



SERIES 3000

SYNTHETIC 5W-30 HEAVY DUTY DIESEL OIL

Meets or exceeds the following specifications:

- API CH-4, CG-4, CF-2, CF, SJ ● EMA LRG-1
- ACEA E2, E3 ● MIL-PRF-2104G ● Cummins CES 20071, 20072, 20076 ● Daimler Chrysler M/B 227.1, 228.1, 228.3
- M.A.N. 271 ● Mack EO-L, EO-L+, EM-M, EO-M+
- MTU/DDC Series 2000/4000 Categories 1 & 2
- Scania Long Drain ● VW 505 ● Volvo VDS, VDS-2

Outstanding all-fleet performance for diesel and gasoline engines

PRODUCT DESCRIPTION

AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil is a premium quality all fleet lubricant, specifically designed for use in commercial, industrial and fleet applications requiring diesel specifications CG-4, CF-2 and CF, while exceeding all API SJ gasoline engine lubrication requirements.

Resists Oxidation and Thermal Breakdown

AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil resists breakdown from heat, blowby chemicals and oxygen up to ten times longer than do conventional oils. AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil resists forming sludge and varnish deposits, which contribute to corrosion, decreased fuel efficiency and increased engine wear. AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil doesn't thicken like conventional oils but maintains its viscosity, providing peak engine performance and extended drain intervals. AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil's superior heat transfer properties and exceptional lubricity reduces engine operating temperatures and engine wear.

Fuel Efficient Formula

AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil efficiently transfers energy from the engine to the drivetrain. Its low coefficient of friction inhibits the energy loss to "drag" common to high viscosity oils. AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil surpasses the API Energy Conserving Rating requirements and provides significant fuel savings, with additional savings in oil make-up for over-the-road service.

Low Temperature Protection

AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil remains fluid at temperatures as low as -60° F (-51° C). It circulates rapidly to provide vital lubrication and prevent engine wear caused by lack of oil flow. AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil allows quicker, easier cold temperature starting with significantly reduced engine wear.

Reduces Oil Consumption

AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil loses only 8.9 percent of its mass to high temperature volatilization. Conventional multigrade oils often lose over 15 percent. Lower volatility means less oil vapor passing

into the combustion chamber, resulting in a reduction in oil consumption and hydrocarbon emissions. Additionally, lower volatilization helps AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil retain its viscosity characteristics after high temperature service for continued dependable protection and excellent fuel economy.

Non-Foaming

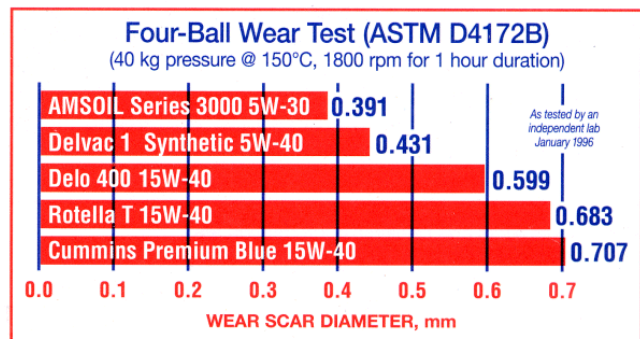
AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil contains highly effective anti-foam agents to prevent oil foaming.

Extended Drain Intervals

AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil is specifically designed for long drain capability in both diesel and gasoline engines. Its unique synthetic formulation, improved detergent/dispersant capabilities and long drain additive package ensure maximum engine protection, cleanliness and performance over extended drain intervals. The extended drain intervals allowable with AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil reduce vehicle downtime and waste oil disposal costs.

Unsurpassed Engine Protection

AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil's higher VI provides a better protective film at higher temperatures than conventional SAE 40 oils, while remaining fluid at subzero temperatures. In every engine tested, AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil's unique technology significantly reduced ring wear, cylinder bore polishing, cylinder lining wear, oil consumption, piston deposits and ring breakage.



*The Smaller The Wear Scar,
The Better the Protection!*

TYPICAL TECHNICAL PROPERTIES

AMSOIL Series 3000 Synthetic 5W-30 heavy-Duty Diesel Oil

Kinematic Viscosity @ 100°C, cSt (ASTM D 445)	11.4
Kinematic Viscosity @ 40 C, cSt (ASTM D 445)	61.0
Viscosity Index (ASTM D 2270)	183
Cold Crank Simulator Apparent Viscosity @ -10°C, cP (ASTM D 2602)	2566
Pour Point, °C [°F] (ASTM D-92)	-50 (-68)
Flash Point, °C [°F] (ASTM D 92)	230 (446)
Fire Point, °C [°F] (ASTM D 92)	250 (482)
Noack Volatility (DIN 51581) 250°C for 1 hour, % weight loss	8.9
High Temperature/High Shear, cP, 150°C, 1.0 X 10 ⁶ s ⁻¹ ,cP (ASTM D 4683)	>3.5
Four-Ball Wear Test 40 kgf, 150°C, 1800 rpm, 1 hr., scar diameter, mm (ASTM D-4172)	0.39
Total Base Number	>12

Application

AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil exceeds the following specifications:

- API CH-4, CG-4, CF-2, CF, SJ
- EMA LRG-1
- ACEA E2, E3
- MIL-PRF-2104G
- Cummins CES 20071, 20072, 20076
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- Scania Long Drain
- VW 505
- Volvo VDS, VDS-2

New Vehicles Under Warranty

The use of AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil will not void new vehicle warranties. New vehicle warranties are based on the use of oils meeting specific API service classifications and SAE viscosity grades. AMSOIL Series 3000 Synthetic 5W-30 Heavy-Duty Diesel Oil meets or exceeds all current API and SAE requirements (as labeled) and is perfectly suited for use in any new vehicle stipulating those requirements as manufacturer's recommendations.

SERVICE LIFE

In light-duty diesel engines, non-turbocharged diesel engines, heavy-duty diesel engines, turbocharged diesel engines: drain oil at intervals up to twice or more the oil drain interval length recommended by the engine manufacturer if extended drain intervals are supported by the findings of a used oil analysis program, or six months, whichever comes first.

In car and light truck non-turbocharged gasoline engines and in marine craft and infrequently used gasoline automotive engines: drain oil at intervals up to three times longer than those recommended by the engine manufacturer or one year, whichever comes first.

In turbocharged passenger car gasoline engines: drain oil at intervals up to twice the drain interval length recommended by the engine manufacturer or one year, whichever comes first.

In motorcycles and small off-road four-cycle gasoline engines: drain oil at engine manufacturer's recommendations.

In high performance or racing engines: drain oil at intervals determined by the findings of a used oil analysis program.

Change AMSOIL Full-Flow Oil Filters at 12,500 mile or six month intervals, whichever comes first, in gasoline engines. In diesel engines, change AMSOIL Full-Flow Oil Filters at 7000 mile or six month intervals, whichever comes first. Change other manufacturers' filters at the engine manufacturer's recommended filter change intervals.

AMSOIL Product Warranty

AMSOIL INC. warrants that the use of its lubricants will not cause mechanical damage to any mechanically sound equipment when AMSOIL products are used in full compliance with AMSOIL recommendations.

AMSOIL products and Dealership Information are Available from:

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