



CHEVRON HDAX[®] LOW ASH GAS ENGINE OILS

SAE 15W-40, 30, 40

CUSTOMER BENEFITS

Chevron HDAX[®] Low Ash Gas Engine Oils deliver value through:

- **Low maintenance cost and long engine life**
- **Low wear** — Provide excellent protection against piston, ring, and liner scuffing, scoring, and wear.
- **Reduced valve recession** — The level and type of ash producing additives in the oils provide minimum valve recession with low levels of combustion chamber deposits to minimize the potential for pre-ignition and spark plug fouling.
- **Minimum oil viscosity increase** — Oxidation inhibited and nitration resistant to insure minimum viscosity increase, long service life, and low wear rates.
- **Cleaner pistons** — API CD /CF performance provide superior piston cleanliness to prevent ring sticking and maintain clean, varnish-free piston skirts.
- **Clean crankcases and top decks** — Minimize the formation of sludge in the crankcase and in the valve rocker cover/top deck area.
- **Catalyst compatibility** — Low phosphorous content means compatibility with NSCR emission reduction systems.
- **Improved low temperature performance** — Chevron HDAX Low Ash Gas Engine Oil SAE 15W 40 provides increased oil flow to engine components for better lubrication during cold startup; and is suitable for use in selected automotive natural gas engine applications.

FEATURES

Chevron HDAX Low Ash Gas Engine Oils are high quality, bright stock-free, low ash, dispersant/detergent type engine oils.

They are formulated with ISO SYN[®] base stocks and an additive package containing ashless dispersant, oxidation inhibitors, metallic detergents, and a metallic antiwear agent.

Chevron HDAX Low Ash Gas Engine Oils provide

outstanding oxidation and nitration resistance, which reduce the buildup of insolubles and provide

extended oil and filter life. Chevron HDAX Low Ash Gas Engine Oils give excellent protection against ring and liner scuffing and wear. They also minimize valve recession in four-stroke engines and provide excellent piston and ring belt deposit control and effectively protect against the formation and buildup of engine sludge.

Chevron HDAX Low Ash Gas Engine Oil SAE 15W-40 provides easier engine startup and better oil flow in low temperature conditions. In addition, reduced oil consumption can be achieved, especially in four-stroke engines.



APPLICATIONS

Chevron HDAX Low Ash Gas Engine Oils are recommended for four-stroke and selected two-stroke stationary engines fueled by natural or synthetic gas and gas from digester and landfill sources.

Recommended for four-stroke engines manufactured by:

- Caterpillar
- Delaval Enterprise
- Deutz
- Dresser-Rand Categories I, II, and III (SAE 30)
- GE Jenbacher
- Superior
- Wartsila
- Waukesha
- Worthington

Satisfactory for selected two-stroke engines manufactured by:

- Ajax
- Clark-Dresser
- Fairbanks-Morse/MEP
- Worthington

Chevron HDAX® Low Ash Gas Engine Oils — Continued

Chevron HDAX Low Ash Gas Engine Oils are formulated to meet NSCR catalyst compatibility requirements and are especially suited for installations requiring low phosphorus oil to prevent exhaust catalyst poisoning.

Chevron HDAX Low Ash Gas Engine Oils are suitable for use with fuels containing low levels of sulfur and Chloro-Fluoro-Carbons (CFC). In sour gas/high CFC applications, an oil with higher base reserve may be required.

Chevron HDAX Low Ash Gas Engine Oils SAE 30 and 40 are formulated to meet the performance requirements of **API Service Category** CD¹/CF.

1. Obsolete specification

Chevron HDAX Low Ash Gas Engine Oil SAE 15W-40 is particularly suited for four-stroke and selected two-stroke gas engines requiring good low temperature startability.

Chevron HDAX Low Ash Gas Engine Oil SAE 15W-40 is recommended for use in selected alternate fueled vehicles - mass transit vehicles and local delivery trucks operating on compressed natural gas (CNG), liquefied petroleum gas (LPG), or liquefied natural gas (LNG).

Chevron HDAX Low Ash Gas Engine Oil SAE 15W-40 meets the performance requirements of Cummins L10, M11, and Detroit Diesel Series 50G engines running on compressed natural gas.

TYPICAL TEST DATA

SAE Grade	15W-40	30	40
Product Number	232331	232327	232328
MSDS Number	7046	7046	7046
API Gravity	30.5	29.8	29.5
Viscosity, Kinematic cSt at 40°C cSt at 100°C	126 15.6	97.3 11.4	124 13.5
Viscosity Index	130	104	104
Viscosity, Cold Crank, C/Poise	-20/64.0	—	—
Flash Point, °C(°F)	204(399)	215(419)	230(446)
Pour Point, °C(°F)	-27(-17)	-24(-11)	-18(0)
Sulfated Ash, wt %	0.5	0.5	0.5
Acid Number, ASTM D 664	1.0	1.0	1.0
Base Number, ASTM D 2896	4.2	4.2	4.2
Phosphorus, ppm	270	270	270
Zinc, ppm	320	320	320

Typical test data are average values only. Minor variations which do not affect performance are to be expected in normal manufacturing.