# CATERPILLAR®

# Diesel Engine Oil (CF)

For Cat® 3600 Series diesel engines and Cat PC diesel engines

SAE 10W SAE 30 SAE 40



Developed, tested, and approved by Caterpillar, Cat Diesel Engine Oil (CF) provides optimum corrosion protection and superior deposit control in Cat 3600 Series diesel engines and older Cat diesel engines equipped with precombustion (PC) fuel injection systems.

## **Recommended use**

#### **Application**

Cat DEO (CF) is the only oil approved by Caterpillar for use in 3600 Series diesel engines operating on distillate diesel fuels. It is also recommended for use in:

- Cat PC diesel engines operating on a wide range of diesel fuels in all applications.
- all OEM engines that permit the use of API CF or CD oil.

#### **Fuel compatibility**

Cat DEO (CF) may be used with low sulfur diesel fuels (0.05% sulfur) common in North America. It also protects Cat engines operating on higher sulfur diesel fuels (3600 Series engines operating on 0.05% to 1.30% sulfur fuel and PC engines operating on 0.05% to 0.65% sulfur fuel).

#### **Information sources**

We can help you determine the right oil for your Cat machines, or you can refer to your "Operation and Maintenance Manual" or service publications SEBU6250 (Earthmoving Machine), SEBU6251 (Commercial), SEBU7003 (3600 Series), and SEBU6385 (On-Highway Truck).

Note: Do not use Cat DEO (CF) in 3600 Series engines operating on Heavy Fuel Oil (HFO). Select an oil specifically blended for use in 3600 Series HFO engines.

Cat DEO (CF) should not be used in 3406, 3126, C-10, C-12, or 3116 low emission on-highway truck engines. Use Cat DEO (CG-4) instead.

#### **Typical Characteristics\***

SAE Viscosity Grade	10W	30	40
API Classification**	CF, CD/SD	CF, CD/SD	CF, CD/SD
ССМС	D3	D3	D3
Manufacturer's Test			
Cat	1M-PC	1M-PC	1M-PC
Allison	C-3	C-3	C-3
Gravity, °API (ASTM D287)	25.3	26.8	26.2
Color, ASTM (ASTM D1500)	6.5	7.0	8.0
Appearance (Visual)	Clear & Bright	Clear & Bright	Clear & Bright
Flash Point, °C (ASTM D92)	212	234	234
Pour Point, °C (ASTM D97)	-42	-33	-33
Borderline Pumping Temp., °C (ASTM D3829)	-30		_
Viscosity,			
cP @ -20°C (ASTM D2602)	2920	—	_
cSt @ 40°C (ASTM D445)	41.2	103	133
cSt @ 100°C (ASTM D445)	6.3	11.6	13.8
Viscosity Index (ASTM D2270)	114	100	100
Sulfated Ash, % wt. (ASTM D874)	1.9	1.9	1.9
TBN (ASTM D2896)	13.0	13.0	13.0
Zinc, % wt. (ASTM D1549)	0.12	0.12	0.12
Phosphorus, % wt. (ASTM D1091)	0.11	0.11	0.11

\* The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

\*\* API CF replaces API CD service classification. Cat DEO (CF) is the same formulation as Cat DEO (CD).

## **CATERPILLAR**<sup>®</sup>

# Diesel Engine Oil (CF)

### Unique formula for maximum performance and protection

Cat DEO (CF) is formulated to provide optimum corrosion protection and superior deposit control. It meets diesel engine requirements by:

- maintaining stable oil consumption within the specified oil change interval and from one interval to the next.
- stabilizing functional chemistry throughout each service interval.
- stopping the buildup of deposits on pistons and rings that can interfere with oil consumption.
- helping to eliminate the formation of deposits on pistons that are abrasive enough to polish the hone pattern from the surface of the liners.
- preventing the clumping of soot particles that can cause an abnormal increase in viscosity, piston deposits, or sludge.

### Fluid analysis for early detection

We recommend protecting your investment by using scheduled fluid analysis. Our S·O·S<sup>™</sup> analysis program is the ultimate detection and diagnostic tool for your equipment, helping you head off potential problems before they can lead to major failures and costly unscheduled downtime.

#### Proper use for health and safety

According to toxicology information, Cat Diesel Engine Oil (CF) has little or no adverse effects if handled and used properly. No special precautions are suggested beyond attending to good personal hygiene and avoiding prolonged, repeated skin contact. The Material Safety Data Sheet is available on request.