



HDAX[®] 9700

SAE 40

PRODUCT DESCRIPTION

HDAX[®] 9700 is a premium performance, uniquely-designed engine oil recommended for dual fuel, medium-speed, four stroke cycle trunk piston engines burning natural gas with approximately 3 percent diesel pilot fuel ignition and up to 100 percent low sulfur diesel fuel (<500 ppm sulfur).

CUSTOMER BENEFITS

HDAX 9700 provides the following benefits:

- **Smooth engine operation** — Fit for purpose formulation minimizes risk of rough engine operations that may result from misfiring or detonation when operating in dual fuel mode and using an elevated ash engine oil, as is typical of medium speed diesel engine oils.
- **Long oil life** — A combination of premium base oils and high performance additives offer excellent oxidation and nitration resistance over extended oil life.*
- **Clean pistons** — Very low combustion chamber and piston deposits help protect liners from scoring and extend engine top-end maintenance cycles.
- **Minimized valve recession** — The unique ash-containing additives in the oil allow minimal valve recession with low levels of combustion chamber deposits, to minimize the potential for pre-ignition and spark plug fouling.
- **Low fluid volatility** — Helps minimize oil consumption.

* Used oil analysis is recommended for establishing and maintaining oil service intervals.

Product(s) manufactured in the USA.

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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FEATURES

HDAX 9700 is a premium dual fuel gas engine oil with proven field service experience in dual fuel engines operating with diesel pilot ignition natural gas mode and up to 100 percent diesel mode for extended operational periods. It offers reliable deposit control, corrosion resistance and wear protection. Its hybrid technology is designed to control ash accumulation in combustion chambers to minimize risk of preignition and the rough engine operation that may be associated with engine misfire and detonation.



APPLICATIONS

HDAX 9700 is recommended for dual fuel, natural gas / ultra low sulfur diesel medium-speed trunk piston engines in coastal marine, inland marine, railroad and power generation applications. These high output engines may be turbocharged and equipped with exhaust catalysts systems.

HDAX 9700 has field service experience in:

- **Wärtsilä dual fuel engines in coastal marine operations**

HDAX 9700 is approved by MAN for use in MAN ES four-stroke medium speed engines. This lubricant is suitable for dual fuel engines in distillate fuel operation, gas operation, and engines with alternating natural gas and distillate fuel operation, as long as the distillate fuel does not exceed a maximum sulphur content of 1000ppm.

TYPICAL TEST DATA

SAE Grade	40
<i>Product Number</i>	232313
<i>SDS Number</i>	
<i>U.S.</i>	50347
<i>Canada</i>	50347
<i>Mexico</i>	50346
Density at 15°C, kg/L	0.8721
Viscosity, Kinematic	
mm ² /s at 40°C	117
mm ² /s at 100°C	13.4
Viscosity Index	110
Flash Point, °C(°F)	268(514)
Pour Point, °C(°F)	-36(-33)
Sulfated Ash, mass % ASTM D874	0.7
Base Number, mg KOH/g ASTM D2896	5.8
Phosphorus, ppm	280
Zinc, ppm	330

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

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