

## PRODUCT DATA

### GulfSea Power MDO Series

*Trunk piston engine oil for medium speed diesel engines operating on distillate fuels*

#### Product Description

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**GulfSea Power MDO** series are trunk piston engine oil 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 BN (Base Number) of 12 & 15. These oils exhibit a high degree of water tolerance and meet the performance requirements of API CF.

#### Features & Benefits

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- 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
- Reserve BN 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

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- 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 BN to be chosen based on the sulphur content of fuel used. Follow manufacturers' recommendation for selection of suitable BN 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

Due to continual product research and development, the information contain herein is subject to change without notification. Typical Properties may vary slightly

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## Typical Properties

GulfSea Power MDO		3012	4012	3015	4015	3020	4020
Typical properties	SAE Grade	30	40	30	40	30	40
	BN	12		15		20	
API CF		X	X	X	X	X	X
Test Parameters	ASTM Method	Typical Values					
Viscosity @ 100°C, cSt	D 445	11.1	14.1	11.2	14.3	11.2	14.2
Viscosity @ 40 °C, cSt	D 445	100.2	142.7	100.5	142.9	105.7	143.2
Viscosity Index	D 2270	97	95	98	96	98	95
Flash Point, °C	D 92	232	240	232	244	232	242
Pour Point, °C	D 97	-18	-18	-18	-18	-18	-18
BN, mg KOH/g	D 2896	12	12	15	15	20	20
Density @ 15 °C, Kg/l	D 1298	0.892	0.895	0.894	0.897	0.890	0.900
Sulphated Ash, %wt	D 874	1.6	1.6	2.1	2.1	2.7	2.7

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