

MAK GES XLA 40

Long life, extended protection, low ash stationary gas engine oil

MAK GES XLA 40 is a premium quality oil blended for use in highly rated, 4-stroke and spark-ignition natural gas engines requiring very low ash oil. It has been blended from high viscosity index base stock. This oil is highly resistant to oxidation, nitration and thermal degradation. It offers very high control of deposit, formation of harmful acids and wear of engine components even in very demanding cogeneration (CHP) applications. MAK GES XLA 40 oil is designed to help prevent knocking and thereby enable engines to run at full load and optimum efficiency. It offers excellent protection to engine components against rust and corrosion. It is also designed to meet the demands of 'lean burn' technology employed by modern engines and is compatible with the catalyst of catalytic converters (Phosphorus content < 300 ppm).

Applications:

MAK GES XLA 40 oil is recommended for all types of stationary, 4-stroke and spark-ignition engines running on natural gas and requiring very low ash oil. The engines can be naturally aspirated or turbocharged and medium to high speed. It is suitable for applications where natural gas engines are used for gas gathering/ compression, power generation, cogeneration applications etc.

Performance/ Benefits:

Excellent Antiwear Characteristics – protects critical engine parts like heavily loaded valve train components, pistons, liners, bearings and gear trains. Enhances engine performance and reliability.

Excellent Resistance to Oxidation and Nitration – outstanding resistance to the effects of oxidising agents and nitration. Resists viscosity increase, filter deposits and formation of acid. Minimises sludge formation, filter choking piston ring and valve sticking. Ensures reliability of system, longer drain period and less maintenance.

Extended Drain Interval – enhances operating life of oil, controls viscosity, reduces sludge and deposits formation through high quality base stock and additive system. Increases engine availability. For optimum results regular in-use oil analysis is strongly recommended.

Clean Engine – controls deposits in combustion chamber, on pistons, valves and spark plugs to maintain maximum efficiency. Highly effective detergency and dispersancy additives control the carbon formation and varnish deposits to maintain engine and downstream equipment cleanliness even during extended drain interval.

Low Oil Consumption – low engine oil volatility minimises evaporation, extends operating life and reduces oil consumption and hence reduces top-up oil quantity.

Performance Level/ Specification:

- API CF

Approvals:

- Approved by M/s. Wartsila for their following models with natural gas as main fuel – 25SG, 28SG, 34SG, 50SG, 175SG, 220SG and 20DF, 32DF, 34DF 50DF.

Typical Physico-Chemical Data: MAK GES XLA 40

Characteristics	Method	Value
Appearance	Visual	Clear & Bright
Color	Visual	Brown
SAE Viscosity Grade		40
Density, g/cc @ 15°C	ASTM D1298	0.874
Kinematic Viscosity @40°C, cSt	ASTM D445	127.70
Kinematic Viscosity @100°C, cSt	ASTM D445	14.6
Viscosity Index	ASTM D2270	115
Flash Point, COC, °C	ASTM D92	258
Pour Point, °C	ASTM D97	-18
Copper Corrosion, 100°C, 3 hrs.	ASTM D130	1a
Total Base Number, mg KOH/ g	ASTM D2896	5.3
Sulphated Ash, %wt	ASTM D874	0.48

Storage & Handling:

The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing.

Health & Safety:

This oil is unlikely to be hazardous when properly used in recommended applications. Contamination of the oil from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.