

## PETROGULF MARINE MDO

Trunk piston engine oil for medium speed diesel engines

### PRODUCT DESCRIPTION

**Petrogulf Marine MDO** is trunk piston engine oil designed for use in medium speed diesel engines applications. The modern additive technology used in this oil provides superior compatibility for engine cleanliness & protection. This oil is available in SAE 30 & SAE 40 viscosity grades with a BN (Base Number) of 10, 12, 15 & 20.

### FEATURES & BENEFITS

- ❖ Superior detergency ensures piston and crankcase cleanliness
- ❖ Improved anti-wear property minimizes engine wear and reduces maintenance costs
- ❖ Excellent high temperature and thermal stability
- ❖ Reserve BN ensures protection of engine parts against corrosive combustion products
- ❖ 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.
- ❖ Also recommended for general lubrication of shipboard equipment where specialized lubricants are not required.
- ❖ Follow manufacturers' recommendation for selection of suitable BN level/ viscosity grade.

### TYPICAL PROPERTIES

Petrogulf Marine Trunk Piston Engine Oils (MDO)									
		3010	3012	3015	3020	4010	4012	4015	4020
API/ISO :		30	30	30	30	40	40	40	40
SAE :		30	30	30	30	40	40	40	40
PROPERTIES	ASTM								
Appearance	Visual	B&C	B&C	B&C	B&C	B&C	B&C	B&C	B&C
Vis@100 (cSt)	D-445	10.2-12.5	10.2-12.5	10.1-12.4	10.6-12.8	13.2-15.5	13.2-15.5	13.2-15.8	13.2-15.7
Vis@40 (cSt)	D-445	Report	Report	Report	Report	Report	Report	Report	Report
Viscosity Index	D-2270	>95	>95	>95	>95	>95	>95	>95	>95
Specific Gravity	D-4052	0.885-0.895	0.885-0.895	0.885-0.895	0.885-0.895	0.885-0.895	0.885-0.895	0.885-0.895	0.885-0.895
Pour Point (degC)	D-97	-6	-6	-6	-6	-6	-6	-6	-6
Flash Point(degC)	D-92	>215	>215	>215	>220	>215	>215	>215	>220
Foaming	D-892	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
TBN (mg KOH/gm)	D-2896	9.2-10.6	10.5-12.5	13.1-15.9	18.2-21.3	9.2-10.6	10.5-12.5	13.1-15.9	18.2-21.3

\*\* These characteristics are typical of current production. Whilst future production will conform to PetroGulf's specification, variations in these characteristics may occur.

### HANDLING, HEALTH AND SAFETY

- ⚠ Lubricants consisting of highly refined mineral oils with specific additives under normal conditions of use, presents no particular toxic hazard. All lubricants, of any kind should be handled with great care, particularly avoiding any contact with skin.
- ⚠ Prevent any splashing and keep away from combustible materials. Store under cover and away from any risk of pollution. Dispose off used oil correctly; don't pour down drains, into water courses or the soil.
- ♻ Take used oil to an authorized collection point.