

Agriculture Transmission/Hydraulic Fluid STOU Lubricant

General Description

Circle 3[®] is designed as a multi-purpose formulation meeting requirements for tractor/transmission/hydraulic systems where the manufacturer requires a STOU (Super Tractor Oil Universal) lubricant. It provides protection against oxidation, brake chatter along with pump and gear wear.

Circle 3 contains a unique balance of additives, VI improvers and HC-II base oils that protect against wear, oxidation deposits, rust, and corrosion. It has the proper balance of friction modifiers and shear stability to give your equipment maximum performance.

Circle 3 provides performance and protection required for older diesel engines that ask for CE/CF-4 specification. **is not recommended for use in modern diesel engines.**

Features and Benefits

- **Simplified Inventory:** Designed to simplify on-farm inventories and reduce engine and transmission cross contamination where the OEM calls for use of a STOU lubricant.
- **Shear Stability:** Built on a shear stable platform meeting OEM requirements in severe bench and field tests. Provides minimal shearing during operation. Protects equipment throughout the drain interval.
- **Wear Protection:** Protects transmissions, gears, bearings, final drives, hydraulic pumps and engine parts from wear due to high loads and heavy use. Provides the proper lubrication film under tough operating conditions.
- **System Cleanliness:** Detergents and dispersants keep all system parts clean and varnish free for smooth operation.
- **Oil Durability:** Superior oxidation control reduces oil degradation from high temperatures, providing longer oil life.
- **Low Temperature Performance:** Good low temperature properties ensure less wear and improved hydraulic response during cold start up.
- **Compatibility:** May be used in conjunction with other STOU lubricants.

Expect Excellent Performance In

- Agriculture transmissions and engines where the manufacturer calls for a STOU lubricant.
- Tractor common sumps for transmission, hydraulic, differential and wet brake systems.
- Fendt CVT transmissions: The 15W-40 grade is recommended for their 2000 hour drain intervals. Field tested with OEM giving outstanding results.
- Older heavy duty diesel engines

Check owner's manual or tractor guide for current recommendations and the acceptable use of STOU (Super Tractor Oil Universal) lubricants in transmissions or engines.

Circle 3[®]

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Typical Application

Circle 3[®] will provide excellent service in tractor transmissions, hydraulic systems, wet brakes, and in diesel engines where the manufacturer recommends the use of STOU lubricants.

STOU Performance Specifications:

John Deere JDM J-27
Ford M2C-159B1/C
Massey Ferguson CMS M-1139, M-1144, M-1145

Transmission performance:

Fendt CVT (continuously variable transmissions)
15W-40 grade used in AGCO, Massey Ferguson, Challenger, Fendt, Terragator and other equipment.
ZF TE-ML 06B, 07B
Allison C-4

API Engine Oil: CE, CF-4,

European CCMC D-4, MB-227.1, ACEA E-1

API Gear Oil: GL-4 (80W or 90)

Typical Specifications

| SAE Oil Grade | 15W-40 | 10W-30 |
|--------------------------|------------|------------|
| Viscosity cSt @ 100°C | 14.6 | 11.4 |
| cSt @ 40°C | 111 | 75 |
| Viscosity Index | 138 | 147 |
| Pour Point, °C (°F) | -35 (-30) | -42 (-44) |
| API Gravity / lbs./gal | 29.3 / 7.3 | 29.5 / 7.3 |
| Flash Point, °C (°F) | 225 (437) | 200 (392) |
| CCS | 5500 @-20 | 5200@-25 |
| Foam | Pass | Pass |
| Sulfated Ash, %wt. | 1.5 | 1.5 |
| Total Base Number | 10.5 | 10.5 |

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.

Health & Safety

A complete safety data sheet is available by calling 1-651-355-8438 or visit www.cenex.com.