



HD Diesel Engine Oils

With Enhanced "HyperLubrication Technology"

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WARCO Heavy Duty 15W-40 Diesel Engine Oil is manufactured using carefully selected premium high viscosity index base oils combined with a high performance additive package with optimal blending of dispersant, detergent, oxidation and corrosion inhibitor, extreme pressure antiwear, viscosity improver, and defoaming additives.

WARCO Heavy Duty 15W-40 Diesel Engine Oil is a premium quality "universal" crankcase oil recommended for gasoline and diesel engines operating under severe service and subjected to varying operation and climatic conditions. Designed for use in both turbocharged and naturally aspirated diesel and gasoline engines used in automotive, heavy duty trucking, construction, mining and farm equipment. **WARCO Heavy Duty Diesel Engine Oil 15W-40 CJ-4** has been field tested to be compatible with the service requirements diesel engine manufacturers; both 2007 emission compliant and older engines, as well as newer engines using SCR and EGR systems for 2010 emission compliance.

**HyperLubrication Synthetic Technology is the science of reducing friction between moving parts. HyperLubrication Synthetic Oil is thinner and synthetic molecules are much more consistent in size and shape, therefore they are better able to withstand today's extreme engine temperatures. Synthetic Technology have been shown to produce less resistance (friction) in engines and to offer more horsepower and overall efficiency for your engine – your engine will perform at the same level as before, but with less wear and using slightly less gas.*

Applications

- 15W-40 CJ-4 meets or exceeds API Service Categories CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, CF-4 and SM, SL, SJ, and SH
- Meets needs of all the 4-stroke engines in a fleet that call for a 15W-40 viscosity
- Satisfies requirements for naturally aspirated and turbocharged engines
- Meets needs of the older engines in on-highway service
- Excellent for use in engines with shorter piston crowns, higher power density, inter-cooling, electronic fuel management, exhaust gas recirculation, and exhaust particulate traps.

Recommendations/Specifications

Field tested to be compatible with ACEA - E7, Caterpillar - ECF-1, ECF-2, ECF-3, Cummins - CES 20081, Detroit Diesel - 93K218, DHD-1, JASO DH-2, Mack - EO-Premium Plus 07, MAN - M3275, Mercedes-Benz - 228.3, Navistar, Renault - VI RLD-3, Volvo - VDS 4

Typical Characteristics - Heavy Duty Diesel Engine Oils

SAE GRADE	15W-40 CI-4	15W-40 CJ-4
API SERVICE	SL	SM
Viscosity @ 100°C, cSt	15.5	15.54
Viscosity @ 40°C, cSt	113.89	116.57
Viscosity Index	144	140
CCS, mPa-s °C	7000 max (-20)	6300 max (-20)
Pour Point, °C/°F	-36 / -32.8	-33 / -27.4
Flash Point, COC °C/°F	205 / 401	205 / 401
API Gravity	30.7	30.8
Total Base No. (TBN)	10	10

Typical test data are average values only. Minor variations, which do not affect performance, may occur.



HANDLING AND SAFETY INFORMATION - Refer to WARCO (MSDS) Material Safety Data Sheets for proper handling and safety information. Use the same care and handling as for any petroleum product. Nothing herein shall be deemed to constitute a warranty, express or implied, that said information or data are correct or that the products described are merchantable or fit for a particular purpose, or that said information, data or products can be used without infringing patents of third parties.