Olson Marketing
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Your Amsoil Information News Source

Product Highlight: Amsoil 25w-40 Synthetic-Blend Marine Engine Oil (WCM)

New AMSOIL 25W-40 Synthetic-Blend Marine Engine Oil (WCM) highlights improvements to the AMSOIL marine product line. Existing products receive fresh labels and packaging; their formulations and pricing remain unchanged.

AMSOIL 25W-40 Synthetic-Blend Marine Engine Oil is formulated specifically for Mercury* motors that encourage the use of synthetic-blend oil. Mercury owner's manuals actually discourage the use of full-synthetic oil. Since Mercury is the market leader and most Mercury owners won't consider straying from these guidelines, 25W-40 Synthetic-Blend Marine Engine Oil was developed to help Dealers reach these customers and grow sales. It presents another opportunity for you to earn sales where no opportunity existed before.

New Bypass Systems

New Single-Remote Bypass Filter systems are now available for Ford* 6.0/6.4L and GM* 6.6L applications. The systems include all components necessary for installation (including parts, hose, Ea® Bypass Oil Filter [EaBP90] and installation instructions), providing increased convenience and value for customers and increased commissions for Dealers.

What's inside?

Congratulations:

New Preferred Customers
Hans Rohrbaugh
Steinauer, NE

Eric Schindler
Lincoln, NE

New Catalog Customer
Steve Donahoo
Lincoln, NE

Dealer Contact

Lincoln
Don & Peg Olson
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Oil Analysis

Signature Series 5W-20 Synthetic Motor Oil

New Oil Sample versus 2001 Ford F150 with 12 months of service

	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						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	Phosphorous	Zinc
NL	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

The above chart is an oil analysis comparison for my 2001 Ford F150.

Sample # NL is the baseline numbers for Amsoil Signature Series 5w-20 Syntehthic Motor Oil.

Sample #1 is the oil analysis numbers taken in June 2015 with a lube time of 12 months and 8200 miles.

Sample #2 is the oil analysis numbers taken this June 2016 with a lube time of 12 months and 6000 miles.

The oil analysis revealed several areas of irregularity. Under the category of Wear Metals, it was noted that the oil analysis revealed 2 ppm of Nickel, which still fell within the "Normal" range. Nickle can be attributed to valve stems, valve guides, ring inserts on pistons, cylinder coating, hydraulic/compressor bearing, gears, cylinders and is commonly found alloyed with iron. Now, although the Nickle result were identified as "minor" and iron results also were in the normal range, this year's oil analysis was taken with 6000 miles on the oil whereas last year's sample had less Nickle yet had an additional 2200 miles on the oil. If next year the results indicate an increase in Nickle, it may be worth getting checked out.

Another area of irregularity noted by Oil Analysis was Boron. Boron is a super anti-wear element in its ability at wear reduction. The baseline sample shown 212 ppm of Boron which appears to have been depleted down to 36 ppm. Boron is identified as both an Additive and Contaminant. Boron is an additive for both coolants and oil. If coolant is leaking into the sump, the coolant (and boron element) is contaminating the oil which will elevate the boron level. If this were the case, you would also notice elevated levels of sodium, potassium, silicon, and phosphorous, as these are all elements found in traditional ethylene glycol coolants. What I have yet researched is if Amsoil's Propylene Glycol Antifreeze & Coolant has the same, or similar, elemental properties as traditional ethylene glycol coolants. Regardless, it doesn't matter in my case because my boron level is significantly below the baseline sample numbers that are shown in Sample # NL.

If the boron value is significantly reduced, as in my sample, research indicates that boron will settle out of suspension and form a sludge at the bottom of the sump. All the more reason to ensure that when the oil sample is originally taken, the engine should have been running for several minutes to "stir up the oil" and ensure that all elements are "mixed up" to give you an accurate measurement of what elements are actively flowing through your system and which ones have settled out of suspension.

Given that both Sample #1 and #2 have similar boron levels and the boron levels originally began at 212, it is evident that after 12 months of service the boron levels have been depleted (our settled out of suspension) down to a level of 17%. In other words, I "loose" about 7% or 15 ppm of boron each month I drive my vehicle. Given that there is 17% "left". I could theoretically drive an additional two months on this oil based upon theses values and my rudimentary calculations.

Oil Analysis...continued

	Sample Information							Contaminants			Fluid Properties					
Sample #	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 Number mg KOH/g	Oxidation abs/cm	Nitration abs/0.1 mm
NL	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

Taking a look at the physical characteristics and properties portion of my oil analysis there are two areas that have been highlighted, viscosity at 100 degrees Celsius and Total Base Number.

Comments on my oil analysis report noted that the viscosity is "SLIGHTLY HIGH", but still fell within the "Normal" category. It was suggested that causes may include contamination, oxidation, incorrectly identified viscosity grade, or added a different viscosity grade to the component. I know for a fact that I have not incorrectly identified the viscosity graded and that I have not added a different viscosity grade to the component. This leaves contamination or oxidation. Given that there is a slight increase in both contamination elements and oxidation values, it is justifiable for the Viscosity to be affected slightly.

The big concern that was noted was with the Total Base Number. As I briefly discussed in last month's newsletter, the Total Base Number (TBN) is your oil's ability to neutralize contaminants and acidic materials. It is a measure of (alkaline) additives in the oil. Higher TBN oils are able to neutralize a greater amount of acidic materials, which results in improved protection against corrosive reactions and longer oil life.

The baseline sample of Amsoil's Signature Series 5-20 Synthetic Motor Oil is 11.0. After 12 months of service the TBN was depleted down to 2.35. This means that roughly 79% of the additive package's ability to work effective in my engine has been eliminated. In other words, every month I drive my vehicle my oil's TBN drops 6.6% or .73 mg KOH/g. Given that my current level (at the time of sampling) was 2.35, I could theoretically drive an additional 3 months on this oil.

All other levels and test results were just fine. What this tells me is that my only possible concern for the future is the level of Nickle and where that may be coming from. Next year I plan on doing another oil analysis and compare my results again to the previous years.

This process also verifies Amsoil's claims that their Signature Series oil can last for 12 months of service. The numbers actually show that I can technically extend my oil change service beyond 12 months. However, it is not recommended by myself or Amsoil.

Oil Analysis Sampling Procedures

Shop Talk...
with Jon Olson

Well...summer has definitely arrived. It is hot outside. If you are a frequent reader of this newsletter you probably know that I teach Industrial Arts courses at the high school level during the school year. I have taught in all areas; automotive, woodworking, drafting/engineering, construction trades, small engines, and even a few metalworking classes. One thing I can say for sure is that without proper preventative maintenance and use of quality products, equipment failure is frequent and expensive.

During the summer months I do various construction projects and much in the same, proper preventative maintenance of my equipment is essential to ensuring that I am as efficient and cost effective as possible. Although construction is just a hobby. I'd rather make money then spend it on fixing stuff.

Dealer's Zone

By Don Olson ZO#4901

Dealers--Important!!! Read below and help to update your Preferred Customer Email addresses.

Preferred Customers you can ensure your Email address is correct in the AMSOIL database!

Preferred Customers who do not have valid Email addresses on file with AMSOIL, or who have their sponsoring Dealer's Email address on their files, will NOT receive the exclusive email promotions that are now part of the AMSOIL P.C. Program.

Please ensure your Email address is up to date with AMSOIL. Send an Email to update your PC Email to: update@amsoil.com Ensure also, that you include your ZO member number. If in doubt call me at 402 489-3930 and I will tell you what is on file at AMSOIL. (If you have been receiving our newsletter at your Email, your correct Email should be on file with AMSOIL.) Or call AMSOIL at 1-800-777-7094 (M-F, 7-7 Central Time).

Don't miss out on these limited-time promotional offers.

The last offer was $4.95 flat shipping on PC orders of $50.00 or more. (June 29 to July 5, 2016)

Preferred Customers, remember that any referral you make to your dealer will net you 500 points (=$10) on a future purchase from AMSOIL after the referral registers and makes a purchase (of $50 or more). Talk to your dealer for specific details. No limit to the number of referrals you give to your dealer (500 points for each one).

Deck Project June 2016

MyAMSOILGarage™

Free vehicle maintenance software.

Stores maintenance info for all your vehicles; Delivers product recommendations; Tracks oil and filter changes; Emails maintenance reminders

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HERE