

Lotus Lubes™ Hyper TO-4 Fluid

PRODUCT DESCRIPTION

LOTUS Lubes™ Hyper TO-4 Fluids are next generation oils designed to meet the demanding lubricant requirements of late model Caterpillar equipment. They are formulated with select base stocks and advanced additive technology to provide ultimate protection for Caterpillar and other off-road power shift transmissions, hydrostatic transmissions, clutch plates, torque convertors, final drives, and hydraulic systems.

Available in SAE grades 10W, 30, & 50, **LOTUS Lubes™ Hyper TO-4 Fluids** meet and exceed Allison C-4 and Caterpillar TO-4 performance requirements.

FEATURE & BENEFITS

- * Excellent wear protection for critical transmission and final drive components
- * Maximum resistance to sludge and varnish deposit formation
- * Delivers optimum friction properties for smooth clutch plate operation
- * Reduces brake chatter in wet brake applications under heavy-load
- * Extends component service life
- * Formulated with premium group II base stocks for added resistance to oxidation and thermal breakdown
- * Delivers added protection against rust and corrosion formation
- * Long-lasting shear stability provides stay-in-grade performance
- * Aggressive resistance to oil oxidation under extreme operating conditions
- * Multiple viscosity grades allow for use in a wide-range of ambient operating temperatures



TYPICAL PHYSICAL PROPERTIES

| SAE GRADE | Test Method | 10W | 30 | 50 |
|------------------------|-------------|-----------|-----------|-----------|
| API Gravity @ 60°F | | 30.4 | 28.4 | 27.0 |
| Viscosity @ 40°C, cSt | ASTM D445 | 28.3 | 75.6 | 174.5 |
| Viscosity @ 100°C, cSt | ASTM D445 | 5.2 | 9.7 | 1.9 |
| Viscosity Index | ASTM D2270 | 102 | 102 | 102 |
| Flash Point, °C (°F) | ASTM D93 | 208 (406) | 232 (450) | 217 (423) |
| Pour Point, °C (°F) | ASTM D97 | -36 (-33) | -30 (-22) | -24 (-11) |
| TBN, mg KOH | ASTM D2896 | 7.5 | 7.5 | 7.5 |
| Zinc, ppm | | 1100 | 1100 | 1100 |

Minor variations in typical physical properties may occur from normal manufacturing processes

APPLICATIONS

Recommended for Caterpillar and other off-road power shift transmissions, hydrostatic transmissions, clutch plates, torque convertors, final drives, and hydraulic systems requiring:

- * **Caterpillar TO-2 (obsolete) & TO-4**
- * **Allison C-4 (SAE 10W & 30)**
- * **Komatsu Micro-Clutch Equipment**
- * **Vickers (Eaton) M-2950-S**
- * **ZF TE-ML 03C Transmission (SAE 10W & 30)**