

Delo® 400 LE SAE 15W-40

Providing Everyday Engine Protection.



CALTEX

Delo®
Let's go further.™



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

When your heavy-duty equipment is working, your business is driving profits. At Caltex, our goal is to optimise your diesel engine performance — helping minimise operating costs and maximise 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 Caltex's industry experience and technology leadership to help you stay ahead of these challenges and protect and maximise the life of your vehicles.



Reliability & Durability Are Our Priority.

Caltex lubricants stand for reliability. Properly lubricating the inside of a heavy-duty diesel engine requires more than just creating a protective film. Caltex'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 industry-leading lubricants have logged billions of kilometres 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.

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

ISOSYN[®] Technology



Premium Base Oils



High Performance Additives



Caltex Formulation Expertise



Delo[®] with ISOSYN[®] helps:

- Extend service protection
- Maximise engine durability
- Minimise operating costs

Superb Parts Reliability

Delo[®] with ISOSYN[®] Technology protects critical engine parts to help maximise engine life.



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

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 minimise 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, CI-4 PLUS, CI-4, CH-4 / SM
- ACEA E9, E7
- Caterpillar ECF-3, ECF-2
- Cummins CES 20081
- Daimler MB-Approval 228.31
- Detroit Diesel DDC Power Guard 93K218
- DEUTZ DQC III-10 LA
- Mack EO-O Premium Plus 07
- MAN M 3575
- MTU Category 2.1
- Renault RLD-3
- Volvo VDS-4

Meets the requirements of:

- API CF
- ACEA E5-02, E3-96
- JASO DH-2
- Ford WSS-M2C171-E

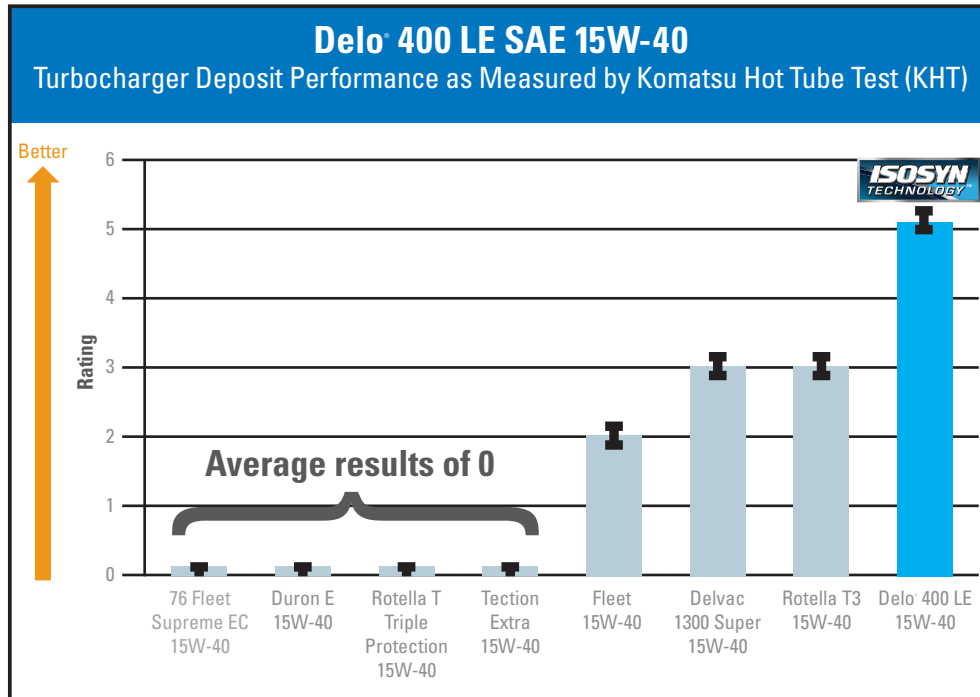
Delo® 400 LE SAE 15W-40 has demonstrated acceptable field performance in:

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

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

Superb Oxidation & Deposit Control

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

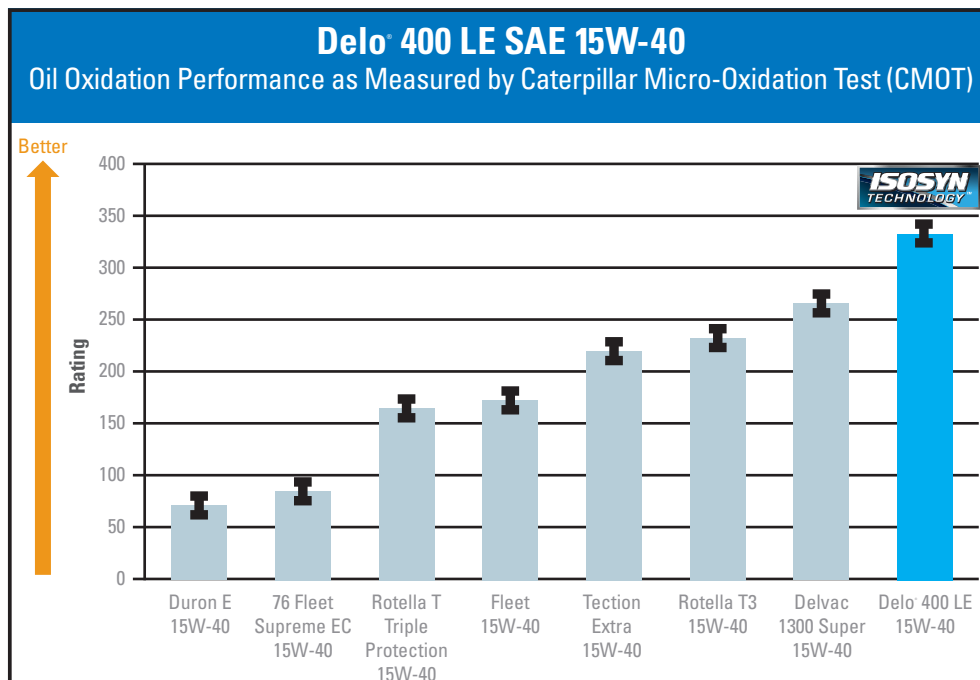


High Temperature Turbocharger Deposit Control

The test is run for 16 hours at 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

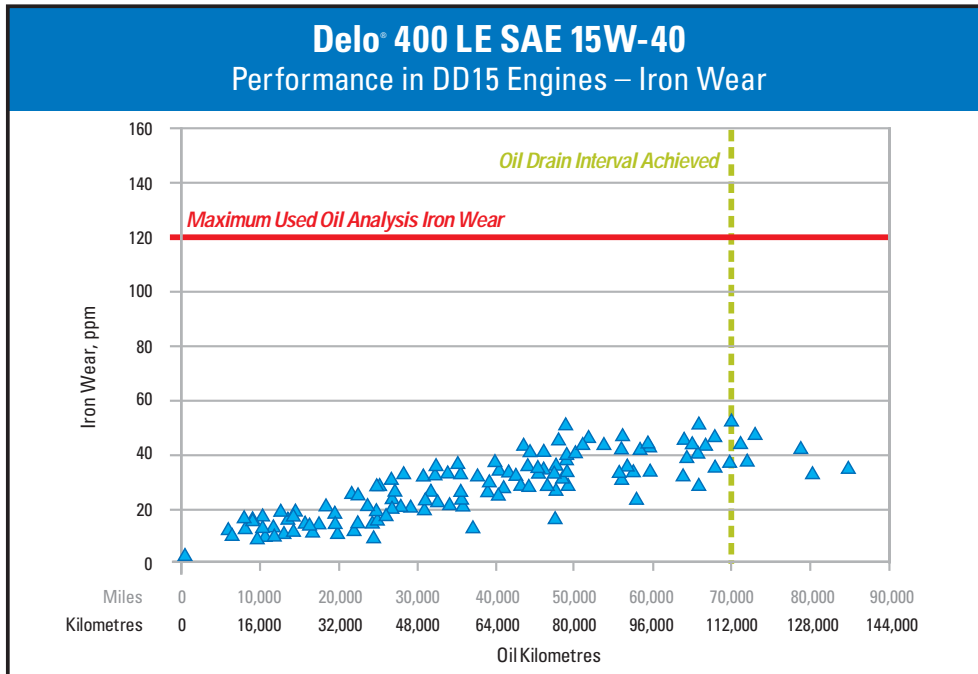
CMOT measures the oxidative stability of an engine oil under thin film conditions at 230°C. It measures, in minutes, how fast an oxidation inhibitor depletes, which correlates to the formation of piston deposits.

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.

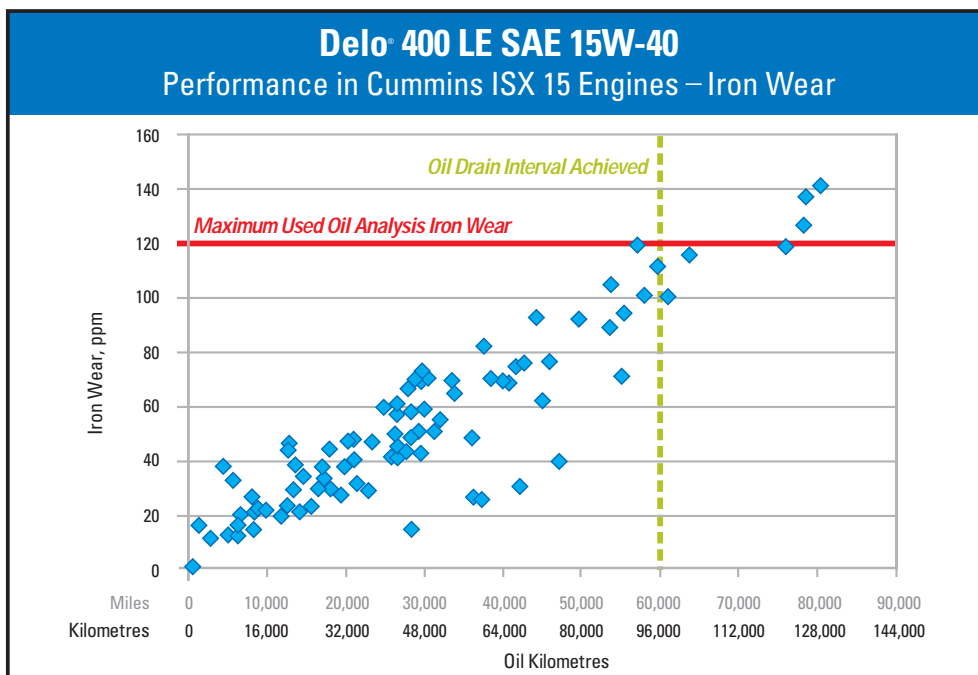
Delo® 400 LE SAE 15W-40 Provides Superb Wear Protection.

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.



Used Oil Analysis Trending – DD15 engines

Delo® 400 LE SAE 15W-40 has been thoroughly field tested and even at 112,000-kilometre extended oil drains in DD15 engines has shown low iron wear rates for customers – allowing for excellent engine protection.*



Used Oil Analysis Trending – Cummins ISX 15 engines

Delo® 400 LE SAE 15W-40 has recently achieved 96,000-kilometre 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 utilise used oil analysis testing for any extended drain programme.

Proven Field Results.

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 for 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 Caltex 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 Caltex Delo® 400 LE SAE 15W-40 to help their business go further.



We are really impressed with how the MACK® engine parts look 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 Caltex 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 even at extended oil drain intervals.



Piston Liner

Crosshatching is well intact and shows minimal wear after 27,000 total hours doing 1,100-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 by Delo® 400 LE SAE 15W-40 at extended drain intervals.



Camshaft/Roller Followers

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





ISOSYN
TECHNOLOGY™



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