

## Puma HD Super 25W-50

### Heavy Duty Diesel Engine Oil

Puma HD Super 25W-50 CF is a high quality lubricating oils specially developed for use in all types of high output normally-aspirated and turbocharged diesel engines operating under very severe duty or which are subject to deposit formation or excessive wear due to design characteristics or to the fuel employed. These oils are formulated from selected base stocks with high viscosity index. The oil is treated with a large percentage of additives to impart superior detergency together with high dispersant, anti-oxidant, anti-corrosion, anti-wear and anti-foam properties.

- ✓ Anti-wear Protection
- ✓ Oxidation Resistance
- ✓ Anti-foam Performance

### 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 which greatly reduce the need for engine servicing and overhauls.

#### Multi-grade Performance

Suitable for all year use in most climatic conditions. An enhanced viscosity index improver allows for the engine oil to give excellent protection during cold start-ups and extremely hot conditions.

#### 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 preventing blocking of ports, valves and controls, while guaranteeing that the oil remains properly fluid. Maintenance costs are therefore reduced and the useful service life of the oil is extended.

#### 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 helps prevent ring sticking and keeps pistons clean, while maintaining soot deposits in suspension ready to be filtered.

#### High TBN

Contains a high alkaline reserve (TBN), for protection against corrosive wear.

#### 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 anti-corrosion 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 preventing breakdown of the oil.

#### Demulsibility – Engine Life Extension

Prevents the formation of water in oil emulsion, which enters the system through leakage or condensation. The fluids therefore maintain their lubricating power and anti-corrosion performance even under these circumstances.

### Puma HD Super 25W-50

Meets the requirements of the following specifications:

- > API CF-4, CF-2, CF/SF

## Typical Physical Characteristics

Tests	Temp	Units	ASTM Method	Typical Results
Viscosity Grade SAE	-	-	J300	25W-50
Density	20°C	g/mL	D1250	0.879
Viscosity, Kinematic	40°C	cSt	D-445	192.1
Viscosity, Kinematic	100°C	cSt	D-445	21.22
Viscosity Index	40°C	-	D-2270	131
Apparent Viscosity (C.C.S.)	-10°C	cP	D-5293	5000
Total Base Number (BN)	-	mg KOH/g	D-2896	11
Sulfated Ashes	-	%	D-874	1.51
Foam Sequence I, II, III	-	mL	D-892	10/0, 50/0, 10/0
Flash Point	-	°C	D-92	240
Pour Point	-	°C	D-97	-27

*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 [sds.pumaenergy.com.au](https://sds.pumaenergy.com.au)

## Protect the Environment

- > Take used oil 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.