



Gulf HT Fluid FD-1

Premium Heavy-duty Powershift Transmission Fluid

Product Description

Gulf HT Fluid FD-1 series are extra high performance lubricants designed specifically for Caterpillar final drives and axles of heavy duty off-highway trucks and bulldozers to provide optimum component life. These oils are formulated from high quality base oils and latest additive technology to deliver excellent performance in heavy duty application where extreme pressures and shock loads are encountered. They impart outstanding thermo-oxidative stability at elevated oil temperatures observed under severe loads and high ambient temperatures. These oils also provide excellent protection against Rust & Corrosion leading to extended component life and reduced maintenance costs.

Features & Benefits

- Improved extreme pressure performance compared to conventional Caterpillar fluids make them suitable for use in severe operating conditions with reduced premature failures and operating costs.
- Excellent thermo-oxidative stability reduces deposit and extends oil and equipment life.
- Provides very good protection against rust and corrosion there by extending the component life and reducing maintenance cost
- Sustained foam control ensures effective lubrication leading to reliable wear protection.
- Good compatibility with all common seals reduces oil leakage and contamination from external sources
- Field proven technology has potential to double the drain interval (up to 4000 hours) compared to conventional off highway lubricants facilitating operators to extend the maintenance cycle and maximize operational uptime.

Applications

- Caterpillar heavy-duty axles and final drives used in trucks and bulldozers for extended life of up to 4000 hours.
- Heavy duty axles and final drives used in off-highway equipment in earthmoving, construction, mining/quarrying applications.
- Recommended for those applications where Cat TO-4 oils are being used and requires more robust performance.

Note: These oils are not recommended for final drives and axles containing friction material and/or wet breaks. Also not recommended for engines, transmission and hydraulic systems.

Specifications & Typical Properties

Meets the following Specification		50	60
Caterpillar FD-1		x	x
Caterpillar TO-4,		x	x
Typical Properties			
Test Parameters	ASTM Method	Typical Values	
Viscosity @ 100 °C, cSt	D 445	18.1	25.2
Viscosity Index	D 2270	96	95
Flash Point, °C	D 92	248	255
Pour Point, °C	D 97	-24	-15
Density @ 15°C, Kg/l	D 1298	0.8987	0.9027

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Properties mentioned above are typical only and minor variations, which do not affect the product performances, are to be expected in normal manufacturing. The above information is based on past history of the grade only and must not be construed as a guarantee of performance. Follow equipment manufacturer's recommendations for performance level and viscosity grade. The Material Safety Data Sheet for this product is available from your nearest Gulf Distributor.

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