



# Product Bulletin

## TRANSMISSION FINAL DRIVE & HYDRAULIC FLUIDS

**BRAD PENN® Transmission Final Drive & Hydraulic Fluids** are specialized transmission and drive-train fluids containing additive technology that meets or exceeds the Caterpillar TO-4 specification requirements for use in off-highway equipment. These fluids can be used in Allison transmissions, torque converters and hydraulic systems requiring an Allison C-4 fluid.

**BRAD PENN® Transmission Final Drive & Hydraulic Fluids** are formulated to give smooth transmission power transfer under high horsepower conditions. The additive technology utilized has been tested and proven in all makes and models of equipment and is supported by 20 years of trouble free performance with no field service problems. Additionally, these oils provide:

- Good fluidity and low temperature properties
- Excellent antiwear protection for critical components
- Outstanding oxidation stability, foam resistance, and rust control
- Excellent shear stability to maintain viscosity over the life of the equipment
- Frictional characteristics of these oils eliminate excessive brake noise and clutch slippage
- Improved friction and antiwear performance compared to TO-2 fluids for longer equipment life

**BRAD PENN® Transmission Final Drive & Hydraulic Fluids** are designed for use in powershift, direct drive transmissions, winches, and final drives of all new Caterpillar equipment requiring the use of a TO-4 fluid. Their use will also provide improved performance and equipment life in older Caterpillar equipment which require a TO-2 fluid. They are available in three viscosity grades – **10W**, **30**, and **50** as defined by the Society of Automotive Engineers (SAE). The SAE 10W and SAE 30 grades can be used in all applications specifying the use of an Allison C-4 fluid. Always follow the equipment manufacturer's recommendations for the selection of the appropriate viscosity grade.



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**BRAD PENN<sup>®</sup>**  
**Transmission Final Drive & Hydraulic Fluids – Typical Properties**

<b>SAE Grade</b>	<b>Test Method</b>	<b>10W</b>	<b>30</b>	<b>50</b>
API Gravity, 60°F	ASTM D-1298A	30.0	27.6	26.4
Density, lbs/gal (g/L)	Calculated	7.30 (875)	7.41 (888)	7.46 (894)
Viscosity, cSt @ 40°C	ASTM D-445	45.9	93	188.8
Viscosity, cSt @ 100°C	ASTM D-445	7.10	10.50	17.25
Viscosity, SUS @ 100°F	ASTM D-2161	248	485	995
Viscosity, SUS @ 210°F	ASTM D-2161	50	62.1	89.2
Viscosity Index	ASTM D-2270	110	102	98
CCS, cP @ (-25)°C	ASTM D-5293	7,000 (max)	N/A	N/A
Pour Point, °F (°C)	ASTM D-5949	-33 (-36) (max)	-17 (-27) (max)	-0.4 (-18)
Flash Point, °F (°C)	ASTM D-92	390 (198)	425 (218)	465 (240)
Color	ASTM D-1500	4.0	5.5	7.5
<b>Product Code</b>		<b>7354</b>	<b>7355</b>	<b>7356</b>