

MAK MB SHPD

Description

These oils are premium quality diesel engine oils which are formulated with superior base oils and state-of-the-art detergent-dispersant additive & anti-wear additives.

Application

These are recommended for use in MTU engines of marine & coast guard vessels. These are specifically recommended for engines running under difficult operating conditions such as fast commercial ferries using MTU series 595 or MTU series 1163 engines requiring higher quality oils. These oils are approved by MTU Germany for use in their diesel engines requiring acquiring Category 2 higher quality oils including series 2000, 4000, 595 & 1163.

Benefits

- Excellent thermo oxidation stability and anti-wear properties.
- The advanced dispersants used in this oil provide excellent sludge and varnish control thereby improving engine cleanliness.

PERFORMANCE LEVEL

- API CG-4 / SJ
- MTU Specification MTL 5044 for Category 2
- ACEA A2-96 Issue 2 / B3-98 / E3-96 Issue 3
- MB 228.2 / 3
- Volvo VDS-2

Our grades meet above specifications for the respective viscosity grades.

Technical Specifications

Characteristics	ASTM	MAK MB SHPD	
		40	15W-40
Appearance	--	Clear	Clear & Bright
Colour, visual observation	--	Brown	Brown
Density at 15°C	D1298	0.8860	0.8740
K.V at 100° C, cSt	D445	14.41	14.30
Viscosity Index	D130	105	147
Pour Point, °C	D92	-15	-24
Flash Point, (COC), °C	D2270	242	226
Copper Corrosion @ 100°C for 3 hrs.	D97	1a	1a
Foaming Characteristics/Stability a) Sequence I b) Sequence II c) Sequence III	D892	Nil / Nil 10 / Nil Nil / Nil	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 bung 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.

Bharat Petroleum Corporation Ltd.

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