

# Railroad Diesel Engine Oil

## GE and EMD Approve 9 TBN Railroad Oil

### General Description

Railroad Diesel Engine Oil is an optimized formulation that will satisfy EPA emission requirements, the engine needs of lower sulfur fuels and emission control systems for both new and older locomotive engines.

This formulation is zinc-free for the protection of silver bearings and chlorine free to reduce environmental and disposal impact. The balanced detergent, dispersant, and anti-wear system allows this 9 TBN oil to provide superior soot, sludge, viscosity, and wear control resulting in improved engine cleanliness, lower wear and particulate emissions.

The advanced technology provides superior liner scuffing protection, reduced ring wear, and reduced piston deposits. Improved thermal and oxidative stability minimizes oil degradation, reduces sludge to provide long drain intervals and improved filter life.

Railroad Diesel Engine Oil provides the proper lubrication for 2-cycle and 4-cycle naturally aspirated low output and unrestricted use in high output turbocharged engines. This includes railroad, marine, and stationary engines where zinc free oils are required.

### Features and Benefits

**OEM Approved:** Meets GE and EMD 2008 oil specifications. Also recommended for older engines

**Fuel Economy:** Multi-grade 20W-40 maintains fuel economy and cold start benefits.

**Engine Protection:** Excellent wear, deposit, high temperature stability, and oxidation control. Strong TBN retention providing acid neutralization all working together to extend engine life, minimizes maintenance, and improved operational efficiencies.

**Zinc Free:** Superior corrosion control for silver bearing and other yellow metals in these style engines.

**Emission Benefits:** Reduced SAPS lower particulates to help meet EPA tier 3 and 4 standards.

**Extended Service:** Field-testing supports extended drain intervals, filter life and lower oil consumption, which improves locomotive efficiency and reduces maintenance cost.

### Typical Application

- EMD Generation V
- GE Generation 4 Long Life
- LMOA Generation V, and Generation 4 long life
- Alco, Baldwin, Fairbanks-Morse engines

PDS 219-08

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### Typical Customers:

- Class 1 Railroads, Regional, Short Line, Yard, and Switcher engines.
- All 2- and 4-cycle, naturally aspirated or turbocharged medium speed diesel engines.
- Railroad, marine and stationary engines (power generation, off-shore drilling) where zinc-free oils are required.

### Typical Properties

Grade	Multigrade 20W-40	Straight Grade 40
API Gravity/Lbs,Gallon	26.9/7.4	25.6/7.5
Viscosity @ 40°C, cSt	142	170
Viscosity @ 100°C, cSt	15.3	15.0
Viscosity Index	112	90
CCS Viscosity @ -15°C, cP	<9500	NA
Pour Point	-15°F	-10°F
Flash, COC, °F	450	450
Total Base No. (TBN)	9	9

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.

### Health & Safety:

A complete material safety data sheet is available upon request. Used motor oil contains combustion by-products which may be harmful. Avoid prolonged or repeated skin contact. Wash clothing and exposed areas with soap and water. Don't pollute - return used oil to a collection center.