

V.I. PLUS NG
NATURAL GAS ENGINE OIL
No. 411

SAE 30 and 40

DESCRIPTION:

The ultimate in NG engine oil performance: **V.I. PLUS NG**. This superior quality, low ash lubricant is blended from high viscosity index hydroprocessed group II base oils, an exclusive anti-oxidation/anti-nitration package and Frontier's exclusive extender additive package "ETX". **V.I. Plus NG** is specifically designed for 4-cycle and select 2-cycle stationary engines which use natural or synthetic gas. It meets the performance requirements of API CD and the catalyst compatibility requirements of Englehard.

PERFORMANCE CHARACTERISTICS:

V.I. Plus NG has been developed with a high thermal stability and maximum detergency to reduce varnish and gum deposits, this greatly reduces oil oxidation and nitration. The additive technology in **V.I. Plus NG** reduces ring wear, improves piston cleanliness, reduces bearing wear, extends drain intervals and reduces oil consumption.

SUMMARY:

V.I. Plus NG Engine Oil provides the following advantages:

- **Oxidation/Nitration resistance:**
The special combination of Frontier's exclusive anti-oxidation/anti-nitration package and the premium high quality base oils minimize the build-up of insolubles and provides extended oil and filter life.
- **Extended drain:**
Extended drain intervals when used with an oil analysis program and when following the guidelines of the OEMS.
- **Catalyst compatible:**
Meets requirements of catalysts suppliers.
- **High TBN:**
High TBN provides extra protection against corrosive acids. It also provides maximum piston cleanliness to prevent ring sticking and to maintain clean, varnish-free piston skirts.
- **API CD performance:**
Total additive package provides a cleaner engine, minimizes sludge build-up, protects against ring and liner wear, and provides excellent piston and ring belt deposit control.
- **Rust and corrosion protection**
- **Anti-wear**

FIELD SERVICE APPLICATIONS:

Recommended for 4-cycle and selected 2-cycle stationary engines fueled by natural gas, synthetic gas, digester and Landfill gas.

<u>Manufacturer:</u>	<u>Rating:</u>	<u>Manufacturer:</u>	<u>Rating</u>
Caterpillar			
3400,3500,3600	P	Clark-Dresser	S
All Others	P	Delavel Enterprise	P
Dresser-Rand(Ingersol-Rand)			
Category I	P*	Superior	P
Category II	P*	Cooper Bessemer	
Category III	P*	2-cycle, 4-cycle	P
Waukesha			
VR Series	P	Fairbanks-Morse/MEP	S
VHP Series	P	Worthington	
VGf Series	P	2-cycle	S
VSG Series	P	4-cycle	P
AT25GL Series	P		
Intermediate/Clinton	P		

S = Satisfactory for use

P = Preferred product

* = SAE 30 viscosity grade only

<u>SAE GRADE:</u>	<u>30</u>	<u>40</u>
Viscosity @ 100°C, cSt:	11.2	13.8
Viscosity @ 40°C, cSt:	96	131
Viscosity Index:	105	105
Gravity, ° API:	30.4	29.8
Flash Point, COC, °F:	425	440
Pour Point, °F:	-10	0
TBN, ASTM D-2894:	5	5
Oxidation Stability:	Exceeds Requirements	Exceeds Requirements
Rust and Corrosion:	Exceeds Requirements	Exceeds Requirements
Anti-Wear Protection:	Exceeds Requirements	Exceeds Requirements
Sulfated Ash, % wt.:	0.45	0.45

Values shown here are typical, and may vary.

PERFORMANCE PRODUCTS GUARANTEED