



Delo[®] 400 MGX SAE 15W-40

High performance heavy-duty engine oil

Product description

Delo 400 MGX SAE 15W-40 is a high performance heavy-duty engine oil, formulated for on- and off-highway applications using high and low sulphur diesel fuels (10-5000 ppm) and designed to provide protection for new low emission diesel engines with Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR) systems.

Delo 400 MGX SAE 15W-40 is designed for use in mixed fleets of on- and off-highway diesel engine equipment and meets the performance requirements of a wide range of naturally aspirated, and turbocharged four-stroke diesel engines.

Delo 400 MGX SAE 15W-40 is designed with advanced low SAPS additive technology, offering protection to diesel engines meeting Euro IV, V and VI emission standards and for 2007 and 2010 EPA exhaust particulate emissions standards for on-highway trucks running on Ultra Low Sulphur Diesel fuel (ULSD).

Delo 400 MGX SAE 15W-40 features ISOSYN[®] technology, a combination of premium high viscosity index (high VI) base oils and additives, in combination with an optimum blend of latest dispersant, detergent, oxidation inhibition, anti-wear, corrosion inhibition, viscosity improver technologies and de-foaming additives to give a product which rivals synthetic lubricants in critical engine tests.

Customer benefits

- Suitable for low emission diesel engines in on- and off-highway environments, running on variable sulphur fuel levels
- Reduced oil inventory investment for different manufacturers' requirements and is backwards compatible with older engine models



Product highlights

- **Wide range of uses helps minimise misapplication**
- **Reduces large oil inventories and costs**
- **Helps control soot and valve train wear**
- **Designed for optimum service with minimal maintenance**
- **Formulated to aid DPF service life**

Selected specification standards include:

ACEA	API
Caterpillar	Cummins
DAF	Detroit Diesel
Deutz	Ford
JASO	Mack
MAN	Mercedes Benz
MTU	Renault
Volvo	ZF

- Helps control soot and valve train wear and offers extended filter life in modern electronically controlled and older engine models
- Designed for soot dispersancy and wear control, helping provide optimum service life with minimal maintenance
- Formulated for minimal downtime and cleaning of emission control systems, and aids diesel particulate filter (DPF) service life

Applications

- Delo 400 MGX SAE 15W-40 is a mixed fleet motor oil recommended for four-stroke naturally aspirated and turbocharged diesel engines but may also be used in four-stroke gasoline engines
- Delo 400 MGX SAE 15W-40 is recommended for diesel engines meeting Euro I, Euro II, Euro III, Euro IV, Euro V and most Euro VI emissions requirements and use in new advanced engines equipped with features such as four-valve heads, supercharging, turbocharging, direct injection, shorter piston crowns, higher power density, intercooling, full electronic management of fuel and emission systems, Exhaust Gas Recirculation (EGR), Diesel Particulate Filters (DPF) and for most engines fitted with SCR NOx reduction systems
- Delo 400 MGX SAE 15W-40 is recommended for use in older engines as well as today's most modern low emission designs. It is formulated for use with Ultra Low Sulphur Diesel and with high, normal and low sulphur diesel fuels (10 - 5000 ppm sulphur)
- Delo 400 MGX SAE 15W-40 is recommended for use in off-highway or construction applications which require API CJ-4 and ACEA E7, E9. It is suitable for mixed commercial fleets, farm machinery, construction equipment, marine and other off-highway applications

Approvals, performance and suitable for use

Approvals

- Detroit Diesel DFS 93K218
- Deutz DQC III-10 LA
- Mack EO-O Premium Plus
- Mercedes Benz MB-Approval 228.31
- MTU Oil Category 2.1
- Renault RLD-3
- Volvo VDS-4
- ZF TE-ML 04C ^[1]

Performance

- ACEA E9, E7
- API CJ-4, CI-4 Plus, CI-4, CH-4 SM, SL, SJ
- JASO DH-2
- Caterpillar ECF-2, ECF-3
- Cummins CES 20071, 20072, 20077
- DAF Standard Drain (Euro 0 to VI)
- Mack EO-N, EO-M Plus, EO-M
- MAN M3575°
- Renault RLD-2, RLD
- Volvo VDS-3

Suitable for use

Suitable for use in applications requiring:

- Caterpillar 3600 series engines
- Cummins CES 20081 (only engines under 50 litres displacement)
- Ford WSS-M2C171-E
- Renault Trucks RD-2, RD
- Volvo VDS-2, VDS

Suitable for use in tractors and other agricultural machinery from the following manufacturers, which require an engine oil meeting the specifications listed above:

- Case New-Holland
- CLAAS
- Fendt
- Massey-Ferguson
- Mc Cormick
- SAME
- Valtra

^[1] ZF approval number: ZF003355

° Approvals obtained can be no longer extended since obsolete by MAN

Typical test data		
Test	Test Methods	Results
Viscosity Grade		SAE 15W-40
Shelf Life: 60 months from date of filling indicated on the product label		
Density at 15°C, kg/l	ASTM D4052	0.88
Kinematic viscosity at 40°C, mm ² /s	ASTM D445	120
Kinematic viscosity at 100°C, mm ² /s	ASTM D445	14.6
Viscosity Index	ASTM D2270	134
Pour point, °C	ASTM D97	-33
Flash point COC, °C	ASTM D92	228
Total Base Number, mg KOH/g	ASTM D2896	10.1
Sulphated Ash, %wt	ASTM D874	1.0

The typical test data set out above does not constitute a specification. It is indicative only and can be affected by allowable production tolerances. Chevron may modify this test data. Modified data will supersede all previous data, so please ensure you refer to the latest version of this Product Data Sheet (PDS).

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