

HDAX® 5200 Low ASH GAS ENGINE OIL SAE 15W-40, 30, 40

PRODUCT DESCRIPTION

HDAX® 5200 Low Ash Gas Engine Oils are advanced performance, premium quality, bright stock free, low ash, dispersant/detergent type engine oils.

CUSTOMER BENEFITS

HDAX 5200 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.
- Valve protection 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 preignition and spark plug fouling.
- **Clean pistons** Provides piston cleanliness to help prevent ring sticking and maintain clean, varnish-free piston skirts.
- Clean crankcases and top decks Minimizes the formation of crankcase and valve cover/top deck sludge.
- Catalyst compatibility Formulated to be compatible with exhaust emissions reduction systems.
- Excellent low temperature performance HDAX 5200 Low Ash Gas Engine Oil SAE 15W-40 provides maximum oil flow to engine components for better lubrication during cold startup, compared to straight grades.

FEATURES

HDAX 5200 Low Ash Gas Engine Oils are formulated with premium base oil technology and an additive package containing ashless dispersant, oxidation inhibitors, metallic detergents and a metallic antiwear agent.

HDAX 5200 Low Ash Gas Engine Oils provide outstanding oxidation and nitration resistance, which minimize the buildup of insolubles and help provide long oil and filter life. HDAX 5200 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.

HDAX 5200 Low Ash Gas Engine Oil SAE 15W-40 helps provide easy engine startup, maximum oil flow in low temperatures, and can reduce oil consumption compared to straight grades.

Product(s) manufactured in the USA and Colombia.

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

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APPLICATIONS

 $HDAX^{\textcircled{R}}$ 5200 Low Ash Gas Engine Oils are recommended for four-stroke and selected two-stroke stationary engines fueled by natural gas.

HDAX 5200 Low Ash Gas Engine Oil SAE 40 is approved for:

- Caterpillar Energy Solutions GmbH for CG132, CG170 & CG260 gas engines
- INNIO Jenbacher gas engines, as listed in the table below:

Engine Type	Class A	Class B	Class C	Class S	Catalyst
Type 2/3	х			x	х
Type 4A	х			x	х
Type 4BD	х	х	х	x	х
Type 4CE	х	х	х	x	х
Type 6CE	х				х
Type 6FJ	х	х	х	Х	х

Where INNIO Jenbacher divides fuel quality into these classes:

- Class A: Clean natural gas that complies with TA 1000-0300.
- Class B: Biogas and Sewage gas.
- Class C: Landfill gas.
- Class S: Special gases requiring special approval like Syngas.
- Catalyst: With an oxidation catalytic converter
- MAN Diesel & Turbo engines in operation on natural gas (CNG/LNG) - now MAN Energy Solutions
- MAN Energy Solutions for use in MAN ES fourstroke medium speed engines on natural gas (CNG/LNG) - formerly MAN Diesel & Turbo
- · MWM gas engines
- Wärtsilä gas engines and dual fuel engines with natural gas as main fuel
- All **Waukesha** gas engines burning pipeline quality gas, including 220 GL and Cogeneration

HDAX 5200 Low Ash Gas Engine Oils are recommended for four-stroke gas-fueled engines manufactured by:

- Caterpillar
- Delaval Enterprise
- Dresser-Rand (Categories I, II, and III)
- MWM (DEUTZ)
- Superior
- Worthington

HDAX 5200 Low Ash Gas Engine Oils are formulated to meet catalyst compatibility requirements and are especially suited for installations requiring low phosphorus oil to prevent exhaust catalyst poisoning.

HDAX 5200 Low Ash Gas Engine Oils are suitable for use with fuels containing low levels of sulfur. In sour gas applications, a lubricant with higher base reserve such as HDAX 5300 Medium Ash Gas Engine Oil SAE 40 may be required.

HDAX 5200 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.

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TYPICAL TEST DATA

SAE Grade	15W-40	30	40
Product Number	232331	232327	232328
SDS/MSDS Number USA Colombia	7046 —	7046 —	7046 33435
Density at 15°C, kg/L	0.8752	0.8773	0.8790
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	-20/61	_	_
Flash Point, °C(°F)	204(399)	215(419)	230(446)
Pour Point, °C(°F)	-30(-22)	-30(-22)	-30(-22)
Sulfated Ash, wt %	0.5	0.5	0.5
Acid Number, ASTM D664	1.0	1.0	1.0
Base Number, ASTM D2896	4.2	4.2	4.2
Phosphorus, ppm	270	270	270
Zinc, ppm	320	320	320

Minor variations in product typical test data are to be expected in normal manufacturing.