



*The First in Synthetics®*

***Formulated for Complex, Advanced-Material Power and Manual Transmissions, Wet-Disc Brakes and Final Drives.***

## **SYNTHETIC POWERSHIFT TRANSMISSION FLUIDS**

**SAE 10W, 30, 50**

Caterpillar TO-4 • Allison C-4  
HD Torque and Drivetrain  
Eaton Fuller CD-30 (SAE 30)  
Eaton Fuller CD-50 (SAE 50)

### **PRODUCT DESCRIPTION**

AMSOIL Synthetic Powershift Transmission Fluids are specifically designed for heavy-duty powershift transmissions. Formulated for extended drain intervals, AMSOIL Synthetic Powershift Transmission Fluids contain top-quality synthetic basestocks and a high level of top-quality additives selected specifically for powershift transmission performance. They offer unmatched transmission friction performance, smooth brake operation, reduced gear and bearing wear and increased equipment life. AMSOIL Synthetic Powershift Transmission Fluids extend time between overhauls.

AMSOIL Synthetic SAE 50 Powershift Transmission Fluid exceeds Fuller CD-50 performance specification and is ideal for use in Fuller, Rockwell, Spicer, Fabco, Warner and other large truck manual transmissions.

### **Friction Characteristics**

AMSOIL Synthetic Powershift Transmission Fluids are compatible with common metallic and nonmetallic friction materials. AMSOIL Synthetic Powershift Transmission Fluids' stable frictional characteristics eliminate the problems of excessive brake noise and vibration, clutch slippage, friction surface deposits and design material degradation.

AMSOIL Synthetic Powershift Transmission Fluids are formulated for fast, smooth clutch engagements and wet brake operations; excellent power transmission through clutches and synchronizers; and superior hydraulic fluid performance for servo engagement units.

### **Wear Protection**

AMSOIL Synthetic Powershift Transmission Fluids exceed the wear requirements of the Caterpillar TO-4 specification. AMSOIL Synthetic Powershift Transmission Fluids are formulated without viscosity index improvers for superior shear stability. They maintain grade throughout service life, due to their superior shear stability, providing long-term protection against equipment wear, even when equipment is frequently subjected to sustained periods of applied pressure or high horsepower and high torque.

### **High and Low Temperature Performance**

In high temperatures, AMSOIL Synthetic Powershift Transmission Fluids dependably protect components from wear. Their superior oxidative and thermal stability inhibits the formation of varnish, deposits and sludge so equipment runs clean. AMSOIL Synthetic Powershift Transmission Fluids are excellent heat transfer fluids and may help hot-running equipment operate up to 50° F cooler and keep them running in their optimal temperature range. In low temperatures, AMSOIL Synthetic Powershift Transmission Fluids flow readily for dependable startup and post-startup protection.

### **Copper Corrosion, Rust and Foam Inhibition**

AMSOIL Synthetic Powershift Transmission Fluids protect equipment from copper corrosion and rust, even during equipment storage. AMSOIL Synthetic Powershift Transmission Fluids do not foam in service, protecting equipment from the metal-to-metal contact and wear that occurs with use of foam-filled fluids.

## TYPICAL TECHNICAL PROPERTIES

### AMSOIL SAE 10W, 30 and 50 Synthetic Powershift Transmission Fluids (CTG, CTJ, CTL)

Product Code	CTG	CTJ	CTL
SAE Viscosity Grade	10W	30	50
ISO Viscosity Grade	32	68	150
Kinematic Viscosity @ 100° C, cSt (ASTM D-445)	6.3	11.1	18.6
Kinematic Viscosity @ 40° C, cSt (ASTM D-445)	34.9	77.5	151.6
Viscosity Index (ASTM D-2270)	131	132	138
Flash Point °C (°F) (ASTM D-92)	252 (486)	254 (489)	268 (514)
Fire Point °C (°F) (ASTM D-92)	272 (522)	278 (532)	296 (565)
Pour Point °C (°F) (ASTM D-97)	-54 (-65)	-43 (-45)	-36 (-33)
Four Ball Wear Test 40 kg. 75° C, 1200 rpm, 1 hour (ASTM D-4172 B)	0.35	0.35	0.35
Noack 250° C, 1 hour, percent weight loss (DIN 51581)	5.8	4.8	5.2

#### PERFORMANCE DATA

AMSOIL Synthetic Powershift Transmission Fluids are recommended for applications requiring the following specifications:

- Caterpillar TO-4
- Allison C-4
- HD Torque and Drivetrain
- Eaton Fuller CD-30 (SAE 30)
- Eaton Fuller CD-50 (SAE 50)

#### INSTALLATION

AMSOIL Synthetic Powershift Transmission Fluids are fully compatible with other fluids used in powershift applications. To install AMSOIL Synthetic Powershift Transmission Fluids, drain the fluid in the system, replace the filter (if so equipped) and install the appropriate AMSOIL Synthetic Powershift Transmission Fluid.

#### SERVICE LIFE

AMSOIL Synthetic Powershift Transmission Fluids provide two to five times the service life of conventional petroleum fluids if AMSOIL Synthetic Powershift Transmission Fluids are kept free of dirt and moisture.

AMSOIL Synthetic Powershift Transmission Fluids may be used for 250,000 miles or five years (whichever comes first) in manual transmissions.

AMSOIL products and Dealership information are available from your local AMSOIL Dealer.

