Delo® Heavy-Duty Performance
For On-Road Diesel Vehicles

Delo®
Let’s go further.
Delo® Family of Products

Helping you achieve the most performance out of every mile by delivering extended service protection, maximizing engine durability and minimizing operating costs.

Delo®
Let’s go further.
Welcome to Delo® Products

Keeping you on the road is part of our business. Making the most of every dollar you invest is yours. At Chevron, we understand just how critical both of these are to your business and livelihood.

Thank you for the opportunity to let us walk you through the Delo heavy duty diesel premium product line providing bumper-to-bumper protection.

We’ll share why Delo with ISOSYN® Technology helps provide the protection customers need to be confident they are maximizing vehicle productivity and minimizing operating costs.

You’ll also see how Delo 400 can help maximize fuel economy, how it compares to competitive products in testing, and what our customers are saying about the value Delo contributes to their business and bottom line.

We consider this guide to be an introduction. We look forward to learning more about the business needs of your on-road vehicles and how Delo products can help you and your business go further.
Let’s Go Further on the Road with Delo®

When your heavy-duty vehicles are in motion, your business is driving profits. At Chevron, our goal is to give you the confidence to safely push engines further to help minimize operating costs and maximize performance. As your lubrication partner, we strive to keep your fleet highly competitive and your costs well in line.

We Understand The Challenges Facing On-Road Vehicles Today:

- New engine technology development
- Fuel economy improvement
- Reduction of vehicle carbon and emission footprints
- Extending drain intervals
- Government regulations
- Emission Standards

You can count on Chevron’s industry experience, technology leadership, and Delo’s premium family of products to help you stay ahead of these challenges and protect and maximize the life of your vehicles.

Reliability is Our Priority

Chevron lubricants stand for one thing above all else: Reliability. Properly lubricating the inside of a heavy-duty diesel engine requires more than just creating a protective film. Delo heavy-duty engine oils provide excellent soot dispersancy, wear protection, and sludge control to guard against loss of engine life and help reduce fuel and oil consumption.

What’s more, the Delo family of products delivers integrity and performance as proven by various bench testing results. On the road, Delo’s industry-leading lubricants have logged billions of miles and countless hours helping provide superior protection to diesel engine parts so your on-road vehicle can go further.
ISOSYN Technology is Delo’s Differentiator

ISOSYN Technology is how Chevron formulates its top-tier Delo products. It’s the combination of premium base oils with high performance additives and Chevron’s formulation expertise that provides superb protection for diesel engine parts. All at an outstanding value.

Delo with ISOSYN technology gives you the performance, protection and confidence you need to help your business go further.

Delo with ISOSYN will help:
• Extend Service Protection
• Maximize Engine Durability (Life)
• Minimize Operating Cost

Improved Customer Reliability

Delo with ISOSYN Technology Protects Critical Engine Parts to Help Maximize Engine Life
Delo® Heavy-Duty Motor Oils Provide World-Class Protection
HELPING YOUR EQUIPMENT AND BUSINESS “GO FURTHER”

We have the proven lubrication products to fit your needs. With Chevron Delo 400 heavy-duty engine oils, you can count on superb quality, extended service protection, and outstanding performance.

Delo 400 oils are formulated to provide superb diesel engine parts protection and performance in severe operating conditions.

For decades, Delo has been committed to helping keep your vital engine parts and your business operating efficiently. Our renowned Delo 400 heavy-duty engine oils exceed industry and most engine manufacturers’ performance requirements.

Delo 400 heavy-duty engine oils with ISOSYN® Technology help:
• Provide Extended Service Protection
• Minimize Operating Costs
• Maximize Engine Life
• Protect Your Vehicle Investment

Delo 400 LE SAE 15W-40/CJ-4
• Includes ISOSYN Technology
• Maximizes engine life
• Extends drain capability rivaling synthetic blends
• Proven performance in a wide range of on- and off-road engines
Delo® 400 Providing a Wide Range of HDMO Products for Excellent Engine Reliability

Delo 400 LE Synthetic SAE 5W-30/CJ-4
- Full Synthetic lubricant for newer, low-emission engines
- For use in extreme climate or operation
- Fuel economy benefits
- Allison TES-439 approved
- Extended drain capable

Delo 400 LE Synthetic SAE 5W-40/CJ-4
- With ISOSYN Technology
- Full Synthetic lubricant for newer, low-emission engines
- Maximum fuel economy savings
- Meets latest North American and European specifications
- Extended drain capable
- Extreme cold weather performance

Delo 400 XLE Synblend SAE 10W-30/CJ-4
- With ISOSYN Technology
- Synthetic blend formulation for newer, low-emission engines
- Cost-effective fuel economy performance
- Meets latest Detroit Diesel 93K218 Specifications
- Meets latest North American and European specifications
- Extended drain capable
- Excellent cold weather pumpability

Delo 400 NG SAE 15W-40
- With ISOSYN Technology
- Heavy-Duty CNG/LNG Performance
- Extended drain capable for newer CNG engines
- Meets Cummins CES 20074 for CNG/LNG performance
- Can be utilized in Cummins ISLG and Cummins ISX 12G engines

“Our family has been in business 50 years, we have 29 trucks...many with 1 million miles plus without an over-haul. We use Delo 400 oil because it extends the lives of our engines.”

– Doug Sindall – Sindall Transport
Delo®’s Proven Performance Results
EXCELLENT DEPOSIT CONTROL

Robust Bench Testing
Your on-road trucks and vehicles put heavy-duty engine oils to the test everyday from stop-and-go city driving to long hauls under extreme conditions. Delo goes further to prove its value across your fleet. In the CMOT, Caterpillar Micro-Oxidation Test, Delo performed superior at resisting oxidation compared to leading synthetic blends.

Test Procedure
Deposit formation at 230°C (Tested at Southwest Research Institute)

Test Application
Indicates the oil’s ability to resist oxidation that can result in piston deposits.

Results
Delo 400 LE SAE 15W-40 results indicate statistical improvement in oxidation resistance versus the Petro-Canada, Citgo, Mobil, Castrol, ConocoPhillips, and Shell Synthetic Blends.

Oxidation Performance
Measured by Caterpillar Micro-Oxidation Test (CMOT)

Minutes

Better

0 50 100 150 200 250 300 350 400
Petro Canada Duron EXL Synthetic Blend SAE 15W-40
Citgo Citgard 700 SAE 15W-40
Mobil Delvac Elite SAE 15W-40
Castrol Hyperform SAE 15W-40
ConocoPhillipsGuardol ECT SAE 15W-40
Shell Rotella T5 SAE 10W-40
Delo 400 LE SAE 15W-40

Formulated with ISOSYN® technology, bench tested against competition, and then rigorously field tested to help your business go further.
Minimizing Wear, Maximizing Performance

When we put Delo 400 15W-40 heavy-duty engine oils to the test versus synthetic blends, the findings disprove the myth of synthetic superiority. In truth, Delo 400 15W-40 performance was equal to, if not better than, leading synthetic blends in Chevron benchmark testing. It’s more validation that Delo helps you run your vehicles and your business with confidence.

Test Procedure
Wear by soot-laden samples in oxidized conditions -2 test average. Procedure is similar to SAE 2002-01-2793 and the test apparatus is part of ASTM D97.

Results
Measures protection in valve train from soot-related wear.

Test Application
Delo 400 LE SAE 15W-40 results indicate statistically better wear protection as measured by HFRR than Citgo, Castrol, ConocoPhillips, and Mobil Synthetic Blends.

The average two results for Citgo Citgard 700SAE 15W-40 is off this scale at 19.9 X the wear of Delo 400 LE SAE 15W-40 in the HFRR test.
Delo® 400 Helps Maximize Fuel Economy

FUEL EFFICIENCY IS CRITICAL TO YOUR BOTTOM LINE

Delo 400 Can Help Save on Fuel

On average, 40% of a fleet’s operating cost is fuel. There are many things you can do to improve fuel economy. A great place to start maximizing fuel efficiency is with your choice of engine oil. That’s where Delo premium quality engine oil formulated with ISOSYN® Technology can help your business go further. By switching to one of Delo 400’s fuel economy products, you could see up to 4.5% fuel economy improvement compared to SAE 15W-40 oils. Multiply that savings by a hundred or more vehicles in a fleet, and the savings are staggering.

Many Factors Contribute to Fuel Savings

Lower viscosity engine oils can play a part in improving fuel economy. Other factors to consider:

- Speed
- Engine idling
- Fuel Efficient Tires
- Vehicle Aerodynamics

Remember that along with fuel economy, Delo 400 engine oils help promote durability and extended service protection, too.

Calculate Your Potential Savings Right Now

For truck fleet customers, Delo 400 fuel economy grade heavy-duty engine oils have improved fuel economy by up to 4.5% in annual estimated savings. We’ve made it easy to do the math with the Chevron Delo Fuel Economy Calculator. It’s available online.

Go to www.ChevronDelo.com
What Would You Do With Your Fuel Savings?

**DELO® 400 CAN HELP SAVE ON FUEL COSTS**

Fuel Economy Results in SAE J1321 Track Testing

**SAE J1321 HD Fuel Economy Testing Results**

- Delo 400 LE Synthetic SAE 5W-30
- API CJ-4 SAE 10W-30 HDEO

**Fuel Economy % Savings versus an SAE 15W-40 HDEO**

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<tr>
<th>Class 6 Trucks</th>
<th>Class 8 Trucks</th>
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- Better Fuel Economy Performance

**Minimize Operating Costs**

Impact of small fuel savings % across fleet fuel costs

**Fuel Savings can Offset Price Differential**

- Delo 400 LE Synthetic SAE 5W-30 @1.2% FE Savings
- Delo 400 LE Synthetic SAE 5W-30 @2% FE savings

- **$2,000**
- **$1,500**
- **$1,000**
- **$500**
- **$0**
- **($500)**
- **($1,000)**

- **INCREMENTAL FUEL SAVINGS/TRUCK**
- **INCREMENTAL OIL COSTS/TRUCK**

- Assumes a class 8 truck: Driving 120,000 miles per year, averaging 6.0 MPG, average diesel cost of $4.14/gallon, similar drain intervals and price differential as compared to SAE 15W-40 for oil change.

**What would you do with $900 per truck per year in fuel savings?**

Even the smallest impact of fuel savings across a fleet can be significant.

- Individual results may vary based on a number of factors.

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- **SAE J1321 testing shows field economy savings at up to 4.5% for Class 6 trucks and up to 2% for Class 8 trucks versus SAE 15W-40 engine oils**

- **Truck Class / Engine Size / Duty Cycle are factors that influence fuel economy % savings performance vs. baseline SAE 15W-40 use**

- **Percent savings with Delo 400 LE Synthetic 5W-30 are significant for fleets**

Testing conducted by an independent research lab following SAE J1321 test standards and measurement protocols.
Delo® Products Protect Your Trucks – Bumper to Bumper

GET DELO PROTECTION WHERE YOU NEED IT MOST

Delo heavy-duty engine oils, gear oils, transmission fluids, and coolants are specifically formulated to meet the intense demands your vehicles face. At Chevron, we have a history of heavily investing in research and development to ensure your vehicles get the utmost protection from bumper to bumper.

We’re so confident about the outstanding quality of Delo products that we offer a bumper-to-bumper warranty you may not find from other manufacturers.

Refrigeration Compressor
Drive Engine Crankcase
- Delo 400 LE Synthetic 5W-40
- Delo 400 LE 15W-40
- Delo 400 XLE Synblend SAE 10W-30

King Pin & Fifth Wheel
- Delo Grease ESI®
- Delo Heavy Duty
- Moly 3% EP

Engine Crankcase
- Delo 400 LE Synthetic 5W-40
- Delo 400 LE 15W-40
- Delo 400 SD SAE 15W-40
- Delo 400 XLE Synblend SAE 10W-30
- Delo 400 NG 15W-40

Coolant System
- Delo Extended Life Coolant
- Delo Extended Life Coolant – Nitrite-Free

Wheel Bearings
- Delo Synthetic Gear Lubricant 75W-90
- Delo Gear Lubricant ESI 80W-90

Differentials & Axles
- Delo Synthetic Gear Lubricant 75W-90
- Delo Gear Lubricant ESI 80W-90

Transmissions (Manual & Automatic)
- Delo Syn-Trans XV SAE 75W-80
- Delo Synthetic Transmission Fluid 50 (Manual)
- Chevron Synthetic Automatic Transmission Fluid

Clutch Bearings
- Delo Grease ESI
- Delo Grease EP

Grease Points, Rods, Pins & Bearings
- Delo Grease ESI
- Delo Grease EP

The product recommendations provide general guidelines for use in on-road trucks. All manufacturers have different coolant and lubricant requirements and recommendations. It will be important to contact a Chevron representative or refer to the Original Equipment Manufacturer manual to confirm the proper product is used for the application. You may contact our LUBETEK organization (800-LUBE-TEK) for confirmation of specific OEM specifications.
Your buses carry the most important cargo possible — paying customers. We understand that your business is to deliver a driving experience that’s smooth and comfortable. One that’s not interrupted by engine trouble that could slow the customers’ journey.

The Delo family of lubrication products has you covered with outstanding protection on axles, crankcases, wheel bearings, transmissions, and coolant systems. Choosing the proven performance of Delo quality lubricants can help maximize your fuel efficiency. That could mean a higher return on investments mile after mile.
Customers Going Further with Delo®

Founded in 1969, R.E. West Transportation is a nationally recognized carrier with a fleet of 120 trucks and 300 trailers. Lately, R.E. “Bob” West has been sharing the legend of a truck running a Detroit Diesel Series 60 engine with 1.5 million miles on it without an overhaul.

For years, R.E. West has depended on Chevron’s Delo lubricants and Chevron Delo Extended Life Coolant for its fleet. The superb protection provided by Delo products allows Bob’s fleet to regularly achieve high mileage.

Recently, a team, including the company’s own mechanics and those from maintenance provider Clarke Power Services in Nashville, tore down the 1.5 million-mile Series 60 engine for an extensive, three-day inspection. “Thanks to the protection provided by Delo, the engine appeared to be a fraction of its true age,” explained R.E. West Maintenance Manager Dustin Stricker.

“Once we get this rebuild done we’re putting the truck back on the road, “Stricker said, “and we believe that the truck will go another million-plus miles.”

Delo’s specialized ISOSYN® Technology, which combines premium base oils with high performance additives, is designed to maximize investments in hard-working, heavy-duty engines. Delo lubricants work hand-in-hand with Delo Extended Life Coolant in optimizing performance and maximizing engine life. Our proven coolant uses patented organic corrosion inhibitors that eliminate the need for supplemental coolant additives.

Steve McCluskey, customer support manager for the local OE dealer that R.E. West utilizes, spoke of the protection Delo products offer:

“We rebuild 800-plus engines in this shop each year. We see various occurrences of wear on pistons, bearings, several different items on the engine,” McCluskey said. “And this engine with 1.5 million [miles] on it, you can tell that it’s really holding up using Chevron Delo oil.”

Chevron Lubricants Senior Consulting Scientist, James McGeehan, said despite the age of this Series 60 engine, the use of Delo lubricant and Delo ELC kept common wear items in “great” condition.

We just tore down a Series 60 Detroit Diesel engine with 1.5 million miles on it, all using Delo 400. The parts coming out of this engine had minimal wear and looked really good. Once we get this rebuild done, we’re putting the truck back on the road, and we believe this truck will go another million-plus miles.

– Dustin Stricker, Maintenance, R.E. West Transportation
The Delo® family of products delivers bottom-line value. With scheduled use, Delo products minimize maintenance and equipment replacement costs for R.E. West Transportation, and keeps its vehicles on the road longer.

When we look at the bearings—minimum wear. The camshaft, minimum deposits on the pistons, minimum wear on the rings, [cylinder] liners with no cavitation and full cross-hatch. We’re delighted with the performance of the Delo 400 with ISOSYN® Technology. This engine could do another million miles.

– James McGeehan
**Delo® Coolants Contribute to Long Engine Life**

**BE SURE TO ADD THE PROVEN PROTECTION OF DELO ELC®**

**Delo ELC Deliver High Performance and Value**

Delo Extended Life Coolants dramatically simplify the way cooling systems are maintained and deliver optimum engine performance. Our patented corrosion inhibitors maximize hardware parts performance and heat transfer over the life of your engine. That’s protection that has withstood the test of time and millions of on-road miles.

Compared to conventional coolants, Delo Extended Life Coolant products can help reduce costs of operation and maximize your engine life.

**Keep Your Cool as You Go Further**

Properly maintaining your cooling system is easy with these steps:

- Use Delo Extended Life Coolant/Antifreeze for top off
- Do a regular visual inspection for signs of contamination
- Run a biannual check for freeze point

Go even further by adding the extra performance of Delo Extender at 500,000 miles. Your engine could double the on-road service to one million miles or 20,000 hours.
Delo ELC® and Fleetfix® Maintenance System

MAXIMUM PROTECTION

The heavy-working diesel engines in trucks, buses, and other highway service vehicles produce an enormous amount of heat and require good cooling system protection and maintenance.

To keep your engines operating efficiently takes a high-performing, extended life coolant plus a good coolant maintenance program. Delo Extended Life Coolant Prediluted 50/50 has a proven track record for high performance.

The failure of any cooling system component can cause major internal engine damage due to overheating and seizure. Chevron has developed Fleetfix Maintenance System, a smart way to help protect and ensure long service life for your company’s heavy-duty engines.

After 16,000 hours of operation in our trash trucks—Delo ELC has protected our liners against pitting and rust—the outside of our piston liners look brand new.

– David Achiro, Owner Lake Tahoe Sierra Trash

COOLING SYSTEM IS #1 REASON FOR VEHICLE FAILURE
We know that maintenance of your vehicles is a critical job. Protecting transmissions and differentials is just as important as engine components.

Our full line of premium Delo Gear Lubricants and Transmission Fluids are formulated to help these key drive train components perform reliably and minimize expensive downtime. These exceptional Delo fluids are made to complement the performance of Delo 400 heavy-duty engine oils. Together, they work fluidly to meet your total vehicle lubrication needs.

**Delo Syn-Gear XDM SAE 75W-90/80W-140:**
Formulated with synthetic base oils for extended service operation in axle and differential lubrication under severe operating conditions.

**Delo Syn-Gear HD SAE 75W-90:**
Synthetic gear lubricant designed for service fill top off for most vehicles that require long-term protection and excellent wear protection.

**Delo Gear ESI SAE 80W-90/85W-140:**
Unique Chevron gear oil designed with borate technology to provide synthetic-like protection for drive axles. Product is compatible with most synthetic gear oils and provides excellent protection at a great value.

**Delo Syn-Trans XV SAE 75W-80:**
Synthetic transmission fluid designed to meet the extended service requirements of Volvo I-Shift and Mack mDrive™ transmissions.

**Delo Syn-Trans XE SAE 50:**
Formulated for extended drain and severe service and recommended for factory and service fill of heavy-duty manual transmissions such as those manufactured by Eaton and Mack.

**Delo Syn-Trans HD SAE 50:**
Synthetic transmission fluid designed for service fill top off for most vehicles that require long term protection.
To help your truck, bus, or vehicle go further, it’s important that every engine part operate smoothly. Delo’s premium grease products are formulated to provide high performance and long-life protection no matter what your on-highway vehicles encounter down the road.

Delo greases excel at protecting key greased vehicle components in adverse climates and tough operating conditions.

**Delo Grease ESI®:**
Formulated to provide extended service grease protection for both on- and off-road diesel vehicles. Delo Grease ESI provides excellent load carrying capability, superb water washout performance and protects against shock loading. It has been specifically engineered to grease the entire key truck components.

**Delo Heavy Duty Moly 3% EP:**
Engineered with a Lithium complex thickener and heavy base oil viscosity plus 3% moly to help protect against severe shock load, water washout, and high temperature applications.
Your on-road vehicles are put to the task every day to keep moving and stay profitable. It’s a challenging business and we’re here for you, offering industry knowledge, high quality products, and customized services to keep you moving forward.

Chevron’s Partnership
The Delo family of products focuses on protecting engines parts, maximizing engine life, and getting the most of your truck or fleet’s performance. To help your business go further, Chevron offers valued resources to support you.

The Delo Truck - Education Center On Wheels
We’re on the road with you. To learn more about Chevron’s commitment to the industry, technology leadership, and the Delo family of products, watch for the Delo truck coming to a city near you. The 80-foot Delo Truck is a rolling education center offering informational displays to help visitors understand the importance of premium performance heavy duty engine oils, lubricants, and coolants.

Visit www.ChevronDelo.com to learn more.

Chevron LubeTek Technical Support
Lubricant engineers are readily available to offer Technical assistance regarding: product recommendations, cross reference competitive products, discuss lubrication problems, interpret used oil analysis, how to switch from one lubricant product to another, and many other lubricant related situations.

Call 1-800-LUBE-TEK (582-3835) or email lubetek@chevron.com

Chevron 1st Source Elite Marketers
More than just offering Delo products, our marketers provide on-site service and support expertise to help support your business goals.
Protection from Bumper to Bumper. That’s the plus that comes with Delo.

At Chevron you could say R&D is in our DNA. We are constantly striving to improve the way our Delo Family of Products protect and perform. We stand with confidence behind our lubrication products with a bold bumper-to-bumper warranty you won’t find from most manufacturers. Visit www.ChevronDelo.com and see the promise of protection we deliver to help your vehicles—and your business—go further.