



# CHEVRON DELO<sup>®</sup> 400 LE

## SAE 15W-40

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### CUSTOMER BENEFITS

"The Delo<sup>®</sup> Advantage"

Chevron Delo<sup>®</sup> 400 LE SAE 15W-40 is specifically formulated for new low emission engines with ULSD (2007 engines and beyond). It is also fully compatible with previous API Oil Service Categories and engine models. It delivers value through:

- **Reduced operating costs** — Exceptional soot dispersancy and wear control. Cylinders, pistons, rings, and injectors are well protected against wear and corrosion, lasting longer in service and requiring less maintenance. Contributes to maximum vehicle utilization and minimal downtime.
- **Enhanced emission control system life** — Extends Diesel Particulate Filter (DPF) life for less frequent downtime and cleaning, thus decreasing your maintenance costs.
- **Reduced inventory costs** — Backwards compatible with all previous API Oil Service Categories and engine models. One oil for all services, in four-stroke gasoline and all naturally aspirated turbocharged and modern electronically controlled/low emission diesel engines. One oil that meets the engine performance requirements of North American and European engine manufacturers. One oil that allows users with a wide mix of engine brands to enjoy simplified inventory and dispensing systems that help save money, space, handling time, and avoid product misapplication.
- **Warranty Plus protection** — Bumper-to-bumper warranty protection from the engine to the drive train. Payment for Chevron lubricant-related damage to your equipment, including parts and labor.<sup>1</sup> Problem resolution and technical advice from Chevron's lubrication experts.
- **Access to Chevron's lubrication and industry knowledge** — Improves the bottom line business results of trucking industry professionals.

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1. See Warranty Plus for details and restrictions.

Always confirm that the Chevron product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

### FEATURES

Chevron Delo 400 LE SAE 15W-40 is an industry leading, super premium quality engine oil which exceeds industry and engine manufacturers' performance requirements.



It is formulated using the most advanced additive technology available to provide outstanding engine protection for 2007 EPA exhaust particulate emissions standards for on highway diesel trucks, using Ultra Low Sulfur Diesel (ULSD).

Chevron Delo 400 LE SAE 15W-40 is formulated with ISOSYN<sup>®</sup> base stocks, which rival synthetics in critical engine tests, and an optimal blend of the latest technology in dispersant, detergent, oxidation inhibition, antiwear, corrosion inhibition, viscosity improver, and defoaming additives.

Today, Chevron Delo 400 LE SAE 15W-40 meets the most stringent EGR soot control and particulate requirements.

Chevron Delo 400 LE SAE 15W-40 has been specifically designed to meet the demands of EGR engines while at the same time providing exceptional performance in conventional engines and other engine technologies like Caterpillar ACERT<sup>™</sup>.

### FUNCTIONS

Chevron Delo 400 LE SAE 15W-40 keeps rings clean and free for optimal combustion pressure and to provide minimal wear. Chevron Delo 400 LE SAE 15W-40 reduces valve and piston crown land deposits, thus lowering oil consumption. Its high level of ashless dispersants keeps fuel soot in suspension and thus avoids filter plugging, heavy cylinder head sludge, abrasive polishing wear, high viscosity increase, and oil gelling. These problems can result in excessive engine wear and bearing failure on startup, without prior indication to the operator.

Specially selected oxidation inhibitors control oxidation, sludge, and undue thickening during oil drain periods. Chevron Delo 400 LE SAE 15W-40's unique blend of extreme pressure antiwear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication. A specially selected viscosity index improver ensures easy flow at low temperatures and excellent film protection in hot engine areas. A defoaming additive prevents air entrapment.

The combination of premium dispersant additives and ISO SYN technology allows Chevron Delo 400 LE SAE 15W-40 to effectively disperse soot and keep it in suspension. This minimizes the risk of valve train wear, lever polishing, and filter plugging.

## APPLICATIONS

Chevron Delo 400 LE SAE 15W-40 is a mixed fleet motor oil recommended for all naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API CJ-4 grade and SAE 15W-40 viscosity grade are recommended. It is formulated for engines operating under severe service and a wide range of climatic conditions.

Chevron Delo 400 LE SAE 15W-40 is excellent for use in new advanced engines developed in response to 2007 emissions standards and in engines equipped with features like four-valve heads, supercharging, turbo charging, direct injection, shorter piston crowns, higher power density, intercooling, full electronic management of fuel and emissions systems, exhaust gas recirculation, and exhaust particulate traps.

It is formulated for superior performance with Ultra Low Sulfur Diesel but also with both normal and low sulfur diesel fuels.

This product is recommended for use in older engines, as well as in today's most modern low emission designs.

This product is recommended for use in Caterpillar engines in off-highway or construction applications which require an API CJ-4 Service Category.

## Chevron Delo 400 LE SAE 15W-40 meets:

- **API Service Categories** CJ-4, CI-4 PLUS, CI-4, CH-4, CG-4, CF, SM
- **ACEA European Service Categories** E-7
- **engine test performance requirements**
  - **Caterpillar** ECF-3, ECF-2
  - **Cummins** CES 20081
  - **DDC** Power Guard 93K218
  - **JASO** DH-2
  - **Mack** EO-O Premium Plus 07
  - **MAN** 3275
  - **Mercedes Benz**  
MB-Approval 228.31
  - **MTU** Category 2.1
  - **Renault** RLD-3
  - **Volvo** VDS-4

## TYPICAL TEST DATA

SAE Grade	15W-40
<i>Product Number</i>	222220
<i>MSDS Number</i>	17108
API Gravity	29.1
Viscosity, Kinematic cSt at 40°C cSt at 100°C	125 15.7
Viscosity, Cold Crank, C/Poise	-20/64
Viscosity Index	131
Flash Point, °C(°F)	204(399)
Pour Point, °C(°F)	-30(-22)
Sulfated Ash, wt %	1.0
Base Number, ASTM D 2896	9.6
Phosphorus, wt %	0.12
Sulfur, wt %	0.32
Zinc, wt %	0.13

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.