

PENNZOIL LONG-LIFE[®] MOTOR OIL

with Z-7[®]

A Premium Motor Oil For Heavy-Duty Diesel and Gasoline Engines

PRODUCT DESCRIPTIONS

PENNZOIL LONG-LIFE[®] with Z-7[®] provides premium quality service in both diesel and gasoline engines. It is specially formulated for heavy-duty service in diesel engines in both on- and off-highway vehicles, heavy-duty construction equipment.

Newly designed low emission diesel engines actually tend to produce more soot; however, this soot is captured in the engine oil and does not go out the

exhaust **PENNZOIL LONG-LIFE[®] with Z-7[®]** contains the latest development in dispersant technology to resist oil thickening caused by this soot. The dispersants minimize sludge formulation and effectively keep particles in suspension to extend filter life.

PENNZOIL LONG-LIFE[®] with Z-7[®] high-temperature detergents help control formation of combustion chamber deposits, piston deposits, and varnish that could lead to ring sticking and breakage. It neutralizes acids commonly found in diesel engines, keeping

corrosion wear to a minimum. **PENNZOIL LONG-LIFE[®] with Z-7[®]** provides protection from rust and corrosion, and reduces low-temperature deposits that are common problems in gasoline engines. By providing excellent protection for engine components, it helps extend engine life.

APPLICATION

PENNZOIL LONG-LIFE[®] with Z-7[®] is truly universal oil. It is recommended for use in over-the-road diesel

trucks, heavy-duty construction equipment, mining equipment, oil field engines, farm vehicles and passenger cars. Because it is also recommended for gasoline engines, **PENNZOIL LONG-LIFE[®] with Z-7[®]** provides mixed-fleet operators the convenience of a single line of motor oils for all vehicles.

PENNZOIL LONG-LIFE[®] with Z-7[®] can be used with complete confidence for extended oil drain intervals when combined with used oil monitoring (Pennz-Test[®]) maintenance practices. Always change oil as specified by the engine manufacturer to maintain your warranty.

PENNZOIL LONG-LIFE[®] with Z-7[®] is recommended wherever engine manufacturers specify the use of an engine oil meeting API Service Classification CF-4, CF-2, CF, CE, CD-II, CD, and SG, or any combination such as CE/SF, CF/SF or CF-4/SG. Always refer to the vehicle owner's manual for the correct viscosity choice.

BENEFITS

- Help extend engine life
- Recommended for both gasoline and diesel engines
- Recommended for turbocharged diesel engines
- Minimizes piston and combustion chamber deposits
- Fight sludge and varnish
- Effectively neutralizes acids to help keep corrosive wear to a minimum
- Exceeds API CF-4/SG

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES
PENNZOIL LONG-LIFE[®] with Z-7[®] MOTOR OIL

TEST	METHOD	TYPICAL RESULTS
SAE Viscosity Grade	SAE J300	20W-50
API Service	SAE J183	CF-4/SG
Pour Point, °C	ASTM D-97	-27
Flash Point, °C	ASTM D-92	247
Viscosity		
@ 40 °C, cSt	ASTM D-445	181.0
@ 100 °C, cSt	ASTM D-445	19.63
Viscosity Index	ASTM D-2270	125
Low Temperature Viscosity, Vis (cP) at temperature (°C) Max	ASTM D-5293	8,990 @-15C
Total Base Number, mg KOH/g	ASTM D-2896	8.38