



Premium Heavy Duty Diesel Engine Oil

Synthetic Blend SAE 10W-30, 15W-40

API Service CJ-4, SM

Total Base Number (TBN) 10

DESCRIPTION:

Premium Heavy Duty Diesel Engine Oil contains a new formulation engineered for 2007 model year and newer diesel engines with advanced emission control systems. These systems use exhaust gas recirculation, diesel particulate filters and catalyst that are all sensitive to the wrong oil. The high TBN and outstanding TBN retention will give excellent oxidation control and will provide excellent engine protection in severe service conditions for both new and old engines.

Premium Heavy Duty Diesel Engine Oil is formulated with high quality, high viscosity index base stocks, a proven additive system with the proper balance of metallic detergents and dispersants, multipurpose inhibitors and a shear stable viscosity index improver. Premium Heavy Duty Diesel Engine Oil CJ-4/SM has been proven to protect diesel particle filter (DPF) emission systems against ash and particle buildup. In addition, it provides improved engine protection from soot, deposits, varnish, wear, acids, viscosity shear loss, and oil consumption.

TYPICAL APPLICATION:

- Four-stroke naturally aspirated and turbocharged diesel engines.
- New 07' low emission engines with exhaust aftertreatment devices.
- Pre-2007 engines specifying older API or OEM oil performance categories.
- Using ultra low or low sulfur diesel fuel.

APPLICATION:

Premium Heavy Duty Diesel Engine Oil is designed to meet or exceed API and OEM service categories:

Cummins 20081, 20071, 20072*, 20076*, 20077*, 20078

Caterpillar ECF-3/1

Detroit Diesel 93K218/15/14, 7SE270

Mack EO-O PP 07, EO-N PP 03', EO-N Plus, EO-M

Volvo VDS-4/3

Mercedes Benz 228.3*

Global DHD-1*, ACEA E7-04*, JASO DH-2, MIL-L-2104E/F

Allison C-4/3*

*SAE 15W-40 Viscosity Grade

FEATURES & BENEFITS:

Excellent cold flow properties provide faster lubrication during cold starts, maximizing engine life.

Emission and Catalyst Protection: The technology was specifically designed to protect catalyst, particulate filters, and other emission components providing less engine downtime.

Mixed fleet service for both ultra low or low sulfur diesel engines reduces misapplications.

Super deposit control minimizes oil consumption.

Prevents wear by providing stable viscosity at high temperature, high load conditions.

Improved oxidation and rust protection throughout the oil drain interval.

HEALTH & SAFETY:

A complete material safety data sheet is available upon request. Used motor oil contains combustion byproducts which may be harmful. Avoid prolonged or repeated skin contact. Wash clothing and exposed areas with soap and water. Don't pollute - return used oil to a collection center.

Premium Heavy Duty Diesel Engine Oil Typical Properties

| SAE Viscosity Grade | 10W30 | 15W-40 |
|-----------------------------------|--|--|
| API Service | CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, CF/SM | CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, CF/SM |
| Viscosity, cSt @ 40°C 100°C | 77.6 11.7 | 120 15.3 |
| Viscosity Index | 144 | 134 |
| API Gravity/Lbs. gal | 31.4/ | 30.1/7.28 |
| Pour Point, °C/°F | -41/-42 | -33/-28 |
| MRV-TP1, cP @ °C | 22,000 @ -30 | 40,000 @ -25 |
| CCS, cP @ °C | 62,000 @ -25 | 6,200 @ -20 |
| Sulfated Ash, % wt. | 1.0 | 1.0 |
| TBN (D 2896) | 10 | 10 |

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.