



SENTRON™ LD 8000 PREMIUM NATURAL GAS ENGINE OIL

Introduction

Petro-Canada SENTRON™ LD 8000 is a premium performance, long life natural gas engine oil (NGEO) specially formulated to lubricate natural gas engines and compressors.

SENTRON LD 8000's extended drain intervals can mean lower maintenance costs, less used oil to dispose of and a more efficient and profitable operation.

SENTRON LD 8000's exceptional performance is especially important in the severe service conditions common in compression, power generation and combined heat and power applications. Its outstanding anti-wear protection helps to minimize polish and wear of cylinder liners and wear of piston rings, while helping to reduce carbon buildup.

That can mean:

- Longer service intervals
- Cleaner engines with less wear
- Less downtime
- Less backfiring
- Fewer service calls

SENTRON LD 8000 is formulated with Petro-Canada's pure HT Severely Hydrocracked base oils and highly advanced additive technology to help deliver a combination of extended oil life, and excellent control of engine deposits in many applications. Offering exceptional protection against wear and corrosion, SENTRON helps provide worry-free operation, increased engine durability and engine life, which can lead to a reduction in overall operating costs.

Features and Benefits

- **Revolutionary extended drain intervals can reduce maintenance and provide savings:**
 - Field tests show that SENTRON LD 8000 extends oil drain intervals by up to 300%* in Caterpillar G3500TALE engines, in a natural gas compression application in comparison to the leading global conventional competitor. This trial was completed with pipeline gas quality, under high load > 90% conditions. The extended drain interval helps to:
 - Reduce downtime and maximize production availability.
- Lower operating costs by reducing maintenance costs.
- Increase uptime, leading to a reliable business operation.
- **Longer oil life provides long-lasting equipment protection:**
 - Exceptional resistance to breakdown caused by oxidation and nitration.
 - Outstanding capability to neutralize acids through greater Total Base Number (TBN) retention. The greater the TBN retention, the greater the ability of the oil to neutralize acid, extend drain life and inhibit wear, corrosion and deposits.
 - Helps extend engine life by reducing varnish, sludge and carbon deposits as well as by inhibiting wear and corrosion.
 - Helps improve engine performance.
- **Outstanding anti-wear/anti-scurf protection helps to:**
 - Reduce wear on piston rings, cylinder liners and bearings, prolonging engine life and reducing oil consumption.
 - Control and minimize valve recession.
 - Reduce operating and maintenance costs.
- **Keeps engine parts clean by:**
 - Minimizing ring zone and valve stem deposits.
 - Improving engine lubrication by maintaining clean oil-ways.
 - Maximizing the time between major engine overhauls.
 - Preventing corrosion.
- **Inventory consolidation:**
 - Specially formulated to enhance nitration control, SENTRON LD 8000 is suitable in both low and high nitrating engines, thus allowing the consolidation of products which apply to only one type of nitrating engine.
 - SENTRON LD 8000 goes a step beyond SENTRON LD 5000 in terms of nitration control.

What is the HT difference?

Petro-Canada starts with the HT purity process to produce water-white, 99.9% pure base oils. The result is a range of lubricants, specialty fluids and greases that deliver maximum performance for our customers.



*Performance results may vary due to factors such as, but not limited to, engine optimization, load, fuel gas quality, proper maintenance, type of engine and application.

Applications

SETRON LD 8000 is a premium performance engine oil specially formulated to lubricate industrial combustion engines running on natural gas as well as pre-treated sewage/bio-gas and selective pre-treated process gases. It is suitable for use in 4-stroke engines in both gas compression and power generation applications. SETRON LD 8000's 0.52% sulphated ash content means that this product fits within the low ash OEM specification.

Typical Performance Data

PROPERTY	ASTM TEST METHOD	SETRON LD 8000
Ash Type	-	Low Ash
Colour	D1500	4.5
Sulphated Ash, % wt	D874	0.52
SAE Grade	-	40
Flash Point, COC, °C / °F	D92	277 / 531
Kinematic Viscosity cSt @ 40°C/SUS @100°F cSt @ 100°C/SUS @210°F	D445	120.6 / 13.3 /
Pour Point, °C / °F	D5950	-27°C / -17°F
Total Acid Number, mg KOH/g	D664	0.86
Total Base Number	D2896	4.64
Elemental analysis by ICP, %Ca	D4951	0.139
Elemental analysis by ICP, %P	D4951	0.030
Elemental analysis by ICP, %Zn	D4951	0.036
Sulfur, mass%	D4294	0.288

The values quoted above are typical of normal production. They do not constitute a specification.

Compatibility

Petro-Canada Lubricants Inc. Research and Development team tested the compatibility of fresh oil samples of SETRON LD 8000 with SETRON LD 3000 and SETRON LD 5000. The results of this analysis demonstrated that we are not anticipating any issues in the field when mixing these products together. For more information on compatibility, please consult Tech Bulletin TB-1293E, your Sales representative or a Petro-Canada Technical Services Advisor.

Operational Considerations

SETRON LD 8000 natural gas engine oil with extended drain interval and oil life as well as excellent control of engine deposits and wear help provide worry-free operation and reduced cost to customers under normal recommended conditions. However, actual oil life is dependent upon system design and operating practices, and should be established by used oil analysis, according to engine manufacturers' recommendations. Petro-Canada's No-Nonsense Lubricants Warranty applies.

Health and Safety

To obtain Material Health and Safety Data Sheets, contact one of Petro-Canada's TechData Info Lines.



TechData Info Lines

To place an order, please call a Customer Order Management Representative at :

Canada (English) Phone 1-800-268-5850
(French) Phone 1-800-576-1686
United States Phone 1-877-730-2369
Latin America Phone +1-416-730-2369
Europe Phone +1-416-730-2389
Asia Phone +1-416-730-2372
China Phone +86 (21) 6362-0066

To learn more about how Petro-Canada lubricants, specialty fluids, oils and greases can help maximize your equipment performance, savings and productivity, please contact us at :

North America Phone 1-866-335-3369
Europe Phone +44 (0) 121-781-7264
Germany Phone +49 (0) 201-726-2913
Latin America Phone +1-416-730-2369
Asia Phone +1-416-730-2372
China Phone +86 (21) 6362-0066
E-mail sales@suncor.com

You can also e-mail us at lubecsr@suncor.com

Visit us on the web at lubricants.petro-canada.ca