### Your Amsoil Information News Source

## **Product Highlight:**

## Passenger Car & Light Truck Antifreeze & Coolant

AMSOIL Passenger Car/Light Truck Antifreeze & Coolant provides superior heat transfer and excellent protection against corrosion, freezing and boilover. It provides maximum protection in extreme temperatures and operating conditions, and provides superior protection for aluminum, steel, cast iron, copper, brass and solder alloys.

Independent tests reveal <u>AMSOIL</u> <u>Antifreeze/Coolants</u> greatly surpass standards for metallic corrosion and erosion, achieving nearly perfect scores in ASTM corrosion and erosion testing on cast alumi-

#### **Dealer Contact**

#### **Lincoln - Olson Marketing**

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http://om.shopamsoil.com lubedealerdon@gmail.com

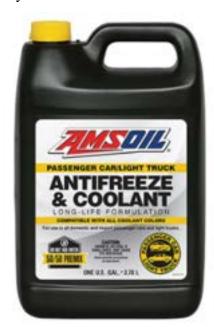
#### Omaha - Insane Oil

Dr. Jonathan D. & Stacey L. Olson ZO Referral# 10458 402-990-7940 (text or call) http://insaneoil.com

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num cylinder heads, steel, copper, solder, brass and cast iron and aluminum water pumps.

\* Pre-mixed 50/50 with high-purity water.



### What's Inside This Issue?

Oil and Air .....p. 2

2019 Jeep Compass - Oil Analysis? .....p. 3-4

Congratulations.....p. 5

#### ...or try:

## Low Toxicity Antifreeze and Engine Coolant

Unlike conventional ethylene glycol-based products, which are acutely toxic, <u>AMSOIL Propylene Glycol Antifreeze & Coolant</u> is biodegradable and its low toxicity limits the threat to children and animals.





## Keep Your Oil Checked And Your Air Filter Clean

Sometimes the simplest of maintenance tasks can help prevent monumental engine related issues. Namely, checking your oil and cleaning or replacing your air filter. These tasks typically take less than 2 minutes but if left unchecked can reek havoc on the health of your engine.

You should check your oil at least once per month. If the oil level is low, ensure you are topping it off with the correct viscosity of oil. If you are unsure of the correct viscosity, you can find it in your owner's manual or online using Amsoil's Vehicle Lookup Tool. If you find yourself routinely topping off your oil, make sure you log how much oil you put in each month. This could be an indicator of a larger issue within your engine.

If you notice that the oil on the dipstick is very dark in color, it could be an indication that it is nearing the end of its life. I keep records of when I last changed the oil. Since I use Amsoil 100% Synthetic Signature Series Motor



Oil, I only change my oil once per year. If you are running extended oil drain intervals (as I do), it is even more important to check you oil each month. If your vehicle "uses" a small amount of oil each month, you may never notice the oil level getting low if you are changing your oil every three months. However, if you are following extended oil drain intervals and never check your oil, there is a good possibility that you may run your vehicle low on oil.

Your air filter should be cleaned once per month. This involves removing it from your engine and

blowing it out with compressed air. If you do not have an air compressor, you can also shake it out and even use a vacuum to help with the cleaning process. Air filters will typically last one year, but if you clean it out each month, I have found that I can easily get two years out of a single air filter.

If you never change or clean your air filter, the filter will become dirty. A dirty air filter doesn't allow a consistent flow of air into the engine. Soon, your engine begins to run rough and the computer inside your engine will attempt to compensate for the reduced air flow. This can lead to a reduction in fuel economy, check engine lights and other issues. If still don't clean the air filter, your vehicle will die in the middle of the road, or one day you won't be able to get it started due to the restriction of air from the engine.





## 2019 Jeep Compass - Oil Analysis

In last month's newsletter (<u>Issue</u> #107 - July 2020), I talked a little bit about how we had purchased a new 2019 Jeep Compass last year and have sense come to find out that the engine is poorly designed and consumes oil. I then shared how I was combatting the consuming of oil through the use of a much higher quality oil: Amsoil Signature Series 0W-20 100% Synthetic Motor Oil. Lastly, I talked about how initial results seemed positive that I was able to curve the consuming of oil.



This month we will take a quick look at the differences between Amsoil Signature Series 0W-20 100% Synthetic Motor Oil when it is brand new and after it has been ran for one full year in our 2019 Jeep Compass.

I do also want to point out that after changing your oil, you will

want to reset the Oil Change Indicator System (the system that monitors when it is necessary to change the oil). You can click the image in the bottom left corner of this page to the video.

I first changed the oil at 517 miles (after a 500 mile break in cycle) back in April of 2019.



At the time, I took a sample of a new container of Amsoil Signature Series 0W-20 100% Synthetic Motor Oil and sent it into the lab for analysis. I then proceeded to install it into the vehicle. I ran the oil for a total of 12 months only needing to add 24 ounces throughout one year. In April of this year, I extracted a sample of oil before my oil change and submitted it into the lab. After taking my sample, I replaced my oil with new Amsoil Signature Series 0W-20 100% Synthetic Motor Oil and I replaced the filter with a new Amsoil EA15K50 oil filter.

Over the course of one year, the vehicle was driven 8634 miles and the results were not overly interesting. Results confirmed what I suspected with running a high quality Amsoil 100% Synthetic Lubricant. See the results out on the next page...

#### Oil Analysis Sampling Equipment

Oil Analysis Test Kit

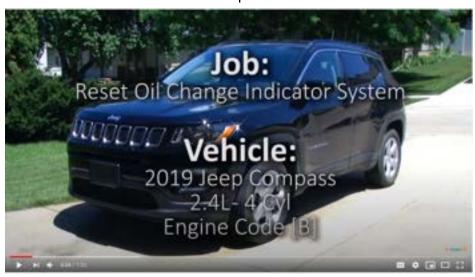


Oil Analysis Hand Pump



Oil Analysis Replacement Hose





## continued...2019 Jeep Compass - Oil Analysis

0	1	2	3	4
NOR	MAL	ABNO	RMAL	CRITICAL

	Wear Metals (ppm)									279000	ntamir tals (p		Multi-Source Metals (ppm)						A	Additive Metals (ppm)				
Sample #	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	1	0	0	0	0	0	0	0	6	5	0	0	218	0	0	0	330	1023	1356	0	736	B61
1	25	0	0	27	16	1	.0	0	0	0	45	9	5	0	232	1	2	0	54	888	1391	0	704	768

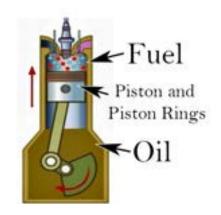
(5)		Sample	e Inforr	mation				4 3	Contaminants		Fluid Properties							
mple #	e Sampled	e Received	Lube Time	Unit Time	e Change	Lube	er Change	Fuel Dilution	Soot	Water	Viscosity 40°C	Viscosity 100°C	Acid	Base No. D4739	Oxidation	Nitration		
Sar	Dat	Dat	mi	mi	Lube	qt	Filter	% Vol	% Vol	% Vol	cSt	cSt	mg KOH/g	mg KOH/g	abs/cm	abs/0.1 mm		
BL	29-Apr-2019	02-May-2019	0	0	Unk	0	Unk			<.1 - FTIR	111111111111111111111111111111111111111	8.8		9.35	47	6		
1	29-Apr-2020	06-May-2020	8634	9151	Yes	1	Yes	1.6 - GC	<.1	<.1 - FTIR	3	7.1		3.95	. 47	12		

The information above shows all of the different items tested in the oil sample after the oil had been run for one year. It is normal for "used" oil to exhibit elevated levels of various contaminants, especially after a full year. What you don't want to see is levels falling in the critical range. This would indicate that either (a) the oil is not able to do its job for some reason or (b) there is a breakdown occurring in your engine and you need to figure out what is happening quickly.

Many experts identify the breakin cycle as the first 500 miles and recommend gentle driving. Others indicate that the actual break-in cycle can last up to the first 5000 miles. The oil sample results above indicate that there is wear occurring in the categories of Iron, Aluminum, and Copper. Additionally, the Silicone levels have significantly increased. Each of these components could fall in with the concept that after the first 500 miles, much of the heavy wear had occurred but between 500 and 5000 miles the theoretical severity of wear continue has tapered off yet is still reflected in the oil. The identified areas are not of concern but should be monitored. Next April, when I perform another oil analysis, one would anticipate that these levels are lower than the levels shown over the previous year. If in fact this is the case, then it would mean the wear cycle did extend beyond the initial 500 miles.

The other identified area was Fuel Dilution. Fuel Dilution in oil is a condition caused by excess, unburned fuel mixing with engine oil in an engine crankcase. This is not surprising because this particular engine has issues with oil consumption, which essentially means that there is a "hole" be-

tween the area above cylinder (where the fuel enters) and the area below the cylinder (where the oil is) and this "hole" will allow oil to move upward and fuel to move downward. In reality the "hole" isn't probably an actual hole but rather an inability for the piston rings to properly seal the walls of the cylinder.



The TBN (Total Base Number) is what would be expected after one year of running the oil. Everything else looks pretty good. Until next year.

## Shop Talk...

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

Anything mechanical requires maintenance and anything mechanical will break down in time. The goal is to monitor the equipment and log inconsistences in an attempt to catch a break-down before it happens but also be prepared with replacement parts when it does.

I have had the opportunity over the last two decades to own, operate, maintain, or repair a wide variety of equipment ranging from a \$10 jig saw to an \$80,000 CNC mill. Each piece of equipment tells a story and by just listening to the sound that equipment makes can help clarify what the probable issue may be.

Fortunately, Amsoil has a technical support line that has provided me with answers to some of my most puzzling questions when working on equipment where the lubricants are no longer manufactured.

715-339-TECH (8324)

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# **Congratulations to NEW Amsoil Opportunists and Enthusiasts**

## **Congratulations:**

**New Dealer** 

Justis Figgemeier Owensville, MO

## **Congratulations:**

#### **New Catalog Customers**

Michael Saucier Lumberton, MS

Seth Hutchings Edmond, OK

Vector Jensik Las Vegas, NV

Johnny Long Crestview, FL

Jason Jacobs Flat Rock, NC

Fernando Pineiro Spotsylvania, VA

Jon Chamblin Bryan, TX

Mark Smith Yuba City, CA

Kenneth Berke Naperville, IL

## **Congratulations:**

**New Retail Locations** 

Brets Bikes LLC High Springs, FL

## **Congratulations:**

**New Commercial Account** 

Rocole & Sons LLC Omaha, NE

## **Congratulations:**

#### **New Preferred Customers**

Daniel Todd Keyport, NJ

Sath Vang Portland, OR

John Chism Lincoln, NE

Hunter Reeves Lewisburg, KY

Kurt Oliver Emmaus, PA

Derek Riese Waverly, NE

Allen Schroeder Eagle, NE