



### **Description**

Hyrax Samudra CL 540 is a high performance 40 TBN SAE 50 cylinder oil designed for the cylinder lubrication of modern slow speed crosshead marine engines burning distillate fuels with sulfur content up to 0.5% by weight operating under severe conditions in marine vessels. It is specially manufactured using the high quality base oils and advanced additive system that ensure excellent high temperature oxidation and thermal stability, optimize oil viscosity at high temperature for outstanding lubricant distribution and film retention as well as superior rings and liners protection especially at high operating temperature.

## **Applications**

Hyrax Samudra CL 540 is recommended for high power output and high thermal load slow speed marine diesel engines burning low sulphur distillate fuel up to 0.5% by weight or lower where the engine manufacturers recommend use of SAE 50 and 40 Total Base Number (TBN) oil.

#### **Benefits**

- Excellent control of piston ring and cylinder liner wear to reduce severe wear or scuffing
- Excellent piston ring and scavenge port cleanliness
- Protects against varnish building and sludge formation on critical engine parts
- Excellent high temperature thermal and oxidation stability to ensure optimum oil film distribution and retention to prevent scuffing of liners, piston and rings
- Reduce piston top land deposits with optimum level of Sulphated Ash
- Produce to meet the requirements of certain major engine builders for specific engine types and operating conditions

# **Typical Characteristics**

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Properties	Method	SAE 50	
Density at 15°C, Kg/L	ASTM D92	0.915	
Flash Point, °C	ASTM D92	>210	
Pour Point, °C	ASTM D97	-6	
Viscosity at 40°C, cSt	ASTM D445	214.0	
Viscosity at 100°C, cSt	ASTM D445	19.0	
Viscosity Index	ASTM D2270	99	
Total Base Number, mgKOH/g	ASTM D2896	40	

## **Performance**

- Wartsila
- MAN Diesel



Prevents ring sticking and scuffing



Reduce piston top land deposits



Optimize oil viscosity at high temperature



oxidation stability for longer oil life