

DIOL RD 13 RD 40 and 17 RD 40

Mobil Commercial Vehicle Lube, Brazil

Premium Raiload Engine Oils

Product Description

DIOL RD 13 RD 40 and 17 RD 40 oils are premium crankcase lubricants for locomotive diesel engines. These products are designed to meet the severe service demands imposed by newer railroad diesel locomotive engines. Each is formulated using high quality base oils and an additive package endorsed by equipment builders and meets the applicable requirements of General Electric (GE) and Electromotive Diesel (EMD) for their modern engines.

Features and Benefits

LMOA Generation 5 is the latest and most demanding quality for diesel locomotive engines. A Generation 5 oil must incorporate improved additive technology to handle the high demands of extended oil drain intervals. Increased levels of insolubles must be well dispersed in the lube oil to minimize wear. At the same time, effective TBN and oxidation control must be maintained. The results of using such a lubricant are:

Cleaner engines due to reduced deposits

Reduced maintenance due to extended drain intervals

DIOL RD Series products incorporate additive technology designed for LMOA Generation 5 performance. They also meet the requirements of GE Generation 4 Long Life specification and are posted on the Internal Listings of GE and EMD. Furthermore, DIOL RD Series products are zinc free, low chlorine, and non-corrosive to silver bearings and other engine metals.

Applications

Diesel locomotive engines specifying LMOA Generation 5 operating with extended drains

Specifications and Approvals

| This product has the following approvals: | DIOL 13 RD 40 | DIOL 17 RD 40 |
|---|---------------|---------------|
| EMD Domestic Common Additive Approach (recognition ltr on file) | X | |
| EMD Worthy of Field Test (recognition letter on file) | X | |
| GE Gen 4 LL - Fundamental Approval (letter on file) | X | |
| GE Transportation, A Wabtec Company LMOA Gen 4 LL - Fundamental Approval (letter on file) | | X |

Properties and Specifications

| Property | DIOL 13 RD 40 | DIOL 17 RD 40 |
|---------------------------------|---------------|---------------|
| Grade | SAE 40 | SAE 40 |
| Ash, Sulfated, mass%, ASTM D874 | 1.5 | 2 |
| Chlorine, ppm, ASTM D6443 | 25 | 30 |

| Property | DIOL 13 RD 40 | DIOL 17 RD 40 |
|---|---------------|---------------|
| Density @ 15 C, kg/l, ASTM D4052 | 0.89 | 0.89 |
| Flash Point, Cleveland Open Cup, °C, ASTM D92 | 284 | 264 |
| Kinematic Viscosity @ 100 C, mm2/s, ASTM D445 | 14.8 | 14.8 |
| Kinematic Viscosity @ 40 C, mm2/s, ASTM D445 | 146 | 142 |
| Pour Point, °C, ASTM D97 | -15 | -15 |
| Total Base Number, mgKOH/g, ASTM D2896 | 13.2 | 17.2 |
| Viscosity Index, ASTM D2270 | 101 | 103 |
| Zinc, mg/kg, ASTM D5185 | <10 | <10 |

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com

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