

## Blue Flame HB-10<sup>™</sup>

#### **Product Description**

D-A Blue Flame HB-10™ is a specialized gas engine oil intended for severe service in applications utilizing varying quality gas sources. This product has been fortified with extra additives that limit corrosive wear caused by fuel sulfur and/or combustion of volatile halogenated gases. The HardBase™ TBN of ten (HB-10) comes from an exclusive detergent/dispersant additive system providing longer drain intervals, fewer deposits and longer engine life.

D-A Blue Flame HB-10 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. Special valve cushioning additive components help reduce exhaust valve seat and face wear during severe service.

#### **Product Features and Benefits**

Designed to provide extra wear protection when used with fuels containing materials which promote accelerated corrosive wear of critical engine parts.

Effective detergent alkalinity helps control corrosive wear, to provide longer engine life when using poorer quality fuel sources.

Unique combination of detergents and dispersants reduces piston deposits and keeps engines cleaner, resulting in more efficient and trouble-free engine operation.

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

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

Unique additives protect against excessive valve sink or recession caused by rapid valve seat and face wear.

#### PRODUCT AT A GLANCE

- Medium Ash Engine Oil
   10 TBN
- Severe Service Gas Engines
- For Medium and High Speed (rpm) Natural Gas Engines
- Reduces Exhaust Valve
   Seat and Face Wear
- Promotes Reduced Oil Consumption Rates









# Blue Flame HB-10<sup>™</sup>

#### **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

Meets Non-Selective Catalytic Reduction (NSCR) catalyst compatibility requirements.

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

### **Typical Properties**

SAE Viscosity Grade	J-300	30	40
Viscosity @ 100°C, cSt @ 40°C, cSt	ASTM D445 ASTM D445	11.5 100	14.5 145
Viscosity Index	ASTM D2270	102	98
Pour Point, °F (°C)	ASTM D97	-5 <i>(-21)</i>	10 (-12)
Flash Point, °F (°C)	ASTM D92	450 <i>(232)</i>	460 <i>(237</i> )
Sulfated Ash, Weight %	ASTM D877	1.0	1.0
Total Base Number	ASTM D2896	10.0	10.0
	Drum - 55 Gal Pail - 5 Gal	52752 52758	52762 52768

To Order D-A Products, Call 1-800-OIL-LUBE (1-800-645-5823) or Fax orders to 765-482-3065

D-A Lubricant Company, Inc.