

# TRANS HD

## Premium Performance Caterpillar Transmission Oils

The TRANS HD Series are transmission oils meeting specifically the Caterpillar TO-4 requirements for off highway equipments. They are used for lubrication of heavy duty automatic transmissions having clutch plates, power shifts, final drives incorporating wet brakes or not.

The TRANS HD lubricants are made using selected mineral base oils and a highly processed additives system which provide excellent performance in all critical areas for these types of application.

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### Benefits

- Outstanding anti friction properties to preserve clutch plates and discs materials (including the most recent ones such as graphite and paper) ensuring smooth operation over time and limited wear
- Excellent shear stability
- High resistance to oxidation despite operation at high temperatures
- Very good hydraulic behaviour allowing effective hydrostatic power transmissions

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### Applications

- Off highway hydraulic equipments and hydrostatic transmissions
- Final drives and oil immersed brakes
- ORYXTRANS HD lubricants also provide API CF performance. This means that they can be used as replacement of engine oil, provided that the interval to the next oil change is shortened and the recommended engine oil is of API CF specification.

## Specifications

### TRANS HD SERIES

Meets or exceeds the following industry Specifications		10W	30	50	60
Caterpillar TO-4		✓	✓	✓	✓
Allison C4*		✓	✓	✓	✓
ZF TE-ML-03C and ZF TE-ML-07F		✓	✓	✓	✓
Komatsu Micro-Clutch and KES 07.868.1 (2002)*		✓	✓	✓	✓
API CF*			✓	✓	
API MT-1		✓	✓	✓	✓
Typical properties					
Test parameters	Method				
Viscosity @ 40 °C, cSt	ASTM D 445	40.9	98	212	341
Viscosity @ 100 °C, cSt	ASTM D 445	6.2	11.2	19.9	24.8
Viscosity Index	ASTM D 2270	97	99	95	98
Flash Point, °C	ASTM D 92	> 180	> 180	> 180	> 180
Pour Point, °C	ASTM D 97	- 15	- 15	- 15	- 15
Density @ 15°C, Kg/m3	ASTM D 1298	886	898	903	906

\*Allison C4 is obsolete since end 2011, Komatsu no longer approves additives or finished lubricants, and API CF is obsolete

Above characteristics are mean values given as information.  
They do not constitute a specification.

## Health and safety

This lubricant is unlikely to produce any significant health or safety hazard when used in the application it has been designed for and according to the recommendations provided in the Material Safety Data Sheet. MSDS are available upon request through your sales advisor.

When disposing of used oil, please observe all current regulations and protect the environment.