



AUTHENTICATED TRACTOR FLUID

By Blaine Ballentine, Lubrication Engineer

There it is a disconnect between the needs of a modern tractor and many of the tractor hydraulic fluids offered in the marketplace. It causes a loss of productivity, excessive wear, and premature failure for the unwary tractor owner.

Industrial Hydraulic Oil VS Tractor Fluid

If you say “hydraulic oil” to a farmer, it means tractor hydraulic oil or tractor fluid. When you say hydraulic oil to nearly any other group, it means industrial hydraulic oil, such as AW (anti-wear) hydraulic oil or R & O (rust and oxidation inhibited) hydraulic oil.

Industrial hydraulic oils are fine for most factory systems consisting of a pump, some valves, and some cylinders. They are woefully inadequate for modern tractor hydraulic systems where the hydraulics, transmission, drive gears, power steering, wet brakes, and wet clutches all run in the same fluid.

Tractor hydraulic oils also treat water differently than industrial hydraulic oils. Industrial hydraulic

systems normally have large tanks and long resident time. The hydraulic oil is designed to settle water to the bottom of the tank for removal. Tractor hydraulic oils, on the other hand, will disburse small amounts of moisture, allowing the moisture to safely

pass through a piston pump without damage.

Tractor hydraulic oils contain many times more additive than industrial hydraulic oils, making them much more expensive to produce. The problem occurs when a farmer goes to the farm store and sees a bucket of “hydraulic oil” at a low price. An industrial hydraulic oil will not cause an immediate problem, particularly if it is only used to add. However, wear increases and the frictional disks do not operate properly. It is a recipe for short system life.

Hydraulic Pump Piston Shoes



Good Fluid Performance



Poor Fluid Performance

Obsolete Tractor Fluids

The bigger problem is with tractor hydraulic oils, that are

labeled as such, but are inadequate for the task in a modern tractor. The marketer can put a long list of obsolete specifications on a bucket, making it appear

to be an appropriate product, when in fact it does not meet the more recent specifications required by the manufacturer to properly protect their equipment.

Do not think this is a small problem with a few obscure brands. Go to the internet and Google “303 oil,” and you will find the problem is rampant. There are many products with fancy labels that look impressive. Take a closer look and you will find the specifications are either obsolete or absent. John Deere 303 was a specification from the 1960s. Tractors less than 50 years old deserve a better fluid.

Now look at the retailers. These fluids are not being sold in an alley by a guy in the raincoat. They are sold by your farm store, your auto parts dealer, and at your discount store.

Blatant Misrepresentation

There are other ways to cheat with tractor hydraulic oils, and nobody is watching.

A marketer can put an additive that has never been tested against any specification in a naphthenic or re-refined base oil with a cheap polymer and claim whatever specifications that he wants. The label will make it look like the right stuff, and an oil analysis would not throw any red flags. However, such a fluid would not meet the oxidation requirements, the sheer stability requirements, and no one knows what

Tractor Hydraulic Oil

AGCO/Allis Chalmers/Deutz /Massey Ferguson/White	Case/International /NewHolland/Ford
Power Fluid 821	M2C134A,B,C
272853	M2C86B,C
25741	M2C43
246634	M2C41B
M1110	MS1206
M1127A,B	MS1207
M1129A	MS1210
Q1826	MS1204
Q1766	J1C145
Q1722	J1C144
Q1766B	J1C143
Q1705	
Q1802	
Type 55	
	John Deere
	J20A
	J20B
Alison C4,C3	J21A
	303
API GL4	

All of the above specifications are obsolete and could appear on a label to trick a farmer into buying an inadequate product. They also appear on our label, but following the current specifications.

the other performances would be lacking. But the marketer is unlikely to get caught, because the tractor fluid tests are very expensive, and nobody seems to care.

For example, we took a sample from an oil jug that was labeled for use in tractor hydraulic systems and claimed John Deere credentials. This brand is fairly popular in some areas, due to its price. An analysis revealed no detergents and no anti-wear additives. It had a viscosity index of 138, and a 100° viscosity of 6.3 cSt. Essentially, it was the non detergent SAE 5W-20. The viscosity fell far short of John Deere’s J20C requirement of 9.1 cSt, and there were no additives to prevent wear of gears, pumps, and frictional materials.

In another example, last year a reputable regional lubricant manufacture was sued after a tractor failure. The tractor fluid was labeled “tractor hydraulic oil,” and claimed John Deere’s 303 specification. The lawsuit alleged that the manufacturer used “reclaimed base oils” and “knowingly and intentionally did not use additives.”

The owner needs to buy a reputable brand, read the label carefully for the specification his tractor manufacturer recommends, and then hope the fluid was actually tested against that specification.

Identifying Quality Tractor Fluid

The big question is, “ How do you identify a quality tractor fluid when there are so many obvious cheaters and no one watching?” Tractor life.com can help.

Tractor life.com is an on-line magazine designed for farmers to help them achieve longer equipment of life. They have developed a seal of approval that identifies products that meet at least the minimum requirements for tractor fluid. To achieve the certification, a sample of the fluid must be submitted for testing.

Cen-Pe-Co Multi-Purpose Hydraulic & Wet

Brake Oil now carries this logo on all of its containers and literature. It appears on the tractor.com website



with some impressive information that separates it from the other fluids that appear there.

Keep in mind, that the authenticated

logo is like any minimum specification. It does not mean that any label displaying the authenticated the logo is the best tractor fluid available, it simply identi-

fies adequate tractor hydraulic oils.

Cen-Pe-Co Multi-Purpose Hydraulic & Wet Brake Oil is truly a superior fluid. It is made with 100% pure paraffin base oil for superior film strength and oxidative stability. It is fortified with the most sheer stable polymer available to control viscosity loss. It has superior hydrolytic stability, which means it does not fall apart when contaminated with water. And, it lowers operating temperatures, which is a direct reading of the improved fuel efficiency, and means longer hose and seal life.

Cen-Pe-Co Multi-Purpose Hydraulic & Wet Brake Oil has been the best tractor fluid available for many years. Now, it carries the tractor life authenticated logo as further assurance of quality.



The Silver Bullet Tractor, piloted by Jordan Lustik, makes a great pass at the National Tractor Pulling Championships, to earn a 1st place win!



The Silver Bullet Team in the winners circle in Bowling Green, OH, accepting their 1st place trophy!

At Cen-Pe-Co, our hats go off to our customers for an awesome performance at the National Tractor Pull Championships in Bowling Green, OH.

Cen-Pe-Co Lubricants Customers:

WON - 15 of 24 Class Events

Second Place - 14 of 24 Class Events

WON - 7 of 12 Championship Rings

WELL DONE!

Trade Show Highlights.....



Working the booth at the IA Power Show are: Mark Bosma, IA and Denny Flee, IA.



Giving a presentation to a potential customer at the MN Farm Show is Rick Cline, MN.



Taking a break from the action at the Empire Farm Days in New York, we have the "twins", Andy Batty, NY and his brother Bert.



With The Silver Bullet Tractor on display at the OH Farm Science Review, working the show are, (L to R) Jordan Lustik, PA, Duane Tooman, OH, Milt Boerger, OH, Dave Fitzpatrick, OH, and Dick Bowdle, OH.



A first this year was the Harvest Barn Tractor Pull, put on by Eagle Machinery. Working the event were: (L to R) Eagle Machinery owner, Kurt Spillman, OH; Duane Tooman, OH; and Charlene and Dave Fitzpatrick, OH.



Manning the Booth at the OH Power Show are, Dave Fitzpatrick, OH and Roger Tooman, OH.