

RAILROAD POWER 413

Diesel Locomotive Engine Oil

Product Description:

RAILROAD POWER 413 is a zinc- and chlorine free diesel engine oil specially designed to provide engine cleanliness and in modern railroad diesel locomotive engines. RAILROAD POWER 413 is formulated with an additive package that meets the requirements of newer diesel locomotive engines of General Electric (GE) and Electro-Motive Division (EMD) of General Motors. Today's locomotive diesel engines consumes less oil and operates at higher temperatures, thus the good TBN retention property of RAILROAD POWER 413 facilitates extended drain intervals.

RAILROAD POWER 413 has very good detergency/dispersancy qualities that provides excellent engine cleanliness, especially engine top decks. The zinc-free formulation protects silver bearings against corrosion and the non-chlorinated additive package helps in reducing used oil disposal costs.

RAILROAD POWER 413 is recommended for railroad diesel locomotive engines specifying LMOA Generation 5 quality oils & for medium speed two-cycle and four-cycle railroad engines, including newer diesel locomotive engines of GE and EMD of General Motors. RAILROAD POWER 413 is also suited for marine and stationary engines for power generation or off-shore drilling requiring zinc-free oils and for Detroit Diesel 149 series engines operating under severe conditions and stationary engines requiring API CF and CF-2 quality oils.

Specifications:

Exceeds: API CF / CF-2 Locomotive Maintenance Officers Association (LMOA) Generation 5
General Motors (GM) Electro-Motive Diesel (EMD) General Electric (GE): Generation 4 Long Life

Property:	Test Method:	Typical Values:
SAE Viscosity Grade	SAE J300	40
Kinematic Viscosity @ 40°C	ASTM D7042	154 mm ² /s
Kinematic Viscosity @ 100°C	ASTM D7042	15.6 mm ² /s
Viscosity Index	ASTM D2270	98
Density @ 15°C	ASTM D4052	898 kg/m ³
Flash Point (COC)	ASTM D92	246°C
Pour Point	ASTM D97	-30°C
Total Base Number	ASTM D2896	13 mg KOH/g
Sulphated Ash	ASTM D874	1.5 wt%