



Star Marine 400

High-Speed Diesel Engine Oil

Product Data Sheet

Customer benefits

Saves on maintenance

Proven metallo-organic anti-wear additive system resists wear by forming a protective layer on contact surfaces under all service conditions.

Prolongs periods between overhauls

Metallic detergent and ashless dispersant additive system resists the formation of high temperature deposits in diesel engines and low temperature sludge in gasoline engines. Good oxidation stability resists oil degradation and protects against oil thickening, and oil line and filter plugging.

Preserves power and performance

Metallic detergent and ashless dispersant additive system preserves power and performance by providing very good control of high-temperature piston and ring deposits.

Long oil drain intervals

Level of alkaline reserve ensures that corrosive acids formed by the combustion of fuel sulfur are neutralized without the need for overly shortened oil drain intervals.

Applications

- High speed diesel engines in coastal and inland marine main powerplant service where SAE 40 viscosity grade oils of API CF or lower performance are required.
- High speed diesel engines in coastal and inland marine auxiliary powerplant service where SAE 40 viscosity grade oils of API CF or lower performance are required.

Product features:

- Star Marine 400 is a monograde, heavy-duty diesel engine oil specially designed to lubricate high-speed diesel engines requiring API CF or lower-performance lubricants. The level of alkaline reserve makes it suitable for use with higher sulfur fuels at appropriate oil drain intervals.



Product specifications

STAR MARINE 400	
KEY PROPERTIES	
SAE Grade	40
Product Code	560073
Base No., D2896, mg KOH/g	9.6
Sulfated Ash, m %	1.3
Viscosity, mm ² /s @ 100°C	14.4
Viscosity Index	97
Zinc, m %	0.13

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Performance standards

- API CF

Service considerations

Star Marine 400 is intended for use in older high-speed diesel engines, typically those operating at 1500 rev/min or above, and burning distillate fuels.

It is not suitable for use in engines where oils meeting API CE, CF-4 or higher, or OEM specifications, such as those from Caterpillar and Cummins, are required. Nor is it suitable for use in European engines where ACEA or CCMC classified oils are required, or in Japanese engines where oils meeting JASO DH-1 or the previous "Japanese CD" industry guideline are required.

Star Marine 400 is not intended for use in medium-speed engines, and in particular it is not suitable for use in engines equipped with active purification systems including centrifuges.

Always follow engine builder service instructions in respect of oil viscosity grade and performance level selection and drain interval.

ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal.

To obtain a MSDS for this product, visit:
www.caltex.com.

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered

representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by:
Chevron Lubricants
- Asia Pacific