

## POWER MDO

# Trunk piston Engine Oils for medium speed diesel engines operating on distillate fuels

The **POWER MDO** series are trunk piston Engine oils designed for use in medium speed diesel engines operating on distillate fuels. The modern additive technology used in this oil provides superior engine cleanliness & protection. This oil is available in SAE 30 & SAE 40 viscosity grades with a TBN (Total Base Number) of 12 & 15. Each grade has got a suffix of 4 digits in which the first two digits indicate the SAE grade (e.g. 30 indicate SAE 30 and 40 indicate SAE 40) and the last two digits indicate the TBN. These oils exhibit a high degree of water tolerance and meet the performance requirements of API CF.

#### **Benefits**

- Superior detergency ensures piston and crankcase cleanliness
- Improved anti-wear property minimises engine wear and reduces maintenance costs
- Excellent thermo-oxidative stability retards oil degradation and controls its viscosity
- ReserveTBN ensures protection of engine parts against corrosive combustion products
- Better demulsibility characteristics ensure water separation leading to trouble free operation
- Special rust & corrosion inhibitors prevent corrosion of engine parts in severe salt water environment

#### **Applications**

- Recommended for medium speed engines used in marine, power generation and industrial applications operating on distillate fuels having sulphur contents up to 1.5 %. This product is also suitable for older engines where liner-lacquer is not a potential problem.
- Oils of appropriate TBN to be chosen based on the sulphur content of fuel used. Follow manufacturers' recommendation for selection of suitable TBN level/ viscosity grade
- Also recommended for general lubrication of shipboard equipment where specialised lubricants are not required or use of API CF quality oils are adequate



## **Specifications**

POWER MDO		3012	4012	3015	4015	3020	4020
Meets the following Specifications	SAE Grade	30	40	30	40	30	40
	TBN	12		15		20	
API CF		✓	✓	✓	✓	✓	✓
Test Parameters	Method	Typical Values					
Viscosity at 100 °C, cSt	ASTM D 445	11.1	14.1	11.2	14.3	11.2	14.2
Viscosity Index	ASTM D 2270	97	95	98	96	98	95
Flash Point, °C	ASTM D 92	232	240	232	244	232	242
Pour Point, °C	ASTM D 97	-18	-18	-18	-18	-18	-18
TBN, mg KOH/g	ASTM D 2896	12	12	15	15	20	20
Density at 15°C, Kg/l	ASTM D 1298	0.892	0.895	0.894	0.897	0.890	0.900
Sulphated Ash, %wt	ASTM D 874	1.6	1.6	2.1	2.1	2.7	2.7

Above characteristics are mean values given as information.

They do not constitute a specification.

### Health and safety

This lubricant is unlikely to produce any significant health or safety hazard when used in the application it has been designed for and according to the recommendations provided in the Material Safety Data Sheet. MSDS are available upon request through your sales advisor. When disposing of used oil, please observe all current regulations and protect the environment.

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