

The Benefits of AMSOIL Synthetic Motor Oils

Improved Performance

More Power

The smooth molecular structures of AMSOIL synthetic motor oils create less intrafluid friction than the relatively rough molecular structures of conventional motor oils, while their high film strengths reduce metal-to-metal friction. Engines running AMSOIL synthetic motor oil waste less energy overcoming intrafluid and metal-to-metal friction, allowing them to deliver more power to the transmission. Vehicles respond quicker and achieve faster top speeds.

Increased Fuel Economy

The low intrafluid friction and metal-to-metal friction reducing properties of AMSOIL synthetic motor oils also improve fuel economy by delivering more of the energy created through combustion of the air-fuel mixture to the transmission.

Unlike conventional oils, AMSOIL synthetic motor oils contain no light molecules that may be lost to volatilization. Volatilization thickens conventional oils and makes them more difficult to pump, while the low volatilization of AMSOIL synthetic motor oils helps them maintain their original viscosity and fuel economy benefits.

Cold Temperature Starting

AMSOIL synthetic motor oils retain better cold temperature cranking and pumping characteristics than petroleum oils. Because AMSOIL synthetic motor oils resist viscosity increases in cold temperatures, they allow the crankshaft to

turn fast enough to start the engine in cold winter temperatures. Resistance to cold temperature viscosity increases also allows AMSOIL synthetic motor oils to maintain their pumpability for fast post-startup engine lubrication and excellent wear protection.

Increased Vehicle Life

Wear Control

Viscosity Retention – The superior chemistry of AMSOIL synthetic motor oils helps them maintain thick protective oil films in high temperature operating conditions. Many competing motor oils contain low quality additives prone to rupture during periods of mechanical stress, affecting the oil's ability to maintain a thick protective oil film during high temperature operating conditions and exposing critical engine parts to increased levels of wear.

Film Strength – AMSOIL synthetic motor oils feature molecules of uniform size and shape and uniformly strong intermolecular bonds, helping them maintain an unbroken lubricating film even when faced with stressful engine operations such as rapid acceleration and deceleration.

Corrosion Protection – Acids form as combustion by-products, such as water, combine with oxidation by-products or fuel or air constituents such as sulfur or nitrogen. Acids corrode metals, while heat helps acids damage metal engine parts very rapidly. AMSOIL synthetic motor oils contain highly effective acid-neutralizing additives, something especially beneficial for diesel engines.



Water is a normal combustion by-product that condenses on engine surfaces once they cool. Allowed to remain on these engine surfaces, it promotes corrosion. Stored engines are particularly prone to corrosion damage. AMSOIL synthetic motor oils form a water occlusive barrier on metal surfaces, protecting them from corrosion.

Foam Suppression – Engine operation can whip air into motor oil and impair its ability to provide adequate wear protection. Anti-foam additives in AMSOIL synthetic motor oils enhance wear protection by collapsing entrained air bubbles.

Contaminant Suspension – Dirt, engine wear metals and combustion by-products such as soot work to accelerate engine wear. Motor oil reduces the damage caused by these contaminants by carrying them to the oil filter, where they become trapped. AMSOIL synthetic motor oils are formulated with highly effective dispersant additives that keep contaminants suspended in the oil stream until they reach the oil filter.

Diesel engines are particularly subject to soot contamination. AMSOIL synthetic motor oils reduce damage caused by soot by keeping soot particles from agglomerating. As soot agglomerates and particles grow in size, wear can occur. Furthermore, viscosity increases which may lead to filter plugging.

Heat Stress Control

Heat Transfer – Excessive engine heat promotes excessive engine wear and can lead to part failure. The saturated molecular structure of AMSOIL synthetic motor oils withstands higher temperatures than conventional oils before the oil breaks down. AMSOIL synthetic motor oils possess a high degree of thermal conductivity, providing cooler running engines.

Thermal Stability – The uniformly sized and shaped molecules and uniformly strong intermolecular bonds of AMSOIL synthetic motor oils remain intact during high temperature operation, protecting engines from varnish and coke and providing constant lubrication protection during extreme temperature operation.

Low Volatility – The light molecules present in conventional oils tend to volatilize in the presence of heat, thickening the oil and making it more difficult to pump, stressing the engine, increasing wear and decreasing fuel economy. Because they contain no light molecules that volatilize in the presence of heat, AMSOIL synthetic motor oils maintain their superior protection qualities in high temperature operating conditions.

Oxidative Stability – Certain oxidation products, such as sludge, interfere with the engine's ability to function, while others, such as acids, contribute to engine damage. AMSOIL synthetic motor oils are highly supplemented with multiple premium grade oxidation inhibitors, effectively resisting oxidation.



Other Benefits

Reduced Repairs – The superior protection and performance benefits of AMSOIL synthetic motor oils reduce engine component failures, saving time and money spent on engine repairs.

Reduced Maintenance – The superior formulations of AMSOIL synthetic motor oils allow them to last much longer than competing conventional and synthetic motor oils. While competing motor oil companies typically recommend 3,000-mile drain intervals, AMSOIL synthetic motor oils are recommended for drain intervals of up to 25,000 miles or one year, whichever comes first.

Reduced Solid Waste – Because AMSOIL synthetic motor oils may be used over eight times longer than conventional oils, AMSOIL customers produce significantly less used oil waste.

Reduced Air Pollution – Because AMSOIL synthetic motor oils improve fuel economy, they effectively reduce harmful exhaust emissions.

Save Money – AMSOIL synthetic motor oils save customers money by extending engine life, reducing repairs and maintenance, increasing oil drain intervals and increasing fuel economy.

