

# MAK MARINE X 404

## Description

MAK MARINE X oils are formulated by using superior quality base oils and latest generation marine additive technology to withstand the severe stress encountered by the oil in modern marine engines designed for higher rated power output and efficiency. These lubricants are specially designed to handle the stressed condition in term of acid neutralization and sludge handling capability due to the use of inferior quality high sulphur residual fuel oils in large slow & medium speed marine engines used for power generation and propulsion.

## Application

They are recommended for all types of latest generation large capacity low and medium speed Trunk Piston Marine Engines operating on inferior quality high sulphur residual fuels and used for power generation and marine application. They are also suitable for use in engines with Anti-bore Polish Rings (APR).

## Benefits

- EXCELLENT BASE NUMBER RETENTION.
- SUPERIOR DETERGENCY ENSURES ENGINE CLEANLINESS.
- VERY HIGH THERMO-OXIDATION STABILITY.
- EXCEPTIONAL SLUDGE / DIRT / SOOT HANDLING CAPABILITY.
- GOOD WATER TOLERANCE & SEPARABILITY.
- HIGH LOAD CARRYING CAPACITY.

THE ABOVE CHARACTERISTICS ENSURE TROUBLE-FREE PERFORMANCE, EXTENDED OVERHAUL INTERVALS AND LONGER ENGINE LIFE.

## PERFORMANCE LEVEL

- API CF

## Technical Specifications

Characteristics	ASTM	Typical Figures
Appearance	--	Clear & Bright
Colour, Visual Observation	--	Brown
Density @15°C, gm/ml	D1298	0.9177
K.V at 100° C, cSt	D445	14.4
Viscosity Index	D2270	101
Flash Point, (COC), °C	D92	232
Copper Corrosion @ 100°C for 3 hrs.	D130	1a
Total Base Number, mg KOH/gm	D2896	40

## Storage and Handling

- Indoor Storage is always preferable.
- Barrels should be kept horizontally at 3'o clock 9 'o clock position.
- Barrels should be kept away from dusty or heated areas as much as possible.

## Health and Safety

These oils are not hazardous under normal conditions of use. For further guidance appropriate Material Safety Data Sheet may be referred.

## Advice

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