## Taro® DP Series

#### Medium-speed engine oils



### Product description

**Taro**® **DP Series** lubricants are high-performance, medium- to high-BN, diesel engine oils for medium and high-speed trunk piston diesel engines.

#### Customer benefits and product features

#### **Customer benefits**

#### Wear Protection

Optimum BN levels control cylinder liner wear effectively and help protect bearings from corrosion. High-performance, anti-wear additives provide excellent protection against adhesive wear for cams, camshaft and bearings. Taro<sup>®</sup> DP Series lubricants also provide a high degree of water tolerance and antifoam properties.

#### Detergent/Dispersant Properties

The specially formulated detergent and dispersant additive system provide outstanding piston cleanliness as well as control of fuel contaminants. This contributes to the reduction of both "hot" (piston lands and grooves, piston under-crown, purifier preheaters) and "cold" (crankcase, cambox, rocker area, fuel pumps, purifier bowl) deposits.

#### Oxidation Stability

Oxidation inhibitors help to protect the oil against high thermal stresses and the engine parts from corrosion and reduce under-crown deposits while promoting lubricant life.

#### Rust Prevention

Helps prevent corrosion of engine parts when the engine is not in operation.

#### Balanced additive combination

Provides minimum maintenance and downtime, long engine life and economical operating costs.

#### Product features

- Taro 20 DP can also be used in combination with marine diesel or gas oil. Taro DP Series lubricants are blended from high-quality base oils and additives that provide an extra margin of protection against ring sticking, piston deposits and wear under severe operating conditions.
- Taro DP Series lubricants have very good viscosity control when used in severe high- temperature service, and their excellent BN retention characteristics help prevent corrosive wear over long periods of operation.
- Taro DP Series lubricants provide a high degree of water tolerance and have good water separation and base retention properties.

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## Applications

Taro DP Series lubricants are recommended by Chevron for all types of trunk piston diesel engines burning:

- 1) marine diesel oil or low sulphur heavy fuels with a sulphur content up to 2% [Taro 20 DP], or;
- 2) residual fuels with a maximum sulphur level of 4% [Taro 30 DP].

Taro DP Series lubricants are approved by all major OEMs'.

#### Product approvals, performance and recommendations

#### Performance standards

Taro DP series approved and/or meets majority of OEMs requirement:\*\*

- Wärtsilä
- MAN Energy Solution
- Daihatsu
- Hyundai Himsen
- MAK (Caterpillar)
- Mitsui
- Niigata
- Rolls-Royce (Bergen)
- Yanmar

<sup>\*\*</sup> Refer to Chevron Technical Representative for more information

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#### Typical test data

### TARO DP (X) SERIES

Product Name	Taro 20 DP 30(X)*	Taro 20 DP 40(X)*	Taro 30 DP 30(X)*	Taro 30 DP 40(X)*
SAE Viscosity Grade	30	40	30	40
Product Code	560087	560088	560089	560090
Base number, mg KOH/g	20	20	30	30
Density, 15 °C, kg/l	0.90	0.90	0.90	0.90
Flash Point COC, °C	240	240	240	240
FZG test (A/8.3/90) failure load stage	12	12	12	12
Pour Point, °C	-12	-12	-12	-12
Sulphated Ash, %mass	2.5	2.5	3.7	3.7
Viscosity Kinematic				
- at 40 °C, mm <sup>2</sup> /s (cSt)	95	135	95	135
- at 100 °C, mm <sup>2</sup> /s (cSt)	11.0	14.0	11.0	14.0
Viscosity index	100	100	100	100

<sup>\*</sup>Taro® DP series are fully compatible and miscible with or without (x) identifier.

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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 the <u>Product Information Center</u>.

This Product Data Sheet (PDS) was produced for the Asia Pacific region based on the best available information at the time of issue. The specific information included may not directly reflect the market or conditions, and may vary. For the most up-to-date, country-specific information, please contact your local customer service center.