

TorGuard FS™



Product Description

D-A **TorGuard FS™** is designed to meet the lubrication needs of heavy-duty automatic and powershift transmissions requiring Caterpillar TO-4 or Allison C-4 fluids. D-A **TorGuard FS™** is a full synthetic, PAO based fluid intended to provide excellent flow characteristics at low temperatures, while also providing superior film strength for transmission protection at elevated temperatures. It is designed for outstanding friction control characteristics to minimize clutch slippage thus allowing complete power transfer for maximum equipment efficiency.

D-A **TorGuard FS™** is fully compatible with fluoroelastomer friction material. This product is formulated with quality synthetic base oils and carefully selected additives resulting in a product which will provide maximum anti-wear protection and prevent glazing on friction surfaces. Special inhibitors are also present which limit oil oxidation even at high operating temperatures. Additionally, its fluid flow properties and elastomer seal compatibility make it an ideal hydraulic system lubricant when transmission fluid or engine oil products are recommended.

Product Features and Benefits

Full fluoroelastomer compatibility provides longer friction disc life, reduced downtime and lower maintenance costs.

Unique heavy duty transmission formulation controls sludge and varnish deposits to maintain a clean, efficient transmission.

High quality synthetic base oils and antioxidant additives produce a lubricant with superb viscosity control and excellent resistance to high temperature degradation for longer lubricant life. Thermally stable chemistry maintains proper friction retention between transmission and wheel brake friction disc assemblies.

Full compatibility with diesel engine oil prevents potential damage resulting from accidentally mixing with engine oil in crankcase or transmission.

Extra rust and corrosion additives protect mechanical components even if fluid is contaminated with water.

Typical Applications

Transmissions/Torque Converters/Final Drives

Caterpillar Powershifts, TO-2 and TO-4
Caterpillar Drive Trains, TO-2 and TO-4
Allison Automatics
Allison Powershifts
Sundstrand Hydrostatics

Rotary Air Compressors

Vane
Screw

Hydraulic Systems and Pumps

Vane
Axial Piston
Gear
Caterpillar, where engine oil is recommended for hydraulic systems

Typical Properties

SAE Viscosity Grade	Test Method	30
Viscosity @ 100°C, cSt	ASTM D445	11.3
@ 40°C, cSt	ASTM D445	67.5
Viscosity Index	ASTM D2270	162
Pour Point, °F (°C)	ASTM D97	-58 (-50)
Flash Point, °F (°C)	ASTM D92	455 (235)
API Gravity	ASTM D4052	33.5

D-A Part Number:

Bulk

54141