

# **MAK RR 517M**

## **Description**

This is premium quality Zinc free multigrade rail road engine oil meeting 'Generation 5' requirements of Locomotive Maintenance Officers' Association (LMOA), USA. 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**

- MAK RR 517 M is recommended for use in latest GM EMD GT 46 MAC locomotives of Indian railways.
- It has been approved by RDSO for use in GM EMD locomotives based on the extensive field trails conducted for more than two years in the latest GT 46 MAC Locomotives of Indian Railways.

## **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 517M
Appearance	-	Clear & bright
Colour, Visual	-	Brown
Density @ 15 deg C	D-1298	0.8894
K.V.@100 deg C, cSt	D-445	16
Viscosity Index	D-2270	111
Flash Point(COC), deg C	D-92	222
Pour Point, deg C	D-97	-21
TBN Value mg KOH/gm	D-2896	17
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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