



TO-4 Fluids

United TO-4 lubricant designed primarily for use in transmissions, hydraulic systems, differentials and final drives of Caterpillar equipment. It possesses the required wear, oxidation, deposit control, frictional characteristics and seal compatibility as set forth in Caterpillar specification TO-4. It will provide excellent service in both new and older Caterpillar equipment. It also meets the Allison C-4 requirements for use in Allison powershift transmissions.

This oil is also recommended for use in some manual transmissions where the following combination of specifications are allowed: GL-1, API CD, and CAT TO-2. However, it should not be used to top-off gear oils in these applications

Features/Benefits:

- **Good friction retention - Consistent shifting**
- **Excellent oxidation stability - Minimizes lacquer deposits**
- **Rust/Corrosion prevention - Protects internal parts**
- **Wear protection - Even highly loaded parts**
- **Good seal properties - Controls swelling, hardening and cracking**

Additional Information on Reverse



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Applications/Specifications:

TO-4 Fluids Meet or Exceed the requirements of the following specifications:

- Caterpillar TO-4, TO-2 (obsolete)
- Allison C-4, C-3 (SAE 10w, 30w)
- ZF TE-ML 03
- ZF TE-ML 01 (obsolete)
- Komatsu
- Komatsu Dresser
- Eaton
- Transmissions requiring API CD/TO-2 fluids

Typical Physical Specifications:			
SAE Grade	10w	30w	50w
API Gravity @ 60° F	30	28	27
Viscosity Index	105	100	100
Viscosity:			
cSt @ 100° C	6.1	11.5	19
cSt @ 40° C	38	100	210
SUS @ 210° F	46	65	94
SUS @ 100° F	178	463	973
Pour Point, °C (°F)	-36 (-33)	-30 (-22)	-18 (0)
Flash Point, °C (°F)	210 (410)	230 (445)	240 (465)
Color, ASTM	3	3.5	4.5