

# AMSOIL

*The First in Synthetics*

# Truck and Fleet

- **Performance**
- **Protection**
- **Fuel Economy**
- **Convenience**



# Diesel Motor Oils

**Synthetic SAE 5W-30, 5W-40, 15W-40 and 30 and Synthetic Blend 15W-40 API CJ-4, CI-4, CI-4 Plus, CF, CF-2, SL, Mack EO-O Premium Plus '03, Cat ECF-1, DDC Powerguard 93K214, as labeled**

AMSOIL synthetic diesel motor oils help decrease downtime and increase profits with better protection and less expense.

## Wear Control

AMSOIL synthetic diesel motor oils have been proven to keep wear rates lower than conventional oils. Synthetic base stocks are tailored to reduce friction more effectively than conventional base stocks, which lowers wear rates and helps keep engine heat from climbing excessively. Outstanding quality antiwear additives protect surfaces from wear in conditions that prevent a full lubricating film from developing.

## Acid Neutralization and Soot Control

AMSOIL synthetic diesel motor oils are proven to neutralize acids and control corrosion for longer periods than conventional oils. The top-quality detergents responsible for long-term acid neutralization also inhibit deposit formation on hot engine surfaces. The highly-effective dispersants in AMSOIL synthetic diesel motor oils control soot and other contaminants, providing long-lasting protection against wear and sludge formation.

## Low Temperature Fluidity

AMSOIL synthetic diesel motor oils remain fluid in low temperatures. Low-temperature fluidity helps engines start in cold temperatures and ensures rapid cold-temperature post-startup protection.

## Chemical and Physical Stability

AMSOIL synthetic diesel motor oils offer superior thermal, oxidative and shear stability. Thermal stability allows them to work in high temperatures without undergoing molecular breakdown and consequently increasing oil consumption and starting the formation of sludge. Oxidative stability

allows them to work in high temperatures without undergoing chemical changes leading to oil thickening, loss of lubricating ability, and sludge and acid formation. Shear stability keeps them from falling out of viscosity grade and losing their ability to protect against metal-to-metal contact and wear in engine operating temperatures as a result of shear forces.

## Fuel Economy

AMSOIL synthetic diesel motor oils have a low friction coefficient that improves fuel economy by reducing the loss of power to friction. Fuel economy increases of five percent are common with AMSOIL synthetic diesel motor oils.

## SAE 5W-40 Synthetic Premium API CJ-4 Diesel Oil

AMSOIL Synthetic 5W-40 (DEO) is the premium choice for API CJ-4 emission quality diesel oil required by model year 2007 and newer diesel engines. It delivers extraordinary lubrication in diesel engines found in commercial, fleet and personal vehicles. AMSOIL Synthetic 5W-40 Diesel Oil exceeds emission system requirements and is compatible with all exhaust treatment devices. It controls soot thickening and wear, maximizes fuel economy and reduces oil consumption.



DEO

## Series 3000 Synthetic 5W-30 Heavy Duty Diesel Oil

AMSOIL Series 3000 Synthetic 5W-30 Heavy Duty Diesel Oil (HDD), formulated for diesel and gasoline engine use, offers a combination of engine protection and fuel economy unmatched by other oils. Independent lab tests show Series 3000 outperforms other popular diesel oils – even 15W-40 grade oils – by a wide margin.

## Series 3000 Improves Fuel Economy.

Testing performed by an independent facility showed that class 8 trucks with AMSOIL Series 3000 in the engines and AMSOIL synthetic lubricants in the drivetrains obtained up to 8.2 percent more mpg than matched trucks lubricated with conventional products.

## It's a Proven Long Drain Oil.

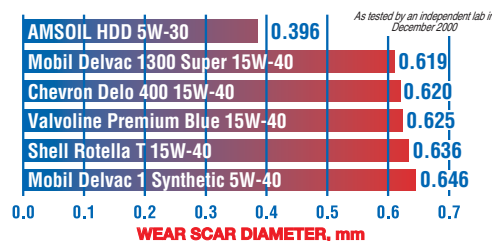
An ongoing Class 8 fleet demonstration shows Series 3000 used continuously for 80,000 miles offers better TBN and viscosity retention, soot control and wear prevention than does a popular conventional 15W-40 oil changed at 20,000-mile intervals.



HDD

## Four-Ball Wear Test (ASTM D4172B)

(40 kg pressure @ 150°C, 1800 rpm for 1-hour duration)



**The Smaller the Wear Scar, the Better the Protection.**

## Synthetic 15W-40 Heavy Duty Diesel and Marine Oil

AMSOIL Synthetic 15W-40 Heavy Duty Diesel and Marine Oil (AME) has been proven superior to conventional oils in fleet demonstrations and countless miles of over-the-road use. AMSOIL Synthetic 15W-40 Heavy Duty Diesel and Marine Oil reduces wear rates, provides extended drain service and saves truckers significant money.



AME



PCO

## 15W-40 Synthetic Blend Gasoline & Diesel Motor Oil

AMSOIL Synthetic Blend Gasoline and Diesel Motor Oil (PCO) offers the advantages of a synthetic at a more affordable price. AMSOIL Synthetic Blend Gasoline and Diesel Motor Oil provides high and low temperature protection, thermal and oxidative stability and retention of TBN, dispersency and viscosity.

## Synthetic 10W-30/SAE 30 Diesel Motor Oil

AMSOIL Synthetic 10W-30/SAE 30 Diesel Motor Oil (ACD) offers high and low temperature service and protection. Its low-temperature fluidity is superior to that of conventional 15W-40 motor oils. Its shear stability, low volatility and high-temperature film strength make it ideal for high-stress applications.



ACD

## AMSOIL Diesel Concentrate

AMSOIL Diesel Concentrate (ADF) is a total system cleaner and lubricity improver for all types of diesel engines. AMSOIL Diesel Concentrate compensates for the quality variances of different fuels (including biodiesels) and the deficiencies of today's ultra-low sulfur diesel fuel for better engine operation. It reduces cylinder wear, retains TBN longer, minimizes soot loading and acts as a fuel stabilizer. AMSOIL Diesel Concentrate restores horsepower to like-new levels and improves fuel economy by up to five percent.



ADF



DFF

## AMSOIL Cold Flow Improver

AMSOIL Cold Flow Improver (DFF) for diesel fuel is designed for use in ultra-low sulfur diesel fuel, yet works well with conventional fuels. It functions by modifying wax crystal formation at low temperatures to depress the pour point and improve cold flow filtration properties. AMSOIL Cold Flow Improver contains jet fuel-type deicer to help prevent ice formation in fuels contaminated with water. It is recommended for use with diesel engines and is compatible with diesel exhaust particulate filters. AMSOIL Cold

Flow Improver is excellent for use with AMSOIL Diesel Concentrate and AMSOIL Cetane Boost Additive.

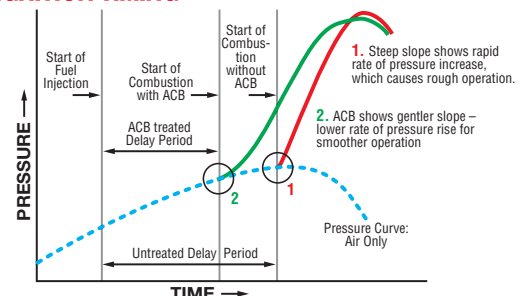
## AMSOIL Cetane Boost

AMSOIL Cetane Boost (ACB) improves diesel fuel quality to benefit all diesel engines, especially high performance designs. AMSOIL Cetane Boost reduces operating costs by increasing fuel economy up to two percent. It improves the spontaneous auto-ignition point of diesel fuel, shortening ignition lag time and providing more complete combustion for better performance, power and drivability. AMSOIL Cetane Boost improves diesel engine performance, increasing cetane value by up to seven points.



ACB

### FUEL IGNITION TIMING



**Shorter ignition delay smooths engine performance**

# Donaldson Filtration Products

**Nanofiber technology and rugged construction provide exceptional performance and extended service life.**

## **Donaldson® Endurance™**

Donaldson Endurance air and oil filters provide the highest level of filtration efficiency in the heavy-duty industry. Specifically designed for on-road, heavy-duty class 6, 7 and 8 vehicles, Donaldson Endurance air and oil filters feature revolutionary nanofiber technology.

Endurance air filters offer longer engine life, longer filter life, initial efficiency up to 99.99 percent and five times more capacity than conventional cellulose filters.

Endurance air filters come with a “twice the miles” guarantee to deliver twice the miles between change intervals over cellulose air filters for on-highway applications, or customers receive a new filter at no charge.

Donaldson Endurance oil filters are made with advanced synthetic technology that results in fibers that have a controlled size, down to sub-micron diameters.

This controlled process allows Endurance oil filters to deliver both higher dirt holding capacity at the same pressure differential and higher efficiency compared to conventional cellulose filters. The synthetic media also has better durability and increased resistance to water.

## **Donaldson P-Series**

AMSOIL also offers filtration products from Donaldson’s P-Series line. With many applications that differ from, and several that coincide with the Endurance line, Donaldson P-Series filters offer premium filtration at a competitive price.

## **Oil Filters**

Donaldson P-Series oil filters feature housing constructed with heavy gauge steel and domed construction, providing superior pressure fatigue performance. Donaldson P-Series oil filters are constructed with either full-synthetic media or synthetic blends for high efficiency. The center tube allows more flow without compromising strength, and the louvered design eliminates tearing during pleat movement.

## **Hydraulic Filters**

AMSOIL offers a full line of hydraulic filters from Donaldson. Donaldson P-Series hydraulic filters provide superior protection for hundreds of machinery and component applications, both in the factory and on heavy-duty equipment.

## **Fuel Filters**

Donaldson fuel filters provide clean, filtered fuel that prevents pump wear, injector clogging, and premature engine wear and can boost fuel efficiency. AMSOIL offers a complete line of spin-on and cartridge-style Donaldson fuel filters. Donaldson filter media features a multiple-layered design specifically made to remove water and contaminants from the fuel stream.

## **Coolant Filters**

Donaldson P-Series coolant filters remove contaminants from the cooling system, minimize the risk of filter plugging and keep engines running efficiently.



# Dual Gard By-Pass Oil Filtration System

The AMSOIL Dual Gard By-Pass Oil Filtration System treats oil to ultra-fine filtration, which increases engine and oil life and enhances engine performance.

AMSOIL Ea By-Pass Filter elements remove submicron-sized particles, keeping oil analytically clean. Clean oil lubricates and cools efficiently because its coefficient of friction is low. It promotes superior piston ring seal, which improves compression and engine power, and reduces blow-by, oil consumption and fuel dilution. Oil lasts longest when clean, since its additives are not consumed by contaminant control.

The Dual Gard system allows the installation of two AMSOIL Ea By-Pass Oil Filter elements, doubling the by-pass filter element change intervals. The system also makes room for a larger volume of lubricating oil, allowing the oil to run cooler and rest more. Both increase oil durability.



# Synthetic Powershift Transmission Fluids

**Synthetic SAE 10W, 30, 50**

**AMSOIL Synthetic SAE 50 Powershift Transmission Fluid exceeds Fuller CD-50 performance specifications and is ideal for use in Fuller, Rockwell, Spicer, Fabco, Warner and other large truck manual transmissions.**

## Superior Wear Protection

AMSOIL Synthetic Powershift Transmission Fluids (CTG, CTJ, CTL) are formulated for superior wear protection, without viscosity index improvers. They maintain grade throughout service life, providing long-term protection against equipment wear, even when equipment is frequently subjected to sustained periods of applied pressure or high horsepower and high torque.

## High- and Low-Temperature Performance

AMSOIL Synthetic Powershift Transmission Fluids provide superior protection in high temperatures. They inhibit the formation of varnish, deposits and sludge, while their excellent heat transferring abilities help hot-running equipment operate up to 50°F cooler. In low temperatures, AMSOIL Synthetic Powershift Transmission Fluids flow readily for dependable startup and post-startup protection.

## Extended Drains

AMSOIL Synthetic Powershift Transmission Fluids provide two to five times the service life of conventional petroleum fluids if kept free of dirt and moisture. They may be used in manual transmissions for 250,000 miles or five years, whichever comes first.



CTL

# Synthetic Gear Lubes

**API GL-5, MT-1, SAE 75W-90, 80W-90, 75W-140, 75W-110, 80W-140**

AMSOIL synthetic gear lubes keep differentials and EP gear lube-equipped transmissions running clean, protected and at top efficiency.

## Load-Bearing and Extreme Pressure Protection

AMSOIL synthetic gear lubes are formulated to protect gears operating in heavily loaded conditions, whether or not the gears operate with full film lubrication. Superior film strength and viscosity retention offer superior protection in full film regimes, while top-quality extreme pressure agents protect when a full lubricating film does not separate gear surfaces.

The thermal durability of AMSOIL synthetic gear lubes ensures extreme-pressure protection after extended exposure to extreme temperatures. The extreme pressure agents in conventional gear lubes sometimes lose their effectiveness after extended exposure to high temperatures, leaving gears vulnerable to metal-to-metal contact and wear.

## Friction Reduction

AMSOIL synthetic gear lubes effectively reduce friction, power losses and temperatures through the use of high-quality synthetic oils and an extra treatment of extreme pressure additives. Reduced axle friction is associated with reduced fuel consumption and can save fleets thousands of dollars per year.

## High- and Low-Temperature Performance

AMSOIL synthetic gear lubes maintain their viscosity better with changes in temperature than conventional lubes, which allows them to protect over a broader temperature range.

They maintain better low-temperature fluidity than conventional gear lubes, while also protecting better in higher temperatures.

## Extended Drains

In commercial line haul trucks, AMSOIL FGR and FGO gear lubes may be used up to 500,000 miles. In cars, SUVs and light-duty trucks AMSOIL gear lubes greatly exceed original equipment manufacturer's petroleum gear lube drain intervals and may be used up to 50,000 miles in severe service or 100,000 miles in normal service, or according to the owner's manual, whichever is longer.



FGR

## Additional Benefits

AMSOIL synthetic gear lubes provide limited slip capability, and may be used in limited slip differentials without special additives.

AMSOIL synthetic gear lubes also provide outstanding protection against rust, which is important for stored equipment.

## Severe Gear Synthetic EP Gear Lubes

Specifically engineered for high demand applications, including trailer towing, heavy hauling, 4X4 off-road driving, commercial use and racing. Superior lube film strength combined with extra additives protects gears and bearings from scoring and wear. Resists high heat and possesses excellent cold-flow properties. AMSOIL Severe Gear (SVG, SVT, SVO) outperforms all conventional gear oils. Compatible with most limited-slip differentials.



SVG

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# Fifth Wheel and Open Gear Compound

**AGMA 14R, NLGI No. 1**

AMSOIL Synthetic Fifth Wheel and Open Gear Compound (GFW) provides outstanding truck tractor fifth wheel lubrication and protection.

AMSOIL Synthetic Fifth Wheel and Open Gear Compound adheres to metal surfaces that are dirty or otherwise poorly prepared for lubrication, making it ideal for hard-to-service equipment operating in hostile environments.

AMSOIL Synthetic Fifth Wheel and Open Gear Compound resists water washout, protecting fifth wheels that are exposed to water.



GFW

Top-quality anti-rust and anti-corrosion agents protect surfaces from the rust and corrosion water exposure may cause.

AMSOIL Synthetic Fifth Wheel and Open Gear Compound offers superior protection in high and low temperatures. It does not flake in low temperatures or soften in high temperatures.

AMSOIL Synthetic Fifth Wheel and Open Gear Compound sprays on. It's quick, neat and economical to use.

# Synthetic Greases

## NLGI No. 2, GC-LB

AMSOIL synthetic extreme pressure lithium complex greases offer outstanding protection and extended service lives.

### Load-Bearing and Extreme Pressure Protection

AMSOIL synthetic extreme pressure lithium complex greases offer outstanding protection in high-load and extreme-pressure operations. The great film strength of synthetic base stocks, mechanical stability of lithium complex thickeners and the protective shield provided by extreme-pressure agents make AMSOIL greases top of the line.

### Friction Reduction

AMSOIL synthetic extreme pressure lithium complex greases have a low coefficient of friction that helps keep wear rates low and efficiency high by minimizing friction.

### High- and Low-Temperature Performance

Outstanding thermal and oxidative stability allow AMSOIL synthetic greases to protect in higher temperatures than conventional greases without breaking down or forming deposits. Outstanding cold-temperature pumpability allows them to protect in lower temperatures than conventional greases.

### Additional Benefits

Excellent washout resistance and corrosion inhibition offer outstanding protection in wet applications or for stored equipment.

### Series 2000 Synthetic Racing Grease

AMSOIL Series 2000 Synthetic Racing Grease (GRG) is formulated for high-speed/high-temperature and low-speed high-load applications. It provides the load-bearing capacity of a heavy-duty grease and the high-temperature protection of a multi-purpose grease.

### Synthetic Heavy Duty Greases

AMSOIL Synthetic Heavy Duty Greases (GHD) are moly-fortified greases formulated for low-speed high-load applications. They provide dependable performance in extreme pressure conditions.

### Synthetic Multi-Purpose Greases

AMSOIL Synthetic Multi-Purpose Greases (GLC) are formulated for high-speed/high-temperature service. Their outstanding thermal and oxidative stability inhibits deposit formation and grease breakdown in high-temperature applications. Their superior friction-reducing ability helps keep high-speed components operating in their optimal temperature range and helps keep them running clean.



GLC

GWR



GHD

GRG

# Oil Analyzers Inc.



Oil analysis enables maintenance personnel to evaluate motor oil service life and engine condition and save significantly on downtime, equipment repair and oil-related costs.

Oil Analyzers Inc. puts technologically advanced testing equipment in the hands of experienced diagnosticians.

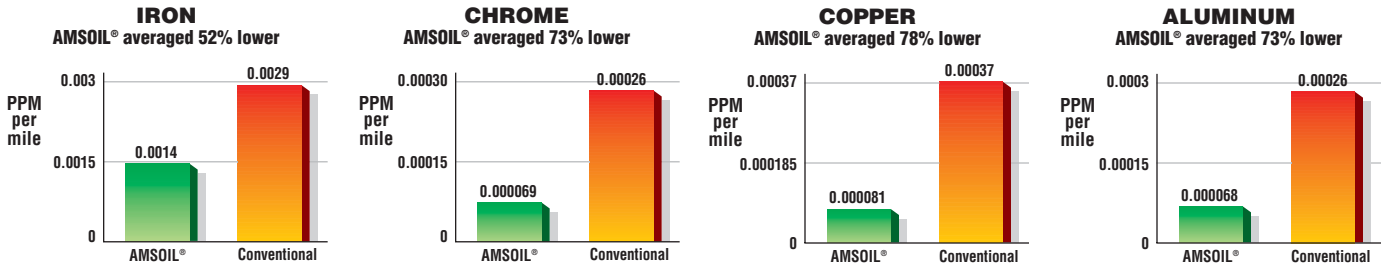
Accurate, reliable Oil Analyzers Inc. findings may be used to reduce equipment replacements and repairs, reduce the volume of lubricant purchased and destined for disposal and reduce equipment downtime.

Oil Analyzers Inc. normally turns out reports one working day after a sample is received. When a time-sensitive condition is detected, OAI calls with the information.

Oil Analyzers Inc. kits include everything required for analysis: sample gathering materials, sample testing and, in the U.S., return postage.

Oil Analyzers Inc. offers a quantity discount over the single kit price on orders of 10 or more kits.

## Demonstrations and Tests **OVER-THE-ROAD FLATBED FLEET**

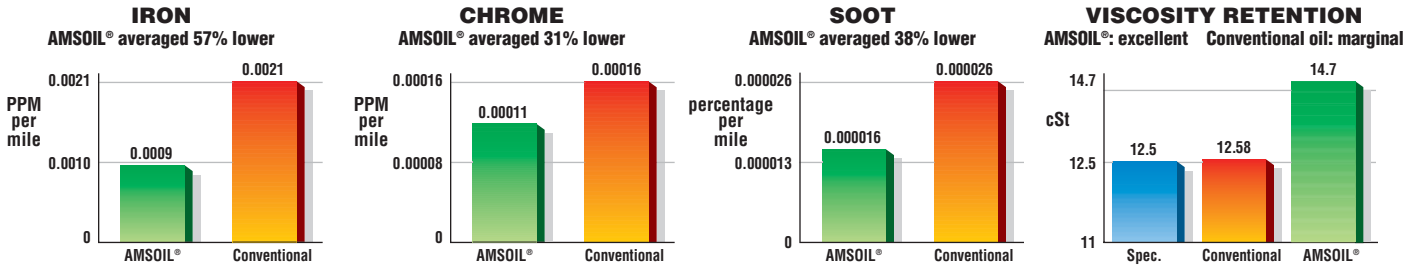


AMSOIL® Synthetic 15W-40 Heavy Duty Diesel and Marine Oil

**Drain Interval:** 79,000+ miles  
**Savings:** 29% savings in oil-related materials and labor

**Control Oil:** National brand conventional 15W-40 motor oil 20,000 miles  
**Control Drains:** 20,000 miles

## **GROCERY WAREHOUSE FLEET**

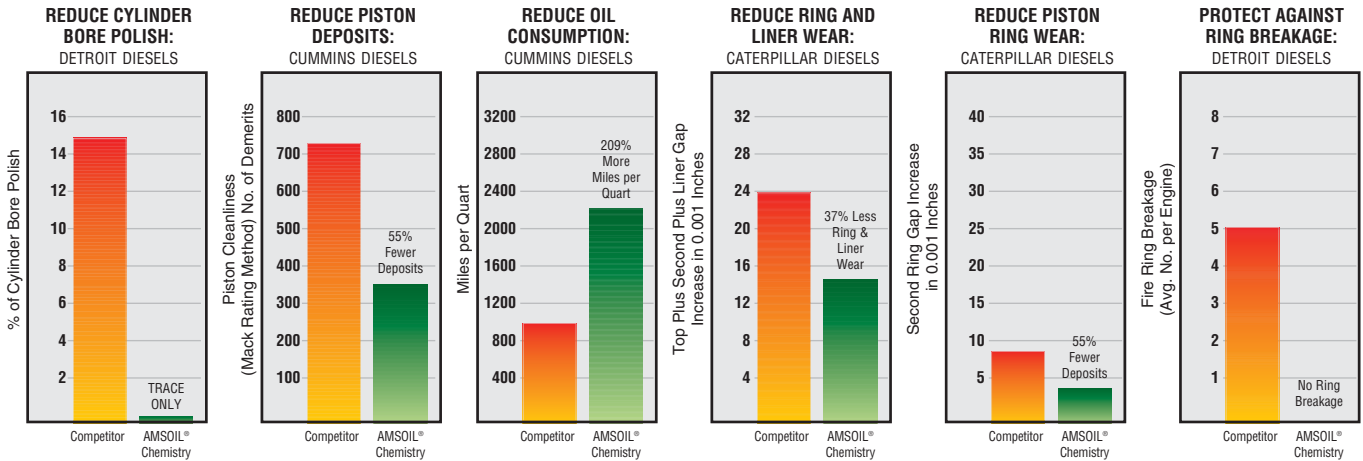


AMSOIL® Synthetic 15W-40 Heavy Duty Diesel and Marine Oil

**Drain Interval:** 74,000+ miles  
**Savings:** 22% savings in oil-related materials and labor

**Control Oil:** Regional brand conventional 15W-40 motor oil 20,000 miles  
**Control Drains:** 20,000 miles

## Independent Lab Engine Tests



AMSOIL® products and Dealership information are available from your local AMSOIL® Dealer.

