HDAX 9300 SAE 40

Premium performance gas engine oil

Product description

HDAX® 9300 SAE 40 is a premium performance medium ash dispersant/detergent type gas engine oil, specifically designed to offer protection to gas engines running on natural gas under heavily loaded conditions.

HDAX 9300 SAE 40 offers robust protection against corrosion, harmful deposit and sludge formation, and promotes protection against engine wear and scuffing, helping optimise engine service life.

HDAX 9300 SAE 40 is formulated with premium base oils which contain extremely low levels of sulphur, nitrogen and aromatics, combined with a premium additive package containing ashless dispersants, oxidation inhibitors, metallic detergents and a metallic anti-wear agent.

Customer benefits

- Designed to protect engines running on natural gas, operating under heavily loaded conditions, including the most modern steel piston engines with BMEP ≥22 bar
- Oxidation/nitration resistance with base number retention offers extended drain, and compatible with very low oil feed rate engines
- Dispersant/detergent formulation with oxidation/nitration resistance helps minimise oil thickening, sludge formation and filter plugging
- Promotes piston deposit control, and protection from cylinder liner scuffing and abrasive wear, offering longer engine service life
- Formulated to optimise ash level for reliable valve recession control and to help prevent potential pre-ignition
- Low phosphorus additive design allows use with catalyst systems

Product highlights

- **Designed for heavy loads, in modern steel piston engines with BMEP ≥ 22 bar**
- **Offers extended drain in very low oil feed rate engines**
- **Helps minimise oil thickening and filter plugging**
- **Promotes longer engine service life**
- **Formulated to prevent potential pre-ignition**
- **Allows use with catalyst systems**

Selected specification standards include:

Bergen Engines	Caterpillar
Jenbacher	MWM (Caterpillar Energy Solutions)

Applications

HDAX 9300 SAE 40 is designed for use in high output, low emission four-stroke engines running on natural gas. It has a medium ash level, which is preferred in high Brake Mean Effective Pressure engines with steel pistons (BMEP greater or equal to 22 bar).

The optimised ash level helps provide protection against valve recession, while reducing the formation of ash deposits in the combustion chamber which could lead to pre-ignition.

The combination of base number retention and oxidation/nitration resistance offers extended drain capability - even in applications where the oil feed rate is deliberately kept low, placing extra stresses on the lubricant.

HDAX 9300 helps prevent sludge formation on cylinder liners, which could interfere with oil flow and lead to higher oil consumption.

HDAX 9300 is formulated to control carbonaceous deposits on pistons, helping improve piston ring operation and scuffing protection to cylinder liners.

(HDAX 9300 is intended for use with fuels containing low levels of sulphur and Chloro-Fluoro-Carbons (CFC). In sour gas/high CFC applications, use a lubricant designed for that purpose – for example, HDAX 9500 SAE 40.)

Approvals, performance and suitable for use

Approvals

- Bergen Engines: All engine types, natural gas operation[2]
- Caterpillar CG Gas Engines [3]
- Jenbacher TA 1000-1108, Fuel Class A [1]
  - Type 9 (all versions)
- Jenbacher TA 1000-1109, Fuel Class A [1] for the following engine types and versions:
  - Type 2 and 3
  - Type 3 (version F)
  - Type 4 (versions C and E)
  - Type 6 (versions C and E)
  - Type 6 (versions F and J)
  - Type 6 (versions G, H and K)
- MWM (Caterpillar Energy Solutions) TCG Gas Engines [3]

Suitable for use

- Caterpillar: Proof of performance gained during extensive field trials in Caterpillar, G3500 version H engines

[1] Natural gas, associated petroleum gas, mine gas, biogas (sulphur < 200 mg/10 kWh).

[2] Engine types K-G1, K-G2, K-G3, K-G4, C26:33, B35:40, B36:45

[3] Technical circular TR 2105 - approved lubricants with sulphated ash 0.6-1.0 weight%

Typical test data

Test	Test Methods	Results
Viscosity Grade		**SAE 40**
Shelf Life: 60 months from date of filling indicated on the product label.		
Density, 15 °C, kg/l	ASTM D4052	0.880
Viscosity, Kinematic, 100 °C, mm²/s	ASTM D445	13.5
Pour Point, °C	ASTM D97	-33
Flash Point, COC, °C	ASTM D92	270
Total Base Number, mg KOH/g	ASTM D2896	6.2
Sulphated Ash, %wt	ASTM D874	0.70

The typical test data set out above does not constitute a specification. It is indicative only and can be affected by allowable production tolerances. Chevron may modify this test data. Modified data will supersede all previous data, so please ensure you refer to the latest version of this Product Data Sheet (PDS).

When disposing of used product, take care to protect the environment and follow local legislation.

Safety Data Sheets (SDS's) are available for all Chevron products. If you require a SDS or any further information regarding a Chevron product, please contact your local sales office or see www.texacolubricants.com.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product