Superior Protection for Natural Gas Engines

Growing concern in recent years over the nation's dependence on foreign oil and the pollution caused by vehicular emissions has led to the introduction of federal and state mandates and incentives that encourage increased use of alternative fuels such as ethanol and biodiesel. Use of natural gas fuels, including compressed natural gas (CNG); liquefied natural gas (LNG) and liquefied petroleum gas (LPG), in stationary and vehicular applications has also been on the rise.

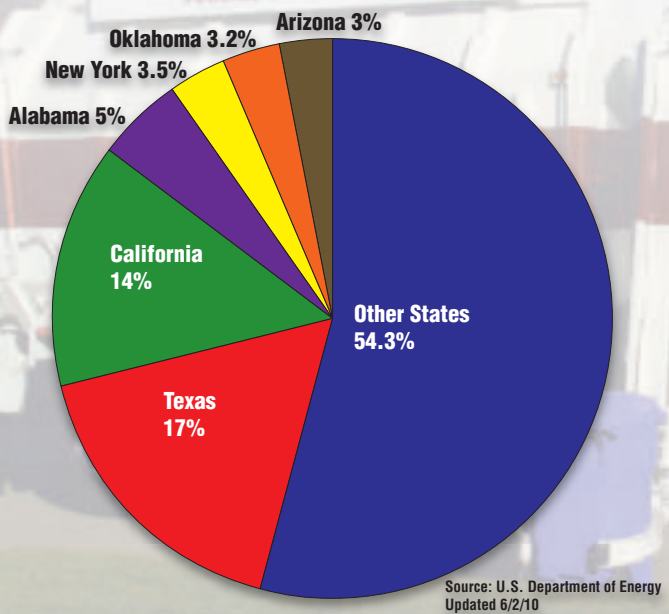
Benefits of Natural Gas Engines

Not only are natural gas supplies readily available in North America, but vehicles and equipment running on natural gas effectively reduce emissions, including carbon monoxide; carbon dioxide; nitrogen oxide and particulate matter, compared to gasoline and diesel applications. Natural gas fuels also have higher octane values than gasoline, allowing natural gas engines to operate using a higher compression ratio for increased fuel economy.

Growing Popularity

Many original equipment manufacturers (OEMs) offer natural gas-fueled vehicle models, with growing popularity in the transportation and refuse industries, including urban buses, local delivery trucks, refuse haulers, school buses, airport tugs, port transport vehicles, construction equipment and heavy equipment. Many states have also begun encouraging the use of natural gas fuels, and an increasing quantity of natural gas fueling stations are popping up across the nation. California and Texas are among the states with a larger number of natural gas fueling stations, and many municipalities and businesses in these states are using natural gas vehicles.

U.S. Natural Gas Fueling Stations for CNG, LNG, LPG



Source: U.S. Department of Energy
Updated 6/2/10

Low-Ash Lubricants

Both stationary and vehicular four-stroke natural gas engines require low-ash lubricants. There are four classified levels of ash content for natural gas engine lubricants:

Ash Content (% wt)	Classification
<0.1	Ashless
0.4-0.6	Low Ash (universal)
0.7-1.0	Medium Ash
>1.0	High Ash

AMSOIL Synthetic Natural Gas Engine Oils

AMSOIL now offers premium-quality natural gas engine oils for both the stationary and vehicular natural gas engine markets: Synthetic Stationary Natural Gas Engine Oil (ANGS) and Synthetic Vehicular Natural Gas Engine Oil (ANGV). It is important for Dealers to identify which product best meets a customer's needs.

Stationary natural gas engines incorporate roller cams, while vehicular natural gas engines use flat-tappet cams. Because the flat-tappet/camshaft lobe interface experiences extreme pressures and loads, it requires a properly-formulated natural gas engine oil fortified with anti-wear additives to reduce wear and extend flat-tappet and camshaft life. New AMSOIL Synthetic Vehicular Natural Gas Engine Oil is formulated with higher levels of zinc and phosphorus to help protect the valvetrains in vehicular and mobile applications.

Recommended for stationary natural gas engines, AMSOIL Synthetic Stationary Natural Gas Engine Oil (ANGS) is the same premium-quality formulation as the previous Synthetic Natural Gas Engine Oil (ANG) product, which is discontinued. The name and product code were updated to reduce the chance of misapplication. See the Product One Voice in the Dealer Zone for more information.

Data Bulletins

Synthetic Vehicular Natural Gas Engine Oil Data Bulletin

Stock #	Qty.	U.S.	Can.
G2787	25	3.10	3.75

Synthetic Stationary Natural Gas Engine Oil Data Bulletin

Stock #	Qty.	U.S.	Can.
G499	25	3.10	3.75

Synthetic Stationary Natural Gas Engine Oil

AMSOIL Synthetic Stationary Natural Gas Engine Oil (ANGS) delivers continuous protection in stationary natural gas engines calling for an SAE 40, low-ash lubricant. Its shear-stable formula qualifies it as a multi-grade 20W-40 so it can be used over a broad ambient temperature range, eliminating the need for seasonal oil changes.

Controls Wear

AMSOIL Synthetic Stationary Natural Gas Engine Oil is formulated with low sulfated ash to minimize carbon deposits and port blockage, resulting in reduced maintenance and extended equipment life. Advanced anti-wear and anti-scuff protection helps control valve recession and wear on piston rings, cylinder liners and bearings during continuous severe-service operation in stationary natural gas engines.

Keeps Engines Clean

AMSOIL Synthetic Stationary Natural Gas Engine Oil is engineered with premium base oils and additives to improve engine lubrication by keeping oil passages clean. Its balanced formula allows for a high total base number (TBN) to protect against corrosion while meeting low ash requirements.

Controls Nitration

Nitration is a common concern in natural gas engines and can cause oil to thicken, reducing operational efficiency. AMSOIL Synthetic Stationary Natural Gas Engine Oil is naturally resistant to nitration, delivering maximum protection in natural gas engines.

Protects Emission Systems

AMSOIL Synthetic Stationary Natural Gas Engine Oil is formulated with low zinc and phosphorus levels to prolong the life of emission catalyst systems without sacrificing wear protection.

Delivers Continuous Protection

AMSOIL Stationary Natural Gas Engine Oil may be used for extended drain intervals when monitored by an oil analysis program. If extending oil drain intervals, change the oil filter at the engine manufacturer's recommended interval.

Applications

AMSOIL Synthetic Stationary Natural Gas Engine Oil is recommended for use in stationary four-stroke and select two-stroke engines that require low-ash (<.50%) engine oil and are fueled by natural gas, including Bergen, Caterpillar, Cooper-Bessemer (two-stroke), Dresser-Rand (Clark) (two-stroke), Dresser-Rand (Worthington) (two-stroke), Dresser-Rand, Jenbacher, MAN B&W, MDE, MAN Brons, Mirrlees Blackstone, MWM Deutz, Niigata, Ruston, Wärtsilä NSD, SEMT Pielstick, Superior and Waukesha.

Synthetic Vehicular Natural Gas Engine Oil

AMSOIL Synthetic Vehicular Natural Gas Engine Oil (ANGV) delivers superior protection and performance in vehicular and mobile natural gas engines calling for an API CF 15W-40 low-ash lubricant.

Wear Protection

The synthetic base oil and advanced anti-wear additive system of Synthetic Vehicular Natural Gas Engine Oil provide enhanced valvetrain protection, whether roller or slider followers are used. It is formulated with high levels of zinc and phosphorus to provide outstanding wear protection in mobile engines requiring Cummins CES 20074.

Minimizes Deposits and Valve Recession

Synthetic Vehicular Natural Gas Engine Oil's low-ash formulation minimizes valve stem and combustion chamber deposit formation. It is designed to reduce valve recession, a common problem with low-ash oils, while its thermal stability allows it to effectively combat oxidation and oil degradation. Its balanced formula allows for a high total base number (TBN) to neutralize acids and protect against corrosion while meeting low ash requirements.

Maintains Viscosity

The shear-stable formula of Synthetic Vehicular Natural Gas Engine Oil offers maximum protection against viscosity loss while providing optimal service over a broad temperature range. It has inherently low volatility to reduce oil consumption and emissions, helping maintain serviceability of emissions equipment.

Delivers Continuous Protection

Synthetic Vehicular Natural Gas Engine Oil may be used for extended drain intervals when monitored by an oil analysis program. When extending oil drain intervals, change the oil filter at the OEM-recommended interval.

Applications

Synthetic Vehicular Natural Gas Engine Oil is recommended in mobile applications fueled by compressed natural gas (CNG); liquefied natural gas (LNG) and liquefied petroleum gas (LPG); including transit buses, medium/heavy-duty trucks, refuse haulers, school buses and delivery trucks. It is formulated for applications requiring Cummins CES 20074.

Synthetic Vehicular Natural Gas Engine Oil

Stock #	Unit of Measure	Pkg./Size	Comm. Credits	U.S. MLM	U.S. Sugg. Retail	Can. MLM	Can. Sugg. Retail
ANGV05	EA	(1) 5-gal. Pail	83.64	123.00	163.60	147.40	196.00
ANGV55	EA	(1) 55-gal. Drum	685.00	1201.75	1478.20	1441.00	1773.00
ANGV27	EA	(1) 275-gal. Tote	3289.69	5981.25	7356.95	7169.00	8818.00

Synthetic Stationary Natural Gas Engine Oil

Stock #	Unit of Measure	Pkg./Size	Comm. Credits	U.S. MLM	U.S. Sugg. Retail	Can. MLM	Can. Sugg. Retail
ANGS05	EA	(1) 5-gal. Pail	91.29	134.25	178.60	161.00	214.00
ANGS55	EA	(1) 55-gal. Drum	755.54	1325.50	1630.40	1590.00	1956.00
ANGS27	EA	(1) 275-gal. Tote	3630.00	6600.00	8118.00	7914.00	9734.00