

Firebird™ Heavy Duty EC Diesel Engine Oil

76® Firebird Heavy Duty EC (Emission Compatible) Diesel Engine Oil is an environmentally responsible API CJ-4 engine oil developed for use in four-stroke cycle diesel engines designed to meet 2007 and later EPA on-highway exhaust emissions standards. It is specially formulated for compatibility with exhaust aftertreatment systems using diesel particulate filters (DPFs), diesel oxidation catalysts (DOCs) and/or selective catalytic reduction (SCR). It is backward serviceable for use in pre-2007 diesel engines, and may be used in mixed fleets with both diesel and gasoline-fueled vehicles.

Firebird Heavy Duty EC is formulated with a blend of high-quality conventional and re-refined base stocks. It has excellent soot dispersancy to protect against soot-induced oil thickening and abrasive wear, and excellent oxidation resistance to help minimize deposit formation. The low-ash formulation protects exhaust catalysts on low-emission engines and helps prolong DPF life. The use of re-refined base stocks helps lessen the environmental impact of disposal of used oil.

Firebird Heavy Duty EC meets or exceeds the performance requirements of API Service Categories CJ-4 and SM as well as leading OEM specifications for use in low-emission diesel engines. It is backward serviceable for use where earlier API "C" category engine oils, or the concurrent earlier OEM specifications, are specified. It is formulated for use in diesel engines operating on diesel fuels with sulfur content up to 500 ppm. However, for applications not using Ultra-Low Sulfur Diesel (ULSD), consult the engine manufacturer for recommended service interval.

Applications

- On-highway diesel trucks equipped with EGR and exhaust aftertreatment systems to meet 2007/2010 emissions standards
- Older diesel equipment with conventional, non-EGR engines or ACERT engines
- Off-highway construction, earth moving and mining equipment
- Farm equipment with diesel or gasoline engines

Firebird Heavy Duty EC is licensed or OEM-certified for:

- API Service CJ-4, CI-4 with CI-4 PLUS, CI-4, CH-4, SM
- Cummins CES 20081
- Detroit Diesel DFS 93K218

API CJ-4
Diesel Engine Oil
Formulated With
Re-refined
Base Stocks

CONTACT INFORMATION

Phillips66
Lubricants.com

U.S. Customer
Service:
1-800-368-7128

Technical Hotline:
1-877-445-9198

International
Customer Service:
1-832-765-2500

E-mail address:
76lubricants@
p66.com

Firebird Heavy Duty EC meets or exceeds the requirements of:

- Caterpillar ECF-3, ECF-2, ECF-1-a
- Chrysler MS-10902
- Ford WSS-M2C171-E
- Mack EO-O Premium Plus
- Mercedes-Benz Sheet 228.3
- MTU MTL 5044 Type 2
- Volvo VDS-4
- Diesel engines manufactured by OEMs not listed above, where the OEM specifies API CJ-4 engine oil

Features/Benefits

- Excellent protection for newer low-emission diesel engines and older diesel engines
- Specially formulated to protect exhaust aftertreatment systems
- Protects against particulate filter plugging
- Excellent 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
- Protects against rust, bearing corrosion and wear
- Good resistance to foaming and aeration
- Lessens the environmental impact of used oil disposal

Firebird™ Heavy Duty EC Diesel Engine Oil

Typical Properties

SAE Grade	15W-40
Specific Gravity @ 60°F	0.879
Density, lbs/gal @ 60°F	7.32
Color, ASTM D1500	L 4.0
Flash Point (COC), °C (°F)	235 (455)
Pour Point, °C (°F)	-31 (-24)
Viscosity, Kinematic	
cSt @ 40°C	116
cSt @ 100°C	15.4
Viscosity Index	139
Cold Cranking Viscosity, cP @ -20°C	6,400
High-Temp/High-Shear Viscosity, cP @ 150°C	4.1
Sulfated Ash, ASTM D874, wt %	0.99
Total Base Number (TBN), ASTM D2896	8.6
Zinc, wt %	0.120
Re-refined Content, Finished Oil, vol %, minimum	55

Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3apps.phillips66.com/NetMSDS>.