

Asset Reliability Solutions



**LUBRICATION
ENGINEERS,[®] Inc.**

GREEN FLEET
Lube Reliability Program

Extend Drains, Save Money



Available Worldwide

www.LElubricants.com • 800-537-7683

Stop throwing away perfectly good oil

Unlock savings & reduce environmental impact

The key to lower cost, greener fleet operation is to treat your lubricants like assets, not consumables. LE can help you with this – starting with upgrading your lubricant and your lubrication management program, and then changing your culture. LE has experience working with fleets of all sizes and configurations, and our expert lubricant consultants will work onsite to help you create and implement a customized scalable program.

Extend lubricant life by 3-5 times

- Upgrade your lubricant to a superior engine oil that will withstand the grueling conditions
- Extend drains using condition-based instead of time-based intervals
- Save on replacement oil and labor for changeouts

Extend equipment life & increase uptime

- Provide better protection of equipment with the lubricant's superior performance properties
- Maximize operational efficiency
- Reduce labor and time spent repairing and replacing equipment

Reduce waste

- Stop discarding perfectly good oil
- Use equipment and parts longer

LE's proven CK-4 and CJ-4 engine oils *exceed API specifications* and are designed to maximize oil life and protect the engine components; *we do not take shortcuts in our formulation approach*. One example is **Monolec Ultra® Engine Oil (8800)**, which provides exceptional extended-drain service for on- and off-road diesel engines. With its superior formulation of select base oil, shear-stable viscosity improver and Monolec®, LE's exclusive wear-reducing additive, Monolec Ultra 8800 offers increased fuel efficiency, dependable all-weather performance and outstanding wear protection. It was formulated to exceed API's CK-4 standards focusing on engine wear protection, oxidation stability, shear stability, resistance to aeration, and compatibility with low-emission engines.



Cost Savings Example*

- **Fleet:** 100 Diesel trucks
- **Lubricant:** Monolec Ultra® Engine Oil
- **Fuel Supplement:** Full Torque™ Diesel Fuel Improver
- **Total Savings:** \$553,600



25,200 Gallons of oil saved



1,200 Man hours saved



4.6% Fuel savings (using LE's oil & fuel improver)



25,200 Gallons of waste oil avoided

LE engine oil continues to set high bar

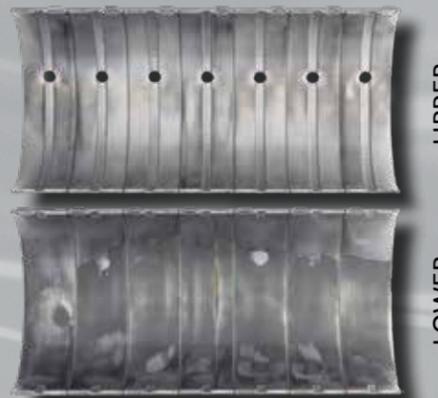
When it comes to extending drain intervals and protecting engines from wear and deposits, **Monolec Ultra® Engine Oil** continues to offer superior performance under real world conditions. Now that it has been updated to the CK-4 formulation, it is prepared to handle the next generation of requirements and engine technologies, building off its established international reputation.

The photos below show the excellent results achieved in field testing at a trucking company. Test specifications: 533,058 miles / O.D.I. 40,000-50,000 / FTD-072 diesel, 2014 Cummings ISX – inline 6-cylinder engine / 15.0-L, 450-hp turbocharged / EGR-DPF-SCR (Unit No. X-251).

Connecting Rod Bearings



Main Bearings



Top Liner



THRUST



ANTI-THRUST

Rocker Arm Assembly



Camshaft Lobes



Other

In addition, the camshaft rollers, injector cam bearings, engine cylinders, wrist pin bushings, valves, and brake cam bearings all showed excellent cleanliness and wear protection. The valve cover, oil pan and valve train showed excellent sludge control.

Extend Lube Life 3-5x!

*5-year projected results using LE's fleet calculator tool. Additional savings are possible with LE's high-performance grease, which can be used for significantly longer periods than conventional grease.

LE Engine Oils Exceed API Specifications

Go the extra mile with LE's fleet program

Ensuring reliability since 1951

Fleet operations can benefit from the standout mix of products, services, knowledge and experience offered by Lubrication Engineers, Inc. With years of experience in the field, we understand the unique challenges you are facing and can help you take care of your valuable assets while lowering your costs.

LE's enhanced lubricants, made of highly refined base oils and proprietary additives, far exceed the performance of conventional lubricants in a variety of applications. They extend lubrication intervals and equipment life and significantly reduce wear, energy use, downtime and maintenance, thereby recovering the initial cost of the lubricant many times over.

We also offer a full line of lubrication reliability products and services, including solutions for oil analysis, storage, handling and transfer, contamination exclusion and removal, and education and training. Whether you need a solution to a single challenge or help setting up a complete lubrication reliability program, you can turn to LE for help.

The LE difference

Comprehensive Product Line & Full-Service Support

- Complete reliability program, including lubricants, reliability products and services
- Trained, local lubrication consultant to visit on a regular basis
- Corporate technical support to offer expert advice and troubleshooting

Research & Development

- Technology Center that continually develops and improves LE lubricants and additives
- Advanced technology to ensure that LE products remain the finest available

Proprietary Additives

LE has developed four high-performance additives for exclusive use in its lubricants:

- Almasol® solid wear-reducing additive
- Monolec® liquid wear-reducing additive
- Duolec® dual-acting (wear-reducing and extreme pressure) additive
- Quinplex® impact- and water-resistant additive



LE's state-of-the-art manufacturing facility, technology center, warehouse and primary office is located in Wichita, KS. Additional support functions are located in Fort Worth, TX. The company's international presence includes distributors in more than 60 countries. Our network of trained lubrication consultants ensures timely onsite assistance after the sale.



Nearly 60 percent of LE's lubricant orders are on the road the same day we receive them, while 95 percent go out in one day or less. Distribution comes out of Wichita as well as warehouses in Knoxville, TN, and Las Vegas, NV.



LE lubricants provide long-lasting protection

LE's premium industrial and automotive lubricants – including mineral and synthetic options – are available in a wide range of viscosity grades. From this broad offering of oil, grease and other fluids, we are able to customize a program for you and make recommendations based on your specific application and equipment needs.

Following are several of the LE products and services that have provided years of reliable service for fleets around the world. For more information, visit www.LElubricants.com, refer to product flyers available online or in print, or contact your local LE consultant for assistance.



Extended Drain Engine Oils

- Monolec Ultra® Engine Oil (8800/8801) – 15W-40
- Monolec Ultra® Engine Oil (8130) – 10W-30
- Monolec Ultra® Syn Heavy Duty Engine Oil (8854/8855) – 5W-40
- Monolec® Tetra-Syn™ Engine Oil (8531 & 8521) – 5W-30 & 5W-20



Normal Drain Engine Oils

- Monolec® Engine Oil (8700) – 15W-40
- Monolec® Engine Oil (8730) – 10W-30



Oil Analysis

- Xamine™ Basic Engine (LEAP-BMK)
- Xamine™ Advanced Engine (LEAP-AMK)



Cleaner

- Greentastic® Industrial Cleaner (2110)



Transmission Fluids

- Monolec® Syn Multi-Vehicle Automatic Transmission Fluid (1150)
- Monolec® Power Fluid (7500)
- Synolec® Transmission Fluid (640)



Differential Fluids / Gear Oils

- Monolec® Gear Lubricant (703-704)
- Monolec® Syn All-Climate Gear Lubricant (9919-9920)



Fuel Supplements

- Full Torque™ W (2411) & S (2421) Diesel Fuel Improvers
- L-X® Heavy-Duty Chemical Supplement (2300)



Greases

- Monolec® Multiplex Lubricant (4622)
- Almagard® Vari-Purpose Lubricant (3750-3752)
- Almaplex® Industrial Lubricant (1275)

The LE Promise | No other brand of petroleum lubricating oil whatsoever, regardless of price, will be found superior in condition to Lubrication Engineers products at the end of any given period of use.



Does your lubricant supplier do all of this?

If your lubricant supplier does not provide the products, services and results listed below as part of its lubrication reliability program, perhaps it is time to change suppliers.

- ✓ Professional, onsite equipment reliability assessment
- ✓ Comprehensive lubricant line (industrial oils, engine oils and greases)
- ✓ Web-based oil analysis, with results reviewed by experts
- ✓ Storage systems, including stackable bulk units
- ✓ Visual identification, including tags, labels, color-coding and wall charts
- ✓ Handling and transfer equipment, including portable transfer containers, clear grease guns, grease pumps and lube reels
- ✓ Single- and multi-point automatic grease lubricators and lubricating systems
- ✓ Contamination exclusion and removal tools, including oil reservoir sight glasses, desiccant breathers and filtration equipment
- ✓ Local, factory-trained specialist available 24/7



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LI10015 4-15, rev. 12-17