

Powershift Transmission Fluid

Kendall Powershift Transmission Fluid is a shear stable transmission and drive train fluid specially designed to meet the performance requirements of the Caterpillar TO-4 specification. It provides substantially improved friction and antiwear performance compared with older API CD/TO-2 quality fluids, resulting in longer equipment life and reduced risk of field failure. It has excellent oxidation resistance and thermal stability at high temperatures to minimize deposit formation and provide long service life, is compatible with a wide variety of seals and friction materials, and provides excellent rust and corrosion protection. Carefully balanced frictional properties ensure smooth shifting and low brake noise. The SAE 10W and 30 viscosity grades also meet Allison C-4 performance requirements.

Applications

Powershift Transmission Fluid is recommended for use in powershift transmissions, hydrostatic transmissions, torque converters, final drives and hydraulic systems of Caterpillar and other off-highway equipment. It also is recommended for use in heavy-duty commercial automatic and manual transmissions where an Allison C-4 or Caterpillar TO-4 quality fluid is specified.

Powershift Transmission Fluid meets or exceeds the requirements of:

- Allison C-4 (SAE 10W, 30)
- Caterpillar TO-4, TO-2 (obsolete)
- Dana Spicer transmissions (SAE 30, 50)
- Eaton Fuller transmissions (SAE 30, 50)
- Euclid equipment
- Komatsu equipment
- Vickers (Eaton) M-2950-S
- ZF TE-ML 03C for torque converter transmissions (SAE 10W, 30)

Features/Benefits

- Well-balanced frictional properties for smooth shifting and reduced brake chatter
- Excellent oxidation resistance and thermal stability for long fluid life
- Excellent wear protection for clutches, gears and hydraulic pumps
- High shear stability
- Protects against rust and corrosion

**Transmission And
Drive Train Fluid
For Caterpillar TO-4
Applications**

**Customer Service
Number:
1-800-368-7128**

**Technical Hot Line:
1-800-368-1267**

**E-mail address:
*kendallmotoroil@
conocophillips.com***

- Compatible with a wide variety of seals and friction materials
- Good low-temperature properties
- Good foam resistance

Powershift Transmission Fluid

Typical Properties

SAE Grade	10W	30	50
Density, g/cm ³ @ 15.6°C (60°F)	0.876	0.884	0.893
Density, lbs/gal @ 15.6°C (60°F)	7.29	7.36	7.44
Color, ASTM D1500	3.0	3.0	4.5
Flash Point (COC), °C (°F)	225 (437)	250 (482)	250 (482)
Pour Point, °C (°F)	-36 (-33)	-30 (-22)	-21 (-6)
Viscosity,			
cSt @ 40°C	41.0	98.0	227
cSt @ 100°C	6.4	11.0	19.8
SUS @ 100°F	211	511	1,199
SUS @ 210°F	47.7	63.9	100
Viscosity Index	105	97	94
Sulfated Ash, ASTM D874, wt %	1.23	1.23	1.23
Total Base Number (TBN), ASTM D2896	7.6	7.6	7.6
Zinc, wt %	0.124	0.124	0.124

Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3.conocophillips.com/NetMSDS>.

Due to continual product research and development, the information contained herein is subject to change without notification.

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