Pushing the boundaries of lubrication science means breaking a few parts.

There are an awful lot of broken parts in the AMSOIL mechanical lab.

Dan Peterson | VICE PRESIDENT, TECHNICAL DEVELOPMENT

When I ask people where they would most like to spend an afternoon during a fall day in Wisconsin, the most common answer is "watching a Packers game at Lambeau Field!" I wonder why they seem to come back so quickly with their answer. The Packers must be doing something right to bring out that type of response. Is it the high expectations? Innovative game plans? Wanting to be part of a winning tradition? I have been to several games at the old Lambeau Field and a few after the renovation, and although I have enjoyed seeing games in this storied home of the Green Bay Packers, I would rather spend a fall afternoon experiencing high expectations, innovative game plans and being part of a winning tradition in the AMSOIL mechanical lab!

OK, Packers games are fun and I know I just opened myself up to multiple letters from skeptical Packers fans, but I am going to make my case anyway. All kidding aside, I really do have a lot of fun seeing how the formulation work we do impacts engine performance, wear protection and durability. The mechanical lab allows us to develop new formulations and immediately see how they impact wear protection and cleanliness in all types of engine platforms.

The investment in the AMSOIL mechanical laboratory was made for one reason: to make AMSOIL synthetic lubricants better. And then make them better again. And again. And repeat. This continuous improvement process requires innovation and perseverance. Sometimes progress is made in small steps, like a short run for a first down.

Other times, progress comes via a long completion downfield. And there are also times when we fumble the ball in the form of experiments that go backward instead of forward. We often learn more from failed experiments than we do from successes. And the more we push the boundaries of what is possible, the more comfortable we will have to be with temporarily losing yardage prior to putting together a touchdown run.

COMPETITOR

AMSOIL Formula 4-Stroke®

The pistons above were used in a proprietary AMSOIL severe-service four-stroke small-engine test in December 2014. The test, which runs 125 hours at 260°F, put AMSOIL Formula 4-Stroke Small Engine Oil up against a specialized competitive oil designed for commercial applications.

The AMSOIL mechanical laboratory was designed to be very flexible. Many third-party industry laboratories are designed to develop and run standardized tests used to differentiate between lubricants and fuel additives that fail and those that pass the minimum requirements of the test. Much work is spent on design of the test and then on repeatability and reproducibility. We use some pieces of industry-standard tests in the AMSOIL mechanical lab, but for the most part, we are interested in how AMSOIL products perform in more challenging environments. This allows us to pinpoint the soft spot in our offensive line and find ways to close the gap in performance. Pushing the limits exposes weaknesses, and you can't improve unless you identify what is failing under extreme conditions.

Lastly, we are striving to walk the same path of excellence and tradition set by all the AMSOIL personnel who worked hard on innovative lubricant development through the years. Engine validation that used to take a long time to complete with outside entities can now be turned in as little as a week in the mechanical lab. Our chemists are moving forward with concepts that were almost impossible to validate two short years ago. Now, these concepts are quickly becoming new and upgraded AMSOIL products. Not exactly an Aaron Rodgers fourth-quarter comeback, but it is based on the same attributes: high expectations, innovation and a tradition of excellence. ■

From the President's Desk

This business we are in is much more complicated than it used to be. AMSOIL began with a single product, and with that product alone our Dealers stormed the market. One product established the AMSOIL brand and launched hundreds of successful AMSOIL Dealerships. There was no application confusion, and the segmentation of products was limited. Virtually every four-stroke engine had an appetite for our original 10W-40.

Our next product, AMSOIL 2-Cycle Oil, satisfied the demands of all two-stroke motors. Again, straightforward and uncomplicated. One oil, all applications. The creation of that product, by the way, is symbolic of the AMSOIL philosophy. Many of you may recall the story:

I was working with a highly specialized and competent additive supplier, and I knew very well that the additive used would be critical to wear protection. I would start with a pure synthetic base oil, but it would be the additive that would carry the load.

As we began formulating, the supplier recommended the additive percentage that should be used. I knew, at that percentage, it would be a good oil, but I wanted to push the limits.

"How much higher can I go?" I asked.

I could tell it was the first time he had ever been asked that question. "Higher?" he said. "Why would you want to do that? It's very expensive."

"Because I want to make a better oil," I said.

A week or two later the supplier got back to me with the maximum percentage that could be used. So that's where I took it. We had the oil tested at Southwest Research at a mix ratio of 300:1. The best anyone else was doing at that time was maybe 50:1. At 300:1 we passed with flying colors. We introduced the product at 100:1 because consumers would not have believed in a 300:1 mix ratio.

So, with just two products, our 10W-40 Motor Oil and 100:1 2-Cycle Oil, we had the gasoline-powered applications covered, and our Dealers continued their march.

We then addressed additional applications with the introduction of gear lube, diesel oil, hydraulic oil and transmission fluid. The objective, of course, was to provide opportunity for our Dealers to penetrate those primary markets where there was money to be made. The products were essentially universal and the approach to market was basic, or at the very least, uncomplicated.

It's different today. Vehicles, components and all types of motorized equipment are much more diversified. In terms of lubrication, one size doesn't necessarily fit all. Many vehicle and equipment manufacturers are calling for specialized oils, and AMSOIL is responding with precise formulations that meet the ever-increasing specifications and market demands. Consumers expect the exact products their manuals are calling for, and our Dealers are positioned to give them what they want.

Our European Car Formula oils, for example, were designed to meet the demands specific to the allowable sulfated ash, phosphorus and sulfur content across the full range of European vehicles. Transmission applications have also become segmented, and we have formulated products specific to those. The same goes for the diesel and passenger car markets: precise formulations uniquely specific to the expanding viscosity and specification requirements.

You will see in this issue of your *Magazine* some new products that are dialed in to specific markets, and each is positioned to open doors for Dealers. The addition of a 5W-50 to our Signature Series line gives access to the Ford Mustang market where 5W-50 oils are called for under the Ford WSS-M2C931-C performance specification. Mustang owners are passionate about performance, and Dealers are advised to connect with them through car clubs, car shows and Internet sites. Independent oil-change facilities, repair shops and car dealerships that service Mustangs are also potential targets for this outstanding new oil.

The addition of our new dirt bike family of oils creates even more opportunity. You can read for yourself how our technicians developed a unique test procedure that allowed us to zero in on a feature that's critical to dirt bike riders and overlooked by other oil manufacturers. This feature alone should grab the attention of riders, dealerships and powersports stores.

Take advantage.

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