AMSOIL MAGAZINE

▸ PREFERRED CUSTOMER EDITION

JANUARY 2013

TEAM AMSOIL SWEEPS

Page 12

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JANUARY 2013

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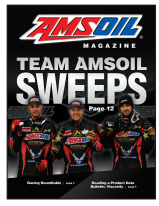


THE COVER

Team AMSOIL riders sweep both Pro Open podiums and take AMSOIL DOMINATOR® championship at AMSOIL Duluth National.

From the President's Desk

Many Dealers and Preferred Customers may not know that when I first attempted to bring the industry's first synthetic motor oil to market, I took the conventional distribution approach. I had some success in getting the product on store shelves, but the AMSOIL brand wasn't known, consumers didn't understand the benefits, and because of the higher price, it didn't sell well. It became clear early on that I had to adjust my course.

In 1973 I made the move to a direct sales distribution model. AMSOIL Dealers could now meet face-to-face with consumers, take the time to explain the benefits and convey the value the product delivered. Sales took off and the future looked bright.

That's not to say we didn't have issues. Beyond the hurdle we encountered from being the only synthetic oil in a conventional motor oil world and the obstacle we faced with our 25,000-mile oil drain recommendation in an industry controlled by a 3,000-mile oil change mindset, was the negativity that crept into the multi-level-marketing industry. Unscrupulous companies had penetrated the industry with their get-rich-quick schemes. These fly-by-nighters took advantage of well-meaning individuals and in all cases cast a dark shadow on legitimate MLM companies. AMSOIL had to escape this shadow. And we did. People recognized the AMSOIL business opportunity for what it was – an opportunity, through a committed effort, to build solid incomes and secure futures.

Although most of the negativity associated with multi-level-marketing has now vanished, a remnant remains. We continue to rise above it. Our 40-year track record speaks for itself. AMSOIL is truly unique in the opportunity we provide.

It all starts with product. No company, regardless of distribution model, devotes more focus on product quality than AMSOIL does. Our Dealers, from the very beginning, have worked their businesses from a position of strength. I am not saying the products sell themselves, but when you consistently outperform the competition your reputation shines through. No one in this industry can dispute that AMSOIL products deliver as advertised. Consumers agree.

Those Preferred Customers, in particular, who have considered beginning an AMSOIL business should be aware that the programs AMSOIL offers its Dealers also set us apart. Unlike other MLM opportunities, we provide options that Dealers can tailor their businesses to. Many Dealers begin by selling the products directly to consumers through the Personal Retail Program. Oftentimes, this happens after experiencing the product benefits for themselves. Some Dealers are content to limit their activity to this one-on-one sales approach. They benefit from wholesale pricing, while earning some extra income.

As Dealers gain experience and build their customer bases, many begin to acquire additional customers through the Catalog Program. These customers are normally not located near the Dealer and order product directly from AMSOIL. AMSOIL ships the product to the customer, and the Dealer earns the retail profits and commissions.

The Commercial Program is designed for Dealers who have gained a higher degree of product knowledge and technical expertise. Commercial sales are made to those customers who use the products in their equipment. Commercial accounts can consist of a single delivery truck to a full fleet of vehicles or anything in between. Dealers who, for example, are familiar with the construction, landscape or trucking industries are often drawn to this program.

Other Dealers are drawn to the Retail-on-the-Shelf Program. This program provides Dealers the opportunity to earn income in the traditional retail market. Dealers work with stores, installers and all types of retail outlets that sell AMSOIL products to their customers.

While many Dealers have gained skill in working all of these programs, the most successful Dealers are always diligent in their efforts to sponsor others. It's by introducing people to the AMSOIL business opportunity and providing support and guidance that the largest, most profitable and most secure Dealerships are built. Sponsoring is, and always will be, the foundation of an AMSOIL business.

And unlike the unscrupulous multi-level-marketing programs of the past, there are no limits to what an individual can achieve with AMSOIL. It very well may be that the person who begins his or her AMSOIL business tomorrow will someday earn the largest AMSOIL income ever. That, without question, is possible.

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

DO YOU KNOW THE IMPORTANCE OF GEAR OIL?

Today's differentials are subject to severe operating conditions, encountering more stress and heat than ever before. Most pickup trucks, SUVs and vans operate in severe service conditions including towing, hauling, steep-hill driving and frequent stop-and-go driving environments. Gear oils are challenged to provide adequate wear protection, while maximizing fuel efficiency.

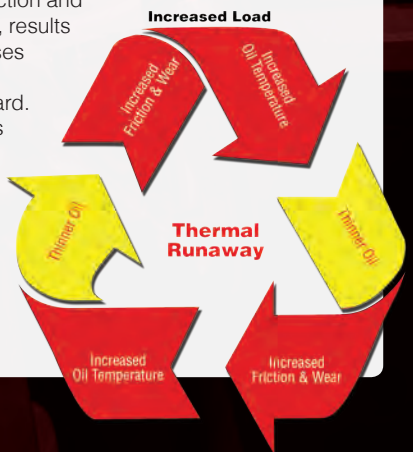
Approximately 22 components make up the average differential. In order to operate efficiently they require high-quality, clean gear oil, yet differential maintenance often gets overlooked by motorists. While the first gear oil change should be performed after the first few-thousand-mile break-in, most do not think to change the gear oil until failure occurs.

AMSOIL gear lubes are multi-functional and formulated for the applications customers use every day.

Follow the vehicle owner's manual recommendations for initial (break-in) gear oil change. Thereafter, consult the AMSOIL Product Recommendation and Drain Interval Chart (G1490) for AMSOIL synthetic gear lube service life in differentials.

THE DANGERS OF THERMAL RUNAWAY

The extreme pressures and temperatures generated by modern vehicles increase stress on gear lubricants and can lead to a serious condition known as thermal runaway. As temperatures in the differential climb upward, gear lubricants lose viscosity and load-carrying capacity. When extreme loads break the lubricant film, metal-to-metal contact occurs, increasing friction and heat. This increased friction and heat, in turn, results in further viscosity loss, which further increases friction and heat. As heat continues to spiral upward, viscosity continues to spiral downward. Thermal runaway is a vicious cycle that leads to irreparable equipment damage from extreme wear, and ultimately catastrophic gear and bearing failure.



AMSOIL Severe Gear® Synthetic Gear Lube demonstrates superior viscosity index (VI) and shear stability properties, and it is better-equipped to protect equipment against the devastating effects of thermal runaway.

AMSOIL®
The First in Synthetics®

Information is power.
Get informed, stay informed.

Racing Roundtab

Three Industry Innovators Discuss their Relationship with AMSOIL

The First in Synthetics®

Research through racing is a vital component in AMSOIL product development and validation. AMSOIL synthetic lubricant technology is fine-tuned in the vehicles of corporately sponsored racers Scott Douglas, Erik Buell, Steve Scheuring and others, developing into superior performance and protection for all AMSOIL users. Not only does AMSOIL provide lubricants to these racers, it provides cutting-edge technical expertise.

All three racing icons recently visited AMSOIL corporate headquarters for a lengthy discussion on the many ways AMSOIL and its pioneering technology help them dominate on the track. In the first of a two-part series, *AMSOIL Magazine* provides excerpts of the discussion.

On the effect AMSOIL has had on each of their racing programs:

Buell: We're the only American motorcycle competing in the [Pro AMA SuperBike] series, and we believe in American technology. The lifeblood of any engine is the oil, and when you're pushing engines in racing, especially stock racing engines with a really high power level, you've got to have the best stuff in them. And it's really cool to have the best synthetic lubricants in the world come from America, and from Wisconsin. We've only been with AMSOIL two years, but AMSOIL has helped us solve problems with the engines, and we've pushed them further. So we're not only finding good oil, but really good research people. "Racing is Research" is real.

Douglas: The quality of AMSOIL lubricants is what draws us all together. We all want to win, we all want to be top on the box, and AMSOIL helps us achieve that.

Scheuring: We started with AMSOIL back in 1997 and have had great success year after year, winning the X Games, winning championships and winning races. We constantly work together with AMSOIL to make the products better and document that AMSOIL lubricants are truly the best.

Steve Scheuring, Scott Douglas, AMSOIL Race Program Manager Jeremy Meyer and Erik Buell talk racing at AMSOIL corporate headquarters.

How AMSOIL technical expertise helped Erik Buell avoid redesigning the crankshaft in the EBR 1190RS motorcycle:

Buell: I wanted a two-cylinder engine because it has a very smooth power band coming out of the corner. But to get a two-cylinder engine up to the power level of a four-cylinder engine, we had to rev it very high, so the loads on the crankshaft are quite intense. V-twins are notoriously hard on crankshafts because that big, long stroke of the two cylinders just flexes the crankshaft around. We were seeing bearing issues and that's one of the places where AMSOIL came in to help us. Some of the mechanical engineering people said we needed to redesign the crankshaft because it obviously had a problem. But the research and development people at AMSOIL showed us that is was likely an oil problem, and they were correct – that was the issue. So instead of having to redesign the engine, I just had to use a better quality oil.

On Scott Douglas' ability to modify his racing engine to generate increased horsepower due to his trust in AMSOIL synthetic lubricants:

The father of the American superbike, **Erik Buell**, founded Erik Buell Racing (EBR) on the principles of hard work and American innovation. The team captured four podium finishes in the ultra-competitive AMA Pro SuperBike series last season.

Legendary off-road racer **Scott Douglas** competes in the Pro 4x4 class in the Traxxas TORC Series presented by AMSOIL. The 11-time World Champion finished the 2012 season in second-place overall.

AMSOIL/Scheuring Speed Sports owner **Steve Scheuring** has been a driving force behind the meteoric rise of professional snocross since the 1990s. His stable of decorated riders is currently dominating the 2012-13 AMSOIL Championship Snocross season.

Douglas: Every year we learn more and more about how far we can push the truck. It's really nice to have a relationship with a sponsor like AMSOIL that not only provides a financial relationship, but engineering support. What we're doing now is taking it to the next level. We're working with the engineers at AMSOIL to find out how far we can push this truck. How small of an oil cooler can we put on the truck? Getting those pounds off the truck and getting that rotating mass working a little bit better – running smaller bearings in the engine – is part of finding out how far we can push it. We're taking some of the engineering help from AMSOIL and relaying it over to our engine builder. This year we gained 12 horsepower by putting a little bit smaller main bearings and rod bearings in the engine. We weren't sure if it was going to work, but the bearings have been perfect.

On the edge AMSOIL lubricants provide vehicles operating in extreme conditions:

Scheuring: We all race in such extreme environments. In our sport in general, last year we raced in Montreal, Quebec at -27°F, and then we raced in Lake Geneva, Wis. in the spring at 82°, so we had a 130° temperature change in three months, and we ran the same AMSOIL DOMINATOR® Synthetic 2-Cycle Oil (TDR) mixed 50:1, while most manufacturers recommend 32:1. It's bulletproof. It allows better action in our motor because we've got more fuel going in there. It gives us that extra edge.

Douglas: There are times we'll have a mud race and the whole [truck] will get packed. It's hardly getting any air, the gauges are all pegged and the throttle is still pegged, too, right to the floor, and we're running forward. That's one of the reasons I'm so successful, I think, in a lot of those mud races and everything, where the conditions are just outrageous. The motor's still revving, it's still turning, but it's not getting any of that cooling capacity to it. That's where Severe Gear®, DOMINATOR, Torque-Drive® and everything we run comes into play – in those severe conditions.

On AMSOIL synthetic technology improving clutch performance in the EBR 1190RS.

Buell: Other twins out there, racing bikes, often have dry clutches. Because the twin has so much torque in the clutch, it makes the clutch slip. But we run a wet clutch, so it's actually running in oil. How do you get an oil that lubricates a motor and yet doesn't cause the clutch to slip? Once again, AMSOIL was able to solve that problem with just a 50-weight product [DOMINATOR 15W-50 Synthetic Racing Oil (RD50)]. Because it's a synthetic, it's still light and thin, but it has the lubrication properties of a 50-weight. So we were able to get both the crankshaft life and the ability of the slipper clutch to work well. Both the pieces have lasted. The crankshafts last the entire season and clutch plates last four or five race weekends, which is just crazy good.

On the reasons for developing and maintaining a relationship with AMSOIL:

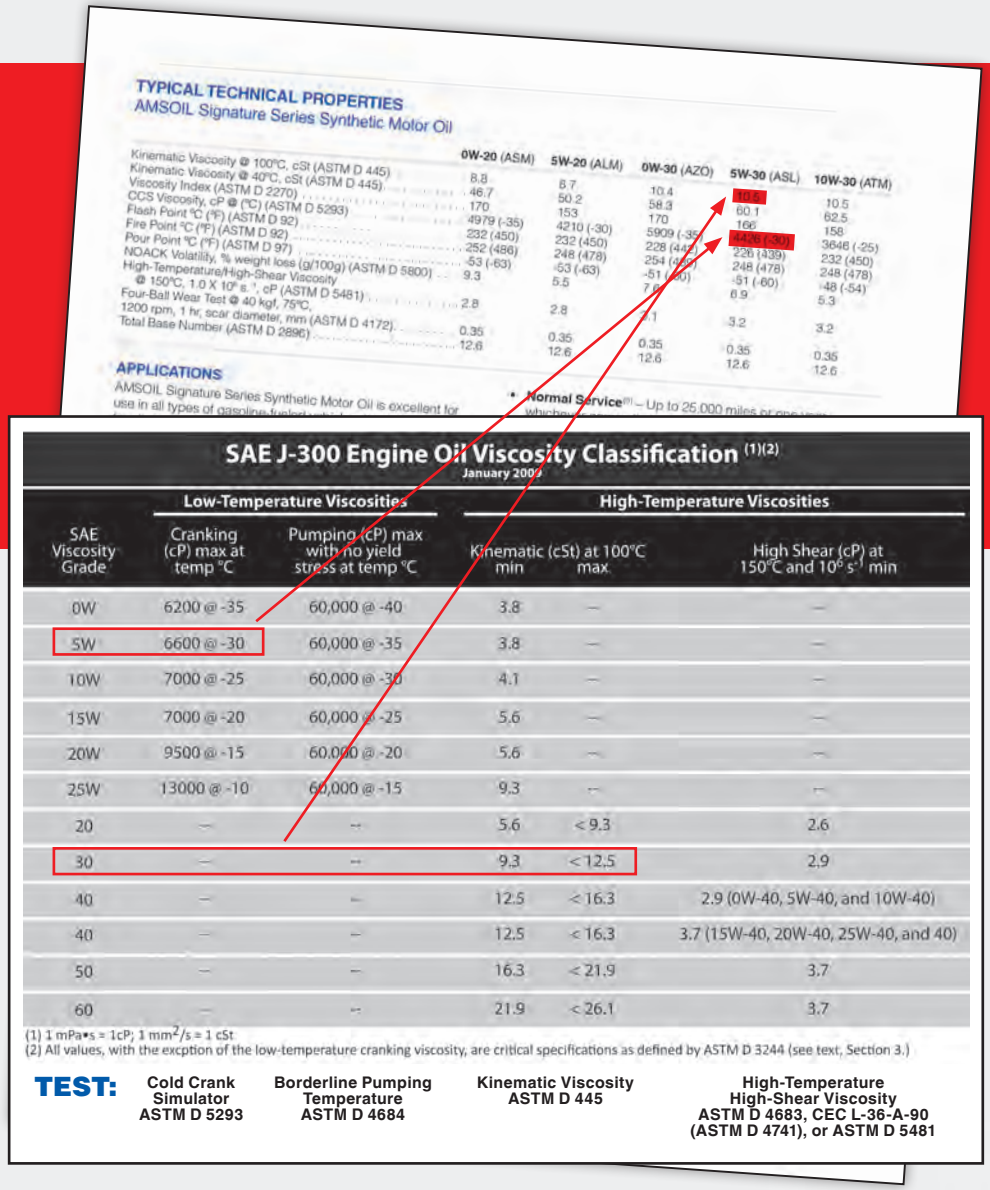
Scheuring: AMSOIL is first-class from the top to the bottom. People are friendly, they're helpful, they're knowledgeable and you see the quality day by day. That gives you such a feeling of confidence when we're putting these products in our race vehicles and our day-to-day vehicles.

Douglas: To add to that, the dedication to the perfection of the product is what's really inviting as well because a lot of companies make products, but their marketing is the big thing; they don't focus as much on the products themselves, whereas at AMSOIL the dedication to the perfection of the product is number one, marketing second. AMSOIL has even perfected its own formulas to make a product that's already superior even better. There's no doubt ever in my mind that when we put AMSOIL products in our vehicles, trusting the lubricant is ever an issue. I just never worry about it.

Buell: We had to come up and compete with giant corporations – Suzuki, Yamaha, BMW – with this little company out of Wisconsin [Erik Buell Racing]. We knew we had a good base and a great engine, but we needed help. We needed people to work with us and advise us on how to push the engine up to that level. We're finishing on the podium. It's an exciting story, and it wouldn't have happened without the support of AMSOIL.

The second part of this discussion will appear in the February edition of AMSOIL Magazine. *Follow Scott Douglas, Scheuring Speed Sports, Erik Buell Racing and other Team AMSOIL racers on amsoilracing.com.*

Reading a Product Data Bulletin: **Viscosity**



TYPICAL TECHNICAL PROPERTIES
AMSOIL Signature Series Synthetic Motor Oil

	0W-20 (ASM)	5W-20 (ALM)	0W-30 (AZO)	5W-30 (ASL)	10W-30 (ATM)
Kinematic Viscosity @ 100°C, cSt (ASTM D 445)	8.8	8.7	10.4	10.5	10.5
Kinematic Viscosity @ 40°C, cSt (ASTM D 445)	46.7	50.2	58.3	60.1	62.5
Viscosity Index (ASTM D 2270)	170	153	170	166	158
CCS Viscosity, cP @ (°C) (ASTM D 5293)	4979 (-35)	4210 (-30)	5909 (-35)	4336 (-30)	3646 (-25)
Flash Point °C (°F) (ASTM D 92)	232 (450)	232 (450)	228 (442)	226 (439)	232 (450)
Fire Point °C (°F) (ASTM D 92)	252 (486)	248 (478)	254 (489)	248 (478)	248 (478)
Pour Point °C (°F) (ASTM D 97)	-53 (-63)	-53 (-63)	-51 (-60)	-51 (-60)	-48 (-54)
NOACK Volatility, % weight loss (g/100g) (ASTM D 5800) @ 150°C, 1.0 X 10^6 s^{-1}, cP (ASTM D 5481)	9.3	5.5	7.6	6.9	5.3
High-Temperature/High-Shear Viscosity	2.8	2.8	3.1	3.2	3.2
Four-Ball Wear Test @ 40 kgf, 75°C, 1200 rpm, 1 hr, scar diameter, mm (ASTM D 4172)	0.35	0.35	0.35	0.35	0.35
Total Base Number (ASTM D 2896)	12.6	12.6	12.6	12.6	12.6

APPLICATIONS
AMSOIL Signature Series Synthetic Motor Oil is excellent for use in all types of gasoline/[illegible]

• **Normal Service**[1] – Up to 25,000 miles or one [illegible]

SAE J-300 Engine Oil Viscosity Classification (1)(2)
January 2009

SAE Viscosity Grade	Low-Temperature Viscosities: Cranking (cP) max at temp °C	Low-Temperature Viscosities: Pumping (cP) max with no yield stress at temp °C	High-Temperature Viscosities: Kinematic (cSt) at 100°C min	High-Temperature Viscosities: Kinematic (cSt) at 100°C max	High-Temperature Viscosities: High Shear (cP) at 150°C and 10^6 s^{-1} min
0W	6200 @ -35	60,000 @ -40	3.8	—	—
5W	6600 @ -30	60,000 @ -35	3.8	—	—
10W	7000 @ -25	60,000 @ -30	4.1	—	—
15W	7000 @ -20	60,000 @ -25	5.6	—	—
20W	9500 @ -15	60,000 @ -20	5.6	—	—
25W	13000 @ -10	60,000 @ -15	9.3	—	—
20	—	—	5.6	< 9.3	2.6
30	—	—	9.3	< 12.5	2.9
40	—	—	12.5	< 16.3	2.9 (0W-40, 5W-40, and 10W-40)
40	—	—	12.5	< 16.3	3.7 (15W-40, 20W-40, 25W-40, and 40)
50	—	—	16.3	< 21.9	3.7
60	—	—	21.9	< 26.1	3.7

(1) 1 mPa•s = 1cP; 1 mm^2/s = 1 cSt
(2) All values, with the exception of the low-temperature cranking viscosity, are critical specifications as defined by ASTM D 3244 (see text, Section 3.)

TEST:	Cold Crank Simulator ASTM D 5293	Borderline Pumping Temperature ASTM D 4684	Kinematic Viscosity ASTM D 445	High-Temperature High-Shear Viscosity ASTM D 4683, CEC L-36-A-90 (ASTM D 4741), or ASTM D 5481

A lubricant's viscosity and how it changes under different temperatures and operating conditions is one of the most important properties determining performance and protection. Accordingly, Kinematic viscosity is generally the first property listed on an AMSOIL product data bulletin.

Kinematic viscosity, measured using ASTM D 445 methodology, determines an SAE oil's high-temperature viscosity grade (for example, the "30" in 5W-30), while its Cold Crank Simulator (CCS) viscosity, measured using ASTM D 5293 methodology, determines its low-temperature grade (the "5W" in 5W-30).

Why Two Different Test Methods?

Viscosity can be viewed in two ways. Kinematic viscosity is defined by the lubricant's resistance to flow and shear due to gravity. To illustrate, imagine pouring two containers, one filled with water and the other with honey. The rate at which each fluid flows is governed by its Kinematic viscosity. Since the Kinematic viscosity of water is lower, it flows faster.

Dynamic (or absolute) viscosity, measured by the CCS test, is defined as the lubricant's resistance to flow as indicated by its measured resistance, best thought of as the amount of energy required to move an object, such as a metal rod, through the fluid. It takes less energy to stir water compared to honey because the dynamic/absolute viscosity of water is lower.

Each test method is designed to replicate a specific operating condition, allowing formulators and end-users to determine the lubricant's characteristics when in use. The CCS viscosity test evaluates the amount of energy it takes to start an engine at a specified cold temperature; the lower the viscosity grade, the lower the temperature at which the test is performed. The test assigns a value in centipoise (cP), used to determine the viscosity grade. Using Signature Series 5W-30 as an example, its viscosity at -30°C (-22°F) can be no greater than 6600 cP to receive a 5W grade (see chart). Lower values reflect lighter-viscosity oils.

The Kinematic viscosity test attempts to simulate viscosity at normal operating conditions for a passenger car/light truck. The test is performed at 100°C (212°F) and/or 40°C (104°F), depending on the grading system being used. The value at 100°C is used to determine the SAE viscosity grade. The test measures how long the oil takes to completely flow from a viscometer device heated to 100°C. The elapsed time in seconds is converted to centistokes (cSt). Lower values reflect lighter-viscosity oils.

Viscosity Index

The viscosity index (VI) of a lubricating fluid refers to how much the viscosity of the fluid changes due to temperature. A high VI indicates the fluid undergoes little viscosity change due to temperature fluctuations, while a low VI indicates a relatively large viscosity change. The Viscosity Index Test (ASTM D 2270) is based on the Kinematic viscosity of the fluid at 40°C (104°F) and 100°C (212°F). A fluid whose viscosity does not change much between these two temperatures will have a higher VI than a fluid whose viscosity change is greater. Viscosity index numbers above 95 are considered high. Fluids with a high VI provide more protection to critical components over a wide range of temperatures by maintaining fluid thickness and the necessary fluid barrier between parts. ■

Oil Additives Can Offset the Careful Balance of a Well-Formulated Motor Oil

An overabundance of anti-wear agents, for example, can lead to reduced resistance to corrosion.

Dan Peterson | VICE PRESIDENT, TECHNICAL DEVELOPMENT

I don't get up on my soapbox very often – partly because I have put on a few extra pounds and don't want to break the box, and partly because it's just not my personality. Not a lot of things really get to me, but when I come across something that does, you don't want to be with me in the car for a long drive. One of these things is engine oil additives. The last time I stopped by the local parts store to pick up a tool for a brake job on my Ford Fusion, I stood in the aisle for a full 10 minutes looking at the huge display of engine oil additives. I was not in a hurry, so I picked up a dozen or so and read the marketing claims.

Wow; it seems almost any internal engine problem in the world can be solved simply by using an engine oil additive. "Restores engine life, eliminates dry starts, eliminates engine noise, restores parts' surfaces AND compensates current wear!" Now I see why people buy all these oil additives. Too busy or just not interested in taking care of your vehicle? Just wait until you have a problem and then buy a solution at the local parts store and you are back in business. Our instant-gratification culture pushes us into believing in quick solutions. In reality, there are very few quick solutions that can correct years of neglect in any area of life, including your internal combustion engine. Very few, if any, engine oil additives solve engine issues overnight or somehow restore engines to their original condition. So how do you get the longest, trouble-free life out of your engine? Use a high-quality, trusted brand of synthetic motor oil regularly and don't add any engine oil additives. Formulating a motor oil to perform all the critical jobs required by your engine is a balancing act. You can't just focus on improving one property without testing and evaluating the impact on all critical oil properties. Many times, use of additives improves one property, but causes other properties to take a nosedive.

Formulating synthetic motor oils is a core strength developed over the past 40 years at AMSOIL, and it is not an easy task. Motor oils need to protect engines against abnormal wear, excessive varnish, sludge, rust and corrosion and damaging foam. Motor oils also need to remove heat, help meet fuel economy standards, keep engine seals from leaking and keep catalytic converters working effectively over their projected lives.

Many negative outcomes derived from using engine oil additives have been documented over the years, including accelerated corrosion, excess oil thickening in cold temperatures and increased deposit formation. Most of these negative outcomes are relatively complicated chemical interactions, but just like your family is interconnected, so is the chemistry in your motor oil. When you add Uncle Buck to your family for a week, you and the kids all have a lot more fun staying up late and listening to stories, but he upsets the family balance. The kids have black circles under their eyes from staying up too late, you argue with your spouse about a few choice new words the kids picked up and you have to clean up cigar butts all over the garage when he finally leaves. Seems fun at first, but a week-long visit proves having Uncle Buck live with you for good isn't such a good idea.

The chemicals in motor oils are all interconnected and work together like a family unit to provide all the important properties required to keep your engine operating well. Most motor oils are designed with a measured amount of wear protection and deposit control. The problem comes when you add a whole bunch of extra or new wear protection or deposit control, and it ends up creating corrosion or destroying cold-temperature properties. Motor oils that perform well have some Uncle Buck built in, but at an appropriate level that does not upset critical chemistry in other areas designed to keep your engine running smoothly over the long run.

If you want a more detailed explanation by industry experts, a recent Noria announcement outlined that "Aftermarket oil additives can backfire." In the book, "Practical Handbook of Machinery Lubrication," the following description is listed:

"Increasing the percentage of a certain additive may improve one property of an oil while at the same time degrade another. When the specified concentrations of additives become unbalanced, overall oil quality can be affected. Some additives compete with each other for the same space on a metal surface. If a high concentration of an anti-wear agent is added to the oil, the corrosion inhibitor may become less effective. The result may be an increase in corrosion-related problems."

It's a much fancier way of saying too much of your Uncle Buck is not good for your marriage. Next time you talk to someone who is contemplating using one of those flashy new engine oil additives, tell them about the importance of maintaining the critical balance in motor oil and what can happen when it becomes unbalanced. ■

Don't Overlook Transmission & Differential Maintenance

Although a vehicle's transmission and differential are just as important as the engine, motorists too often neglect these components until a mechanical failure arises. Switching from conventional fluids to AMSOIL synthetic transmission fluid and gear lube can help avoid costly breakdowns.

AMSOIL Multi-Vehicle Synthetic Automatic Transmission Fluid (ATF) & **Fuel Efficient Synthetic Automatic Transmission Fluid** (ATL) resist thermal breakdown and inhibit sludge and deposit formation for smooth shifts and quick response times, even in severe operating conditions. They flow readily in cold temperatures for fast circulation and protection, and their synthetic formulations help maximize fuel efficiency while delivering excellent performance and protection.

AMSOIL Severe Gear Synthetic Gear Lube (SVG, SVT, SVO) is specifically engineered for high-demand applications, including trailer towing, heavy hauling, 4x4 off-road driving, commercial use and racing. Its superior lube film strength combined with extra additives protects gears and bearings from scoring and wear. Severe Gear resists high heat and possesses excellent cold-flow properties, outperforming all conventional gear oils. It is recommended for all types of vehicles such as turbo-diesel pickups, SUVs, autos, trucks, heavy equipment and motor homes, and it is compatible with most limited-slip differentials.

Demanding Operating Conditions

Not long ago, the standard automatic transmission featured just four speeds. Today, five- and six-speed transmissions are common, with original equipment manufacturers (OEMs) increasingly using seven- and eight-speed models to increase fuel efficiency. Modern automatic transmissions feature a dizzying array of gears, clutch packs, fluid passages and other components that require a reliable supply of high-quality transmission fluid for optimum performance and protection.

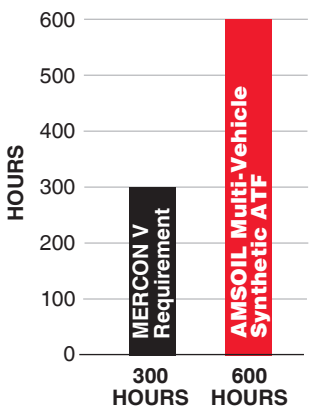
Automotive differentials remain largely unchanged compared to their predecessors. However, both transmissions and differentials undergo operating conditions that are more severe than in the past, requiring use of higher-quality fluids. Engines produce increased power and torque, while towing capacities have also increased. To save space and reduce weight, transmissions and differentials have become smaller, reducing the amount of fluid they require. Lower vehicle profiles and air shields installed to increase aerodynamics and fuel efficiency also reduce the amount of cooling air available to reach components. The end result means transmissions and differentials undergo increased heat and stress while functioning with less fluid to cool and protect. The bar for fluid performance has been raised.

Why Motorists Need to Change Fluids

In these demanding conditions, inferior lubricants can quickly break down and cause a host of performance issues. Hot-running transmissions can lead to fluid oxidation, causing clutch glazing and deterioration in shift quality. Clutch glazing can be felt as an elongated, slipping or sluggish shifting feel, and it's usually a precursor to transmission failure. Oxidized fluid can also contribute to sludge build-up, which can clog narrow fluid passages, leading to transmission failure. As the graph shows, AMSOIL Multi-Vehicle Synthetic Automatic Transmission Fluid resists oxidation two times longer than required for MERCON V®.

High Temperature Tests

Ford MERCON® V required oxidation test (ABOT)



AMSOIL Multi-Vehicle Synthetic ATF resists oxidation TWO times longer than required for MERCON V.

Lubricant quality is equally important for differentials. Most wear occurs during the break-in period. Because differentials are not equipped with filters, break-in metals are suspended in the oil, causing increased wear as the particles mesh between the gears. Many manufacturers recommend changing differential fluid after the first 500 to 3,000 miles to remove break-in particles. AMSOIL recommends the factory-fill differential gear lube be changed no later than the first 5,000 miles, even if the OEM does not specify to change it. Severe-service operation, which includes towing and hauling, causes additional stress to the differential and can cause premature damage or failure. Most owners of trucks, turbo-diesel pickups and SUVs practice severe-service driving without even knowing it. AMSOIL Severe Gear® Synthetic Gear Lube is specifically formulated to reduce friction, heat and wear in severe-service driving conditions, outperforming conventional lubes.

AMSOIL MOTOR OIL IMPROVES MPG
Dealer Tyler McMackin of Elk River, Minn. installed AMSOIL Signature Series 5W-20 Synthetic Motor Oil in this 2004 Mazda Sport and gained more than two miles per gallon in fuel economy.

AMSOIL Improves Fuel Economy For Long-Time Customer

Dealer Tyler McMackin of Elk River, Minn. has used AMSOIL products in all of his equipment for 10 years.

About a year ago, McMackin bought a 2004 Mazda 3 Sport with a 2.3-liter engine and manual transmission. The car had about 109,000 miles on it, and was running with a synthetic-blend motor oil.

He installed AMSOIL Signature Series 5W-20 Synthetic Motor Oil (ALM) in the car and began tracking miles per gallon. "I noticed a gain in fuel economy almost right away," McMackin said. "After some fills it showed a four-mile-per-gallon gain, but when it is all averaged out it bounces between 2.13 and 2.68 miles per gallon."

McMackin has used AMSOIL motor oils in vehicles and equipment from cars to trucks to motorcycles, as well as lawn mowers and weed whips. He took his respect for AMSOIL to a new level last year by becoming an AMSOIL Dealer.

"I truly believe AMSOIL products are the reason I have been able to run my vehicles into the high-mileage range and had to do little to no maintenance on them," McMackin said. "When I was in college I was putting on about 40,000 miles a year in my Ford Focus, and I only changed oil, tires, brakes and sway bar links over a five-year run with that car.

"I really enjoy being a Dealer. I take the information given to us by AMSOIL corporate and turn around and educate people about AMSOIL products. I am always learning more about AMSOIL products, and it has made for some good conversations with friends and others interested in all types of vehicles and motorsports."

AMSOIL products are an easier sell to people who are familiar with engines, McMackin said. Those who are unfamiliar with engines are more difficult because they have bought into the 3,000-mile oil change mantra.

McMackin is busy with a day job as a mechanical/automation engineer, helping his wife start her own business and spending time with their 10-month-old son.

"I started my AMSOIL Dealership because I believe in AMSOIL products and want to show others how good they are and what they can do for the consumer," he said. "I tell people that within one oil change I am able to save about $250 over the life of the oil. I really don't think people believe or understand how an oil can go up to a 25,000-mile drain interval."

McMackin foresees a bright future for AMSOIL products and his business.

"I would like to get AMSOIL in the hands of every motorist and motorsports enthusiast," McMackin said. "I plan to educate people about AMSOIL, and I hope it will help my business as well as the businesses of other AMSOIL Dealers."

His business is growing a little at a time, he said, and he plans to attend AMSOIL University in order to learn more about the products and how to market them.

Team AMSOIL Makes History at AMSOIL Duluth National

Team AMSOIL riders sweep both Pro Open podiums and take AMSOIL DOMINATOR® championship.

The 2012-13 AMSOIL Championship Snocross (ACS) season kicked off in front of a massive crowd at the AMSOIL Duluth National in Duluth, Minn. on Thanksgiving weekend, and it couldn't have been more successful as Team AMSOIL swept the podium on both Saturday and Sunday, and took the AMSOIL DOMINATOR® championship on Friday.

AMSOIL DOMINATOR

The AMSOIL Duluth National opened with the second annual AMSOIL DOMINATOR race, featuring 16 of the sport's top riders competing for the $10,000 prize in a series of head-to-head, bracket-style elimination races. After defeating Garth Kaufman (Arctic Cat) in the opening round, rookie sensation Kody Kamm (Polaris) in the quarterfinal and Team AMSOIL/Scheuring Speed Sports rider Robbie Malinoski in the semifinal, defending AMSOIL DOMINATOR champion and Team AMSOIL/Judnick Motorsports rider Ross Martin continued his hot streak in the final, defeating Tucker Hibbert to claim his second straight AMSOIL DOMINATOR championship.

Pro Open - Saturday

In Saturday's Pro Open main event, Malinoski blew everyone off the hill with the holeshot, flying into the first corner and grabbing the lead in front of Martin and AMSOIL/Scheuring Speed Sports teammate Tim Tremblay. Martin passed Malinoski by the third lap and Tremblay held third, but Hibbert was slashing through the pack with his sites set on climbing into a podium position. By lap nine, the four front-runners had separated from the pack, with Hibbert still feverishly trying to get around Tremblay, who held off the high-speed rushes. Malinoski closed the gap on Martin, re-took the lead and earned the victory. Martin finished second, while Tremblay took third, completing an all-Team AMSOIL podium.

Pro Open - Sunday

Malinoski once again pulled the holeshot in Sunday's Pro Open final, and this time, he kept the lead for good. With usual front-runners Martin, Tremblay and Hibbert qualifying outside the top four, Team AMSOIL/Scheuring Speed Sports rider Darrin Mees and Polaris rider Justin Broberg jumped out behind Malinoski. Tremblay, who qualified back in the ninth position, fought through traffic to move up to third before passing Mees for second on lap 13. As Malinoski and Tremblay distanced themselves from the field, Martin put on a charge at race's end, moving past Broberg and setting his sites on Mees. A hard-fought battle for the final podium position ensued, with Mees holding off Martin for his first career pro podium. Malinoski and Tremblay finished first and second respectively, locking up a Team AMSOIL/Scheuring Speed Sports podium sweep and marking the first time the top three spots have been taken by a single team.

Follow Team AMSOIL race results all season on www.amsoilracing.com. Racing action can be seen throughout the season on CBS Sports Network.

ON THE BOX

WITH **JEREMY MEYER**

The holidays have come and gone, and just like that the 2013 racing season is upon us. Despite its reputation as the heart of a cold, dead season, January ushers in plenty of exciting racing action for Team AMSOIL.

Team AMSOIL riders will begin their defense of titles in Monster Energy Supercross (Eli Tomac) and AMSOIL Arenacross (Tyler Bowers), while four of the best snocross riders in the world will continue their quests to win the AMSOIL Championship Snocross title under the Team AMSOIL flag (Ross Martin, Robbie Malinoski, Darrin Mees and Tim Tremblay).

USAC will head south to Florida, Erik Buell will make the final preparations for the 2013 AMA Pro Road Racing season and the 50th AMSOIL World Champion will be crowned in Eagle River, Wis. as PJ Wanderscheid seeks his fifth title.

New seasons of "The Next Bite" and the recently added "John Gillespie's Water and Woods" television programs begin in January, snocross will debut on CBS Sports Network and new shows from Racer TV (GNCC/ATV MX) and the Traxxas TORC Series presented by AMSOIL will also air.

So don't think of January as a downer. There's plenty of racing to keep your spirits up as winter sets in.

Scott Douglas Wins the USAC Jack Flannery Award

Fan favorite joins short list of TORC drivers honored with the elite award

Consistency reigned supreme for Team AMSOIL racer Scott Douglas on the Traxxas TORC Series presented by AMSOIL this season, collecting podium after podium on his run to second place overall in the Pro 4x4 class. Douglas' never-say-die effort helped him and his team overcome not only the challenges from the world's premier short-course off-road racers, but also the highly technical and sometimes fickle engineering aspects of a design transition year for the race program. Because of his relentless drive and dedication, Douglas was named the third recipient of the TORC Series' prestigious Jack Flannery Award – given each year to the driver who best exhibits the determination and perseverance characteristics of late off-road legend Jack Flannery.

The Douglas Motorsports team recently moved to a new race shop in Wisconsin, where it is thrashing on a new truck for the 2013 season. Much of what they learned during their podium-filled 2012 campaign has been built into the new truck, to which Douglas credits his long-standing relationship with AMSOIL.

"We tried a lot of new things during the 2012 season, including a new transmission and different suspension geometry, and were able to still pull together consistent results throughout the season," said Douglas. "I strongly believe that the AMSOIL synthetic lubricants helped us push the truck to levels beyond which other companies' lubricants would fail. AMSOIL is not just a very generous sponsor with Douglas Motorsports, it's a big part of our R&D program and a product we couldn't do without in always working to further our success on the track."

Monster Energy Supercross and AMSOIL Arenacross Seasons Set to Kick Off

Team AMSOIL Supercross star Kevin Windham and top Lites riders Eli Tomac, Justin Bogle, Zach Osborne and Wil Hahn will be racing for a Monster Energy Supercross championship this winter, while Team AMSOIL Arenacross racer Tyler Bowers will be looking to defend his AMSOIL Arenacross championship. AMSOIL is the Exclusive Official Oil of Monster Energy Supercross and the title sponsor and Exclusive Official Oil of AMSOIL Arenacross. Check out all the action on CBS and SPEED throughout the season. See www.amsoilracing.com for the latest broadcast schedules.

AMSOIL ARENACROSS

MONSTER ENERGY AMA SUPERCROSS
FIM World Championship

2012 AMSOIL ARENACROSS SCHEDULE

JANUARY 4-6	Worcester, Mass.
JANUARY 11-13	Baltimore, Md.
JANUARY 18-20	Grand Rapids, Mich.
JANUARY 26-27	Tulsa, Okla.
FEBRUARY 1-3	Cedar Park, Texas
FEBRUARY 8-10	Wilkes-Barre, Pa.
FEBRUARY 16-17	Little Rock, Ark.
FEBRUARY 23-24	Wichita, Kan.
MARCH 2-3	Kansas City, Mo.
MARCH 15-17	Denver, Colo.

2012 MONSTER ENERGY SUPERCROSS SCHEDULE

JANUARY 5	Anaheim, Calif.	**MARCH 9**	Daytona, Fla.
JANUARY 12	Phoenix, Ariz.	**MARCH 16**	Indianapolis, Ind.
JANUARY 19	Anaheim, Calif.	**MARCH 23**	Toronto, Ontario
JANUARY 26	Oakland, Calif.	**APRIL 6**	Houston, Texas
FEBRUARY 2	Anaheim, Calif.	**APRIL 13**	Minneapolis, Minn.
FEBRUARY 9	San Diego, Calif.	**APRIL 20**	Seattle, Wash.
FEBRUARY 16	Arlington/Dallas, Texas	**APRIL 27**	Salt Lake City, Utah
FEBRUARY 23	Atlanta, Ga.	**MAY 4**	Las Vegas, Nev.
MARCH 2	St. Louis, Mo.		

New Distribution Center Hours Will Improve Service

After tracking order flow, shipping performance and walk-in traffic for over a year, AMSOIL has decided to shift its distribution center extended hours from Thursday evening to Monday evening, effective February 4. Monday's operation will open at 9 a.m. and close at 7 p.m. (The Superior Distribution Center will open at 8 a.m. and close at 7 p.m.) The change accomplishes three primary goals:

- Continues to provide an evening option for Dealers and customers.
- Increases hours of operation on Monday to process and ship orders accumulated over the weekend.
- Eliminates the late openings on Thursdays that have frustrated customers, while allowing more orders to be shipped the same day they are received.

Distribution Center Schedule

Monday	9 a.m. to 7 p.m.
Tuesday – Friday	9 a.m. to 5:30 p.m.

Superior Distribution Center Schedule

Monday	8 a.m. to 7 p.m.
Tuesday – Friday	8 a.m. to 4:30 p.m.

3-in-1 Bomber Jacket

Bomber style, weather-resistant 3-in-1 jacket incorporates durable Stormtech 100% nylon outer shell with a 100% anti-pill polyester polar fleece zip-in/zip-out lining. Full-length external draft flap, stand-up storm collar on lining and shell, relaxed-fit waistband, adjustable velcro cuffs, inside pocket and front zippered security pockets. Embroidered logos on outside shell and inner lining. Sizes S-3X.

Stock #	Size	U.S.	Can.
G2823	S	99.25	106.20
G2824	M	99.25	106.20
G2825	L	99.25	106.20
G2826	XL	99.25	106.20
G2827	2X	103.25	110.50
G2828	3X	107.90	115.50

Black Ribbed Beanie

Black knit ribbed beanie with embroidered AMSOIL logo.

Stock #	U.S.	Can.
G2908	13.50	14.45

Thermal Shirt

Trendy thermal waffle-weave shirt is constructed of a pre-shrunk 60/40 cotton/polyester blend. Features "distressed" printing. Sizes S-2X.

Stock #	Size	U.S.	Can.
G2962	S	38.00	40.65
G2963	M	38.00	40.65
G2964	L	38.00	40.65
G2965	XL	38.00	40.65
G2966	2X	42.50	45.45

FRONT

BACK

New BMK28 Dual-Remote Oil Filtration Kit for 6.7L Ford Diesel Applications

Versatile system combines full-flow and by-pass filters on a single, easy-to-install mount. Includes EaO26 Ea® Oil Filter, EaBP100 Ea By-Pass Filter and appropriate spin-on adapter for 6.7L Ford diesel applications.

Stock #	Wt. Lbs.	U.S. Wholesale	U.S. Sugg. Retail	Can. Wholesale	Can. Sugg. Retail
BMK28	14.0	309.00	403.80	329.85	431.00

HOW HIGH YOU FLY IS UP TO YOU.

Owning your own AMSOIL business offers a whole range of income opportunities. The path you take toward success is really up to you. We provide the foundation stones and you build from there.

- Retail Sales
- Catalog Sales
- Internet Sales
- Commercial Account Sales
- Retail-On-The-Shelf Sales
- Sponsoring New Dealers and Preferred Customers

It's a full spectrum of options allowing Dealers to craft a marketing plan most suited to their strengths and interests. Many Dealers focus on trade shows, others on powersports and racing events, and still others on market segments in which they have experience, from farming to marine to landscaping.

Whatever path you choose, AMSOIL strives to provide tools suitable to assist you in achieving your goals and dreams. Take a few minutes to review the Income Opportunities for AMSOIL Dealers (G85).

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In For the Long Haul

After 1.6 million miles on the original drivetrain and 1.1 million on the factory-rebuilt engine, this trucker and his AMSOIL-lubed Kenworth show no signs of retiring.

Jerry Pruett has a story to tell and he wants the world to know. Not only does he save money in maintenance and reduced downtime, he's receiving fuel economy benefits as well.

Read Pruett's story at www.amsoil.com/news/2012_October_Million_Mile_Trucker.pdf.