



Lotus Lubes™ Hyper Ultra Railroad Engine Oil 9TBN

PRODUCT DESCRIPTION

LOTUS Lubes™ Hyper Ultra RREO 9TBN is a premium heavy-duty engine oil designed to meet the severe requirements of late model, high-output, turbo-charged and medium-speed railroad locomotive diesel engines and railroad-type diesel engines used in marine and stationary applications that operate on low-sulfur and ultra-low sulfur (ULS) diesel fuel.

LOTUS Lubes™ Hyper Ultra RREO 9TBN is specially formulated with premium base stocks and an advanced low-ash additive system that provides resistance to engine oil oxidation, sludge formation and piston deposits and protects critical engine components from wear.

FEATURE & BENEFITS

- * Reduced ash and TBN (9) for ultra-low and low sulfur diesel fuel applications
- * Special dispersants control oil oxidation for extended service life
- * Active cleaning agents reduce sludge formation and piston deposits
- * Superior anti-wear protection for critical engine components, including silver bearings
- * Non-chlorinated additive package
- * Optimum fuel economy and low-temperature performance (20W40)
- * Specially formulated with reduced ash content to meet and exceed fuel and emission standards
- * Advanced dispersants keep soot in suspension and reduces “soot thickening” in extended intervals
- * Active anti-wear agents protect critical engine parts while not harming silver bearings
- * Non-chlorinated additive technology provides trouble-free disposal and recycling



TYPICAL PHYSICAL PROPERTIES

SAE Grade	40W	20W-40
Additive Component	OLOA 40000	OLOA 40000
Gravity, API ASTM D287	28.3	28.9
Flash Point, °C (°F)	257 (495)	227 (442)
Pour Point, °C (°F)	-12 (10)	-25 (-13)
Viscosity, cSt @ 40°C	178.2	135.1
Viscosity, cSt @ 100°C	13.6	15.2
Viscosity Index, ASTM D2270	92	117
Zinc, ppm	<10	<10
Chlorine, ppm	<35	<35
Ash, Sulfated, wt.%, ASTM D874	1.0	1.0
Total Base Number, ASTM D2896	9.0	9.0
Minor variations in typical physical properties may occur from normal manufacturing processes		

APPLICATIONS

LOTUS Lubes™ Ultra RREO Oil 9TBN is recommended for the following heavy-duty engine requirements:

- * **Late model EMD and GE engines that utilize ultra-low and low sulfur diesel fuel**
- * **General Electric Generation IV Long Life**
- * **LMOA Generation V**
- * **General Motors Electro-Motive Division (EMD)**
- * **Exceed the stringent performance requirements of many medium-speed diesel engines used in marine and stationary service including Caterpillar, ALCO and Fairbanks-Morse**