

Synthetic Powershift Transmission Fluids (SAE 10W, 30, 50)

Advanced Formulations for Powershift and Manual Transmissions, Wet Brakes and Final Drives

AMSOIL Synthetic Powershift Transmission Fluids are specifically designed for high-torque heavy-duty powershift transmissions. Formulated for extended drain intervals, Powershift Transmission Fluids contain top-quality synthetic base stocks and a high level of top-quality additives selected specifically for powershift transmissions. They offer exceptional transmission friction performance, smooth brake operation, gear and bearing wear protection and increased equipment life.

Friction Characteristics

AMSOIL Synthetic Powershift Transmission Fluids are compatible with common metallic and non-metallic friction materials. Their stable frictional characteristics help eliminate excessive brake noise and vibration. Their non-slip friction properties are designed to prevent clutch slippage, which can cause glazing or friction surface deposits and material degradation. Powershift Transmission Fluids are formulated to deliver responsive yet smooth clutch engagements, excellent power transmission through clutches and synchronizers and superior hydraulic fluid performance for servo-equipped units.

Wear Protection

AMSOIL Synthetic Powershift Transmission Fluids meet the wear requirements of the Caterpillar TO-4 specification and are formulated for superior shear stability. This superior shear stability allows Powershift Transmission Fluids to maintain grade throughout service life, 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.

Superior High- and Low-Temperature Performance

In high temperatures, AMSOIL Synthetic Powershift Transmission Fluids effectively protect components from wear. Their superior oxidative and thermal stability inhibits the formation of varnish, deposits and sludge so equipment runs clean. Synthetic Powershift Transmission Fluids function as heat transfer fluids and help cool hot running equipment. In low temperatures, 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. They do not foam in service, protecting equipment from metal-to-metal contact and wear.



TYPICAL TECHNICAL PROPERTIES

Synthetic Powershift Transmission Fluids (CTG, CTJ, CTL)

	CTG	CTJ	CTL
SAE Viscosity Grade	10W	30	50
Kinematic Viscosity @ 100°C, cSt (ASTM D445)	7.1	11.1	18.6
Kinematic Viscosity @ 40°C, cSt (ASTM D445)	40.0	71.9	152.6
Viscosity Index (ASTM D2270)	140	146	137
Flash Point °C (°F) (ASTM D92)	248 (478)	248 (478)	252 (486)
Fire Point °C (°F) (ASTM D92)	262 (504)	264 (507)	264 (507)
Pour Point °C (°F) (ASTM D97)	-51 (-60)	-45 (-49)	-36 (-33)
Four-Ball Wear Test (ASTM D4172B @ 40 kg, 75°C, 1200 rpm, 1 hr) scar, mm	0.43	0.43	0.43

Performance Data

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

	CTG	CTJ	CTL
Allison C-4	X	X	
Caterpillar TO-4	X	X	X
Dana Powershift Transmission	X	X	
Komatsu KES 07.868.1	X	X	X
Rockwell/Eaton/Fuller CD-50			X
ZF TE-ML 03C	X	X	

APPLICATIONS

- Dozers
- Heavy duty manual transmissions
- Wheel loaders and crawlers
- Backhoe loaders
- Cranes
- Off-road fork trucks
- Harbor handling equipment
- Railway equipment
- Mining equipment
- Road graders
- Commercial marine applications

AMSOIL Synthetic SAE 50 Powershift Transmission Fluid is formulated for use in Rockwell/Eaton/Fuller, Spicer, Fabco, Warner and other large truck manual transmissions.

AMSOIL Synthetic 10W, 30 and 50 Powershift Transmission Fluids can be used in Caterpillar, Allison, Komatsu, Clark,

Hurth, Borg-Warner, Twin Disc, Voith, ZF, Funk and Brockhouse powershift-type transmissions and Eaton/Rockwell/Fuller transmissions.

INSTALLATION

AMSOIL Synthetic Powershift Transmission Fluids are fully compatible with other TO-4 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 Powershift Transmission Fluid.

SERVICE LIFE

AMSOIL Synthetic Powershift Transmission Fluids provide extended service life beyond conventional petroleum fluids if Synthetic Powershift Transmission Fluids are kept free of dirt and moisture. Oil analysis is recommended if extending service intervals beyond equipment manufacturer recommendations.

AMSOIL Synthetic Powershift Transmission Fluids may be used up to 60,000 miles or one year (whichever comes first) in CD-50 manual transmission applications or as specified by the OEM.

AMSOIL PRODUCT WARRANTY

AMSOIL products are backed by a Limited Liability Warranty. For complete information, visit www.amsoil.com/warranty.aspx.

HEALTH AND SAFETY

This product is not expected to cause health concerns when used for the intended applications and according to the recommendations in the Safety Data Sheet (SDS). An SDS is available online at www.amsoil.com or upon request at (715) 392-7101.

Keep Out of Reach of Children.



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