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DATA BULLETIN

Synthetic Tractor Hydraulic/Transmission Oil

An SAE 5W-30 Fluid Formulated for All-Weather Performance in Farm and Commercial Equipment

AMSOIL Synthetic Tractor Hydraulic/Transmission Oil is an all-weather Universal Tractor Transmission Oil (UTTO) engineered to meet the tough demands of heavy-duty, hydraulic-powered farm and commercial equipment. Its unique formulation of synthetic base oils and additives effectively reduces wear, resists heat, protects against rust and extends fluid and equipment service life. Synthetic Tractor Hydraulic/Transmission Oil is recommended for extended oil drains based on oil analysis.

Excellent Protection in Temperature Extremes

AMSOIL Synthetic Tractor Hydraulic/Transmission Oil operates over a wide range of temperatures. It has a high viscosity index to maintain its lubricity for wear protection at high operating temperatures, and it flows at temperatures down to -58°F (-50°C) for improved equipment operation at low temperatures. Synthetic Tractor Hydraulic/Transmission Oil replaces both Case New Holland 3525 and 3526 (formerly Ford New Holland FNHA-2-C-200 & 2-C-201) and John Deere J20C & J20D, helping eliminate the need for seasonal oil changes.

Smooth Brake Operation

AMSOIL Synthetic Tractor Hydraulic/Transmission Oil is formulated with durable friction-modifier additives that effectively suppress wet-brake chatter. Unlike lower-quality oils that can break down and cause vibration, AMSOIL Synthetic Tractor Hydraulic/Transmission Oil provides continuous frictional stability for long-term smooth brake operation.

Feature: Multi-Viscosity

- Benefits:**
- Excellent hot- and cold-weather protection
 - Reduces need for seasonal change outs

Feature: Universal Applications

- Benefits:**
- Inventory consolidation
 - No misapplications

Feature: Stable Friction-Modifier Additives

- Benefits:**
- Correct and decisive multi-disc/clutch operation
 - Controls brake chatter
 - Smooth operation
 - Extended oil and equipment life

Feature: Anti-Foam Additives

- Benefits:**
- Rapid air release
 - Cooler operation
 - Smooth brake operation
 - Control over fade and spongy hydraulic response

Feature: Oxidation Inhibitors

- Benefits:**
- Excellent resistance to oil degradation at high temps
 - Extended lubricant and equipment life

Feature: Seal and Hose Conditioners

- Benefits:**
- Compatible with most seal materials
 - Seal and hose flexibility
 - Positive seal seating
 - Reduced oil leaking
 - Extended seal and hose life
 - Fewer blown hoses

Feature: Superior Anti-Wear Additives

- Benefits:**
- Scoring & gear wear protection under all load conditions
 - Extended equipment life, even in severe conditions
 - Increased pump and valve life
 - May be used in final drives calling for a UTTO



TYPICAL TECHNICAL PROPERTIES

Synthetic Tractor Hydraulic/Transmission Oil (ATH)

SAE Viscosity	5W-30
Kinematic Viscosity @ 100°C, cSt (ASTM D445)	10.1
Kinematic Viscosity @ 40°C, cSt (ASTM D445)	55.4
Viscosity Index (ASTM D2270)	171
Flash Point °C (°F) (ASTM D92)	230 (446)
Fire Point °C (°F) (ASTM D92)	246 (475)
Pour Point °C (°F) (ASTM D97)	-50 (-58)
Four-Ball Wear Test	
(ASTM D4172 @ 40 kg, 75°C, 1200 rpm, 1 hr), Scar, mm	0.37
Cold-Crank Simulator -30°C (ASTM D5293)	4772
Brookfield Viscosity @ -40°C (ASTM D2983)	18797

APPLICATIONS

AMSOIL Synthetic Tractor Hydraulic/Transmission Oil is recommended for equipment combinations of transmissions, hydraulic systems, final drives, power take-off systems and wet brakes operating in "all-weather" hot and cold temperatures, including, but not limited to, those listed below. Consult your owner's manual for specific application requirements:

- Farm tractors and equipment
- Fork lift trucks
- Off-road equipment
- Lawn tractor hydrostatic transmissions
- Golf course mower hydrostatic systems
- Some 4x4 ATV models with wet-brake differentials

SPECIFICATIONS

AMSOIL Hydraulic/Transmission Oil is recommended for transmission and hydraulic applications that require any of the listed specifications. Consult your owner's manual for specific application requirements.

- **AGCO/Deutz-Allis/Allis-Chalmers** – PowerFluid PF-821 XL, 25741, 246634
- **AGCO White Farm (Oliver)** – Q-1826, Q-1802, Q-1766B (UTHF), Q-1766, Q-1722, Q-1705, Type 55
- **Allison** – C4, C3, C2
- **API GL-4**
- **Bobcat** – Bobcat Hydraulic Fluid (6988778, 6988779), Bobcat Hydrostatic Fluid (6904026, 6904027)
- **Case New Holland (CNH)** – MAT 3505 (MS-1209), MS-1207 (Hy-Tran® Plus), MAT 3506 (MS-1210) (TCH Fluid JIC-145), MAT 3509 (MS-1230, M2C48C), Poclain Equipment high pressure systems, MAT 3525 (FNHA-2-C-201.00, M2C134D), MAT 3526 (FNHA-2-C-200.00 winter grade), B-6, MS-1206 (PTF), MS-1205 (TFD-II), MS-1204 (TFD), JIC-185, JIC-144, JIC-143, B-5, M2C86B/C, M2C53A, M2C41B, M2CA/B/C, ESN-M2C77A, ESN-M2C41B, ESN-M2C43, ESN-M2C48B/C, ESN-M2C53A/B, ESN-142A, ESN-M2C143, ESN-M2C92A, ESN-M2C159A/B/C, Renk-Doromat 873 or 874A/B Bus Automatic Transmission Fluid, Valtractores

- **Caterpillar** – TO-2
- **Clark** – TA 12, TA 18, HR 500, HR 600
- **Dresser CED** – Trans/Hyd Fluid
- **Deutz-Allis** – 25743, 272843
- **Deutz-Fahr**
- **Sperry Vickers/Eaton** – I-286-S, M-2950-S
- **Fendt (Non-Vario)**
- **Fiat-Hesston** – AF-87
- **Ford** – ESN M2C86B, M2C86C, Fiat requiring M2C134D, FNHA-2-C-201.00
- **John Deere** – J20C, J20D (winter grade), J14A/B/C, JDT303, J20A/B, J121A
- **Komatsu**
- **Kubota** – UDT/M80B
- **Landini** – Tractor Hydraulic Fluid
- **Massey-Ferguson** – M-1141 (Permatran® 821 XL, Formerly Permatran® III), M-1110, M-1127A/B, M-1129A, M-1135, M-1138, M-1139, M-1143, M-1145
- **Parker Denison** – HF-0, HF-1, HF-2
- **Sauer Sundstrand/Danfoss** – Hydrostatic Transmission Fluid
- **Steiger** – HTF (SEMS 17001)
- **Volvo** – VCE 1273.03, WB101
- **Versatile** – Recommended for use in Valmet, New Idea Power Units, Leyland Belarus, Specs 23M & 24M
- **ZF** – TE-ML 03E, TE-ML 05F, TE-ML 06K, TE-ML 17E

INSTALLATION

AMSOIL Hydraulic/Transmission Oil is compatible with conventional tractor hydraulic/transmission oils. To install AMSOIL Hydraulic/Transmission Oil in a hydraulic system, drain the existing hydraulic/transmission oil, change filters and install AMSOIL Synthetic Tractor Hydraulic/Transmission Oil.

AMSOIL PRODUCT WARRANTY

AMSOIL products are backed by a Limited Liability Warranty. For complete information visit www.amsoil.com/warranty.aspx.



AMSOIL products and Dealership information are available from your local full-service AMSOIL Dealer.