



Syncon® Final Drive

Phillips 66® Syncon Final Drive is a full-synthetic high-performance lubricant specially designed for use in the final drives and axles of Caterpillar off-highway equipment. It is formulated with advanced additive technology to provide improved gear and bearing life in final drives and axles. It meets the performance requirements of the Caterpillar FD-1 specification.

Syncon Final Drive provides significantly improved wear protection and oxidation control compared with Caterpillar TO-4 fluids, allowing extension of drain intervals under normal operating conditions. It may be used as a direct replacement for the Caterpillar FDAO fill fluid.

With the viscosity equivalent to what would be SAE 70 (ISO 320), Syncon Final Drive is recommended for use where SAE 60 is specified due to its very high viscosity index.

Applications

Syncon Final Drive is recommended for use in certain highly loaded Caterpillar final drives and axles that do not contain friction materials.

Syncon Final Drive meets or exceeds the requirements of:

- Caterpillar FD-1

Note: Follow Caterpillar recommendations for preferred viscosity grade and ambient temperature ranges. At very low ambient temperatures, warm-up is required prior to equipment operation.

Features/Benefits

- Improved bearing life and gear life compared with TO-4 fluids
- Excellent oxidation resistance and thermal stability for long fluid life
- Protects against pitting, scuffing and wear
- Protects against rust and copper corrosion
- Compatible with a wide variety of seals
- Good foam resistance

Synthetic Final Drive & Axle Oil for Caterpillar and other Off-Highway Equipment

KEEPING THE
WORLD
RUNNING
SMOOTHLY. 



Syncon Final Drive

Typical Properties	
ISO Grade	320
Specific Gravity @ 60°F	0.8842
Density, lbs/gal @ 60°F	7.36
Color, ASTM D1500	1
Flash Point (COC), °C (°F)	254(490)
Pour Point, °C (°F)	-45(-49)
Viscosity, Kinematic	
cSt @ 40°C	318
cSt @ 100°C	38
Viscosity Index	170
cP @ -20° C	24,355
cP @ -30° C	84,640
High-Temp/High-Shear Viscosity, cP @ 150°C	9.55
Copper Corrosion, ASTM D130	1a
Sulfated Ash, ASTM D874, wt %	0.126

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/EN/products/Pages/MSDS.aspx>.

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Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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