

# Blue Flame HB-16™



## Product Description

D-A **Blue Flame HB-16™** engine oil is designed specifically for use in engines fueled by processed natural gas or other gas sources that may contain corrosive materials. It is a high ash, high TBN (16) natural gas engine oil engineered specifically for service in applications where fuel compositional characteristics can cause rapid premature engine damage. Additionally, it provides protection against excessive valve recession (sink) in gas engines which can result in operational problems. The HardBase TBN of 16 (HB-16) provides effective alkalinity necessary to control engine wear with corrosive fuel sources. The high ash level (2.24 Wt. %) satisfies Waukesha engine requirements when exhaust valve recession is a problem.

D-A **Blue Flame HB-16™** is formulated with thermally stable, high VI base oils that are naturally resistant to oxidation. These base oils are combined with a unique additive system that further extends oil oxidation life. Although this natural gas engine oil is designed for severe service conditions with poor quality fuels, it can also be effectively utilized with processed natural gas in engines where high ash oils are acceptable.

## Product Features and Benefits

High level of active detergent reduces piston ring, cylinder liner wear, and minimizes piston ring groove deposits.

Chemically engineered to limit wear caused by fuels containing materials which promote accelerated corrosive wear of piston rings, cylinder liners and crankshaft journal bearings. High ash formula protects against excessive valve sink or recession caused by rapid valve seat and face wear.

Formulated with thermally stable, high VI base oils in combination with multiple oxidation inhibitors for outstanding resistance to oxidation, nitration and viscosity increase.

Sophisticated additive technology extends bearing life, resulting in reduced maintenance expenses and extra equipment uptime.

Lower oil volatility and viscosity loss at elevated temperatures promote reduced oil consumption rates, cleaner combustion chambers, longer spark plug life and longer cylinder head servicing intervals.

“Meets the performance requirements of all stationary natural gas engine manufacturers”

## Typical Applications

Gas compression and transmission  
 Wellhead gas pumpers  
 Oil pumpers Irrigation systems  
 Total energy systems  
 Waste water treatment cogeneration plants  
 Landfill gas cogeneration systems  
 Manure gas cogeneration

Engine Applications:

- Caterpillar
- Cummins Rio-Grande
- Deutz
- Enterprise
- Fairbanks Morse
- Jenbacher
- Minneapolis-Moline
- Stewart & Stevenson
- Waukesha
- White

For other engine makes and models, consult the D-A Technical Service Department.

## Typical Properties

SAE Viscosity Grade	Test Method	30	40
Viscosity @ 100°C, cSt	ASTM D445	11.6	14.5
Viscosity @ 40°C, cSt	ASTM D445	101	141
Viscosity Index	ASTM D2270	103	101
Pour Point, °F (°C)	ASTM D97	-5 (-21)	10 (-12)
Flash Point, °F (°C)	ASTM D92	445 (229)	455 (235)
Sulfated Ash, Weight %	ASTM D874	2.24	2.24
Total Base Number	ASTM D2896	16.1	16.1

### D-A Part Number:

Bulk

N/A

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