



## Gulfmar AL 415

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

### Product Description

**Gulfmar AL 415** is a trunk piston engine oil specifically developed to prevent liner lacquering in medium speed diesel engines operating on distillate fuels. The modern additive technology used in this oil not only prevents liner-lacquering but also cleans-up liners that already have this problem and thereby helps in keeping the engine parts clean and preventing bore polishing. This oil is in SAE 40 viscosity grade with a TBN (Total Base Number) of 15 mg KOH/g. Gulfmar AL 415 has been formally approved by Wartsila for use in Deutz SBVM628 engines.

### Features & Benefits

- Superior detergency prevents liner-lacquering, cleans-up liner lacquer already existing and 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 TBN 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

- Medium speed trunk piston engines operating on distillate fuels having sulphur contents up to 1 %.
- Specially recommended for engines that are susceptible to liner-lacquering and associated high lube-oil consumption.
- Certain reduction gear systems where this type of lubricant is specified by the equipment manufacturer

### Specifications, Approvals & Typical Properties

Has the following Approvals	415	
	SAE Grade	40
	TBN	15
Wartsila approval for Deutz SBVM628 engines	X	
Typical Properties		
Test Parameters	ASTM Method	Typical Values
Viscosity @ 100 °C, cSt	D 445	15.7
Viscosity Index	D 2270	102
Flash Point, °C	D 92	250
Pour Point, °C	D 97	-24
TBN, mg KOH/g	D 2896	15
Density @ 15°C, Kg/l	D 1298	0.907
Sulphated Ash, %wt	D 874	2.08

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