PRODUCT SPECIFICATIONS & TECHNICAL DATA

HEAVY DUTY 15w-40 CJ-4 ENGINE OIL

EXTRA HEAVY DUTY 15W-40 Diesel Engine Oil is a premium quality, high performance, fleet engine oil designed for use in on-highway diesel trucks and off highway diesel equipment, as well as in passenger cars and light trucks with either diesel or gasoline engines. It is recommended for use both in EGR-equipped diesel engines and in older, non-EGR diesel engines. It also will provide excellent protection for gasoline engines for use in mixed commercial fleets.

EXTRA HEAVY DUTY 15W-40 Diesel Engine Oil is formulated with advanced additive technology to provide outstanding wear protection and bearing corrosion protection. High dispersancy-detergency and a high alkaline reserve (TBN) provide extra protection in extended drain or severe service intervals, and in EGR equipped engines.

EXTRA PREMIUM 15W-40 HD Diesel Engine Oil, meets or exceeds the requirements of:

- API Licensed Service CJ-4, Cl-4 PLUS, Cl-4, CH-4, CG-4, CF-4, CF, CF-2, SN, SL, SJ, SH, SG, SF
- US Military CID A-A-52306
- MIL-L-210E/F
- ACEA E5-02, JASO DHD-1, GLOBAL DHD-1
- Caterpillar ECF-3, ECF-2, ECF-1a
- Caterpillar drive trains T0-2
- Cummins CES 20081, CES 20078, CES 20077, CES 20076, CES 20071,
- When Detroit Engine Oil is required, Detroit Diesel Power Guard 93K2146
- · Global DHD-1
- Mack EO-N Premium Plus 03, (EO-N PREMIUM PLUS), PREMIUM PLUS, EO-M Plus, EO-M, EO-L Plus, EO-L, EO-K/2
- GM 471 8M/6094M and Ford M2C153-E
- · When Allison C-3/C-4 fluids are required
- MAN 271, 3275
- Mercedes-Benz Sheet 228.3
- MTU MTL 5044 Type 2
- Volvo VDS-3, VDS-2 and VDS engines
- Diesel engines manufactured by OEMs not listed above, including International (Navistar), John Deere, Hino, Komatsu, Kubota, and others

APPLICATIONS



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- On-highway diesel trucks equipped with cooled-EGR, ACERT or other technologies to meet earlier exhaust emission standards
- Older diesel equipment with conventional, non-EGR engines
- Mixed fleets with both diesel and gasoline-fueled vehicles
- · Off-highway construction, earth moving and mining equipment
- · Farm equipment with diesel or gasoline engines

FEATURES/BENEFITS

- Outstanding soot control for protection against abrasive wear and soot-induced oil thickening
- Excellent resistance to viscosity and thermal breakdown at high temperatures
- · Protects against sludge and varnish formation
- Excellent wear protection
- · High shear stability
- Excellent rust and bearing corrosion protection
- · Good low-temperature pump ability
- Good resistance to foaming and aeration
- Extended drain capability for non-EGR diesel engines

TYPICAL PROPERTIES

Gravity API @ 60°F	30.00
Density, lbs/gal @ 60°F	7.34
Color, ASTM D1500	L 4.0
Flash Point (COC), °C (°F)	221 (430)
Pour Point, °C (°F)	-31 (-35)
Viscosity, Kinematic	
cSt @ 40°C	115
cSt @ 100°C	15.5
Viscosity Index	146
High-Temp/High-Shear Viscosity, cP @ 150°C	4.3
Sulfated Ash, ASTM D874, wt %	0.9
Total Base Number (TBN), ASTM D2896	10.0

These characteristics are typical of current production

Minor variations that do not affect product performance are to be expected during normal manufacture.

Due to continual product research and development the product formulations are subject to change without notifications.







