1000 THF
High performance multifunctional tractor hydraulic fluid

Product description
1000 THF is a high performance multifunctional tractor hydraulic fluid especially formulated for use in transmissions, final drives, wet brakes, and the hydraulic systems of tractors and other equipment employing a common fluid reservoir, and for the wet brake transaxles in off-road equipment. This type of fluid is also referred to as a Universal Tractor Transmission Oil (UTTO).

1000 THF is designed with premium Group II base oils, a viscosity index (VI) improver, oxidation and corrosion inhibitors, anti-wear and film strength additives, an antifoaming agent, and a pour point depressant, to offer optimum smooth operation across a wide temperature range.

Although it is not designed to align exactly with the SAE J300 viscosity classification system, it approximates to the SAE 15W-30 viscosity grade. 1000 THF replaces Textran TDH Premium.

Customer benefits
• Advanced additives help protect against scuffing and wear under severe operating conditions, offering maximum equipment life
• Formulated to offer suppressed brake 'chatter' and transmission 'slip' for quiet and efficient equipment operation
• Designed for a wide range of multifunctional tractor hydraulic system applications, helping reduce product inventories and costs
• Helps keep metal components clean and free of harmful varnish and sludge, promoting reduced maintenance downtime
• Protects against rust and corrosion in precision parts when operating in humid conditions and during seasonal shutdown and storage

Selected specification standards include:

<table>
<thead>
<tr>
<th>AGCO</th>
<th>API</th>
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<tbody>
<tr>
<td>Case Corporation</td>
<td>Case New Holland</td>
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<td>Caterpillar</td>
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<td>Renk Doromat</td>
<td>Volvo</td>
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<tr>
<td>White Farm Equipment</td>
<td>ZF</td>
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</tbody>
</table>

Always confirm that the product selected is consistent with the original equipment manufacturer’s recommendation for the equipment operating conditions and customer’s maintenance practices.
Applications

• 1000 THF meets the needs of modern tractors for a multi-functional lubricant. It is designed for a range of uses, such as lubrication of the transmission and final drive, and serves as a hydraulic fluid to operate power steering units, brakes, implements, and attachments.

• 1000 THF is formulated to suppress brake 'chatter' and excessive brake facing wear. It offers smooth operation of clutch packs and wet brakes, is designed for good shifting action, offers reliable rust and corrosion protection for vital parts, and helps minimise leakage because of good compatibility with seals, O-rings, and packing materials.

• It helps prevent sludge and varnish formation, protects metal surfaces against scuffing and wear, and provides lubrication for spur, helical, and spiral bevel final drive gears.

• 1000 THF is compatible with a range of equipment manufacturer's proprietary fluids and other fluids of this type.

• 1000 THF is recommended for use in:
  - ABB Dodge controlled start-up transmissions
  - Non-hypoid API GL-4 applications.
  - Hitachi mid-sized wheel loader axle applications, transfer case and hydraulics

• 1000 THF is also a suitable hydraulic fluid for many types of hydraulic system requiring an anti-wear hydraulic fluid in this viscosity range. It passes the High Pressure Vane Pump Test, ASTM D2882, with less than 15 mg steel weight loss.

• Some automotive axles require a special friction-modified limited slip fluid. Although 1000 THF is friction modified, it does not have the EP performance needed in applications requiring a GL-5 limited slip fluid. 1000 THF should not be used in limited slip applications unless a fluid of this type is explicitly permitted.

Approvals, performance and recommendations

Approvals

• Volvo 97303 (WB 101) [2]
• ZF TE-ML 03E [3]
• ZF TE-ML 05E [3]
• ZF TE-ML 17E [3]
• ZF TE-ML 21F [3]

Recommendations

• AGCO Improved power fluid 821XL
• API GL-4 [1]
• Case Corporation JIC-143
• Case Corporation JIC-145
• Case Corporation MS 1206
• Case Corporation MS 1207
• Case Corporation MS 1209
• Case Corporation MS 1210 (TCH)
• Case New Holland CNH MAT 3505
• Case New Holland CNH MAT 3525
• Caterpillar TO-2
• Ford New Holland ESN-M2C134-D
• Ford New Holland FNHA-2-C-201.00
• International Harvester B6
• John Deere JDM J20C
• Kubota UDT
• Massey Ferguson CMS M1135
• Massey Ferguson CMS M1141
• Massey Ferguson CMS M1143
• Massey Ferguson CMS M1145
• Minneapolis-Moline Q-1722
• Minneapolis-Moline Q-1766
• Minneapolis-Moline Q-1766B
• Oliver Q-1705
• Renk Doromat 874A
• Renk Doromat 874B
• White Farm Equipment Q-1826


[2] Volvo approval number: 004

[3] ZF approval number: ZF000100
Typical test data

<table>
<thead>
<tr>
<th>Test</th>
<th>Test Methods</th>
<th>Results</th>
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<tbody>
<tr>
<td>Density, 15°C, kg/l</td>
<td>ASTM D4053</td>
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<td>Pour Point, °C</td>
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<td>Viscosity Index</td>
<td>ASTM D2270</td>
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Shelf Life: 60 months from date of filling indicated on the product label.

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.