



## APPLICATIONS

**Eni LDA 4013 SAE 40** is a product developed to lubricate the engines of locomotives operating under hard conditions, in particular General Electric and Electro-Motive Diesel (EMD). The product is formulated using high quality base oils with a high viscosity index and low pour point; the high percentage of additives present in the formulation is able to confer detergent, dispersant, anticorrosive, anti-wear and anti-foam properties and resistance to oxidation. **Eni LDA 4013 SAE 40** doesn't contain zinc which makes it suitable to be used where silver alloy bearings are used.

## CUSTOMER ADVANTAGES

- The excellent detergent and dispersant properties of **Eni LDA 4013 SAE 40** effectively hinder the formation of lacquers, sludge and other deposits and keep the insoluble particles in suspension.
- The product has demonstrated a marked resistance to deterioration, especially that due to the oxidation that may occur during periods of prolonged use at high temperature in the presence of air and other agents.
- **Eni LDA 4013 SAE 40** has excellent anti-corrosion properties to protect the internal surfaces of the engine from the attack of the humidity and the acid substances produced during the combustion process.
- The anti-wear properties of the product prolong the life of the individual mechanical components of the engine and at the same time considerably reduce the need for ordinary or extraordinary maintenance and the related costs.

## SPECIFICATIONS - APPROVALS

- LMOA Generation 5
- API CF/CF-2
- General Electric Generation 4 - Long Life Fundamental approval
- EMD WOFT - Worthy of full scale field test





## CHARACTERISTICS

Properties	Method	Unit	Typical
Density at 15°C	ASTM D 4052	kg/m <sup>3</sup>	900
Viscosity at 100°C	ASTM D 445	mm <sup>2</sup> /s	14.3
Viscosity at 40°C	ASTM D 445	mm <sup>2</sup> /s	137
Viscosity Index	ASTM D 2270	-	102
Flash point (COC)	ASTM D 92	°C	222
Pour point	ASTM D 97	°C	-21
B. N.	ASTM D 2896	mg KOH/g	13

