Taro® XL Series

Medium-speed engine oils

Product Data Sheet

Product description

Taro XL Series lubricants are high-performance, high-BN, diesel engine oils for medium-speed trunk piston diesel engines. Taro XL Series lubricants are specially developed to use in medium-speed, trunk piston diesel engines burning residual fuels with a maximum sulphur level of 4.5%. Taro XL Series lubricants are blended from high-quality base oils and additives that provide an extra margin of protection against ring sticking, piston deposits and wear under the most severe operating conditions.

Taro XL Series lubricants have very good viscosity control when used in severe high-temperature service, and their excellent BN retention characteristics prevent corrosive wear over long periods of operation. The unique detergent and dispersant additive system provides outstanding piston cleanliness as well as control of fuel contaminants. This results in extreme reduction of both "hot" (piston lands and grooves, piston undercrown, purifier preheaters) and "cold" (crankcase, cambox, rocker area, fuel pumps, purifier bowl) deposits. Taro XL Series lubricants provide a high degree of water tolerance and have good water separation and base retention properties.

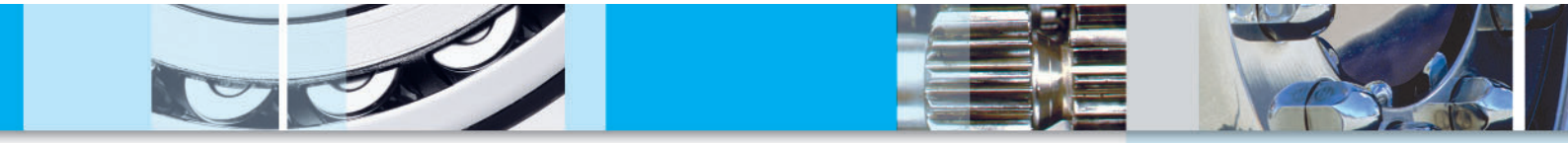
Recommended Uses

Taro XL Series lubricants are recommended for all types of trunk piston diesel engines burning residual fuels with a maximum sulphur level of 4.5%. Taro XL Series lubricants are approved by all major OEMs.

Performance Benefits

Wear Protection

- High BN levels control cylinder liner wear effectively and protect bearings from corrosion. High-performance, antiwear additives provide excellent protection against adhesive wear for cams, camshaft and bearings. Taro XL Series lubricants also provide a high degree of water tolerance and antifoam protection.



Detergent/Dispersant Properties

- Keeps crankcases and oil control rings clean.
- Prevents deposit formation throughout the engine.
- Reduces lube oil filter blockage.
- Effectively handles insolubles.

Oxidation Stability

- Oxidation inhibitors protect the oil against high thermal stresses, protect engine parts from corrosion and reduce undercrown deposits while promoting extended lubricant life.

Rust Prevention

- Prevents corrosion of engine parts when the engine is not in operation.

Balanced Additive Combination

- Provides minimum maintenance and downtime, long engine life and economical operating costs.

Typical test data

TARO XL SERIES TEST	RESULTS		
Product Name SAE Viscosity Grade Product Code	Taro 40 XL 40 40 560062	Taro 50 XL 40 40 560064	Taro 60 XL 40 40 560065
Base number, mg KOH/g	40	50	60
Density, 15 °C, kg/l	0.91	0.92	0.92
Flash Point COC, °C	240	240	240
FZG test (A/8.3/90) failure load stage	12	12	12
Pour Point, °C	-12	-12	-12
Sulphated Ash, %mass	4.9	5.9	7.3
Viscosity Kinematic			
- at 40 °C, mm^2/s (cSt)	135	135	135
- at 100 °C, mm^2/s (cSt)	14.0	14.0	14.0
Viscosity index	100	100	100

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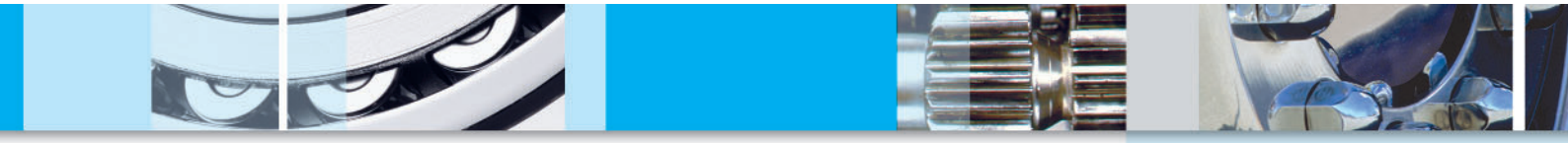

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Service considerations

BASE NUMBER (BN) SELECTION

Manufacturer's lubricant recommendations must be matched to the properties of the fuel and to the severity of the application. Use of an oil with a BN lower than required can result in rapid corrosive wear. Excessively high BN lubricants, relative to fuel sulfur content, can result in ash deposit accumulation on exhaust valves and result in possible valve distress.

FUEL QUALITY

Heavy residual fuels often have poorer combustion characteristics due to their asphaltene content and can result in greater loading of soot and unburned fuel in the lube oil. A higher detergency oil has a greater ability to contain these materials and minimize the formation of "black sludge" as well as piston deposits.

PURIFICATION SYSTEMS

Active purification systems continuously remove combustion contaminants from the oil, by use of centrifugal type separators and automatic back flushing type filtration systems. As a consequence, TPEOs are formulated to hold contaminants in suspension while in the engine and reserve tank, but release them in the purification system. At the same time, they must resist the loss of detergent/ dispersant additives with the contaminants whilst undergoing purification. Because of this, they are formulated differently from automotive and railroad diesel engine oils that are designed for systems without active purification. Consequently, one type should never be substituted for the other.

Produced by Chevron Lubricants; Africa, Middle East and Pakistan.