



Gulfmar HP

High Performance Marine Engine Oil

Product Description

Gulfmar HP is high performance marine engine oil developed to meet the performance requirements of modern turbocharged and naturally aspirated marine diesel engines operating on distillate diesel fuel under severe conditions. It is blended from highly refined base stocks and advanced additives to provide very good detergency, dispersancy and antiwear protection with effective acid neutralization capability. The product meets the requirements of most of the medium and high speed marine diesel engines. **Gulfmar HP 15W-40** has successfully completed 5000 hours field trial on Caterpillar 3400 Series engines and is approved by Caterpillar/ Pon Power Nederland.

Features & Benefits

- Very good thermo-oxidative stability controls deposits & viscosity increase facilitating longer drain intervals
- Advanced detergency reduces deposits and enhances engine cleanliness and provides added protection against bore polishing
- Better soot handling capability leads to control of soot induced oil thickening, wear and oil filter blockage
- Very good TBN retention ensures effective acid neutralization
- Excellent antiwear properties protect critical engine components resulting in extended engine life and reduced maintenance costs

Applications

- Turbocharged and naturally aspirated 4-stroke medium and high speed marine diesel engines requiring oils meeting the specifications given in the table below
- Heavy duty diesel engines used in mining, construction, agriculture and other off-highway applications
- Rescue boats, lifeboats, fishing trawlers and coastal vessels
- Transmissions requiring oil meeting the performance levels given below, more specifically Allison C-4 specifications
- General ship applications requiring oils meeting the below mentioned specifications

Specifications & Typical Properties

Meets the following Specifications		15W-40	30	40
API CH-4, SL		X		X
API CH-4/SJ*			X	
Daimler MB 228.2*, MAN 3275-2*			X	X
Daimler MB 228.3, MAN M 3275-1, Volvo VDS-3		X		
Mack EO-N, Renault VI RLD-2, Cummins CES 20076, MTU Oil Category 2		X		
Typical Properties				
Test Parameters	ASTM Method	Typical Values		
Viscosity at 100 °C, cSt	D 445	14.8	11.4	14.3
Viscosity Index	D 2270	142	95	96
Flash Point, °C	D 92	228	236	240
Pour Point, °C	D 97	-27	-27	-27
TBN, mg KOH/g	D 2896	9.85	10.1	10.1
Density @ 15°C, Kg/l	D 1298	0.895	0.900	0.904
Sulphated Ash, %wt	D 874	1.33	1.42	1.4

*Level

November 2015

Properties mentioned above are typical only and minor variations, which do not affect the product performances, are to be expected in normal manufacturing. The above information is based on past history of the grade only and must not be construed as a guarantee of performance. Follow equipment manufacturer's recommendations for performance level and viscosity grade. The Material Safety Data Sheet for this product is available from your nearest Gulf Distributor.

Gulf Oil International

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