



Taro® DP Series

Medium-speed engine oils

Product Data Sheet

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. Taro DP Series lubricants are specially developed for use in medium-speed, trunk piston diesel engines burning residual fuels with a maximum sulphur content up to 4%. 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 the most 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 prevent corrosive wear over long periods of operation. The unique detergent and dispersant additive system provides outstanding piston cleanliness as well as control of fuel contaminants. This results in extreme reduction of both “hot” (piston lands and grooves, piston undercrown, purifier preheaters) and “cold” (crankcase, cambox, rocker area, fuel pumps, purifier bowl) deposits. Taro DP Series lubricants provide a high degree of water tolerance and have good water separation and base retention properties.

Recommended uses

Taro DP Series lubricants are recommended 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.

Performance benefits

Wear Protection

- High BN levels control cylinder liner wear effectively and protect bearings from corrosion. High-performance, antiwear additives provide excellent protection against adhesive wear for cams, camshaft and bearings. Taro DP Series lubricants also provide a high degree of water tolerance and antifoam protection.



Detergent/Dispersant Properties

- Keeps crankcases and oil control rings clean.
- Prevents deposit formation throughout the engine.
- Reduces lube oil filter blockage.
- Effectively handles insolubles.

Oxidation Stability

- Oxidation inhibitors protect the oil against high thermal stresses, protect engine parts from corrosion and reduce undercrown deposits while promoting extended lubricant life.

Rust Prevention

- Prevents 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.

Typical test data

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

continued

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

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* Depending on the port designated, products may be delivered with or without the (X) identifier — e.g., Taro 20 DP 30X or Taro 20 DP 30 — however, the products and typical test data both with or without the (X) identifier are miscible and fully compatible

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

Service considerations

BASE NUMBER (BN) SELECTION

Manufacturer's lubricant recommendations must be matched to the properties of the fuel and to the severity of the application. Use of an oil with a BN lower than required can result in rapid corrosive wear. Excessively high BN lubricants, relative to fuel sulfur content, can result in ash deposit accumulation on exhaust valves and result in possible valve distress.



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FUEL QUALITY

Heavy residual fuels often have poorer combustion characteristics due to their asphaltene content and can result in greater loading of soot and unburned fuel in the lube oil. A higher detergency oil has a greater ability to contain these materials and minimize the formation of “black sludge” as well as piston deposits.

PURIFICATION SYSTEMS

Active purification systems continuously remove combustion contaminants from the oil, by use of centrifugal type separators and automatic back flushing type filtration systems. As a consequence, TPEOs are formulated to hold contaminants in suspension while in the engine and reserve tank, but release them in the purification system. At the same time, they must resist the loss of detergent/ dispersant additives with the contaminants whilst undergoing purification. Because of this, they are formulated differently from automotive and railroad diesel engine oils that are designed for systems without active purification. Consequently, one type should never be substituted for the other.

As a result of the need for TPEOs to release their contaminants in purification systems, the additive system must be extremely well balanced. This “detergency balance” can be easily disturbed if large amounts of top-up oil are added to a system oil containing a higher than normal loading of contaminants, such as can occur with faulty purifier operation. For this reason, it is recommended that oil levels be maintained daily and not fall below 95% of nominal capacity. In addition, top-ups with an oil of different detergent/dispersant characteristics will very likely cause a disturbance in dispersancy balance and will, therefore, require careful management of oil changeover procedures.

Water can be centrifuged out with essentially no loss of additive. However, water washing of the oil is not recommended.

IN-SERVICE OIL ANALYSIS

Wherever possible, oil analysis should be carried out on a regular basis to determine when change-out of the oil should occur, in accordance with the manufacturer’s guidelines.

Disclaimer Chevron accepts no liability for any loss or damage suffered as a result of using this product for any application other than applications specifically stated in any Product Data Sheet’s.

Health, safety, storage and environmental Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application and in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). MSDS’s are available upon request through your local sales office, or via the Internet. This product should not be used for purposes other than its intended use. When disposing of used product, take care to protect the environment and follow local legislation.