

## RAILROAD POWER 413

### Diesel Locomotive Engine oil

**RAILROAD POWER 413** is a high performance, zinc-free and chlorine-free oil specially designed to provide excellent engine cleanliness and oil filter life in the modern railroad diesel locomotive engines.

**RAILROAD POWER 413** is based on high quality virgin mineral base oil in combination with an unique additive package to ensure the following properties:

- Exceptional detergency and dispersancy provides excellent engine cleanliness, especially engine top decks.
- Excellent retention of TBN facilitates extended drain intervals.
- High thermo-oxidative stability.
- Zinc-free formulation protects silver bearings against corrosion.
- Non-chlorinated additive package helps in reducing used oil disposal costs.

**RAILROAD POWER 413** meets the following performance criteria:

API CF/CF-2  
GE Diesel Engines

LMOA Generation 5  
GE as Generation 4 Long Life Oils

EMD of General Motors

### Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J300	40
Density @15 °C	kg/m <sup>3</sup>	ASTM 4052	891
Kinematic Viscosity @ 40 °C	mm <sup>2</sup> /s	ASTM D7042	150
Kinematic Viscosity @ 100 °C	mm <sup>2</sup> /s	ASTM D7042	15.1
Viscosity Index		ASTM D2270	102
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D7346	-18
Total Base Number	mgKOH/g	ASTM D2896	13,9
Sulphated Ash	%Wt	ASTM D874	1.5
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