

High TBN

Oxidation Stability Anti-Foam Performance

Anti-Wear Protection

High Detergency

# Puma Marine TBN 40 SAE 40

PUMA MARINE TBN 40 SAE 40, is specially formulated, diesel engine oil for lubricating medium-speed trunk piston engines found on ships, coastal vessels, tugboats as well as land-based stationary power-generation equipment, suitable for use in engines burning residual fuels with a fuel Sulphur content of up to 4.0% Sulphur.

## Designed to Perform

PUMA MARINE TBN 40 SAE 40 is blended using a balanced additive composition, used in conjunction with highly refined base oils to impart useful performance characteristics such as high load carrying capacity, good detergency & dispersancy properties, excellent rust & corrosion protection for all engine parts. Its strong alkalinity reserve (TBN 40) neutralizes acids formed during the combustion of fuels.

PUMA MARINE TBN 40 SAE 40 is compatible with all major brands of medium - speed trunkpiston engine marine lubricants sold in the market and can be used for lubricating gear transmissions, turbo-chargers, oil lubricated stern tubes and other shipboard machinery. It is also suited for use in engines land-based stationary power-generation equipment and meets the requirements of major marine engine builders.

#### Benefits

- High alkalinity of oil supports control of cylinder wear effectively.
- The high anti-wear package protects adhesive wear on cams, camshafts and bearings
- High detergency properties for increased engine and oil control ring cleanliness.
- Good oxidation stability delivering longer fluid life through protection of oil against thermal stresses
- Good load bearing capacity providing protection to hard working engine components
- Excellent water separation
- Antifoam protection ensures ongoing engine performance in operation.
- Rust and oxidation protection to prevent corrosion from combustion moisture
- Strong acid neutralizing properties
- Compatible with other competitive and similar lubricants.
- Meets major manufacturers requirements for use in their medium speed engines.

#### Puma Marine TBN 40 SAE 40

Meets or Exceeds the requirements of the following specifications:

API CF-4

Puma Energy Australia 365 Macarthur Ave, Hamilton, QLD 4007 Ph +61 (7) 3457 2500 Puma Energy Singapore 10 Colyer Quay Ocean Financial Centre Singapore 049305 Ph +65 63 19 2960 Energy Services (Latam),LLC PO Box 11961 San Juan, PR00922 Puma Energy Papua New Guinea PO Box 1971, Port Moresby NCD Ph +675 309 9300

The information contained herein is accurate at the time of this review. However specifications change from time to time. Ensure specifications meet equipment manufacture requirements. Document No: 01/03/2017 | Printed copies are UNCONTROLLED



## **Typical Physical Characteristics**

Property	Temp	Units	Test Methods	Results
SAE Grade			SAE J-300	40
Kinematic Viscosity	@ 100°C	cSt	ASTM D-445	14
Kinematic Viscosity	@ 40°C	cSt	ASTM D-445	139
Viscosity Index	-	-	ASTM D2270	97
Flash Point (COC)	-	C	ASTM D-92	235
Pour Point	-	C	ASTM D-97	-18
Density	@ 15 °C	g/mL	ASTM D-4052	0.91
TBN		mg KOH/g	ASTM D-2896	40
Zinc		%		0.04

These characteristics are typical of current product methods whilst future production will conform to Puma Lubricants specifications, variations in these physical characteristics may occur.

## **Health & Safety Environment**

- This product is unlikely to present any significant health and safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.
- Avoid contact with eyes and skin, use proper impervious gloves with used oil. After skin contact, wash immediately with soap and water. Guidance on health and safety is available on the appropriate Safety Data Sheet (SDS) which can be obtained from pumaenergypng.datasheetdownloads.com, sds.pumaenergy.com.au

## **Protect the Environment**

- Take used oil / Greases to an authorised collection point.
  - Do not discharge used or new oil into drains, soil or water.

#### **Additional Information**

• Technical advice may be obtained from your Puma Energy Representative.

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