

# **EPPCO SIKKA ZF 413**

#### PRODUCT DESCRIPTION

**EPPCO SIKKA ZF 413** oil has been developed for high output medium speed diesel engines requiring "Zincfree", LMOA (Locomotive Maintenance Officers Association) Generation 5 lubricant used in locomotive, marine and stationary service applications. This railroad oil is formulated from high quality paraffinic base oils and incorporate special detergent-dispersant technology for engines burning high sulphur distillate fuels.

#### **APPLICATIONS**

- Medium speed two-stroke and four-stroke railroad diesel engines
- ♦ GM EMD railroad engines (SAE 40)
- ♦ General Electric railroad engines (SAE 40)
- ♦ Detroit Diesel two-stroke engines burning >0.5 m% sulphur fuel
- Stationary generator sets including Caterpillar 3600 series engines

#### RECOMMENDATIONS

**EPPCO SIKKA ZF 413** oil is specially formulated to lubricate locomotive diesel engines which are fitted with silver alloy bearings that require zinc-free lubricants. In addition, it is non- chlorine lubricant and the additive system provides excellent control of piston and ring deposits and is highly dispersant for soot control.

#### PERFORMANCE STANDARDS

LMOA Generation 5; SAE 40 grade General Motors – EMD Generation 5 General Electric – Generation 5 LL (Long Life) Caterpillar 3600 series API CF / CF-2

Always follow equipment manufacturers recommendations for required lubricant performance levels and viscosity grades.

### **BENEFITS**

# **EPPCO SIKKA ZF 413 Oil provides:**

- Protection of Silver alloy bearings through special zinc-free anti-wear additive system
- Maximum engine protection against corrosive wear
- Effective control of high temperature deposits and highly dispersant to control soot
- Extended oil drain with high sulphur fuel through good base number retention
- High thermal and oxidation stability to maintain long periods of engine cleanliness

| Technical Data*                      |        |
|--------------------------------------|--------|
| Product Grade                        | 413    |
| SAE Grade                            | 40     |
| Viscosity, mm <sup>2</sup> /s @ 40°C | 138.2  |
| mm²/s @100°C                         | 14.53  |
| Flash Point, COC, °C                 | 248    |
| Pour Point °C                        | -15    |
| Sulphated Ash, %wt.                  | 1.4    |
| Total Base Number ASTM D-2896        | 13     |
| Zinc ppm                             | <10    |
| Chlorine, ppm. Max.                  | <50    |
| Product Code                         | 356002 |

<sup>\*</sup>The information prepared provides the typical properties that are considered as representative. Some variation which will not affect performance is possible

## **HEALTH AND SAFETY, ENVIRONMENT**

The information on this product is available in the EPPCO Material Safety Data Sheet (MSDS) as a guide to the precautions and safe handling of this product and its disposal. For further information we recommend you review the MSDS. Handled correctly there are no special precautions suggested.

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