



## **PENNZOIL MARINE<sup>®</sup> MOTOR OIL**

### **For Diesel and Gasoline Marine Engines**

#### **PRODUCT DESCRIPTION**

PENNZOIL MARINE<sup>®</sup> MOTOR OIL is a premium quality motor oil designed to exceed the lubrication requirements of the most modern diesel and gasoline engines used in boating applications. PENNZOIL MARINE<sup>®</sup> MOTOR OIL provides excellent protection for both four-cycle gasoline engines, as well as two- and four-cycle high performance diesel engines.

PENNZOIL MARINE<sup>®</sup> MOTOR OIL minimizes carbon deposits in the piston ring zone, resulting in less ring wear and less cylinder bore polishing. The benefits are less oil consumption, less ring breakage and less piston skirt scuffing. The acid neutralizing additives in PENNZOIL MARINE<sup>®</sup> MOTOR OIL help to reduce corrosive wear.

PENNZOIL MARINE<sup>®</sup> MOTOR OIL exceeds API SJ Service Classification for gasoline engine oils. PENNZOIL MARINE<sup>®</sup> MOTOR OIL provides excellent protection against rust, sludge, and low-temperature deposits which are more commonly a problem in gasoline engines. PENNZOIL MARINE<sup>®</sup> MOTOR OIL also meets the highest API service classifications for diesel engines (see specific viscosity grade).

#### **APPLICATION**

PENNZOIL MARINE<sup>®</sup> MOTOR OIL exceeds the performance requirements of all diesel (both two- and four-cycle) and gasoline engine manufacturers specifying the use of an engine oil meeting API CI-4, CH-4, CG-4, CF-4, CF-2, CF/SL, CD, SH, SJ Service Classifications or any combination such as CI-4/SL (SAE 15W-40).

PENNZOIL MARINE<sup>®</sup> MOTOR OIL is recommended for a host of diesel and gasoline engine manufactured by Caterpillar, Cummins, Detroit Diesel, International/Navistar, John Deere, Mercedes Benz, MTU, Yanmar, Perkins, Volvo, Chrysler, Ford, Mercury and Indmar.

PENNZOIL MARINE<sup>®</sup> MOTOR OIL is available in three viscosity grades: SAE 30, 40, and 15W-40. Always check the owner's manual for the correct viscosity grade to use.

#### **BENEFITS**

- Helps minimize oil consumption
- Helps protect against ring and cylinder wear
- Helps keep pistons clean
- Neutralizes acids from high sulfur fuel
- Reduces bore polishing
- Increased wear protection for valve trains
- SAE 15W-40 exceeds API CI-4, CH-4, CG-4, CF-4, CF/SL Service Classifications
- SAE 30 exceeds API CF-4, CF-2, CF/SJ Service Classifications
- SAE 40 exceeds API CF-4, CF-2, CF/SJ Service Classifications
- Recommended for gasoline and diesel engines

**TYPICAL PHYSICAL AND CHEMICAL PROPERTIES  
PENNZOIL MARINE<sup>®</sup> MOTOR OIL**

TEST	METHOD	TYPICAL RESULTS		
SAE Viscosity Grade	SAE J300	15W-40	30	40
API Service	SAE J183	CH-4, CG-4, CF-4, CF/SJ	CF-2, CF/SJ	CF-2, CF/SJ
Gravity				
Specific @ 60°F(15.6°C)	ASTM D-287	0.876	0.887	0.896
°API		30.03	28.0	26.4
Pounds per Gallon		7.29	7.4	7.46
Flash Point, °C(°F) Min.	ASTM D-92	213(415)	237(460)	252(485)
Pour Point, °C(°F) Max.	ASTM D-97	-39(-38)	-21(-5)	-15(5)
Color	ASTM D-1500	4.0	5.5	6.0
Viscosity				
@ 40°C, cSt	ASTM D-445	105	101	164
@ 100°C, cSt	ASTM D-445	14.6	11.5	15.5
Viscosity Index	ASTM D-2270	145	100	96
High Temperature/High Shear Vis., cP	ASTM D-4683	4.0	3.5	4.5
Low Temperature Viscosity				
Vis (cP) at Temperature (°C), Max.	ASTM D-2602	3500 @-15	--	--
Low-Temperature Pumping, cP. (°C), Max	ASTM D-4684	60,000 @-25	--	--
Sulfated Ash Content, % wt.	ASTM D-874	<1.3	<1.0	<1.0
Shear Stability, % Vis Loss	DIN Method	<4.0	--	--
Total Base Number	ASTM D-2896	10	8.0	8.0
Material Number				
Bulk		2333	2438	2349