## NORTH SEA

## TIDAL POWER HDL 15W-40

Mineral Heavy Duty Diesel Engine Oil

## **Product Description:**

TIDAL POWER HDL 15W-40 is a mineral based "Super High Performance Diesel" (SHPD) engine oil, providing superior performance and long service potential in high output , high speed, turbo charged engines operating under severe conditions.

TIDAL POWER HDL 15W-40 has been formulated with carefully selected additives in mineral base stocks to provide excellent detergency, dispersancy and anti wear performance.

TIDAL POWER HDL 15W-40 has been especially developed to meet the requirements of engines conforming to Euro II and Euro III emission standards and meets the stringent requirements of most "Original Equipment Manufacturers" (OEM's).

TIDAL POWER HDL 15W-40 has excellent thermo-oxidative stability, controlling deposits and viscosity increase. Excellent soot handling controls soot induced oil thickening and effectively prevents wear.

TIDAL POWER HDL 15W-40 reduces piston deposits, protects against "Bore Polishing", reduces oil consumption and allows extended drain intervals.

TIDAL POWER HDL 15W-40 is recommended for all turbo charged and naturally aspirated diesel engines, such as used in on highway light and heavy duty trucking, construction, mining, agriculture and other off highway applications.

<b>Specifications:</b> Exceeds: ACEA E5/A3/B4, API CH-4/SL, MB 228.3, MAN M3275, Volvo VDS-2, Renault RLD, Mack EO-M Plus, MTU Type 2, Cummins CES 20076/77, Caterpillar ECF-1, Allison C-4		
Property:	Test Method:	Typical Values:
SAE Viscosity Grade	SAE J300	15W-40
Kinematic Viscosity @ 40°C	ASTM D7042	108 mm <sup>2</sup> /s
Kinematic Viscosity @ 100°C	ASTM D7042	14.1 mm <sup>2</sup> /s
Cranking Viscosity @ -20°C	ASTM D5293	6600 mPa.s
Viscosity Index	ASTM D2270	135
Density @ 15°C	ASTM D4052	886 kg/m <sup>3</sup>
Flash Point (COC)	ASTM D92	220°C
Pour Point	ASTM D97	-27°C
Total Base Number	ASTM D2896	10.1 mg KOH/g
Sulphated Ash	ASTM D874	1.34 wt%