Puma Marine TBN 15 SAE 40

Marine, Industrial and Locomotive Diesel Engines Oil

Puma Marine TBN 15 SAE 40 is an API CF lubricant specifically formulated for naturally-aspirated and highly supercharged marine, industrial and locomotive diesel engines. Its additive package is suitably balanced in order to permit the use of either gasoil or marine diesel fuels, while ensuring top performance in engines with very high mean effective pressures.

- ✓ Oxidation Resistance
- ✓ Anti-Foam Performance
- ✓ Anti-Wear Protection
- ✓ High Detergency

Designed to Perform

Anti-Wear Protection – Longer Equipment Life

Proven anti-wear additive packages provide greater resistance to sliding wear thus ensuring efficiency and long life of all moving parts of which greatly reduce the need for servicing and overhauls.

High TBN Retention

Its TBN retention properties remain high even after extended use, thus ensuring effective neutralization of acidic products.

Oxidation Resistance - Longer Oil Life

It has extremely good oil life and lubricant stability even when subjected to unusually high thermal stresses; this property minimises sludge and deposit formation, thus guaranteeing that the oil remains properly fluid. Maintenance costs are therefore reduced and the useful service life of the oil is extended.

Anti-foam – Increased Performance.

Easy release of entrained air which will prevent difficulties with pumps and controls which can cause irregularities in performance and other problems arising from the compressibility of air bubbles.

Anti-corrosion & Anti-rust Properties

It has particularly good anticorrosion properties which effectively protect the engine from corrosion from combustion moisture and acids. These additives inhibit the oxidation of internal surfaces of the engine and therefore prevent operating difficulties and breakdown of the oil caused by metallic oxides that would otherwise form within the engine.

High Detergency – Increased Engine Cleanliness

It has excellent detergency properties, making it particularly suitable for use in supercharged engines. It also has high dispersant properties. The lubricant is thus very resistant to the formation of lacquer and varnish, as well as sludge and other engine deposits.
It prevents carbon deposits on piston lands and grooves, thus keeping the rings free even in the most highly-rated engines. It helps prevent ring sticking and keeps pistons clean, while maintaining

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Meets or Exceeds the requirements of the following specifications:

- **API CF-4**

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10 Colyer Quay Ocean Financial Centre
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San Juan, PR00922

Puma Energy Papua New Guinea
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Typical Physical Characteristics

Property	Temp	Units	Test Methods	Results
SAE Grade			SAE J-300	40
Kinematic Viscosity	@ 100℃	cSt	ASTM D-445	15.7
Kinematic Viscosity	@ 40℃	cSt	ASTM D-445	160
Viscosity Index	-	-	ASTM D2270	100
Flash Point (COC)	-	℃	ASTM D-92	235
Pour Point	-	℃	ASTM D-97	-15
Density	@ 15 ℃	g/mL	ASTM D-4052	0.9
TBN		mg KOH/g	ASTM D-2896	15

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
    - Australia : sds.pumaenergy.com.au
    - PNG : pumaenergypng.datasheetdownloads.com

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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