



Delo® TorqForce FD

SAE 60

Product Data Sheet

Customer benefits

Delo® TorqForce FD SAE 60 delivers value through:

- **Maximizes equipment life in severe service** – Advanced additive system minimizes wear in heavily loaded gears and bearings by forming a strong protective layer on metal surfaces under extreme service conditions.
- **Prolongs oil life** – Extremely high thermal and oxidation stability protects against viscosity increase and deposit formation. Drain interval of 6,000 hours is recommended (compare to typical 2,000 hours drain interval for Cat TO-4 fluids).
- **Minimizes unscheduled maintenance** – Effective rust and corrosion inhibitors protect final drive components. Good viscosity characteristics at low temperatures ensure rapid oil circulation on start-up, preventing premature component wear.
- **Excellent foam protection** – Works to avoid fluid loss due to foaming.
- **Long equipment life** – Fluid film with special additives helps protect metal surfaces against pitting, scuffing and wear, even under severe operating conditions of high temperature and high load.

Features

Delo® TorqForce® FD SAE 60 is designed specifically for heavy-duty final drives and axles in severe service. It exhibits significantly improved performance versus TO-4 fluids in the area of gear protection, resistance to macropitting, improved corrosion protection and foam stability.

For customers who have final drive applications where the fluid also lubricates oil-immersed brakes or clutches from a common sump system, please use Delo TorqForce SAE 50 (Caterpillar TO-4). Additionally, Delo TorqForce FD SAE 60 should not be used in powershift transmissions since it doesn't contain key friction modifiers required for high friction materials found in these systems.

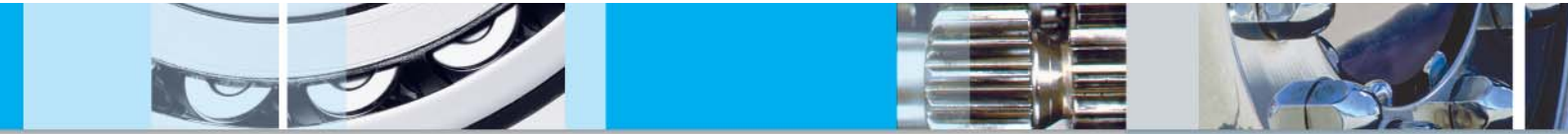
Product description:

Delo® TorqForce FD SAE 60 is a premium heavy-duty gear lubricant specifically designed for use in final drives and axles of modern Caterpillar off-road equipment operating in severe service, where fluids meeting the Cat FD-1 specification are recommended.

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Applications

- Final drives, axles, differentials and front wheels of Caterpillar equipment where Cat FD-1 performance fluid is specified. It is not suitable where a common sump is used for lubricating final drive gears, and immersed brakes or clutches.
- Caterpillar Mining and Aggregate Haul Trucks
- Caterpillar Wheel and Track Mining Loaders & Dozers
- Caterpillar Wheel Scrapers
- Caterpillar Wheel and Track Fellers
- Caterpillar Wheel and Track Skidders
- Caterpillar Knuckleboom Loaders

Delo TorqForce FD SAE 60 meets or exceeds the specification:

- **CATERPILLAR FD-1**

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.



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Typical test data

DELO TORQFORCE FD	RESULTS
SAE Grade	60
Product Number	510163
Density at 15 °C, kg/L	0.900
Viscosity, Kinematic	
mm ² /s at 40°C	335
mm ² /s at 100°C	25
Viscosity Index	97
Flash Point, °C	288
Pour Point, °C	-25
Phosphorus, mass %	0.031
Calcium, mass %	0.028

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

Minor variations in product typical test data are to be expected in normal manufacturing.
Produced by Chevron Lubricants; Africa, Middle East and Pakistan.

Environment, Health and Safety Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit www.caltexoils.com.

For more information, go to www.chevronlubricants.com