

MAK RR 513M

Description

This is premium quality Zinc free multi grade rail road engine oil. This oil is formulated with state-of-the-art additive technology which has been tried and approved by both EMD and GE for their latest generation engines in U.S.

Application

This is recommended for use in diesel locomotives of Indian railways and shunting locomotives in steel, cement plants etc. MAK RR 513 M has been extensively field tested in locomotives of Indian railway where it demonstrated benefits in terms of lower lube oil and fuel consumption besides reducing wear of engine components as compared to monograde rail road engine oil. It is approved by RDSO for engine crankcase lubricating oils in diesel locomotives except GM locomotives (WDG4&WDP4).

Benefits

- The advanced detergents and dispersants technology used in this oil has been found to help in reducing piston deposits, keeping the engines clean and extending oil / filter life
- Use of this oil is expected to reduce wear of engine components thereby increasing the engine life and extending the period of maintenance schedule

Performance Level

- Generation 5 of LMOA, USA
- API CF

Technical Specifications

Characteristics	ASTM	MAK RR 513M
Appearance	-	Clear & bright
Colour, Visual	-	Brown
Density @ 15 deg C	D-1298	0.8913
K.V.@100 deg C, cSt	D-445	16
Viscosity Index	D-2270	110
Flash Point(COC), deg C	D-92	226
Pour Point, deg C	D-97	-21
TBN Value mg KOH/gm	D-2896	13
Copper Corrosion@ 100 deg C for 3 Hrs.	D-130	1a
Foaming Tendency a) Sequence I b) Sequence II c) Sequence III	D-892	Nil/Nil 10/Nil Nil/Nil

All the mentioned values are typical which may vary from batch to batch.

Storage and Handling

- Indoor Storage is always preferable
- Barrels should be kept horizontally with bunk position at 3 O'clock 9 O'clock position
- Barrels should be kept away from dusty or heated areas.
- During handling any contact with dust must be avoided

Health & Safety

This grade is not hazardous under normal conditions of use. For further guidance Material Safety Data Sheet (MSDS) may be referred.

Advice

For any further advice on applications or otherwise, please contact the nearest Bharat Petroleum territory office or Technical Services department at the address given below.

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