Delo® 400 LE SAE 15W-40



Providing Everyday Engine Protection.



Let's Go Further with Delo® 400 LE SAE 15W-40.

When your heavy-duty equipment is working, your business is driving profits. At Chevron, our goal is to optimize your diesel engine performance — helping minimize operating costs and maximize equipment uptime.

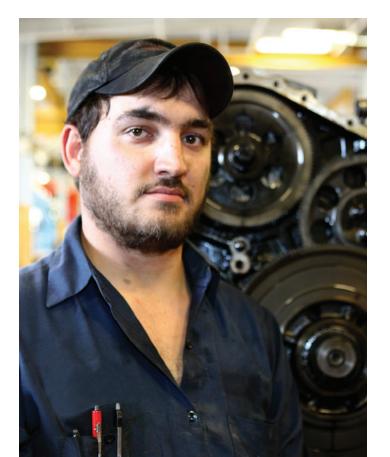
As your trusted lubricant supplier, we strive to help keep your diesel equipment running reliably and efficiently in all kinds of operating conditions.

We understand the challenges facing diesel customers today and in the future:

- New engine technology development with Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR)
- Stop-and-go service
- Latest Original Equipment Manufacturer (OEM) requirements and specifications
- Alternative fuel use (Biodiesel and LNG)
- Extending oil drain intervals
- Mixed engine fleets (Old & New)

Count on Chevron's industry experience and technology leadership to help you stay ahead of these challenges and protect and maximize the life of your vehicles.





Reliability & Durability Are Our Priority.

Chevron lubricants stand for reliability. Properly lubricating the inside of a heavy-duty diesel engine requires more than just creating a protective film. Chevron's advanced formula Delo 400 LE SAE 15W-40 provides excellent oxidation resistance, deposit and oil consumption control and wear performance to protect against loss of engine performance and durability. Delo 400 LE SAE 15W-40 has been formulated with ISOSYN® Technology to specifically protect your diesel equipment and vehicles, and reduce the need for multiple diesel engine oils. Delo's industryleading lubricants have logged billions of miles and countless hours providing excellent protection to diesel engine parts so your vehicles and equipment can go further.

Delo® with ISOSYN® Technology Protects Engine Parts.

The Delo 400 LE SAE 15W-40 difference?

ISOSYN Technology. It helps deliver the protection, performance and reliability you demand to help increase equipment uptime.

Chevron uses ISOSYN Technology to formulate its top-tier Delo products. Premium base oils with highperformance additives, combined with our formulation expertise, provide superb protection for diesel engine parts – at an outstanding value.

ISOSYN Technology



Expertise

Additives



Delo with ISOSYN helps:

- Extend service protection
- Maximize engine durability
- Minimize operating costs

Superb Parts Reliability

Delo with ISOSYN Technology protects critical engine parts to help maximize engine life.



Delo® 400 LE SAE 15W-40 Exceeds Industry Specifications.

Delo® 400 LE SAE 15W-40 Delivers Proven Results.

Delo 400 LE SAE 15W-40 is a world-class diesel engine oil formulated to provide outstanding long-drain performance, superb engine protection and excellent performance in all types of operations including stop-and-go, long haul, and high stress conditions.



Delo 400 LE SAE 15W-40 has been specifically formulated to provide superb protection and performance in harsh operating conditions, regardless of the type of diesel engine (older or newer low-emissions). Its robust formulation is designed to operate in a wide range of conditions and climatic areas helping to minimize the number of diesel engine oils required by customers.

Delo 400 LE SAE 15W-40 exceeds most industry and engine manufacturers' performance requirements.

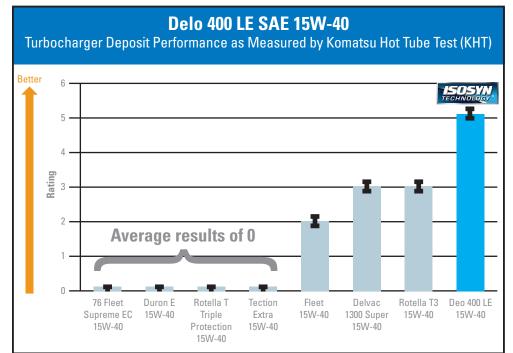
- API CJ-4/API CI-4 Plus/API CI-4/API SM
- ACEA E9
- Volvo VDS-4
- MACK EO-O Premium Plus
- RENAULT RLD-3
- CAT ECF-3 / ECF-2
- Daimler MB-Approval 228.31
- DD93K218
- MTU Category 2.1
- MAN M 3575
- DEUTZ DQC-III-10 LA

Delo 400 LE SAE 15W-40 has demonstrated acceptable field performance in

- MTU 4000 Series T94 engines for oil field & fracking applications
- Cat 3600 series diesel engines found in marine, mining or stationary diesel applications

Superb Oxidation & Deposit Control

The Komatsu Hot Tube Test is an excellent indicator of an oil's capability to resist turbocharger deposit formation.

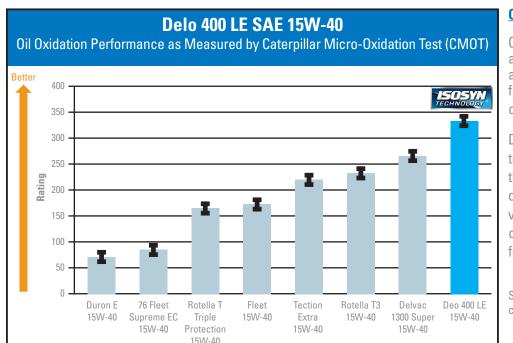


High Temperature Turbocharger Deposit Control

The test is run for 16 hours @ 290° C, at which point the levels of deposits are rated against a known scale. Komatsu uses a variant of this test to help determine oxidation and deposit control of its own top-tier genuine oil formulations.

Delo 400 LE SAE 15W-40 was run in this test and showed excellent results, even when compared against competitor premium tier heavy duty engine oil formulations. These results indicate that Delo 400 LE SAE 15W-40 provides excellent protection against deposit formation.

The Caterpillar Micro-Oxidation Test (CMOT) is a very good indicator of an oil's ability to resist oxidation in thin film conditions and under extreme operating conditions.



Oil Oxidation Performance

CMOT measures the oxidative stability of an engine oil under thin film conditions at 230° C. It measures, in minutes, how fast an oxidation inhibitor depletes which correlates to the formation of piston deposits.

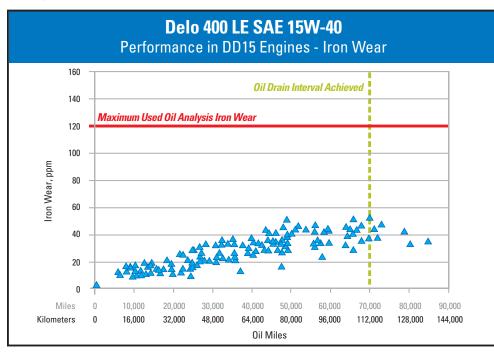
Delo 400 LE SAE 15W-40 and competitor top tier heavy duty engine oils were run in this test and the results compare to each other. Delo 400 LE SAE 15W-40 showed very good performance as compared to competitor products highlighting its robust formulation.

Superior performance in bench testing may not correlate to superiority of performance in the field

Delo® 400 LE SAE 15W-40 Provides Superb Wear Protection.

Proven Field Results

The robust formulation of Delo 400 LE SAE 15W-40 has been put to the test in real world extended drain applications in multiple engine types and has shown excellent protection and performance for customers.



<u>Used Oil Analysis Trending – DD15</u> engines

Delo 400 LE SAE 15W-40 has been thoroughly field tested and even at 70,000 mile extended oil drains in DD15 engines has shown low iron wear rates for customers - allowing for excellent engine protection.*

<u>Used Oil Analysis Trending - Cummins ISX</u> <u>15 engines</u>

Delo 400 LE SAE 15W-40 has recently achieved 60,000-mile oil drain intervals with no filter change in Cummins ISX 15 engines. The iron wear performance results are extremely good, indicating excellent piston, ring, liner, valve train and bearing protection throughout the engine.*

*Always follow OEM maintenance recommendations and utilize used oil analysis testing for any extended drain program.

A&A Concrete achieves long engine life & extended oil drains in MACK® engines

Based in Long Beach, CA, A&A Concrete operates over 770+ trucks with MACK engines and 35 large construction pieces of equipment. They have operated over 30 years in Southern California hauling concrete and aggregate material for various construction projects including highways, bridges and commercial buildings.

A&A Concrete has used Chevron Delo 400 for more than 13 years and started using the full family of Delo products in 2001 with excellent results.

After some of their cement mixers reached a total of 27,000+ hours while doing 1,100 hour oil drain intervals using Delo 400 LE SAE 15W-40, Chevron and A&A agreed to tear down one of the MACK E7 engines to check engine parts protection and wear performance. The teardown was a great success with all parts showing good protection (see parts details below). A&A Concrete personnel were pleased with their decision to trust Chevron Delo 400 LE 15W-40 to help their business go further.



We are really impressed with how the MACK engine partslook after 27,000 hours using Delo 400 LE SAE 15W-40. We Recently purchased \$5.5M worth of new cement trucks and we will continue to trust Chevron Delo Family of Products to protect our new investment.

Mike Cook Maintenance Manager – A&A Concrete



Piston

Shows minimal deposit formation and very good cleanliness. Pistons were really clean on viewing and show excellent protection event at extended oil drain intervals.



Piston Liner

Crosshatching is well intact and shows minimal wear after 27,000 total hours doing 1100 hour oil drain intervals on Delo 400 LE SAE 15W-40.



Main Bearings

Thrust side shows minimal wear and very good condition indicating excellent protection provided Delo 400 LE 15W-40 at extended drain intervals.



Cam shafts and rollers are in very good condition with minimal visible abrasive wear or spalling.





