

NATURAL GAS ENGINE OIL

# HDAX<sup>®</sup> 7200 LOW ASH GAS ENGINE OIL



Our premium, top-of-the-line, extended service, low ash, detergent/dispersant type gas engine oil.



#### Take Advantage of our Exceptional Performing Low Ash Gas Engine Oil

HDAX 7200 is recommended for lean burn and stoichiometric four-stroke engines operating under high load and temperature conditions. It is also recommended for high-speed, four-stroke gas engines used in cogeneration applications and for engines fueled with synthetic gas.

**Outstanding Oxidation and Nitration Resistance** provides long oil life and maximum flexibility in maintenance scheduling.

**Valve Recession Protection** is provided by a premium Group II base oil and balanced additive package that also contributes to low levels of combustion chamber deposits, minimizing pre-ignition potential and spark plug fouling.

### State-of-the-art, high performing combination of premium Group II base oil and a balanced additive package that offers the benefits of:

Exceptional Oxidation Performance and Potential for Extended Drains

Valve Recession Protection

Low Wear

Reduced Sludge Formation

**Low Wear** in pistons, rings and liners and protects against scuffing and scoring.

**Catalyst Compatibility** formulated to be compatible with exhaust emission reduction systems.

## HDAX<sup>®</sup>



A **Chevron** company product

# HDAX 7200<sup>®</sup> Means Worldwide Reliability

The gas engine oil that promotes potential for longer drain intervals, extended equipment life, reduced down time and savings in the maintenance budget.

As the gas engine industry evolves throughout the world, the need to keep equipment running reliably increases.

Being able to count on a brand means lots of things. Reliability is what it is all about. Caltex formulates products around new technologies and industry needs.

HDAX<sup>®</sup> 7200 Low Ash Gas Engine Oil, SAE 40 features premium performance and capability to help extend drain intervals. It is specifically designed to lubricate a wide range of four-stroke, natural gas and dual fuel engines where low ash oils are recommended. HDAX 7200 is formulated with premium Group II base oils which contain extremely low sulfur, nitrogen and aromatics, that often are present in lower quality base oils. These extracted actors cause oil degradation and premature failure. Additionally, HDAX 7200 uses a proprietary, premium additive package containing ashless dispersants, oxidation inhibitors, and metallic detergents and antiwear.

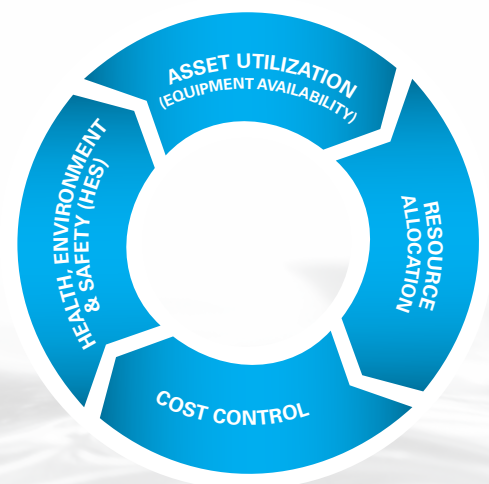
## Natural Gas Engine Lubricant Functions

Critical Lubricant Functions	Required Lubricant Properties
Provide long oil life to minimize engine downtime and a safety margin when operating constraints require postponing routine maintenance.	Oxidation and nitration resistance help potential to provide long oil life.
Minimize high temperature deposits from forming on components.	Detergents help to minimize harmful deposits from forming on piston crowns and ring grooves.
Minimize low temperature deposits on the top deck and in the crankcase.	Dispersants help minimize sludge particles from accumulating on top decks.
Inhibit corrosion	Alkaline additives neutralize acids increasing the potential for long oil service intervals.

## Understanding Value Drivers in Maintenance of Natural Gas Engines

For Typical Operations:

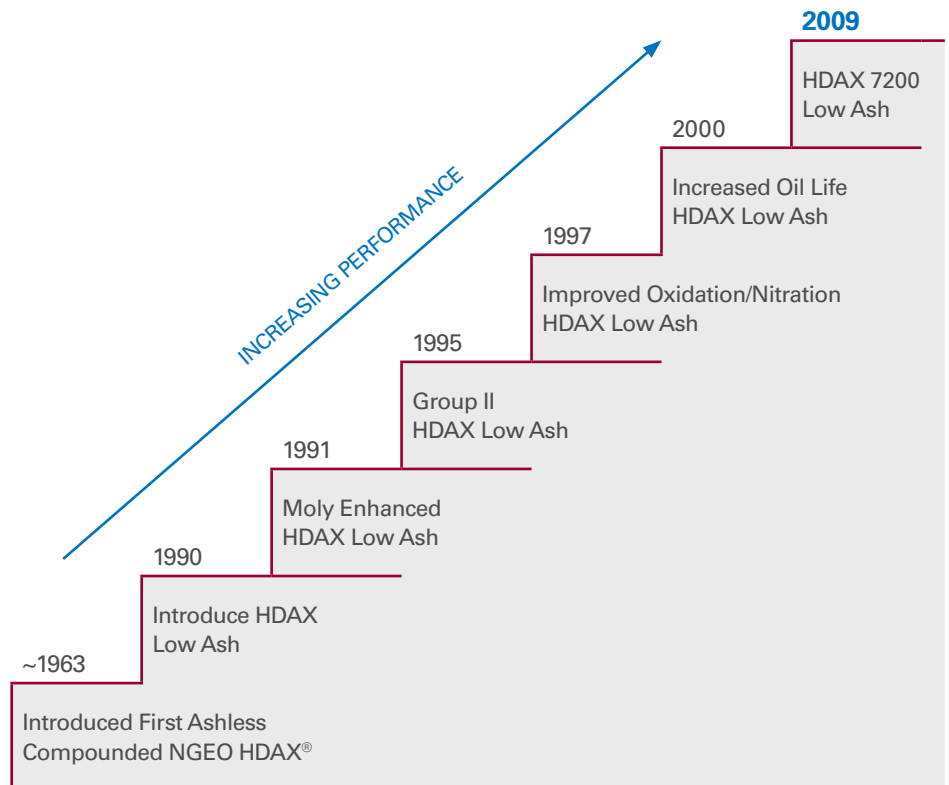
- Downtime directly impacts production and revenue
- Unscheduled downtime costs due to engine failures are significant due to complexity involved with repairs
- Lubrication preventative maintenance tasks are difficult to manage in remote locations
- Due to size of engines, lock-out process and remote locations, safety is often a major concern for the mechanics
- Engine overhaul costs are expensive – extending time to overhaul by one year or more is significant to lowering total cost of ownership (TCO)



The product recommendations provide general guidelines. All manufacturers have different lubricant requirements and recommendations. It is strongly recommended to consult the Original Equipment Manufacturer's (OEM) manual to confirm the appropriate product is used for the application and consistent with the equipment operating conditions and customer's maintenance practices. It is the responsibility of the end user to ensure that products are used in the applications which they are intended for.



## HDAX® Industry "Firsts" in Gas Engine Oils



### HDAX 7200 Field Tests

Our development program of HDAX 7200 included extensive field testing over a four-year period. During that time, over 100,000 test hours in a variety of engines were logged. Most of the hours were tested in multiple engines of each model. The majority of these tests were "wear and deposit" field tests where new parts were measured before and after 8,000 hours of service. **All of the tests demonstrated excellent wear and deposit control—even at extended drain intervals.**

### Applications

HDAX 7200 Low Ash Gas Engine Oil is recommended for lean-burn and stoichiometric four-stroke engines operating under high load, high temperature conditions. It is also recommended for Four-Stroke high-speed and medium-speed stationary spark ignition engines operating on sweet natural gas or LPG and Four-stroke medium-speed stationary dual-fuel pilot injection engines operating on sweet natural gas or LPG used in Stationary and Cogeneration applications where the OEM has recommended as low ash oil.

HDAX 7200 Low Ash Gas Engine Oil SAE 40 is recommended for:

- Caterpillar
- Deutz
- Dresser Rand (Categories I, II, III)
- GE Jenbacher
- MWM
- Rolls Royce
- Superior
- Wärtsilä
- Waukesha
- Worthington

### A Name You Can Trust Everywhere

Caltex, a leader in the oil industry for over 125 years, designed **HDAX 7200 Low Ash Gas Engine Oil** with **reliability** in mind.

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For more information, go to [www.chevronlubricants.com](http://www.chevronlubricants.com)

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