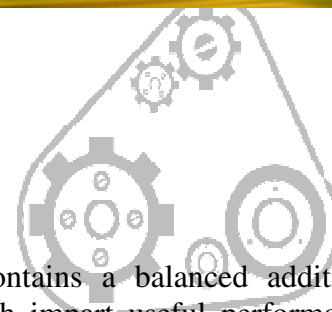




**DIESEL ENGINE OIL
MOTOROL PANTHER 15W-40**



Introduction:

MOTOROL PANTHER, a premium quality heavy duty diesel engine Panther oil contains a balanced additives composition used in conjunction with highly refined base oils to produce product which impart useful performance characteristics such as High load carrying capacity, good detergency and dispersancy properties, excellent rust and corrosion protection for all engine part and strong alkalinity reserve to neutralize acids formed the combustion of distillate fuels.

Applications:

- ◆ MOTOROL PANTHER oil is specially formulated engine oil used for lubricating medium-speed truck piston medium-speed diesel engine found on ships, coastal vessel, tugboats as well as land-based stationary power-generation equipment (DG Sets).
- ◆ It can also be used for lubricating gear transmissions, turbo-charges, oil lubricated stem lubes and other shipboard machinery

Advantages:

- ◆ Excellent TBN retention to prevent corrosive wear.
- ◆ Higher piston deposit threshold temperature capability thereby reducing carbon and soot deposits on the piston, crown, land at ring grooves
- ◆ Excellent engine lubrication leading to reduced oil related problems and longer engine life
- ◆ Good oxidation stability & water shedding property

Performance Standard:

Meets API CF4

Typical Specifications:

Sr. No.	Characteristics	Test Methods	Typ. Value
1	Appearance	Visual	Bright & Clear
2	Colour	Visual	3.0
3	Kinematic Viscosity at 100 °C, cSt	ASTM D -445	13.5-15.5
4	Kinematic Viscosity at 40 °C, cSt	ASTM D -445	110 - 140
5	Viscosity Index, Min	ASTM D -2270	110
6	Flash Point, °C Min	ASTM D -92	220
7	Pour Point, °C Max	ASTM D -97	- 12
8	Total Base No, mg KOH/g	ASTM D - 2896	6.0

Environment, Health & Safety:

Every care has been taken to ensure the accuracy of the information in this PDS. This however may be affected by subsequent improvement in product (R&D). MSDS is available for all MOTOROL products on request.

MOTOROL products are unlikely to present any health and safety hazard with proper use for the correct application and maintain proper personal hygiene. Do not Spill oils on the shop floor, discharge into drains ,ground or water sources.