvac™ MX ESP 15W-40 is an extra high performance diesel engine oil that helps extend engine life in the most severe on and off-highway applications while delivering outstanding performance in modern, high-output, low-emission engines including those with Exhaust Gas Recirculation (EGR) and Aftertreatment Systems with Diesel Particulate Filters (DPFs) and Diesel Oxidation Catalysts (DOCs).	Meets or exceeds the requirements of: API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4, SN, SM, SL, ACEA E7, E9, Caterpillar ECF-3, JASO DH-2, Cummins CES 20086/20081, Isuzu DEO (w/DPD Equipped Vehicles), MAN M 3275-1 Builder approvals: Detroit Fluids Specifications 93K222 / 93K218, Mack EOS-4.5 / EO-N Premium Plus 03 / EO-O Premium Plus, MAN M3575, Deutz DQC II-10 LA, MB-Approval 228.31, Renault Trucks RLD-4/RLD-3, Volvo VDS-4.5 /VDS-4 /VDS-3 /VDS-2, Allison TES-439 Recommended for applications requiring: API CG-4, CF-4, CF-2, CF
Mobil Delvac™ MX Extra 10W-40 Mobil Delvac™ MX Extra 10W-40 is a heavy-duty engine oil that provides excellent lubrication of today's diesel and gasoline engines operating in severe applications to keep engines clean and promote long engine life. As a result, this product is recommended by ExxonMobil for European, Japanese and American engines.	Meets or exceeds the requirements of: ACEA E7, API CI-4/CH-4/SL/SJ, Caterpillar ECF-2, Cummins CES 20077/20076 Builder approvals: MB-Approval 228.3/ 235.28, Mack EO-M PLUS/EO-N, Volvo VDS-3, MAN M3275-1, Renault Trucks RLD-2, MTU Oil Category 2, Voith Oil Class B, AVTODISEL YaMZ-6-12, KAMAZ Euro-3,-4,-5 Recommended for applications requiring: ACEA B2, A2, API CG-4/CF-4/CF, Cummins CES 20072/20071, Detroit 7SE270 (4-Stroke Cycle), Renault Trucks RLD, Volvo VDS-2
Mobil Delvac™ MX 15W-40 Mobil Delvac™ MX 15W-40 is an extra high performance diesel engine oil that provides excellent lubrication of today's diesel engines promoting long engine life. This extra high performance has been proven in the field in a wide variety of industries, applications, and mixed fleets.	Meets or exceeds the requirements of: API CI-4/CH-4/SL/SJ, ACEA E7, Caterpillar ECF-2, Cummins CES 20077, 20076, Isuzu DEO (w/o DPD Equipped Vehicles) Builder approvals: MB-Approval 228.3, Mack EO-M PLUS/EO-N, Volvo VDS-3, MAN M3275-1, Renault Trucks RLD-2, MTU Oil Category 2, Kamaz Euro-3,-4 & -5 engines, Avtodisel YaMZ-6-12 Recommended for applications requiring: API CG-4/ CF-4/ CF, ACEA A2/B2, Volvo VDS-2, Renault Trucks RLD, Mack EO-M, Cummins CES 20072, 20071, Detroit 7SE 270 (4-Stroke Cycle),
Mobil Delvac™ Super 1400E 15W-40 Mobil Delvac™ Super 1400E 15W-40 is a high performance diesel engine oil that provides protection for diesel engines operating under severe service conditions for both on- and off-highway applications.	Meets or exceeds the requirements of: ACEA E3, A2, B2, Renault Trucks RD-2, RD, API CG-4/CF-4/CF Builder approvals: MB-Approval 228.3, MAN 3275-1, MTU Oil Category 1 - Open Crankcase Only - ODI Up To 500 Hrs, Kamaz Euro-3,-4 & -5 engines

Engine oils for Commercial Vehicles

Engine Oils	Specifications
Light Duty Oils	
Mobil Delvac™ City Logistics F 5W-30 Mobil Delvac™ City Logistics F 5W-30 is a synthetic engine oil that provides long engine life and excellent engine protection against sludge & wear.	Meets or exceeds the requirements of: ACEA A5/B5; A1/B1, API SL Builder approvals: Ford WSS-M2C913-D /WSS-M2C913-C
Mobil Delvac™ City Logistics M 5W-30 Mobil Delvac™ City Logistics M 5W-30 is a low ash synthetic engine oil that provides long engine life and excellent engine protection against sludge and wear.	Meets or exceeds the requirements of: ACEA C3, API SM/SL Builder approvals: MB-Approval 229.31/229.51/229.52, VW 505 00/505 01
Mobil Delvac™ City Logistics P 5W-30 Mobil Delvac™ City Logistics P 5W-30 is a low ash synthetic engine oil that provides long engine life and excellent engine protection against sludge & wear.	Meets or exceeds the requirements of: ACEA C2, API SN Builder approvals: Peugeot-Citroen B712290
Mobil Delvac™ City Logistics R 5W-30 Mobil Delvac™ City Logistics R 5W-30 is a high-performance very low ash engine oil designed to help prolong the life and maintain the efficiency of the Exhaust Vehicle Emission Reduction Systems in both diesel and gasoline powered vehicles.	Meets or exceeds the requirements of: ACEA CG Builder approvals: Renault RN0720
Mobil Delvac™ City Logistics V 5W-30 Mobil Delvac™ City Logistics V 5W-30 is a low ash synthetic engine oil that provides long engine life and excellent engine protection against sludge & wear.	Meets or exceeds the requirements of: ACEA C3 Builder approvals: VW 504 00/507 00
Mobil Delvac™ Light Commercial Vehicle E 10W-40 Mobil Delvac™ Light Commercial Vehicle E 10W-40 is a semi-synthetic engine oil that provides long engine life and excellent engine protection against sludge & wear.	Meets or exceeds the requirements of: ACEA A3/B3, API SL Builder approvals: MB-Approval 229.1 Recommended for applications requiring: VW 501 01 / 505 00
Gas Engine Oil	
Mobil Pegasus™ 1 Mobil Pegasus™ 1 is a high performance synthetic gas engine oil designed to meet the highest performance requirements of the most demanding naturally aspirated and turbocharged stoichiometric and lean-burn gas engines.	Meets or exceeds the requirements of: CATERPILLAR Builder approvals: MAN M 3271-1/ M 3271-2, MWM GmbH TR 0199-99-2105, Lube Oils for Gas Engines, WAUKESHA: COGENERATION, WAUKESHA: 12V / 18V 220 GL Applications, VOLVO: CNG FUELED BUS ENGINES, WARTSILA NSD: W25SG
Mobil Delvac™ CNG/LNG 15W-40 Mobil Delvac™ CNG/LNG 15W-40 is a high performance heavy duty engine oil formulated specifically for spark ignited CNG and LNG fueled truck and bus engines. It provides excellent performance in the challenging operating environments presented by CNG (Compressed Natural Gas) and LNG (Liquefied Natural Gas) and offers extended drain interval capability.	Meets or exceeds the requirements of: Cummins CES 20085, Isuzu CNG Engine Oil Builder approvals: Detroit Fluids Specification 93K216

Gear Oils and Greases for Commercial Vehicles

Gear Oils	Specifications
Manual Transmission and rear axle	
<p>Mobilube 1™ SHC 75W-90</p> <p>Mobilube 1™ SHC 75W-90 is a fully synthetic, high performance commercial gear lubricant formulated using advanced base oils and the latest technology additive system. This oil has excellent thermal and oxidation stability, high inherent Viscosity Index (VI), extremely low pour point, and outstanding low temperature fluidity.</p>	<p>Meets or exceeds the requirements of: API GL-5/MT-1, ZF TE-ML 07A, Scania STO 1.0, ZF TE-ML 08, BOSCH TE-ML 08</p> <p>Builder approvals: JSC AVTODIZEL YaMZ Gearboxes, MAN 341 Typ E3, MAN 341 Typ Z2, MAN 342 Typ S1, MB-Approval 235.8, ZF TE-ML 02B/05B/12L/12N/16F/17B/19C/21B, SAE J2360 Recommended for applications requiring: API GL-4</p>
<p>Mobilube™ S 80W-90</p> <p>Mobilube™ S 80W-90 is an extra high performance drivetrain lubricant engineered to provide excellent lubrication for state-of-the-art, heavy duty manual transmission components used in on-highway commercial vehicles and cars. Potential benefits include excellent shifting performance, good low temperature fluidity, and high temperature viscosity retention.</p>	<p>Meets or exceeds the requirements of: API GL-5 / MT-1, Scania STO 1:0, ISUZU Axle Oil, ISUZU Large Manual Transmission Oil, BOSCH TE-ML 08</p> <p>Builder approvals: MAN 341 Typ E2, MAN 341 Typ Z2, MAN 342 Typ M2, ZF-TE-ML 02B/05A/12L/12M/16B/17H/19B/21A, MB-Approval 235.0, MACK GO-J</p> <p>Recommended for applications requiring: API GL-4, Meritor O-76-D</p>
Manual and automated transmission	
<p>Mobil Delvac 1™ Transmission Fluid 75W-80</p> <p>Mobil Delvac 1™ Transmission Fluid 75W-80 is an extra high performance manual transmission lubricant engineered for the latest, European heavy duty manual transmissions used in light to severe duty on-highway commercial vehicles. This transmission lubricant is a synthetic blend of base oils and an advanced additive system with excellent shifting performance, low temperature fluidity and high temperature viscosity retention.</p>	<p>Builder approvals: ZF TE-ML 01L, ZF TE-ML 02L, ZF TE-ML 16K, MAN 341 Typ E3, MAN 341 Typ Z4</p> <p>Recommended for applications requiring: API GL-4, ZF TE-ML 08</p>
<p>Mobil Delvac 1™ Transmission Fluid V30</p> <p>Mobil Delvac 1™ Synthetic Transmission Oil V30 is a fully synthetic, heavy duty manual transmission lubricant engineered to meet demanding requirements. Recommended for year-round lubrication of manual transmissions in light to severe duty on- and off-highway equipment operating in a wide range of environments.</p>	<p>Builder approvals: Volvo Transmission Oil 97307, Volvo Transmission Oil 97318, MAN 341 Typ E4</p>
<p>Mobil Delvac 1™ Transmission Fluid MBT 75W-90</p> <p>Mobil Delvac™ 1 Transmission Fluid MBT is an SAE 75W-90, fully synthetic manual transmission oil. Mobil Delvac 1 Transmission Fluid MBT 75W-90 has excellent viscosity/temperature characteristics.</p>	<p>Builder approvals: MB-Approval 235.11</p>
<p>Mobilube™ GX 80W-90</p> <p>Mobilube™ GX 80W-90, 140 are high performance, heavy duty gear lubricants formulated from high quality base oils and an advanced additive system. These lubricants are engineered for automotive heavy-duty transmissions, axles, and final drives where protection against wear and scoring is required. They are recommended by ExxonMobil for use in applications where API GL-4 service is required.</p>	<p>Recommended for applications requiring: API GL-4</p>
<p>Mobilube™ GX-A 80W</p> <p>Mobilube™ GX-A 80W is an automotive gear lubricant formulated from high performance base oils and an advanced additive system. This lubricant is engineered for commercial transmissions, axles, and final drives where protection against wear and scoring is required.</p>	<p>Meets or exceeds the requirements of: RBAS TE-ML 08</p>

Gear Oils and Greases for Commercial Vehicles

Gear Oils	Specifications
Gear Oils for rear axle	
<p>Mobil Delvac 1™ Gear Oil 75W-90</p> <p>Mobil Delvac 1™ Gear Oil 75W-90 is a fully synthetic drivetrain lubricant engineered to meet very demanding extended drain requirements. This product is designed for use in heavy-duty drivetrains that require gear lubricants with excellent load-carrying capability and where extreme pressures and shock loading are expected.</p>	<p>Meets or exceeds the requirements of: API GL-5/MT-1, Scania STO 1:0, ISUZU Axle Oil, ISUZU LCV Front Axle Oil, ISUZU Large Manual Transmission Oil, Meritor O-76-N, BOSCH TE-ML 08</p> <p>Builder approvals: Volvo 97312, SAE J2360, Dana SHAES 256 Rev C / 429, Detroit Fluids Specification 93K219.01, Mack GO-J Plus, MAN 342 Typ M2, MB-Approval 235.8, VOITH TURBO 132.00374401 / 132.00374402, ZF TE-ML 05B / 12L / 12N / 16F / 17B / 19C / 21B, Scania STO 2:0 A, Scania STO 2:0 A FS, Navistar MPAPS B-6821, Hyundai Dymos P1105S Axle - Low Floor Rear Axle, Flender Railway Gears T7302</p> <p>Recommended for applications requiring: Eaton PS 163, MIL-PRF-2105E</p>
<p>Mobil Delvac 1™ Gear Oil 75W-140</p> <p>Mobil Delvac™ 1 Gear Oil 75W-140 is a fully synthetic drivetrain lubricant engineered to meet demanding performance requirements. This product is designed for use in heavy-duty drivetrains that require gear lubricants with relatively high viscosity and excellent load-carrying capability and where extreme pressures and shock loading are expected.</p>	<p>Meets or exceeds the requirements of: API GL-5, Scania STO 1:0</p> <p>Builder approvals: Scania STO 2:0 A</p>
<p>Mobilube™ HD-A Plus 80W-90</p> <p>Mobilube™ HD-A Plus 80W-90 is engineered for commercial transmissions, axles, and final drives where extreme pressures and shock loading are expected. It is formulated from high performance base oils and an advanced additive system.</p>	<p>Meets or exceeds the requirements of: API GL-5, Scania STO 1:0, ZF TE-ML 07A</p> <p>Builder approvals: MB-Approval 235.20, MAN 342 Typ M3, MAN 341 Typ GA1, ZF TE-ML 05A, 12L, 12M, 16B, 17B, 19B, 21A</p>
<p>Mobilube™ HD-A 85W -90</p> <p>Mobilube™ HD-A 85W-90 is a heavy duty gear lubricant formulated from high performance base oils and an advanced additive system. This lubricant is engineered for commercial transmissions, axles, and final drives where extreme pressures and shock loading are expected.</p>	<p>Meets or exceeds the requirements of: API GL-5, ZF-TE-ML 07A</p> <p>Builder approvals: MAN 342 Typ M1, MB-Approval 235.0, ZF-TE-ML 16C/17B/19B/21A</p>
<p>Mobilube™ HD 80W-90</p> <p>Mobilube™ HD 80W-90 is a high performance, heavy duty gear lubricant formulated from high performance base oils and an advanced additive system. The lubricant is engineered for automotive applications including heavy duty axles and final drives where extreme pressures and shock loading are expected. It is recommended by ExxonMobil for applications where API GL-5 service is required.</p>	<p>Meets or exceeds the requirements of: API GL-5</p>
<p>Mobilube™ HD 85W-140</p> <p>Mobilube™ HD 80W-90 and 85W-140 are high performance, heavy duty gear lubricants formulated from high performance base oils and an advanced additive system. These lubricants are engineered for automotive applications including heavy duty axles and final drives where extreme pressures and shock loading are expected.</p>	<p>Meets or exceeds the requirements of: API GL-5</p>
<p>Mobilube™ HD-N 80W-140</p> <p>Mobilube™ HD-N 80W-140 is an extra high performance commercial gear lubricant engineered from select base oils and an advanced additive system. This lubricant is formulated for performance in heavy-duty transmissions, axles, and final drives where extreme pressures and shock loading are expected.</p>	<p>Meets or exceeds the requirements of: API GL-5, Scania STO 1:0</p>

Gear Oils and Greases for Commercial Vehicles

Gear Oils	Specifications
Gear Oils for limited-slip differentials	
Mobil Delvac 1™ Gear Oil LS 75W-90 Mobil Delvac™ 1 Gear Oil LS 75W-90 is a fully synthetic, limited-slip gear lubricant that been formulated from synthetic base oils and an advanced additive system. It is designed for use in light and heavy duty drivetrains, it provides excellent load-carrying capability in axles and final drives where extreme pressures and shock loading are expected.	Meets or exceeds the requirements of: API GL-5
Mobilube™ LS 85W-90 Mobilube™ LS 85W-90 is an extra high performance, automotive gear lubricant formulated from select base oils and an advanced additive system specifically for limited-slip differentials.	Meets or exceeds the requirements of: API GL-5, ZF TE-ML 05C/12C/16E
Gear Oils for automatic transmission & steering	
Mobil Delvac 1™ ATF Mobil Delvac 1™ ATF is a fully synthetic fluid recommended by Allison Transmission, Inc. approved against the Allison TES-295 Specification. The fluid is designed to meet the demanding requirements of modern heavy duty automatic transmissions. The synthetic base oil composition enables excellent performance even in some of the harshest of operating conditions.	Builder approvals: Allison TES-295 (AN - 051005), Allison TES-468, MB-Approval 236.91, ZF TE-ML 03M/04D/ 14C/ 16M/ 20C, MAN 339 Typ V2/ Typ Z12/ Typ Z3, Voith Turbo H55.633639, Voith Turbo DIWA Service Bulletin 013 & 118- Extended Drain
Mobil ATF SHC™ Mobil ATF SHC™ is a superior performance synthetic automatic transmission fluid designed to meet the demanding requirements of automatic transmissions operating in the severe, high-temperature, and heavy load applications. The inherently high viscosity index and stability of Mobil ATF SHC protects against thermal breakdown at high operating temperatures enabling outstanding low temperature performance at ambient temperatures below 40°C.	Builder approvals: ZF TE-ML 14B, ZF TE-ML 16L, ZF TE-ML 09X, MB-Approval 236.8, MAN 339 TYPE Z2, MAN 339 TYPE V2 According to ExxonMobil, Mobil ATF™ SHC is of the following quality level: GM DEXRON IIE, ALLISON C-4, CAT TO-2, RENK DOROMAT
Mobil ATF™ 320 Mobil ATF™ 320 is an extra high performance automatic transmission fluid. Mobil ATF 320 is recommended for most passenger car and commercial automatic transmissions. It is also suitable for power steering systems, hydraulic applications and some manual transmissions where an automatic transmission fluid is specified.	Builder approvals: ZF TE-ML 14A, 04D, 17C, 03D, MAN 339 Typ Z1 / 339 Typ V1, Voith Turbo H55.6335.xx According to ExxonMobil, Mobil ATF™ 320 is of the following quality level: GM Dexron III G, Ford Mercon, Allison C-4, Volvo 97341
Mobil ATF™ 220 Mobil ATF™ 220 is a high performance, fluid for automatic transmissions in older vehicles specifying Dexron IID. It is also used as a hydraulic fluid in unique applications.	Builder approvals: MB-Approval 236.7, MAN 339 TYPE V-1, MAN 339 TYPE Z-1, VOITH TURBO H55.6335.xx, ZF TE-ML-04D/11A/14A According to ExxonMobil, Mobil ATF™ 220 is of the following quality level: GM Dexron II, Allison C-4, Renk Doromat, Caterpillar TO-2, Ford ESR-M2C163-A, Ford ESR-M2C163-A, Volvo 97340
Mobil ATF™ 200 Mobil ATF™ 200 is formulated to function as a power transmission fluid in torque converters, a hydraulic fluid in control and servo systems, a lubricant for bearings and gears, a friction controlling medium for the bands and clutches and a heat transfer medium to carry heat generated in transmissions to the gear case or oil cooler.	Builder approvals: MB-Approval 236.2 According to ExxonMobil, Mobil ATF™ 200 is of the following quality level: GM Type A suffix A

Gear Oils and Greases for Commercial Vehicles

Gear Oils	Specifications
Gear Oils for automatic transmission & steering – continued	
Mobil ATF™ LT 71141 Mobil ATF™ LT71141 is a high performance ATF with long drain-performance to be applied in automatic vehicle gearboxes.	Builder approvals: MB-Approval 236.11, Approved ZF TE-ML 04D/11B/14B/16L/17C, Approved Voith Turbo H55.6336.xx, Approved PSA B71 2340 According to ExxonMobil, Mobil ATF™ LT 71141 is of the following quality level: VW TL52162
Mobil ATF™ D 21065 Mobil ATF™ D 21065 is an Automatic Transmission Fluid blended to a unique formulation using highly refined base oils and performance additives. This transmission fluid is approved as a factory fill for PSA.	Builder approvals: MB-Approval 235.71, Approved TE-ML 04D/09/11B, PSA S712102 According to ExxonMobil, Mobil ATF™ D 21065 is of the following quality level: GM DEXRON II D
Greases	
Mobilith SHC™ 460 Mobilith SHC™ Series greases are superior performance products designed for a wide variety of applications at extremes of temperature. They combine the unique features of synthetic base fluids with those of a high quality lithium complex thickener. The wax-free nature of synthetic fluids and the low coefficient of traction (compared with mineral oils), provide excellent low temperature pumpability and very low starting and running torque.	Builder approvals: Fives Cincinnati P-64 Meets or exceeds the requirements of: DIN 51825: (2004-06) KPHC 1-2N-40
Mobil™ Chassis Grease LBZ Mobil™ Chassis Grease LBZ is a semi-fluid grease based on synthetic oils in the consistency group NLGI 00-000. It was specifically developed for central lubrication systems for commercial vehicles. The product contains anti-oxidants, corrosion inhibitors, extreme pressure and anti-wear additives.	Builder approvals: MB-Approval 264.0, MAN 283 Li-P-0-000
Mobilgrease XHP™ 322 MINE The Mobilgrease XHP™ Mine products are specifically designed for the lubrication of extra heavy-duty off-highway and mining equipment. With a complete range of NLGI Grades, this series of lithium complex greases, which contain 5% molybdenum disulfide, can be utilized over a wide range of operating conditions and temperatures to improve productivity.	Recommended by ExxonMobil for use in applications: For severe off-highway and mining applications in terms of operational severity and water spray including; Bucket pins, pivot pins, and heavily loaded chassis components, Bucket pins, pivot pins, and heavily loaded chassis components, General purpose chassis lubrication
Mobilgrease™ SPECIAL Mobilgrease™ Special is a high performance extreme pressure lithium hydroxystearate grease. It is formulated to provide protection against wear, rust and corrosion, water washout and high temperature oxidation. It also contains molybdenum disulphide (moly) for added wear protection.	Recommended by ExxonMobil for use in applications: Passenger cars, trucks, farm tractors, contractor, construction, mining and mobile equipment. Specific applications include; Wheel bearings, especially under fretting, oscillating or sliding motion and Chassis components operating under severe conditions
Mobilux™ EP2 Mobilux™ EP 0, 1, 2, 3, 004 and 023 products are a high performance family of four general-purpose industrial greases and two special-duty semi-fluid greases. These lithium hydroxystearate greases are formulated to provide extra protection against wear, rusting and water washout.	Meets or exceeds the requirements of: DIN 51825 KP2K-20

Due to continual research and development, product claims and profiles are subject to change. For updated information please refer to the Product Data Sheets. Latest versions can be found at: www.exxonmobil.com/pds



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