A new, low-cost oil analysis option offers great value for Dealers.

Dan Peterson | VICE PRESIDENT, TECHNICAL DEVELOPMENT

In order to provide a cost-effective option, Oil Analyzers Inc. (OAI) has launched a new Oil Analyzers Value Kit (KIT14) that focuses on the most critical used-oil analysis tests. It provides less information than traditional kits, but more focus on the areas of most importance to our customers, and it effectively reveals whether the oil is suitable for continued use.

The new used-oil analysis kit focuses on oil thickness, corrosive wear potential, wear metals and remaining oil additive components. These four indicators give outstanding insight into the health of the lubricating fluid and the potential for it to keep the equipment well-lubricated and running smoothly. These areas were chosen because they correlate with the reasons for almost all engine lubricant-related failures:

1. Lack of oil (not really the lubricant's fault, but it is a leading cause of failure)
2. Oil is too thin to effectively lubricate
3. Oil is too thick to effectively lubricate
4. Oil is overcome with acids and it leads to corrosive wear

Oil thickness (viscosity) at 100° F is a common design measure for lubricants. The most important property of lubricants is to provide separation of metal surfaces. If oil becomes excessively thin, it can't keep surfaces separated adequately, resulting in faster wear or catastrophic damage as metal surfaces weld together and tear apart. On the other hand, if oil becomes too thick, it can't be pumped to critical areas fast enough, resulting in failure due to lack of oil.

The most recognizable sign of lubricant breakdown is excessively thick oil, more commonly called sludge. Time, temperature and chemical contaminants all contribute to drive the reactions that thicken oil and lead to sludge development. When oil first starts to degrade, it shows up in the oil thickness (viscosity) test. As this reaction continues, oil becomes increasingly thicker, and finally ends up a sludgy mess. With oil analysis, it is easy to see when a lubricant nears the end of its useful life.

Acid development is the second area of focus in the new report. Just like when you go too heavy on the Italian sausage and need some antacid before bedtime, your engine is being fed a constant stream of acids from combustion gases and acids that are produced when materials in the oil break down. Antacid (detergent) is built into the engine oil to neutralize these acids, but there is only so much available. When it runs out, you get an accumulation of acids that attack metal surfaces, resulting in corroded surfaces that break up quickly when stressed. This is measured with a test called TBN and TAN. TBN is total base number and measures the acid-fighting capability left in the oil. The higher the number, the more you have left. TAN is total acid number. This test is used primarily with lubricants that contain little detergent. TAN is typically run on hydraulic or compressor fluids.

The last two areas are related because they are measured on the same machine, but they represent two different areas. Oil testing labs measure the types and amounts of different materials in oil. Some of these materials are beneficial components of the oil additive system, and others are wear metals from the engine or contaminants. The lab needs to know which oil you are testing to plug in the expected amounts of beneficial oil additives for comparison. These materials (e.g., calcium/zinc) need to stay in the oil so it continues to provide good protection. On the other hand, there is always some level of wear, so you always see some wear metals (e.g., iron, aluminum). It is important to watch the rate at which these build in the oil so that something causing the level to spike upward is detected and corrected.

With the new test, there are four key areas that can provide insight and talking points for that difficult-to-convince customer. Just remember, oil thickness, corrosion potential, wear metals and beneficial oil additives and you can explain oil analysis to anyone. These key areas will be represented by viscosity, TBN/TAN and ICP analysis (wear and additive metal count) in your used-oil analysis report. And if you happen to get stuck or run into a tough one, we are always here to help in Tech Services. ■

From the President's Desk

There is nothing profound in saying that success in any profession comes most readily to those who work the hardest at building their knowledge base and strengthening their expertise. It applies to AMSOIL Dealers, and it applies more acutely today than it ever has.

The landscape in the industry is changing. Cars, trucks, powersports equipment and other types of lubricated applications are becoming much more sophisticated. Requirements for each are pushing the boundaries of lubricant performance, and each is demanding more specialized needs. Changes in diesel engine design, for example, driven in large part by environmental mandates, have forced motor oil manufacturers to develop products that address a whole new set of challenges. Dealers would be well-advised to understand these challenges and how, exactly, our products address the "hurt" that diesel owners feel. Dealers can bring value to the diesel market, not just with the products they offer, but with the education they provide.

The same applies to the European car market. Many installers, and certainly most retailers, have limited understanding of the reasons for differentiating motor oils in this market based on the varying levels of the sulfated ash, phosphorus and sulfur (SAPS) content in the oil. Opportunity exists for Dealers to help installers increase sales by educating them on the issue. Installers would gain additional trust among customers and sell a lot more oil if they knew to tell their customers that because the vehicle emissions systems and aftertreatment devices in their cars are sensitive to the SAPS content of oil, it is important to use an oil that meets the proper specification to ensure optimum engine protection and performance.

With the appropriate level of expertise, Dealers could make substantial inroads in other markets, as well. In fact, all customers, regardless of the vehicle, equipment or market, are more receptive to discuss AMSOIL products if the Dealer can establish trust through the expertise he or she provides.

With that said, I strongly encourage all Dealers who are seriously committed to growing their AMSOIL businesses to attend AMSOIL University. AMSOIL U, without question, is the most intense, relevant and comprehensive training AMSOIL has ever offered. It rivals the training that any company, large or small, offers, and it is structured for Dealers at all levels of experience. I have never spoken to an AMSOIL University graduate who was not totally satisfied by the depth of the course material and the overall University experience.

Here are some quotes from past AMSOIL Universities. First from Tom and Jennifer Worth:

AMSOIL University was absolutely incredible again this year. We are still sorting out all the information in our minds that we received and probably will be for quite some time. This is my fourth AMSOIL U and as usual I cannot believe all the new information.

Craig and Brenda Hamrick had this to say:

We would like to thank AMSOIL for pulling out all of the stops and putting on the best AMSOIL U that we have been to. Each and every one at AMSOIL corporate worked very hard to provide us with the best training that any Dealer could ever get.

Here's a quote from Scott Plummer:

No one will contest that the most knowledgeable and competent Dealers will do more business than those who invest nothing in their own education and in improving their skills in presenting the value of AMSOIL products.

AMSOIL University is by far the most important investment an AMSOIL Dealer can make in his or her own self-improvement program for building an AMSOIL business.

And here's one from Kyle and Diann Preston:

Every year I think it can't get any better and every year it does. After spending 35 years in the oil and chemical industries, I can't imagine any other oil company spending the resources they do to help the Dealers be successful.

It is clear, to be sure, that attending AMSOIL University is the single most effective method to help grow an AMSOIL business. I hope to see you there.

A.J. "Al" Amatuzio
President and CEO, AMSOIL INC.