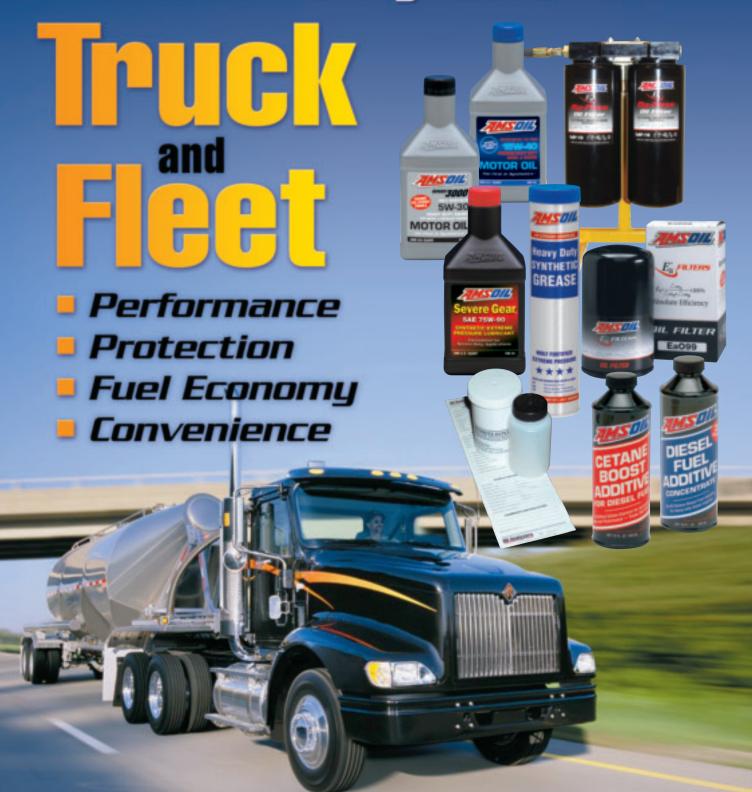


The First in Synthetics •



## Diesel Motor Oils

## Synthetic SAE 5W-30, 15W-40 and 30 and Synthetic Blend 15W-40 API CI-4, CI-4 Plus, CF, CF-2, SL, Mack EO-N Premium Plus '03, Cat EOF-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 12 Total Base Number (TBN) oils and 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.

## **Extended Drain Intervals**

Fleet demonstrations show AMSOIL synthetic diesel motor oils protect engines more effectively for extended drain intervals than conventional oils do for conventional drain intervals. Essentially, AMSOIL synthetic diesel motor oils protect engines better longer. Many truckers use AMSOIL synthetic diesel motor oils indefinitely, using oil analysis as their guide to oil changes.

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

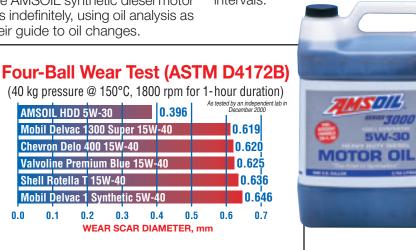
AMSOIL Series 3000 Synthetic 5W-30 Heavy Duty Diesel Oil, formulated for diesel and gasoline engine use, offers a combination of engine protection and fuel economy unmatched by other oils. Independent lab tests show Series 3000 outprotects other popular diesel oils - even 15W-40 grade oils - by a wide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



The Smaller the Wear Scar, the Better the Protection.

0.0

0.1

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

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





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

AMSOIL Synthetic Blend Gasoline and Diesel Motor Oil 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 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 highstress applications.



## AMSOIL Diesel Fuel Additive Concentrate

AMSOIL Diesel Fuel Additive Concentrate maintains injector cleanliness, increases fuel system life, reduces exhaust emissions, stabilizes fuel and improves cold temperature fuel performance. It contains lubricity agents, corrosion inhibitors and anti-rust agents to reduce system wear. Its cleaning agents remove deposits and keep new ones from forming, which ensures injector cleanliness for superior power and fuel economy and reduced emissions. Wax crystal suppressants and de-

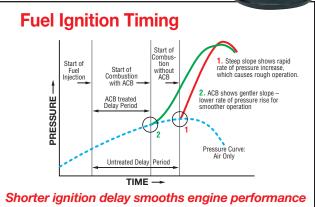


icing agents in AMSOIL Diesel Fuel Additive improve the fuel's ability to flow in cold temperatures. Fuel with AMSOIL Diesel Fuel Additive flows at as much as 20°F colder than fuel without Diesel Fuel Additive. AMSOIL Diesel Fuel Additive also contains moisture inhibitors and other agents that stabilize stored fuel.

## AMSOIL Cetane Boost

AMSOIL Cetane Boost increases cetane by three to seven numbers. It contains fuel cetane enhancers, which increase startability, combustion efficiency and power, and decrease engine knock, smoke and emissions. AMSOIL Diesel Fuel Additive Concentrate and Cetane Boost are compatible and may be mixed in the fuel tank. Both are alcohol-free for seal and component compatibility.





## **Donaldson Filtration Products**

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

## Donaldson<sup>®</sup> Endurance™

Donaldson Endurance air and oil filters provide the highest level of filtration efficiency in the heavy-duty industry. Specifically designed for onroad, 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 onhighway 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 submicron 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. Donaldson P-Series 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.





## Dual Gard By-Pass Oil Filtration System

The AMSOIL Dual Gard By-Pass Oil Filtration System treats oil to ultrafine 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 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.



# **Synthetic Gear Lubes**

## API GL-5, MT-1, SAE 75W-90, 80W-90, 75W-140, 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 by utilizing 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.

## **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, 4 X 4 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 outperforms all conventional gear oils. Compatible with most limited-slip differentials.



## **Fifth Wheel and Open Gear Compound**

## AGMA 14R, NLGI No. 1

AMSOIL Synthetic Fifth Wheel and Open Gear Compound 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.



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 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 are moly-fortified greases formulated for lowspeed high-load applications. They provide dependable per-



formance in extreme pressure conditions.

## Synthetic Multi-Purpose Greases

AMSOIL Synthetic Multi-Purpose Greases 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.



## **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 oilrelated costs.

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

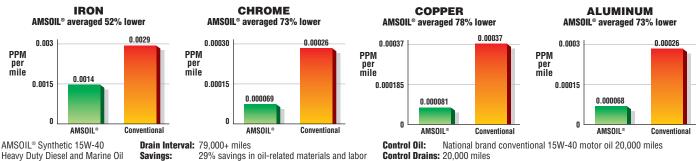
Accurate, reliable Oil Analyzers Inc. findings may be used to reduce equipment replacements and repairs, reduce the volume of lubricant purchased and destined for disposal and reduce equipment downtime.

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.

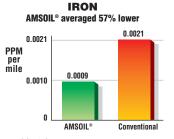
Oil Analyzers Inc. offers a quantity discount over the single kit price on orders of 10 or more kits.

## **Demonstrations and Tests over-the-road flatbed fleet**



#### GROCERY WAREHOUSE FLEET

0.00016



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

**AMSOIL®** Conventional Drain Interval: 74 000+ miles

0.00016

0.00008

PPM

per

mile

22% savings in oil-related materials and labor Savings:

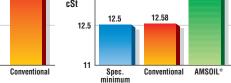
CHROME

AMSOIL® averaged 31% lower

0.00011

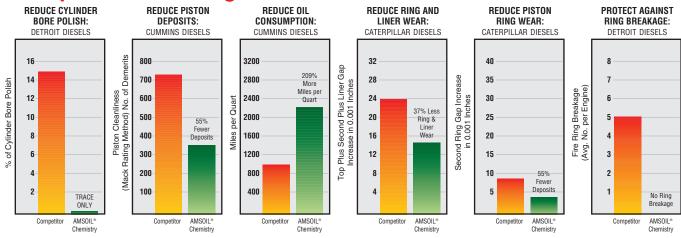
#### SOOT **VISCOSITY RETENTION** AMSOIL®: excellent Conventional oil: marginal AMSOIL® averaged 38% lower 0.000026 0.000026 14.7 percentage





**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



per

mile

0.000013

0.000016

**AMSOIL®** 

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