



Truck and Fleet

Performance • Protection • Fuel Economy • Convenience



Synthetic Diesel Motor Oils

SAE 5W-30, 15W-40, 30 and 15W-40 Semi-Synthetic API CG-4, CF, CF-2, SJ, as labeled

AMSOIL synthetic diesel motor oils help decrease downtime and increase profits.

Wear control – AMSOIL synthetic diesel motor oils have been proven to keep wear rates lower than conventional oils do (see page 7). Synthetic basestocks reduce friction more effectively than conventional basestocks do, which lowers wear rates and helps keep engine heat from climbing excessively. Outstanding quality antiwear additives protect surfaces from wear in conditions in which a full lubricating film does not develop.

Acid neutralization and soot control – AMSOIL synthetic diesel motor oils are 12 Total Base Number (TBN) oils and have been proven to neutralize acids and control corrosion for longer periods than conventional oils do (see page 7). The top-quality detergents responsible for long-term acid neutralization also inhibit deposit formation on hot engine surfaces. AMSOIL synthetic diesel motor oils' highly effective dispersants control soot and other contaminants for 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 with consequent increases in oil consumption and formation of sludge precursors. 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' low coefficient of friction 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 (see pages 7 and 8). 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 outperforms other popular diesel oils – even 15W-40 grade oils – by a wide margin (see graph below).

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

“AMSOIL gives our equipment the best protection from wear while allowing it to start easier, run cooler and get the best fuel efficiency possible.”

– D.D., TEXAS

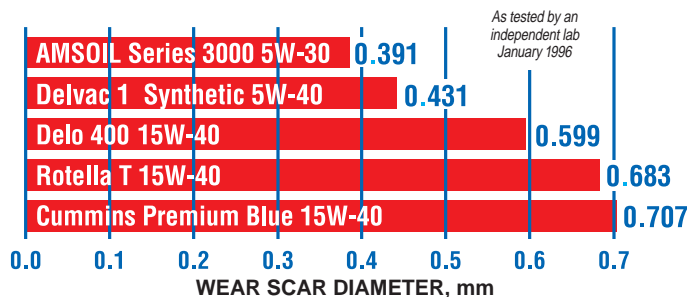
lubricants in the drivetrains obtained up to 8.2 percent more mpg than matched trucks lubricated with conventional products.

It's a proven long drain oil. An ongoing 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.



Four-Ball Wear Test (ASTM D4172B)

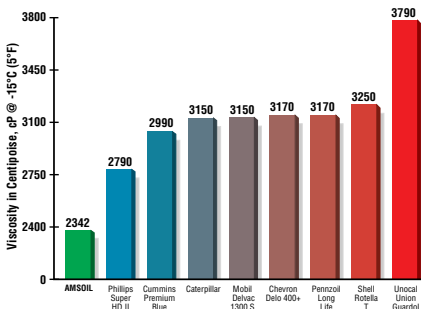
(40 kg pressure @ 150°C, 1800 rpm for 1-hour duration)



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 has been proven superior to conventional oils in fleet demonstrations and countless miles of over-the-road use. AMSOIL Synthetic 15W-40 Heavy

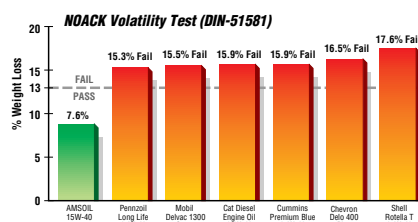


The Cold Crank Simulator Test, ASTM D-2602, measures oil viscosity at -15°C (5°F) to evaluate an oil's fluidity in cold temperatures. Fluid oil helps engines start easier and lubricates them faster than cold-thickened oil does. Maximum allowable viscosity for 15W-40 oils in the Cold Crank Simulator Test is 3500 cP. The lower the viscosity, the better the oil's cold temperature starting characteristics. AMSOIL 15W-40 Marine Oil maintains an exceptionally fluid, highly protective 2342 cP in the Cold Crank Simulator Test.

Duty Diesel and Marine Oil increases fuel economy, reduces wear rates, provides extended drain service and saves truckers significant money.

Semi-Synthetic 15W-40 Gasoline & Diesel Motor Oil

AMSOIL Semi-Synthetic Gasoline and Diesel Motor Oil offers the advantages of a synthetic at a more affordable price. AMSOIL Semi-Synthetic Gasoline and Diesel Motor Oil provides outstanding high and low temperature protection, thermal and oxidative stability and retention of TBN, dispersancy and viscosity. It is an ideal extended drain lubricant.



High oil volatility leads to high oil consumption, deposit formation, oil degradation and poor fuel efficiency. AMSOIL 15W-40's volatility is extremely low – low enough to beat strict European ACEA standards. Most U.S. oils can't meet ACEA standards.

Synthetic SAE 30 Diesel Motor Oil

AMSOIL Synthetic SAE 30 Diesel Motor Oil offers outstanding 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.



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. turns out same-day reports by fax or phone when requested or when a time-sensitive problem has been detected. Reports are normally turned around in two days.



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

Oil Analyzers Inc. offers a 27 percent quantity discount over the single kit price on orders of 100 or more kits.

Synthetic Gear Lubes

API GL 2 - 5, API MT-1, SAE 75W-90, 80W-90, 85W-140

AMSOIL synthetic gear lubes keep differentials and 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 reduce friction effectively, which reduces power losses and increases fuel economy.

The superior ability of AMSOIL synthetic gear lubes to reduce friction also helps keep gear operating temperatures from rising out of the optimal range. Users report gear

temperature reductions up to 50° F with AMSOIL synthetic gear lubes.

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

AMSOIL synthetic gear lubes also maintain better low temperature fluidity than conventional gear lubes do, so AMSOIL synthetic gear lubes go to work more quickly in cold conditions than conventional lubes do. Studies have shown AMSOIL synthetic gear lubes flow to operating gears in less than a minute, while conventional gear lubes require as much as five minutes to reach the gears they are meant to protect.

AMSOIL synthetic gear lubes protect in higher temperatures than conventional gear lubes do, due to the superior thermal and oxidative stability of AMSOIL synthetic gear lubes. Superior thermal and oxidative stability protects the lube from breaking down in high temperatures and protects gears from sludge, varnish, deposits and other products of lubricant breakdown.

Extended drains – In commercial vehicles operated in normal conditions, AMSOIL synthetic gear lubes

“I’m convinced the only thing that saved the differentials was the AMSOIL Gear Lube.”

– C.K., TEXAS

may be used up to five times longer than conventional petroleum gear lubes may be used.

More – 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.

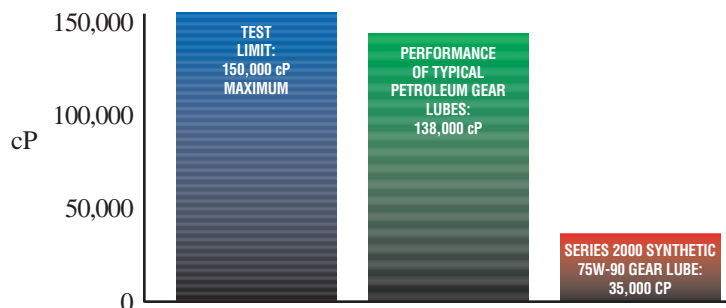
Series 2000 Synthetic 75W-90 Gear Lube

AMSOIL Series 2000 Synthetic 75W-90 Gear Lube significantly improves fuel economy. Using the SAE J1321 Joint TMC/SAE Fuel Consumption Test Procedure-Type II, an independent research institute found that trucks with Series 3000 in the differentials obtained up to 4.83 percent more miles per gallon than matched trucks with a conventional



Cold Temperature Performance

ASTM D3829 (-40° C/-40° F)



Lower Viscosity Means Better Cold Temperature Fluidity

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, due to the great film strength of synthetic basestocks, the mechanical stability of lithium complex thickeners and the protective shield provided by extreme pressure agents.

Friction-reduction – AMSOIL synthetic extreme pressure lithium complex greases' low coefficient of friction helps keep wear rates low and fuel 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 can without breaking down or forming deposits. Outstanding cold temperature pumpability allows them to protect in lower temperatures than conventional greases do.

More – 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 Grease

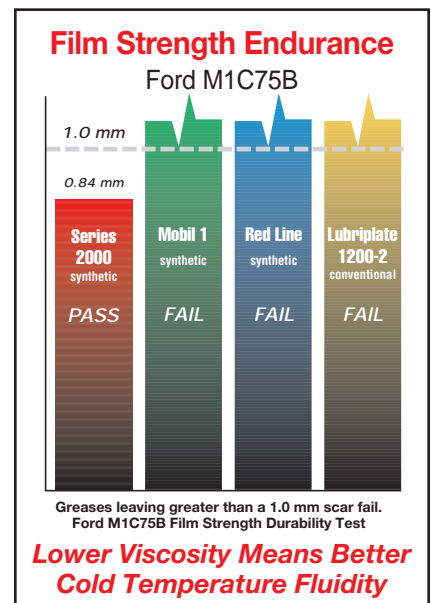
AMSOIL Synthetic Heavy Duty Grease is a moly-fortified grease formulated for low-speed high-load applications. It provides dependable performance in extreme pressure conditions.

“Series 2000 Racing Grease offers superior heat dissipation. Bearings don’t need packing as often.”

– D.N., MINNESOTA

Synthetic Multi-Purpose Grease

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



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.

Diesel Fuel Additives

AMSOIL Diesel Fuel Additive Concentrate

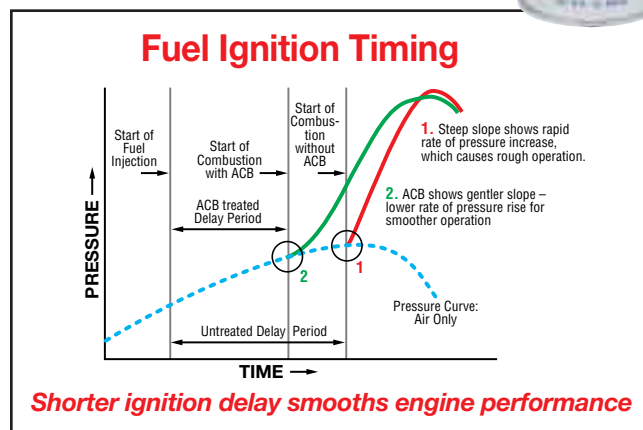
AMSOIL Diesel Fuel Additive Concentrate maintains injector cleanliness, increases fuel system life, reduces exhaust emissions, stabilizes fuel and improves cold temperature fuel performance. It contains lubricity agents, corrosion inhibitors and anti-rust agents to reduce system wear. Its cleaning agents remove deposits and keep new ones from forming, which ensures injector cleanliness for superior power and fuel economy and reduced emissions. Its wax crystal suppressants and deicing agents keep diesel fuel flowing at temperatures as much as 20° F colder than those at which it otherwise would flow. Moisture inhibitors and other agents 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.



“Just after using AMSOIL Diesel Concentrate and AMSOIL Cetane Boost, the performance difference was like night and day.”

— M.M., COLORADO

Dual Gard By-Pass Oil Filtration System

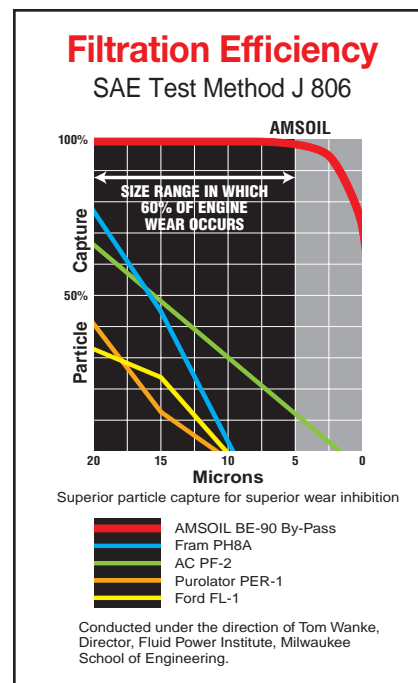
The AMSOIL Dual Gard By-Pass Oil Filtration System treats oil to ultrafine filtration, which increases engine and oil life and enhances engine performance.

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.

By-Pass Filter elements also remove water. Water removal inhibits the formation of acids, rust and sludge.



The Dual Gard system allows the installation of two AMSOIL Spin-On By-Pass Oil Filter elements, which doubles the by-pass filter element change



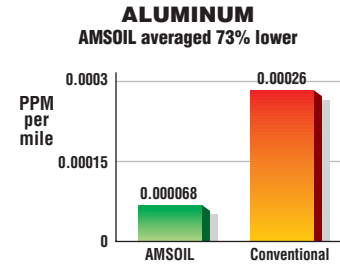
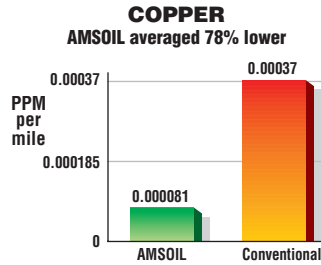
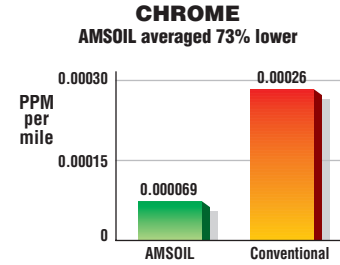
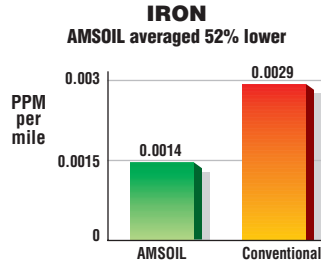
intervals. The system also makes room for a larger volume of lubricating oil, which allows the oil to run cooler and rest more. Both increase oil durability.

Demonstrations and Tests

Extended Drain Demonstration: Over-the-Road Fleet

Using AMSOIL Synthetic 15W-40 Heavy Duty Diesel and Marine Motor Oil, AMSOIL By-Pass Oil Filters and used oil analysis, an over-the-road flatbed fleet extended vehicle drain intervals to 79,000+ miles and realized a 29 percent reduction in the costs of oil-related materials and labor.

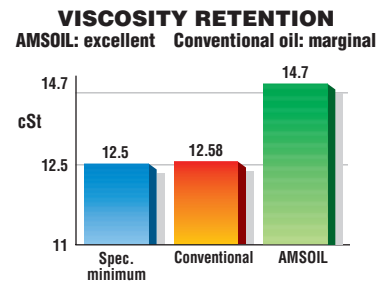
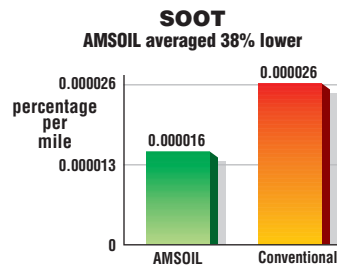
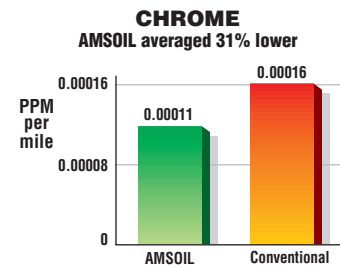
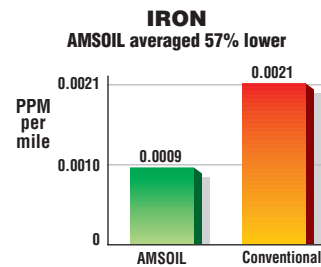
Used oil analysis confirmed the high quality protection afforded by AMSOIL. Wear metal, soot and TAN values remained low throughout the demonstration, while TBN remained high and viscosity midrange.



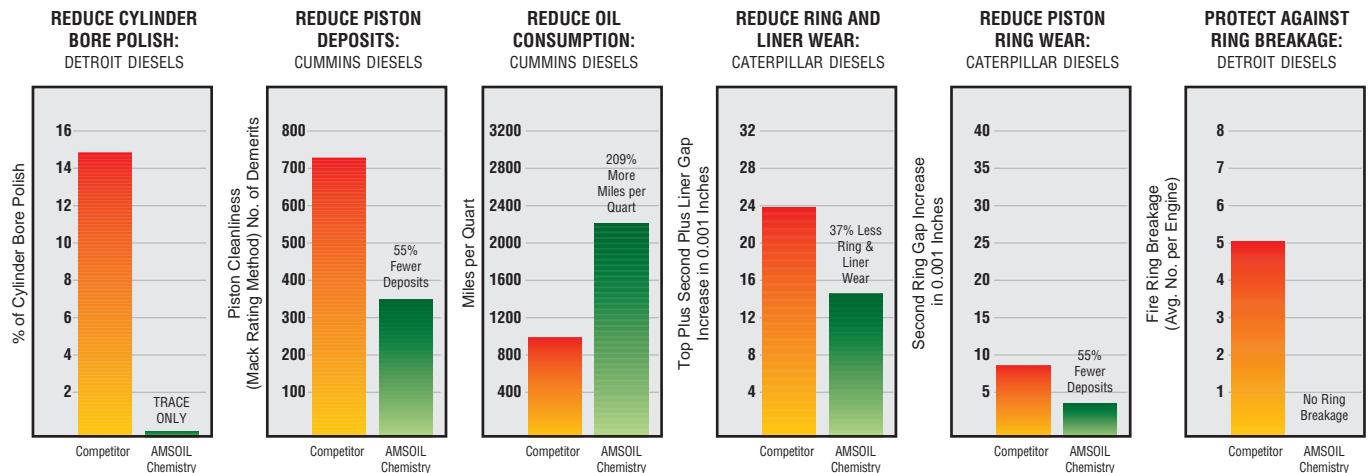
Extended Drain Demonstration: Grocery Warehouse Fleet

Using AMSOIL Synthetic 15W-40 Heavy Duty Diesel and Marine Oil, AMSOIL By-Pass Oil Filters and used oil analysis, a grocery warehouse fleet extended its oil drain intervals to 74,000+ miles and realized a 22 percent decrease in labor and oil-related expenses.

Used oil analysis confirmed the superior protection afforded by AMSOIL. Wear metal, soot and TAN values remained low throughout the demonstration, while TBN remained high and viscosity midrange. Note the significant viscosity loss suffered by the conventional control oil. Viscosity loss often leads to excessive wear.



Independent Lab Engine Tests



409,000 Miles Without an Oil Change

After 409,000 miles without an oil change, the AMSOIL-protected Mack engine in this 1990 truck was as wear-free as an engine in comparable service treated to TWENTY TIMES the oil changes.

Colonial Heights, Virginia – “I didn’t see any surprises in there at all,” said owner/operator Haywood Gray of his 1990 Mack E7-400 engine.

Using AMSOIL Synthetic 15W-40 Heavy Duty Diesel and Marine Oil and the AMSOIL By-Pass Oil Filter, Gray ran the engine 409,000 miles without once changing the oil.

When the E7-400 engine was torn down by the local Mack dealership and its parts examined by an independent certified engine

rater, it showed light to moderate wear throughout.

In fact, according to the engine rater, the parts could have been put right back in the engine. “I see no reason why the engine couldn’t run on,” he said.

Oil analysis confirmed the rater’s findings: the sample of used AMSOIL Synthetic 15W-40 Heavy Duty Diesel and Marine Oil contained 1/6 the lead and 1/3 the iron allowed by Mack condemnation limits ... after 409,000 miles without an oil change.

That’s protection – that’s AMSOIL!



Independent Engine Rater Findings



“No wear at all”



“Very, very good”



“No scuffing. No cavitation”



“Very, very light wear”



“Light wear”



“Minimal wear”

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

