

# EMIRATES 1 MARINE HD OILS

## (High Performance Marine Diesel Engine Oil)

### DESCRIPTION

EMIRATES 1 MARINE HD OIL series is a range high performance marine diesel engine oils exhibiting increased dispersancy especially suitable for high BMEP medium and high speed diesel engines operating on distillate and MDO fuels. These advanced diesel lubricants are available in S.A.E. 30, 40 & 15W40 grades to suit most marine engine viscosity requirements. The special balance of detergent and dispersant properties of these oils provide not only increased resistance to lacquer formation in severe service applications but also assist in sludge and deposit removal.

### APPLICATIONS

EMIRATES 1 MARINE HD OILS series are suitable for latest model diesel engines including those of MAN-B&W Alpha, Caterpillar (3600), Deutz and Stork Werkspoor. They have an FZG rating of 12 which makes them excellent extreme pressure gear lubricants.

- Suitable for lubrication of medium and high speed diesel engines used for fishing fleets and river transport applications.
- Main & auxiliary engines of all types and ratings, naturally aspirated, turbocharged or supercharged.
- Clutched reduction driver, reversing gear system, stern tubes and bearings.

### PROPERTIES

EMIRATES 1 MARINE HD OILS series are designed for lubrication for use in high BMEP engines and in severe duty engine applications where the nature of the fuel and service requires a greater level of dispersancy and liner lacquer control than typically offered by the majority of diesel lubricants. They are formulated from high quality base stocks along with a balanced additive system to ensure optimum performance and protection for trunk piston engines in marine & industrial applications where mono-grade oils are specified.

### PRODUCT BENEFITS

- Extended Oil Drain Intervals
- Extended Cylinder Overhauls
- Reduced Bore Polishing
- Superior Wear Protection
- Reduced Oil Consumption
- Reduced Liner Lacquering
- Excellent capacity for water separation
- Optimal TBN reserves
- Increased oxidation and thermal stability
- Improved Engine Cleanliness
- Reduced Top Deck Sludge
- Wide Engine Capability; Builder, Size, Speed
- Reduced Piston Ring Groove Deposits
- Outstanding protection against ring & linear wear
- Excellent detergent and dispersant capabilities guaranteeing engine cleanliness & long life for engine & transmission systems

### Recommendations / Specifications

meets or exceeds the quality requirements of MTU Type II, Wärtsilä, MWM Deutz, Caterpillar 3600 Series, CUMMINS CES 200-71,-72, 76, (B&C Series) CES 200-75, Mitsubishi, Perkins, Caterpillar: ECF-2, MTU MTL 5044 Category 1 / 2, Mercedes Benz 228.3, MAN 3275, Volvo VDS 2 & GM Allison C-4.

**API service:** CI-4, CH-4,CF, ACEA E7-12, ACEA: E3-96, E5 A2-96, B3-98

### TYPICAL TECHNICAL PROPERTIES

EMIRATES 1 MARINE HD OILS	30/12	40/12	15W40/12
SAE Viscosity Grade	30	40	15W40
Density at 15 <sup>0</sup> C, g/ml, ASTM D4052	0.896	0.899	0.903
Kinematic Viscosity at 40 <sup>0</sup> C, mm <sup>2</sup> /s, ASTM D445	108	142	219
Kinematic Viscosity at 100 <sup>0</sup> C, mm <sup>2</sup> /s, ASTM D445	12	14.5	19.4
Viscosity Index, ASTM D2270	100	100	100
Flash Point(COC), °C, ASTM D92	246	268	276
Pour Point, °C, ASTM D97	-18	-18	-18
Total Base Number, mg KOH/g, ASTM D2896	12	12	12
Sulphated Ash, wt%, ASTM D 874	1.4	1.4	1.4

\*C & B: Clear & Bright

**Note:** The information on this Product Data Sheet is believed to be accurate and is typical of current production. Specifications are subject to change without notice. For additional queries, please contact Emirates 1 Technical Service Department.

**Health and Safety:** Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS). Safety Data Sheets available on request.

**Available Pack:** 200/208/1000 L