



Delo[®]: A History of Firsts



Delo[®] Since 1935





“To the men and women of Standard Oil of California: We the soldiers of the fighting line, give thanks to you soldiers of the production line for the sinews of war that made our victory possible.”

- General Douglas MacArthur,
United States Army



Delo®: Helping Our Customers Go Further

R.E. West Transportation is a nationally recognized contract and dedicated carrier with a fleet of 120 trucks and 300 trailers. For years, R.E. West has depended on Chevron Delo lubricants and Chevron Delo Extended Life Coolant for its fleet. Recently, the team tore down a 1.5 million-mile Series 60 engine for an extensive, three-day inspection. The engine appeared to be a fraction of its true age. The components had minimal wear and were clear of harmful deposits.



ASARCO Ray Copper Mine operates a fleet of 39 haul trucks, 21 of which are Liebherr T 282s. One of the facility's 20V MTU 4000 engines that had delivered 21,900 hours of service with 500 hour drain intervals was torn down and inspected. ASARCO determined it was saving approximately \$160,000 per engine per year – roughly \$3,000,000 in savings per year – based on the extended service protection and engine durability.

TFC Recycling operates out of the Chesapeake, VA area hauling waste and recycling waste for reuse. They are committed to improving the environment and reducing their carbon footprint and operate a large fleet of CNG waste trucks. Using Delo 400 NG SAE 15W-40, Delo Extended Life Coolant and Delo ancillary products, they have achieved over 1,000 hour drain intervals while protecting the durability of the equipment. Use of the Delo family of products and their excellent maintenance practices have helped TFC Recycling reduce downtime and ensure good return on their equipment investments.



The success of Delo is based on its unique formulation, superior quality, extended service protection and unsurpassed performance record. The Delo story is an evolving journey that has produced a family of engine oils and other products to keep pace with the ever-changing needs of the global market. The Delo brand is continuing to evolve and focus on providing improved products and technology to help our customers protect their equipment.

Delo goes further so our customers can go further.

Delo®
Let's go further.™





Delo®: A History of Firsts

1936

Marketed first compounded diesel engine oil (RPM Diesel Engine Lubricating Oil) making high-speed diesel engines feasible.



1953

First in the world to develop a successful multi-grade engine oil.

SAE 15W-40



1989

First to document million-mile, no overhaul engine life in Caterpillar 3406B.



1995

Delo ELC is first extended life coolant technology launched and approved as factory fill at Caterpillar under Cat EC-1 specification.



2001

Recognized for outstanding performance, Chevron Delo products have been honored by Lubricants World magazine in 1999, 2000 and 2001 because these products "are poised to contribute greatly to the achievement and enrichment of the lubricants industry."

2006

Delo's Extended Life Coolant formulation is the first to deliver 750,000 miles of service life with no Extender required, and also reached first 1,000,000 mile life in heavy duty trucks with the addition of an Extender.

750,000 miles without Extender

1,000,000 miles with Extender

2012

Detroit Diesel Series 60 Engine with Delo 400 reaches 1.5 million miles without overhaul.

1,500,000 miles

2014

Launched Delo 400 MGX SAE 15W-40—the first low emission oil (API CJ-4) formulated to protect diesel engines using up to 5000ppm diesel fuel sulfur levels.



2016

Delo Grease ESI is first grease to document 50,000 mile re-greasing intervals on over the road trucks for wheel bearings, chassis, U-Joints and fifth wheels.



2016

Delo 400 LE Synthetic SAE 5W-30 becomes first SAE 5W-30 diesel engine oil to achieve 100,000 mile oil drain interval with NO oil filter change in Detroit Diesel DD15 diesel engines.

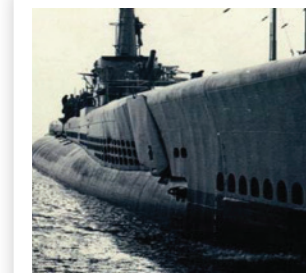
102,196 miles



2016

First launch of ISOSYN Advanced Technology "reason to believe" for new generation of Delo 400 HDMO formulations.

**ISOSYN
ADVANCED
TECHNOLOGY™**



1941

First in the world to develop compounded diesel engine oil that could be used in any diesel engine - adopted by the U.S. Navy. Delo becomes a registered trademark.



1971

First grease capable of extending lubrication intervals of heavy duty equipment to 20,000 miles.

1993

Launch of Delo Gear ESI & Delo Trans ESI - first extended drain non-synthetic axle and transmission oils.



1996

Documents the first million-mile, no overhaul engine life for the three major U.S. engine manufacturers and is first to meet the performance levels of PC-7 (CH-4).

1,000,000 miles

2003

Delo products meet the API CI-4 Plus standard before official licensing.

API CI-4 Plus

2011

Chevron launches Delo Grease ESI which provides extended service protection to 30,000 miles.



2013

Chevron receives SAE research award for "Extending the Boundaries of Diesel Particulate Filter Maintenance with Ultra-Low Ash - Zero Phosphorus Oil."

2016

First launch in the North America heavy duty truck market of a synthetic SAE 75W-85 extended drain axle oil supplying Daimler Truck North America.

**Delo Syn-Gear XDA
SAE 75W-85**



2016

Delo 400 XLE SAE 15W-40 is the first North American SAE 15W-40 diesel engine oil to achieve both API CK-4 and European ACEA E6 long oil drain performance; and also achieved the first Daimler MB228.51 approval at this viscosity grade in North America.



2017

Chevron Delo 400 (API CK-4 and API FA-4 products) are the first full HDMO product line to utilize ashless anti-wear/low phos technology in North America.



LEADERS IN TECHNOLOGY AND INNOVATION

1930s

The early 1930s was a period of significant struggle for America as the Depression took hold. However, this time also marked significant achievements for two companies – Chevron (then Standard Oil of California) and Caterpillar Tractor. Caterpillar needed an oil to lubricate the new high-speed diesel engines it was planning to build, so it collaborated with Chevron in 1936 to produce the first compounded diesel engine oil known as Diesel Engine Lubricating Oil – its acronym being DELO.

1940s

As diesel engine technology improved and different diesel engines required specific lubrication needs, the family of Delo motor oils expanded. Prior to World War II, U.S. submarines operated on straight mineral oil without additives, forcing submariners to surface for overhauling engines at sea and exposing them to the enemy. In 1941, Chevron patented its compounded diesel engine oil called RPM Delo Special Motor Oil, with extended drain capabilities, enabling U.S. submarines to triple their cruising range without overhaul. Also in 1941, Diesel Engine Lubricating Oil (DELO) became a registered trademark.

1950s

The Delo brand pioneered the first successful multi-grade engine oil and delivered one of the first two oils approved for Caterpillar Series 3 diesel engines – RPM Delo Supercharged-3 Oil. In 1957, Delo also introduced the first ashless detergent engine oil to the market to help improve diesel engine performance and longevity.

1960s

In 1967, the Delo brand introduced the first high dispersant, low ash content Caterpillar Series 3 Oil. Throughout this period the industry's greatest challenge was to develop "universal" oil that would meet all diesel and four-cycle gasoline engine manufacturers' specifications and performance requirements.

1970s

In 1971, Chevron Delo 400 was introduced and became the first product of the lubricants industry to meet the needs of both diesel and four stroke cycle gasoline engines for durability and performance.

1980s

In this decade, Delo 400 experienced a significant improvement with the introduction of additives to provide better soot dispersion. This advancement, coupled with the use of improved detergents, decreased engine wear and kept engines cleaner. Additionally in 1984, Chevron introduced the first all-hydroprocessed base oils, which set the standard for performance in the base oil industry. Later in the decade, Chevron introduced its Low Oil Consumption Delo Multigrade SAE 15W-40 and was the first to extend a big diesel engine (CAT 3406B) to 1,000,000 miles without overhaul.

1990s

Chevron developed the first non-synthetic axle lubricant approved by Rockwell for extended service in 1990 and extending the Delo name beyond engine oils to Delo Gear Lubricant ESI® and Delo Trans Fluid ESI. In 1993, Chevron introduced the concept of Delo with ISOSYN® Technology based on our ISODEWAXING process, resulting in mineral base oils with synthetic-like capabilities. The Delo brand also introduced diesel engine oil specifically formulated for both low and normal sulfur fuel in 1993. In 1996, Delo became the first brand to demonstrate 1,000,000 miles without overhaul in DDC Series 60, Cummins NTC400/N-14 and Caterpillar 3406B engines and the first to meet the oil performance requirements of PC-7 (which later became API CH-4) without having to reformulate. In 1998, Delo 400 Multigrade SAE 15W-40 became the first heavy duty engine oil to meet the API CH-4, Cummins CES 20076 and Mack EO-M Plus extended drain specifications.

2000s

In 2006, Chevron partnered with Volvo & Mack to launch the first low viscosity SAE 10W-30 heavy duty engine oil designed for Volvo and Mack trucks for factory fill at the API CJ-4 quality level under the Delo 400 LE SAE 10W-30 brand. This was the first time a lower viscosity engine oil was used as factory fill for a major truck builder to help capture fuel economy performance while providing the same engine durability as an SAE 15W-40 heavy duty engine oil.

2010s

In 2011, Chevron pushed the boundaries of additive and engine oil performance by developing the first Ultra Low Ash – Zero Phosphorous Heavy Duty engine oil that passed all the API CJ-4 engine tests and showed excellent durability performance in newer low emission engines in field trials. In 2013, Chevron was recognized with an SAE Research Award for "Extending the Boundaries of Diesel Particulate Filter Maintenance with Ultra-Low Ash – Zero Phosphorus Oil" - showing the continued achievements of the Delo brand.

Delo is the first brand to launch an all low-phosphorous, next generation anti-wear performance technology Delo 400 HDMO product offering in line with PC-11 (API CK-4/ API FA-4) industry commercialization.

Today, Chevron's Delo product family includes lubricants, coolants and greases. Delo products are found in all major industries including commercial transportation, construction, mining, agriculture and power generation. These performance benefits can be seen through the experiences of our customers in a variety of markets.



Delo® Let's go further.™



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