



...that John Deere "303" Tractor Fluid specification has been obsolete for well over 45 years!

Yep, it's true, John Deere dropped its original 303 specification in the early 1970s for several reasons; one being that the specification was loosely written around chemistry that included sperm whale oil (SWO). It became illegal to use whale oil as a lubricant in the early 1970s when the Endangered Species Act went into effect. The loss of whale oil had a profound impact in the automotive industry, where for example, transmission failures rose from under 1 million in 1972 to over 8 million by 1975¹!

Despite the fact that John Deere dropped its 303 specification in the early 1970s, tractor hydraulic fluid (THF) sold as "303" THF is still on the market and is promoted for its cost-saving advantage. It is sold in various retail outlets including farming, automotive and big box stores. It is often displayed with eye catching labels highlighting "green tractors" and often packaged in vibrant bright yellow, 5-gallon pails. And while it's true 303 type fluids often cost much less than high-performance tractor fluids, these savings can be quickly gobbled up by lower productivity, reduced cold weather performance, increased brake chatter, and potential costly repair bills.

This whole "303" controversy came to light a few years ago when a lawsuit was filed by an individual that claimed the bargain priced "303" fluid purchased from a local farm store was basically defective and formulated with questionable base oils, inadequately additized and labeled with confusing and ambiguous performance claims which all contributed (as claimed by the plaintiff) to significant damage to his equipment. It should be noted that the manufacturer of the equipment in this case clearly specified the use of a **Premium John Deere J20C** fluid or equivalent.

Food for thought before falling into the "303" trap:

- **Premium Tractor Hydraulic Fluids (THF)** are truly unique Fluids that must lubricate the hydraulic system, transmission, differential, final drives, power steering systems, wet brakes, PTOs and hydrostatic drive on tractors, logging, mining and construction equipment (**a big task for "bargain" fluids**).
- Look for fluids that clearly state that they meet current fluid specifications and are recommended for use in equipment that specify: **John Deere J20C, Case New Holland MAT 3525, Kubota UDT, Massey Ferguson M-1145, Dension HF-0 or other OEM specifications outlined in owner's manual.**
- Ask to see a **Product Data Sheet** on the fluid. A top quality THF that claims **John Deere J20C** performance will meet the following typical specifications: Viscosity **9.1cSt min.** @ 100°C, Brookfield Viscosity @ -35°C **<70,000cP** (a lower number is better), Pour Point **-33°F max.**, (a lower number is better), the Viscosity Index (VI) should be **130 minimum** (a higher number is better).
- If you have equipment manufactured after 1970 be sure to look for a **premium** THF that is formulated to meet current OEM specifications to ensure peak operating performance. **Gulf Universal Tractor Fluid #331953** and **Gulf Synthetic All Season Tractor Fluid #331970** have proven performance and will deliver outstanding reliability.



OK to use "303" THF



NOT OK to use "303" THF

Check this out→ Sperm Whale Oil (SWO) is actually a liquid wax that has very unique properties; it remains liquid even at sub-zero temperatures. It is a superb friction modifier in its natural state and can be treated with sulphur and other additives to create a low cost lubricant offering excellent low temperature performance and excellent resistant to extreme pressures. Back in the day, SWO was used in wet brake applications, like the 303 type fluid, certain greases, automotive differentials, wet clutch applications and early ATFs where the extra stick/slip performance was needed.



1) [Landis, Phil. Gears for the Transmission Rebuilding Industry. Oxnard: Automatic Transmission Rebuilders Association, 2010. Print.]

Gulf Lubricants Technical Advisor is available to answer your questions concerning specific lubricant applications or cross reference inquiries.

Please email questions to: customerservice@nu-tierbrands.com

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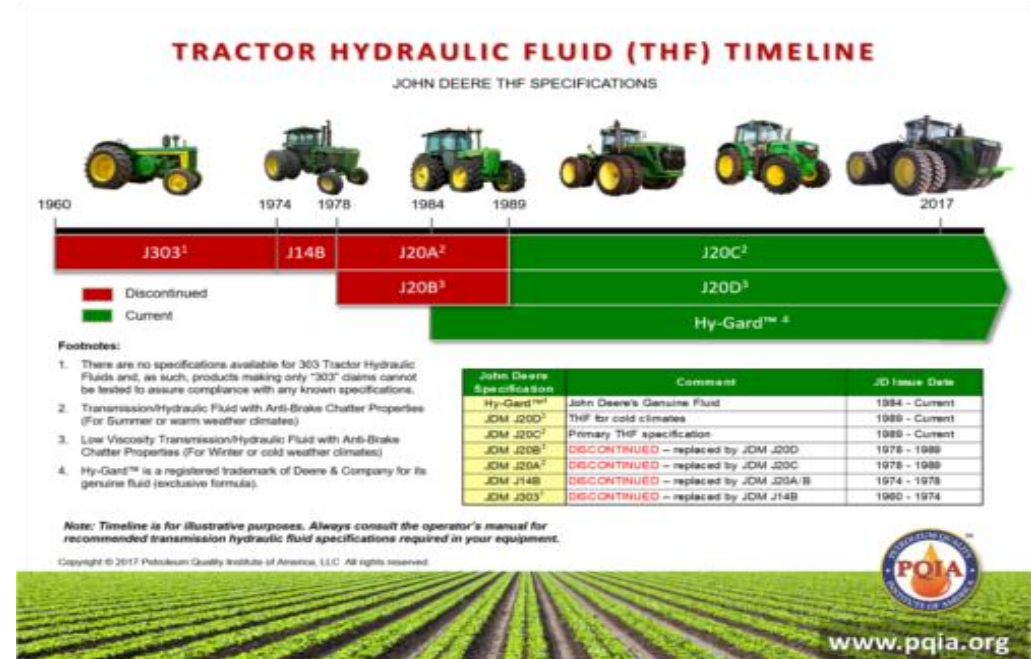
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Tractor Hydraulic Fluid Timeline

November 28, 2017

The Petroleum Quality Institute of America (PQIA) received a considerable amount of feedback when we reported in our November 17th issue that the Missouri Department of Agriculture (MDA) removed "303" tractor hydraulic fluid (THF) from sale in the state. Nearly all who contacted PQIA expressed support of the MDA's decision and many feel this action should be implemented by other states in an effort to help protect farmers' equipment and level the playing field for marketers and retailers to compete. They add, however, that such implementation should allow time for marketers to cycle in current-spec products to avoid costly recalls.



A significant number of those who responded to PQIA's article agreed to the reasons the MDA removed 303 THF from sale. As made clear in the **MDA's Consumer Protection Alert**, "The John Deere (JD) 303 designation is 57 years old and has been obsolete for 43 years. In addition, there are no specifications available for 303 Tractor Hydraulic Fluids and, as such, products making only '303' claims cannot be tested to assure compliance with any known specifications. This action is being taken to protect tractor owners from equipment damage."

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Let PQIA Know

Another issue that surfaced from the feedback PQIA receive is that many in- and outside of the lubricants business will benefit from a simple to understand chart illustrating the timeline for John Deere THF specifications and where "303" fluids fit in. In response, PQIA created the reference guide shown above.

Note: As stated in the Missouri Department of Agriculture Consumer Protection Alert, "Companies have been given the opportunity to revise their claims on the container to clearly identify the appropriate use of the product therein. The Department is working with manufacturers, distributors and retailers to ensure a low-cost product with accurate labeling is available in the State of Missouri." [Click for MDA Consumer Protection Alert](#)

Missouri Orders 303 Tractor Hydraulic Fluids Out of the State

November 17, 2017

The State of Missouri Department of Agriculture Weights, Measures & Consumer Protection Division ordered that effective immediately Tractor Hydraulic Fluid (THF) labeled **only** as "303" can no longer be sold in the state, and the reason why is clear.

The John Deere (JD) 303 designation is 57 years old and has been obsolete for 43 years. In addition, there are no specifications available for 303 THF, and as such products making only "303" claims cannot be tested to assure compliance with any known specifications. Because of this, in the interest of protecting consumers, the State of Missouri ordered that "303" THF cannot be sold in the state.

Missouri's banning the sale of "303" THF will have a significant impact due to the proliferation of 303 fluids in the market. These fluids are typically sold as low cost THFs and account for a very significant share of total THF sales. In fact, in some markets they are the leading type sold. Further, they are produced and sold by many lubricant manufacturers, marketers and retailers in the US and some have already received Stop Sale orders from the State of Missouri Department of Agriculture Weights, Measures & Consumer Protection Division.



Although not necessarily a shot heard around the world, the actions taken by the state of Missouri will most certainly send a clear message to marketers, retailers and farmers in other states. Because whereas the State of Missouri is the first to ban the sale of 303 THF, chances are others will follow.

Related Stories:

- [The Yellow Bucket](#)
- [The Games People Play with THF](#)

Please contact PQIA at the link below if you too would like to support PQIA's efforts to help assure the quality of lubricants in the marketplace.

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Help support PQIA's efforts to assure the quality and integrity of lubricants in the market.

The Petroleum Quality Institute of America's mission is to serve the consumer of lubricants by testing and reporting on the quality and integrity of lubricants in the marketplace. It is expected that this improved visibility of quality will lead to wider conformance by lubricant manufacturers to specification and performance claims.

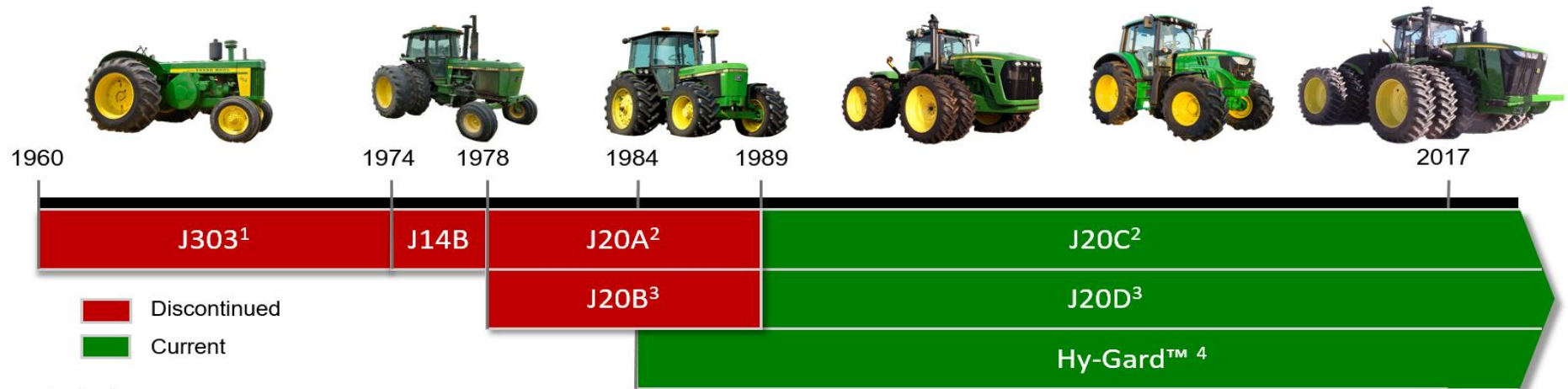
We can't do it alone.

To find out how you can help support PQIA's efforts, contact us at 732-910-0017 or by email at tglenn@pqia.org.



TRACTOR HYDRAULIC FLUID (THF) TIMELINE

JOHN DEERE THF SPECIFICATIONS



Footnotes:

1. There are no specifications available for 303 Tractor Hydraulic Fluids and, as such, products making only "303" claims cannot be tested to assure compliance with any known specifications.
2. Transmission/Hydraulic Fluid with Anti-Brake Chatter Properties (For Summer or warm weather climates)
3. Low Viscosity Transmission/Hydraulic Fluid with Anti-Brake Chatter Properties (For Winter or cold weather climates)
4. Hy-Gard™ is a registered trademark of Deere & Company for its genuine fluid (exclusive formula).

John Deere Specification	Comment	JD Issue Date
Hy-Gard™ ⁴	John Deere's Genuine Fluid	1984 - Current
JDM J20D ³	THF for cold climates	1989 - Current
JDM J20C ²	Primary THF specification	1989 - Current
JDM J20B ³	DISCONTINUED – replaced by JDM J20D	1978 - 1989
JDM J20A ²	DISCONTINUED – replaced by JDM J20C	1978 - 1989
JDM J14B	DISCONTINUED – replaced by JDM J20A/B	1974 - 1978
JDM J303 ¹	DISCONTINUED – replaced by JDM J14B	1960 - 1974

Note: Timeline is for illustrative purposes. Always consult the operator's manual for recommended transmission hydraulic fluid specifications required in your equipment.

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