



## HIGH-SPEED ENGINE OILS

Ursa<sup>®</sup> Marine 15W-40**Description**

Ursa Marine 15W-40 is a high-quality, heavy-duty diesel crankcase lubricant. Manufactured from high-quality base oils and compounded with additives, Ursa Marine 15W-40 provides outstanding lubrication of turbo-charged, high-speed diesel engines under the most severe operating conditions. It contains detergent/dispersant, antioxidation and antiwear additives. Ursa Marine 15W-40 meets the API service classification CG-4.

**Typical Characteristics**

SAE Viscosity Grade	15W-40
Code	042983
Base number, mgkOH/g	9.0
Density at 15°C, kg/l	0.89
Flash point, COC, °C	225
Pour point, °C	-27
Sulphated ash, mass %	1.1
Viscosity, kinematic, mm <sup>2</sup> /s (cSt)	
at 40°C	102
at 100°C	14.0
Viscosity index	139

**Recommended Uses**

Ursa Marine 15W-40 is recommended for use in heavy-duty (turbo-charged), high-speed diesel engines operating under very severe conditions where an API CG-4 type oil is required. The SAE 15W-40 grade is especially recommended for emergency equipment onboard seagoing vessels such as lifeboat engines and motor-driven fire pumps and emergency compressors. It meets the U.S. Caterpillar requirements and the European Mercedes Benz 228.1/229.1, MAN 271, MTU Type 1 and Volvo VDS specifications and the ACEA E2-96 (issue 4) requirements. It also meets the D4 performance requirements of the obsolete CCMC specifications. Ursa Marine 15W-40 can be used in engines of manufacturers such as DAF, Scania, Caterpillar, etc. that do not issue approvals, but do require a minimum performance level such as API or ACEA.

**Performance Benefits****1. Deposit Control**

Eliminates ring and valve sticking. The low ash content of the oil keeps deposits to a minimum in combustion chamber areas and on valve surfaces. The balanced additive combination controls deposits in severe low-temperature, intermittent operation and high-temperature, high load operation. Deposit control protects against ring sticking and results in efficient lubrication.

**2. Anti-Wear Properties**

An effective antiwear additive protects highly loaded parts from scuffing and wear during boundary lubrication conditions.

**3. Oxidation Stability**

Exceptionally resistant to oxidation. The high thermal and oxidation stability prevent the formation of carbon and lacquer deposits.

**4. Corrosion Protection**

Protects all metal surfaces under the most severe conditions.

**5. Long Filter Life**

High dispersancy extends the life of oil filters, enabling them to function longer. Oil filters remove non-dispersed abrasive material, effectively preventing excessive engine wear.