

Olson Marketing Monthly

June 2020 - Issue #106

in partnership with Insane Oil of Omaha

Your Amsoil Information News Source

Product Highlight: Saber Professional Synthetic 2-Stroke Oil

In the April newsletter I began talking about [Amsoil Synthetic 2-Stroke Oil - Saber Professional](#). Lawn and Landscape companies typically purchase [Saber Professional](#) by the gallon. There are even a few that order it by the 30 gallon and 55 gallon drum. I, as a homeowner, would never go through that much [Saber Professional](#) oil in my lifetime. Lawn and Landscape businesses use [Saber Professional](#) for several key reasons which I began discussing over the last two months and will continue in this issue. Previously, I talked about the spark arrester and the exhaust ports. [Saber](#)

keeps these components substantially cleaner, when compared to the manufacturer recommended oil. This month I am going to focus on oil deposits throughout the engine.

The lab research and field tests prove that [Amsoil Saber Professional](#) far exceeds other manufacturers and I want to run it in my equipment. However, I don't want to purchase a 55 gallon drum. Nor do I want to purchase a 30 gallon drum. And I don't even want to purchase a gallon or a quart because I only have one piece of 2-stroke equipment, my string trimmer. Fortunately, Amsoil also sells a 1.5 oz easy pouch. One pouch is designed for 1 gallon of gas. That is what I use.

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Congratulations:

New Dealer

David & Ashley Newton
Clover, SC

New Preferred Customers

Keith Myers
Omaha, NE

Luke Keene
Oxnard, CA

Jason Nealis
Guthrie, OK

Matthew Swanson
Council Bluffs, IA

Todd Koffler
Cayuga, NY

Stephanie Voichahoske
Waverly, NE

Ron Hruska
Lincoln, NE

AMSOIL
The First in Synthetics®

What Does Saber Professional 2-Stroke Synthetic Oil Actually Do? Part 3...continued from last month.

I have heard the Lucas Oil is pretty good...but unfortunately you can't believe everything you hear. Four Echo SRM-225 String Trimmers were run on [Amsoil Saber Professional](#) for 300 hours and four of the identical Echo SRM-225 String Trimmers were run for the same amount of time using Lucas Semi-Synthetic 2-Cycle Oil. The results are clear (see picture at right).

Deposits in the ring grooves can cause the rings to stick and lose effectiveness. Engine rpm can decrease and the engine can lose compression. Significant compression loss leads to engine failure. Heavy deposits on the piston skirt increase friction and reduce performance.

Deposits appear heavier on the pistons lubricated with Lucas Semi-synthetic 2-Cycle Oil. The pistons lubricated with [Saber Professional](#) appear cleaner. [Saber Professional](#) provided improved detergency and extreme-heat resistance.

Not sure if you picked up on it above, but Lucas Oil is a semi-synthetic. Semi means part, not full. Technically, a company could have a quart of conventional oil, put one drop of synthetic oil in it and call it a semi-synthetic, or "synthetic blend".

I was just on Lucas Oil's website and they don't even make a full synthetic 2-stroke oil for outdoor power equipment. What is even

AMSOIL SABER® Professional
Exhaust Side



Engine 1



Engine 2



Engine 3



Engine 4

LUCAS® Semi-Synthetic 2-Cycle Oil
Exhaust Side



Engine 5



Engine 6



Engine 7



Engine 8

more interesting is that the [Amsoil Synthetic Saber Professional](#) is near the same price point as the lesser quality 2-stroke Lucas Oil. On top of that, the smallest quan-

tity allowed for purchase from Lucas Oil is 1 quart. I am sure glad Amsoil offers a better quality oil, in more appropriate size containers for a similar price.

Oil Analysis TBN Values- Ford F150

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

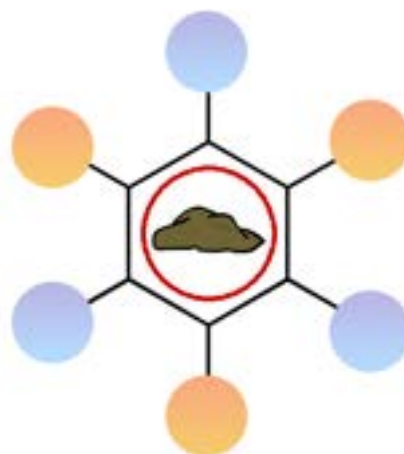
Sample #	Sample Information				Contaminants				Fluid Properties							
	Date Sampled	Date Received	Lube Time mi	Unit Time mi	Lube Change	Lube Added qt	Filter Change	Fuel Dilution % Vol	Soot % Vol	Water % Vol	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH/g	Base No. D4739 mg KOH/g	Oxidation abs/cm	Nitration abs/0.1 mm
BL	06-Apr-2016	08-Apr-2016	0	0	Unk	0	Unk			<.1 - FTIR		9.1		11.0	49	6
1	04-Jun-2015	17-Jun-2015	8200	111800	Yes	1	Yes	<.1 - Estimate	0.1 - E2412	<.1 - FTIR	9.7	2.36	54	16		
2	08-Jun-2016	14-Jun-2016	6000	118000	Yes	1	Yes	<.1 - Estimate	<.1	<.1 - FTIR	9.7	2.35	54	14		
3	31-May-2017	07-Jun-2017	6700	125338	Yes	1	Yes	<.1 - Estimate	<.1	<.1 - FTIR	8.9	2.62	51	14		
4	06-Jun-2018	27-Jun-2018	7742	133080	Yes	1	Yes	<.1 - Estimate	<.1	<.1 - FTIR	8.9	2.75	52	15		
5	17-May-2019	21-May-2019	6464	139544	Yes	1	Yes	<.1 - Estimate	<.1	<.1 - FTIR	9.2	3.32	52	14		
6	12-May-2020	19-May-2020	5413	144957	Yes	1	Yes	<.1 - Estimate	<.1	<.1 - FTIR	9.3	2.25	54	15		

In last month's newsletter I began breaking down some of the details of this year's oil analytic report for my 2001 Ford F150. I began conducting [Oil Analytic Reports](#) in 2012 but was not consistent in my testing until 2015. The above data shows the Baseline Sample (labeled BL under Sample #) highlighted in Blue. The Baseline sample is a new sample of oil. This means I opened a new quart of [Amsoil Signature Series 5w-20 100% Synthetic Motor Oil](#) and poured it directly into a sample collection container. It was then sent into a lab to be analyzed. The results show the new oil's "normal" levels. I can then reference the Baseline data for all future samplings to see the changes in the oil.

The reason I began this type of testing was to verify if Amsoil's claims were true and accurate. Amsoil says that the Signature Series line of oil will last 25,000 miles or 1 year, whichever comes first. So I put it to the test. Although I had been running Amsoil prior to this testing, I just assumed

their claims were true or else someone would have sued them back to the stone age. However, my assumptions always carried this lingering notion that I needed actual real, tangible, physical, scientific data to back my assumptions (and Amsoil's claims).

The best way to tell if your oil is still doing its job is to look at the Total Base Number. Generally speaking, the TBN (or Total Base Number) is the oil's ability to neutralize contaminants in the oil. As you drive your car the oil becomes contaminated, let's call the contamination "dirt". That dirt then acts like sand paper inside your



engine wearing away the metal. As the engine metals wear away, you begin to have problems. One of the jobs of the oil is to "capture" that dirt and hold it inside of the oil molecule. When the oil is no longer able to "capture" dirt, the oil is not doing its job. When the TBN reaches zero, the oil is no longer able to do its job.

As you can see from the data above, after running [Amsoil Signature Series 5w-20 100% Synthetic Motor Oil](#) for an entire year, the oil's TBN values range from 2.25 to 3.32 over the past 6 years. That alone indicates that after running the same oil for an entire year, it is still doing its job.

[Amsoil Signature Series](#) is engineered with a high TBN so after an entire year of running the same oil, the TBN has been depleted to the point where it is nearing the end of its life. This is the reason Amsoil is able to make claims that their oil is good for an entire year and still be able to protect your engine.

Oil Analysis F150 - Wear Metals, Additive Metals, etc.

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Sample #	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)					Additive Metals (ppm)					
	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
BL	0	0	0	0	0	0	0	0	0	0	6	2	2	0	152	0	0	0	212	15	3604	0	711	799
1	25	1	1	5	5	0	1	0	1	0	14	15	2	0	112	0	0	0	28	14	3457	0	587	712
2	22	1	2	4	6	0	0	0	0	0	16	12	3	0	141	0	0	0	36	16	3426	0	611	718
3	24	1	3	5	3	0	0	0	0	0	12	9	3	0	172	3	0	0	59	14	3538	0	615	723
4	20	0	2	3	3	0	0	0	0	0	9	35	36	0	118	0	63	0	25	13	3083	0	523	582
5	45	1	2	4	3	0	0	0	0	0	13	86	97	0	188	0	14	0	33	602	2050	0	668	774
6	63	2	2	6	5	0	0	0	0	0	18	84	129	0	221	0	5	0	16	975	1456	0	697	806

Along with the Total Base Number, [oil analytics](#) provides a plethora of additional information. Specifically, over the course of several years you can document trends with your engine. Last month, I discussed the coolant leak that I began noticing back in 2018 (Sample #4 with Sodium and Potassium levels). Each year the Sodium and Potassium levels have increased which tell me that I have a microscopic leak where coolant is getting into my oil. This issue has progressively become worse each year. I am currently attempting to mitigate the issue through the use of Stop Leak in my cooling system. Next May, I will let you know if Stop Leak was successful in slowing down or stopping the leak. Since the leak is internal, it is difficult to diagnose the exact location but after doing a fair amount of research I am about 90% confident that I know where the leak is at. Whether the Stop Leak works or now, I will be resolving the issue next May by replacing the Oil Filter Adapter Plate Gasket, as this

is a common leak point which allows coolant to enter the lubricating system.

The wear metals are another issue of focus. As you can see from the data, Iron contamination is on a continual rise. Although the oil is still doing its job (the TBN is adequate). Some of the "dirt" (that I previously discussed) actually comes from metal wearing off of the engine and being encapsulated inside the oil molecules. The Oil Analytic scientists can then test the oil and determine to what degree of metal wear is occurring in the engine.

There could be three reasons for the elevated Iron wear that I can think of off the top of my head.

1. Due to the microscopic coolant leak, the oil is being overwhelmed by "capturing" coolant that it has less "room" to do its job to lubricate the engine, leading to increased wear. However, this is unlikely because the TBN is still in a range which tells me it is still doing its

job properly.

2. My 2001 Ford F150 uses about one quart of oil throughout an entire year. I did not do a very good job of topping off my oil throughout the year so there were a few months where I was running my truck with the oil level near the bottom of the dip stick. Less oil means less lubrication. Less lubrication means increased wear.

3. As vehicles age they naturally begin to wear more. My truck has almost 150,000 miles on it and is almost 20 years old. It is not uncommon for iron wear to increase each year.

This is an area that I will continue to monitor moving forward.



Shop Talk...

with Dr. Jonathan D. Olson, EdD
(Independent Amsoil Dealer #10458)



The 1.5 ounce [Saber Professional](#) pack works awesome for me as a homeowner because I no longer have an open, half-full quart container sitting on the shelf for years. It keeps my engines operating properly and my fuel ready to go.

As an Amsoil dealer, it also works great because I can hand these out to local companies and individuals when I am providing them with information about the benefits of Amsoil.

Previous month's newsletters also discussed the benefits of [Saber Professional](#). If you missed out or are new, you can check them out here:

[Issue #104 - April 2020](#)

[Issue #105 - May 2020](#)

Congratulations:

New Catalog Customers

David Gerdes
Omaha, NE

Cody Utter
Tucson, AZ

Rene Alzalde
Spring Valley, CA

Nathan Gardella
Catawissa, PA

Andrew Park
Oklahoma City, OK

Ryan Linstromberg
Granger, IN

Scott Buckheit
Abingdon, MD

Jamie Edwards
Jasper, AB

Joshua Ross
Columbus, NE

Steven Chan
West Covina, CA

