

Block 4 Items (B4)

Tractor Hydraulic Fluid

B4: MOS-6 and B4:FLR-6

Block 4: Tractor Hydraulic Fluid



B4:MOS-6 Regulation for the Uniform Method of Sale of Commodities Regulation: Section 2.XX. Tractor Hydraulic Fluid

B4: FLR-6 Uniform Engine Fuels and Automotive Lubricants Regulation, Sections:

- 1.XX. Tractor Hydraulic Fluid
- 2.XX. Products for Use in Lubricating Tractors
- 3.XX. Tractor Hydraulic Fluid



Purpose: prevent product misrepresentation and equipment failure.



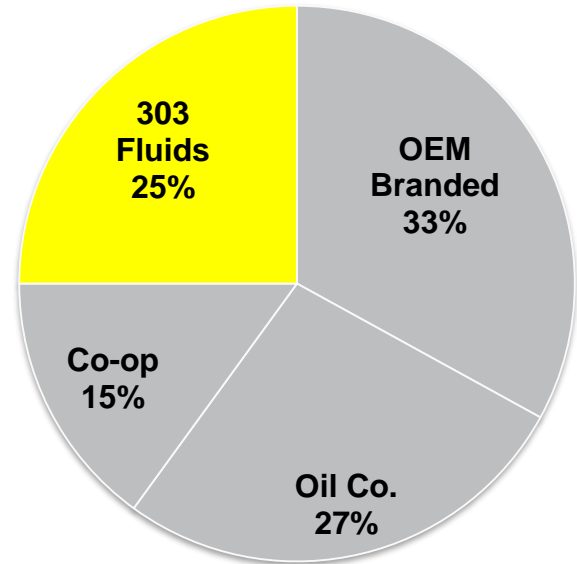
Tractor Hydraulic Fluid Labeling Today

- Marketed as 303 fluids, suggesting they meet John Deere's 303 specification (obsolete since 1974)
- In reality:
 - ✗ Line wash, no performance additive
 - ✗ Down-treated fluids
 - ✗ Used oil



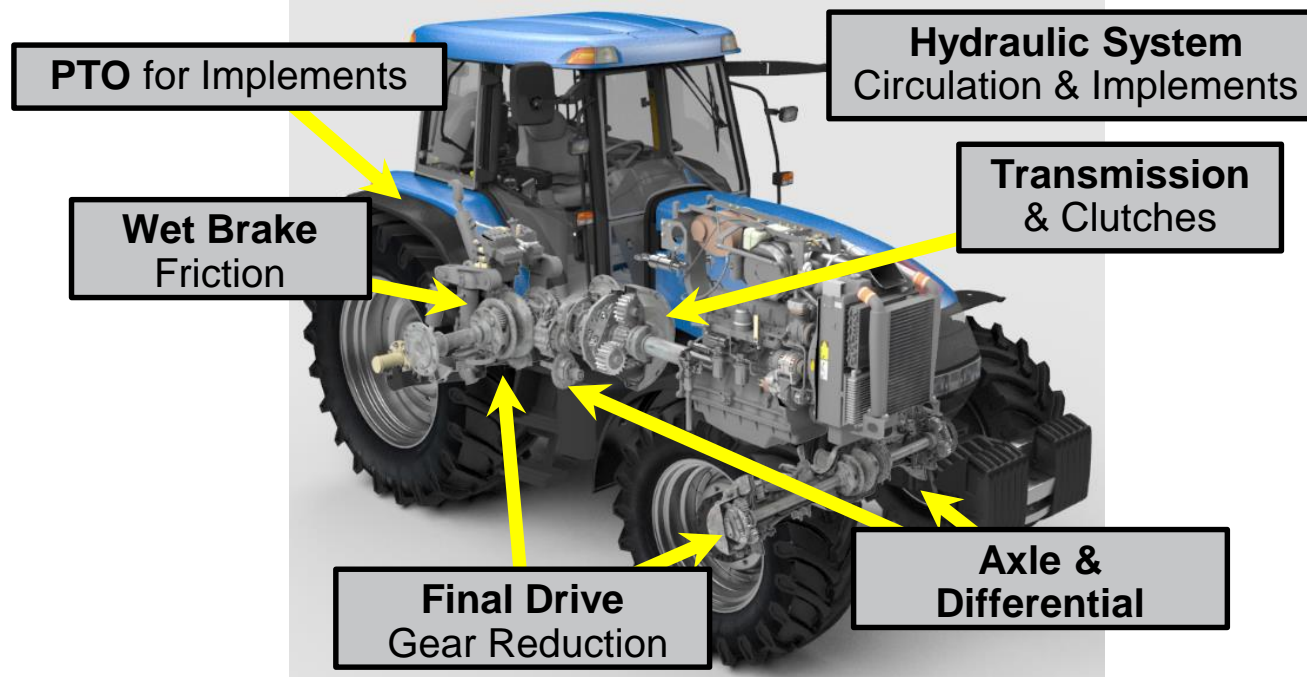
Poor performance, equipment failure
Consumer confusion and costly repairs

North American THF market,



Based on Lubrizol estimates

What is a THF Supposed to do?



Performance Summary of 303 Fluids

Property	Result	Meets Performance Requirements? (√ =yes or X=No)
Viscosity Index	All fluids have lower Viscosity Index.	X
Low Temperature Performance	Little or no fluid flow at low temperatures. Fluids do not meet minimum requirements at -35°C or -20°C	X
Copper Corrosion	Oils are not corrosive towards copper metal in screen testing.	
Oxidative and thermal stability	Increased deposit formation and significant increase in oil viscosity	X
Anti-wear performance	High levels of wear on gear parts	X



Deposit formation



Bearing pitting



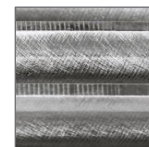
Piston pump wear



Brake Friction plate damage

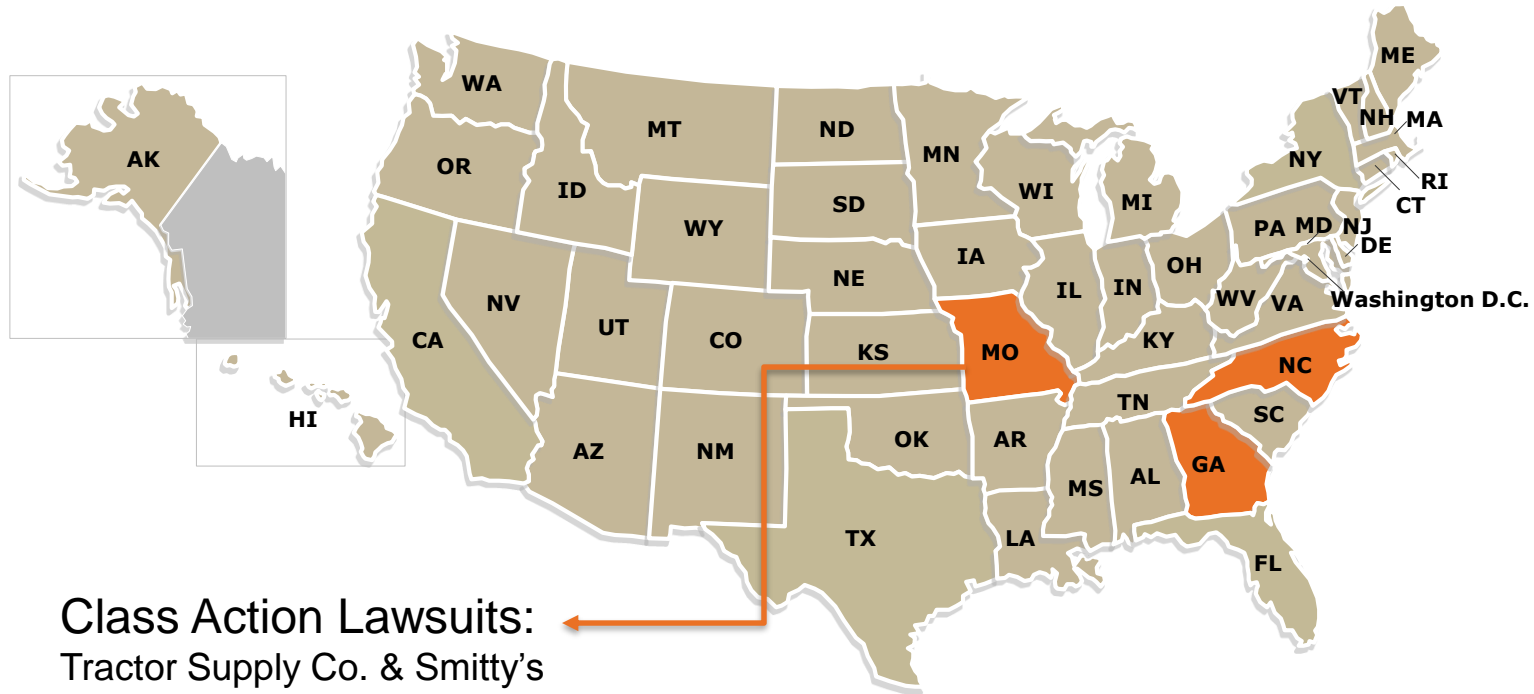


Seal leaks



Gear Wear

Current Actions Against 303



Class Action Lawsuits:
Tractor Supply Co. & Smitty's
Orschlen Farm and Home & Citgo
Old World Industries

Proposal Summary



- Add section defining tractor hydraulic fluids and hydraulic fluids:

1.XX. Tractor Hydraulic Fluid. - A product intended for use in tractors with a common sump for the transmission, final drives, wet brakes, axles and hydraulic system.

1.XX. Hydraulic Fluid. – A product intended for use in multiple applications with a dedicated hydraulic system and sump. Such fluids cannot be used in tractors. See Tractor Hydraulic Fluid for reference.

- Based on:
 - FLR 2.14. Products For Use in Lubricating Transmissions.
 - MOS 3.14. Transmission Fluid.

- Key changes:

Tractor hydraulic fluids shall meet **at least one current original equipment manufacturer's requirements** for those tractors or have demonstrated performance claims to be suitable for use in those tractors.

Any obsolete equipment manufacturer specifications should be **clearly identified as “obsolete” and accompanied by the following warning**: Caution: This specification is no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using this product.



Need for Current Specification

Tractor Hydraulic Fluid			Low Viscosity Version	
Specification	J20A- Obsolete replaced by J20C	J20C	J20B- Obsolete replaced by J20D	J20D
Viscosity @ 100°C	9.1 cSt min.	9.1 cSt min.	7.0 cSt min.	7.0 cSt min.
Brookfield @ -20°C, cP	4,500 cP max.	5,500 cP max.	1,500 cP max.	1,500 cP max.
Brookfield @ -35°C, cP	70,000 cP max.	70,000 cP max.	-	-
Brookfield @ -40°C, cP	-	-	20,000 cP max.	20,000 cP max.
Pour Point, °C	-37C min.	-36C min.	-45C min.	-45C min.

Testing for obsolete specifications no longer available. All new specifications are backward compatible.

Block 4: THF Labeling Working Group



Current Members:

- Ron Hayes, Missouri Department of Agriculture
- David Au, Georgia Department of Agriculture
- John Hayes, Tennessee Department of Agriculture
- Kevin Ferrick, API
- Andrew Hamilton, CHS
- Doug Sackett, TOTAL

Thank you!



Questions or Comments



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Working together, achieving great things

When your company and ours combine energies, great things can happen. You bring ideas, challenges and opportunities. We'll bring powerful additive and market expertise, unmatched testing capabilities, integrated global supply and an independent approach to help you differentiate and succeed.

