



# CI-4 - Heavy Duty Motor Oil 15W40 (API CI-4/SL, CI-4 Plus, TBN 10)

Our HDMO CI-4 Heavy Duty Motor Oil 15W40 is a high-performance multi-grade lubricant designed for use in high speed, four-stroke diesel engines as well as carbureted, fuel injected, turbocharged and supercharged gasoline engines in both heavy-duty and normal conditions.

- It is formulated with superior anti-shear properties and high-viscosity index Type II paraffinic base stocks and a special additive package designed for superior protection against wear, corrosion, oxidation and varnish. Also, a unique detergent additive prevents sludge or carbon deposits especially in extreme heat or pressure conditions.
- Enhances engine performance, extends oil life, eases cold-starts, and eliminates viscosity breakdown.
- API category CI-4 was introduced in 2002 for high-speed, four-stroke engines designed to meet 2004 exhaust emission standards implemented in 2002.
- API CI-4 oils are formulated to sustain engine durability where exhaust gas recirculation (EGR) is used and intended for use with diesel fuels ranging in sulfur content up to 0.5% weight.
- Recommended to be used where an API SL gasoline motor oil specification is required.
- Available in Bulk, 275Gall, 55Gall, 5Gall, 3/1Gall.



## Typical Inspections

Typical Inspections	Method	Typical Results
Color	Visual	Brilliant, Amber
Density Lbs/Gal	Gardner	7.37
API Gravity	ASTM D-1298	29.7
Specific Gravity @ 15.6°C	ASTM D-1298	0.885
Viscosity Index	ASTM D-2270	134
Pour Point °C (°F)	ASTM D-97	-24 (-15)
Flash Point C.O.C. °C (°F)	ASTM D-92	240 (464)
Fire Point C.O.C. °C (°F)	ASTM D-92	250 (482)
Viscosity @ 40°C, cSt	ASTM D-445	105.3
Viscosity @ 100°C, cSt	ASTM D-445	14.0
Sulfated Ash, wt%	ASTM D-874	1.2

## Meets/Exceeds Specifications

- SAE 15W40
- API CI-4/SL, CI-4 Plus
- TBN 10
- ACEA E2-96 (2007)
- ACEA B3-98 (2002)
- ACEA A2-96 (2002)

## Meets/Exceeds OEM Requirements

- Caterpillar ECF-1a
- Cummins CES-20076
- Mack EO-M Plus
- MAN 271
- Mercedes Benz 229.1
- MTU Type 1
- Renault Truck RD/RD-2
- Volvo VDS-2

Note: The general description, recommended uses, application data and statements in the product literature are guidelines. Because the product may be used for a variety of applications, over which **Carteroil USA Inc.** has no control. **Carteroil USA Inc.** assumes no liability for incidentals, consequential, or direct damage of any kind, regardless of causes, including negligence. For more information please visit us at [www.carteroilusa.com](http://www.carteroilusa.com)

