AMSOIL MAGAZINE

DISTRIBUTOR EDITION

February 2021

AMSOIL 100% SYNTHETIC DIESEL OIL

BIG PROTECTION

for Smaller Diesel Vehicles

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AMSOIL MAGAZINE

DISTRIBUTOR EDITION

FEBRUARY 2021

FEATURES

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ADVERTISEMENTS

STAFF

Editor
Terry Johnsen

Associate Editor
Joel Youngman

Staff Writers
John Baker
Jamie Trembath
Joel Youngman

Graphic Design Manager
Jeff Spry

Senior Graphic Designer
Luke Boynton

Content Contribution
Pam Brantley
Len Groom
Jamie Prochnow

Editorial Contribution
Allen Bender
Pam Brantley

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President & CEO
Alan Amatuzio

Board Chair & Interim President
Dean Alexander

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Letters to the Editor
AMSOIL INC.
Communications Department
The AMSOIL Building
925 Tower Ave.
Superior, WI 54880

letters@AMSOIL.com

LETTERS TO THE EDITOR

ENVIRONMENTAL BENEFITS

I suggest that AMSOIL take more credit for the many environmental benefits of using our products versus the conventional oil options. This could be highlighted by the advertising department to help sell our products to the many people who are concerned about the environmental footprint of using lubrication products.

For example, as you know, people who put many miles on their vehicles each year who use Signature Series don't have to change oil for up to 25,000 miles/one year. Conventional oils (and some synthetics) recommend changing oil no more than 5,000 miles. My vehicle takes six quarts of oil each oil change. That means that if I travel 25,000 miles I will use 30 quarts of conventional oil, or just six quarts of AMSOIL Signature Series. That is a huge environmental difference!

Another example is our SABER® Professional Synthetic 2-Stroke Oil. If mixed at the 100:1 ratio it is at least half the ratio of conventional oil mixes. Not only is it half the oil used, it is also half the smoke produced and released into the air.

Perhaps you have already explained the environmental benefits of using AMSOIL products in previous advertising. If so, I apologize. I am convinced that we are missing a portion of the population that would appreciate knowing that they have a more environmentally friendly option in AMSOIL lubricants. This may also open up additional advertising options in conservation/environmental newsletters/magazines.

Thank you for considering this suggestion.

Wayne A. Edgerton

AMSOIL: *Thank you for your suggestion, Wayne. We occasionally tout the environmental benefits of our products, but we've learned over the years that the protection and performance benefits of AMSOIL products resonate stronger with the enthusiasts in our target market, so we do not put the environmental benefits front-and-center. If you have customers interested in the environmental benefits of our products, we suggest using the AMSOIL Environmental Responsibility brochure (G1059). Generally speaking, however, our experience has proven that more success is had by leading conversations and advertisements with our products' protection and performance attributes.*

OLDER PRODUCTS

Periodically, AMSOIL will change the label on product bottles as was recently done on the European Oils. Once the label changes, people want the latest formulation and the latest box. Whether true or false, the perception is that the older label or boxed product is inferior to the newer one. One of the ways a Dealer sells that old label is to put it on sale or offer a discount, which appears to be a violation of the AMSOIL MAP policy. AMSOIL has sold these old labels and old boxes, made the profit and the Dealer or account can be stuck with them if their customer insists on the newer product labels and boxes. Has anyone at AMSOIL considered this? AMSOIL makes offers to all of its customer types to drive sales. AMSOIL offers free shipping, free products, Preferred Customer renewal discounts and free accessories like pumps for purchasing drums. Dealers and retail accounts need the same flexibility as AMSOIL to offer sale prices and discounts to drive sales too, particularly to move obsolete inventory.

I am asking AMSOIL to update the MAP policy to allow authorized Dealers and accounts to discount obsolete product so that some customer will find value in it versus paying full price for current product. For purposes of this update, obsolete means product whose labels or boxes have been updated by AMSOIL due to a new formulation, an updated specification or any other update to the label or box. How would AMSOIL like it if I asked them to buy back obsolete product instead of allowing discounts on obsolete product? Why should Dealers and accounts be stuck with obsolete inventory that no one is willing to pay the same price for as current inventory? Thank you for your consideration.

Thank you,

Erroll Ivery

AMSOIL: *Thank you for your letter, Erroll. You may sell both new and older products at the prices you see fit. The MAP policy only prohibits advertising products below MSRP.*

VACUUM-PUMP OIL

I recently purchased a home freeze dryer and was surprised AMSOIL doesn't make a vacuum-pump oil. The home freeze dryer market is exploding. Buying another brand of oil felt like cheating on my spouse.

These units are expensive and require frequent oil changes. People are waiting three months for delivery. This might seem like a niche market, but it's the same oil every auto shop's A/C machine uses. Also every hospital has at least one large vacuum pump.

I know I'd buy a case today if it was available. I hope AMSOIL will consider this. There is a need, and someone is going to fill it.

Sincerely,

Eric Terrill

AMSOIL: *We appreciate your loyalty, Eric. There are many vacuum-pump designs on the market, with various vacuum levels that can be roughly divided into low, medium and high. The key to vacuum-pump oil is its vapor pressure. AMSOIL PC Series Synthetic Compressor Oil can be successfully used in low and medium vacuum applications, but high-vacuum applications require lubricants with lower vapor pressure, achieved through a distillation process. The additional equipment and processing required to produce high-vacuum-pump oil would increase its cost well over widely available (and already expensive) conventional products. Combined with the limited market size and the need to produce several viscosities to adequately cover the market, we have chosen not to develop a high-vacuum-pump oil at this time.*

Email letters to:
letters@amsoil.com

Or, mail them to:
AMSOIL INC.
Communications Department
Attn: Letters
925 Tower Avenue
Superior, WI 54880

Letters are subject to editing for length and clarity; please include your name, address and phone number. Unsigned letters will not be published.

Big Protection for Smaller Diesel Vehicles

New AMSOIL 100% Synthetic Diesel Oil provides outstanding protection, performance and fuel economy for smaller American diesel pickups, vans, cars and SUVs. **It delivers up to 6X better wear protection than required by a leading industry standard.**[1]

- Outstanding protection during heavy use and abuse and in extreme temperatures
- Helps extend engine life and reduce maintenance costs and downtime
- Helps maintain power and fuel efficiency for superior engine performance
- Outstanding turbocharger and emissions-system protection
- Superior engine cleanliness
- Minimizes oil consumption
- Meets or exceeds the latest specifications for smaller diesel vehicles

Applications

Use in diesel pickups, vans, cars and SUVs that require any of the following specifications:

0W-20 (DP020): GM dexosD
5W-30 (DP530): GM dexosD, dexos2; Chrysler MS-11106; Ford WSS-M2C214-B1; ACEA C3

Not for use in applications that require an API CK-4 (or prior) specification.

[1]Based on third-party testing in the OM646LA cam wear test using 0W-20 as worst-case representation.

New AMSOIL 100% Synthetic Diesel Oil provides outstanding protection, performance and fuel economy for smaller American diesel pickups, vans, cars and SUVs.

The diesel market continues to grow and gain popularity. While diesel enthusiasts and professionals often rely on powerful turbodiesel engines in their vehicles, not everyone needs or wants a fully loaded, three-quarter-ton or larger pickup. But many still want the added power, torque and fuel economy of a diesel engine, and they're willing to pay more to get it.

Increased Demand

The market has seen increased demand for diesel engines in smaller, half-ton pickups and other passenger vehicles, including the Chevrolet* Silverado 1500,* Chevrolet Colorado,* GMC* Sierra 1500,* GMC Canyon* and Ford* F-150.* Diesel options are also popular in smaller passenger vehicles like the Chevrolet Cruze,* Chevrolet Equinox* and GMC Terrain.* An estimated 200,000 smaller diesel vehicles are currently operating in the U.S., a 58 percent increase over 2019, and those numbers are expected to continue rising.

Which Oil to Use?

AMSOIL Signature Series Max-Duty Synthetic Diesel Oil and Heavy-Duty Synthetic Diesel Oil provide premium protection for large turbodiesel engines calling for an API CK-4 (or prior) specification, but smaller diesel engines require diesel oils meeting different specifications. While we've recommended AMSOIL Synthetic European Motor Oil for many of these vehicles, and it provides outstanding protection, it is not specifically formulated or marketed for American diesel vehicles.

AMSOIL 100% Synthetic Diesel Oil

Available in 0W-20 and 5W-30 viscosities, new AMSOIL 100% Synthetic Diesel Oil (DP020, DP530) is engineered specifically for smaller American diesel vehicles and provides industry-leading protection and performance. In fact, **it delivers up to 6X better wear protection than required by a leading industry standard.[1]**

- Outstanding protection during heavy use and abuse and in extreme temperatures
- Helps extend engine life and reduce maintenance costs and downtime
- Helps maintain power and fuel efficiency for superior engine performance
- Outstanding turbocharger and emissions-system protection
- Superior engine cleanliness
- Minimizes oil consumption
- Meets or exceeds the latest specifications for smaller diesel vehicles

[1] *Based on third-party testing in the OM646LA cam wear test using 0W-20 as worst-case representation.*

0W-20 100% Synthetic Diesel Oil

U.S. PRICING

Stock #	Units	Pkg./Size	U.S P.C.
DP020QT	EA	1 Quart	8.40
DP020QT	CA	12 Quarts	95.95
DP02055	EA	55-gal. Drum	1541.95

CANADA PRICING

Stock #	Units	Pkg./Size	Can. P.C.
DP020QTC	EA	(1) 946-ml Bottle	11.25
DP020QTC	CA	(12) 946-ml Bottles	128.55
DP02055	EA	208-litre Drum	2068.70

5W-30 100% Synthetic Diesel Oil

U.S. PRICING

Stock #	Units	Pkg./Size	U.S. P.C.
DP530QT	EA	1 Quart	8.40
DP530QT	CA	12 Quarts	95.95
DP53055	EA	55-gal. Drum	1541.95

CANADA PRICING

Stock #	Units	Pkg./Size	Can. P.C.
DP530QTC	EA	(1) 946-ml Bottle	11.25
DP530QTC	CA	(12) 946-ml Bottles	128.55
DP53055	EA	208-litre Drum	2068.70

Applications

Use in diesel pickups, vans, cars and SUVs that require any of the following specifications:

0W-20 (DP020): GM dexosD
5W-30 (DP530): GM dexosD, dexos2; Chrysler MS-11106; Ford WSS-M2C214-B1; ACEA C3

Not for use in applications that require an API CK-4 (or prior) specification.

Service Life

AMSOIL 100% Synthetic Diesel Oil is recommended for the drain intervals stated by the original equipment manufacturer (OEM). Refer to the owner's manual for the specific oil change interval. Intervals may be extended beyond the OEM-recommended interval with oil analysis.

Oil-life monitors keep improving, but they're not perfect.

What happens when your vehicle's oil-life monitor contradicts our oil-change recommendations?

Matt Erickson | DIRECTOR, TECHINCAL PRODUCT MANAGEMENT

Oil-life monitoring systems (OLMS) are standard on most vehicles today. Their prevalence the past several years has helped convince motorists to go longer between oil changes than the old 3,000-mile (4,800-km) standby, reducing waste oil and saving time and money. Today, it's common for an OLMS in a vehicle driven mostly under normal service to recommend an oil change after 10,000 miles (16,100 km) or more.

For all their benefits, these systems do have shortcomings. For starters, they sometimes provide service intervals that contradict the recommendations of some of our oils. Their biggest shortcoming, however, is what they *don't* do. To get the details, let's look at how an OLMS works.

Frankly, oil-life *monitor* is a poor description for these systems. A better name is oil-life *estimator*. They **do not monitor any direct physical or chemical property of oil**; they only accumulate data from the vehicle's computer and predict how your driving habits and operating conditions have affected the oil's viscosity, total base number (a measure of remaining detergency), oxidation level and other factors.

Since the OLMS can't measure these key properties like a chemist in a lab would measure them, how can it know when the oil has, for example, only 10 percent life remaining? It can't. The OLMS simply estimates oil life based on an algorithm.

While first-generation oil-life monitors were simple, mileage-based systems that prescribed fixed oil-change intervals regardless of operating conditions, today's systems are far more sophisticated. They monitor several conditions known to reduce oil life, enter those values into an algorithm and return the oil-life percentage you see on your vehicle's display.

Towing, for example, can lead to increased engine rpm, which stresses the engine and the oil. If the vehicle's computer detects frequent high-rpm driving, the OLMS will shorten the oil-change interval. The same holds for extreme ambient heat, which can accelerate oxidation and chemical breakdown of the oil. Continually driving under heavy loads, like while towing, also shortens the drain interval, along with several other factors.

For example, Ford* says in a video on its website that drivers can expect its Intelligent Oil-Life Monitor* to recommend oil changes about every 7,500-10,000 miles (12,100-16,100 km). But, if you do a lot of trailer-towing or idling, expect the system to recommend oil changes every 5,000-7,500 miles (8,000-12,100 km). Driving in extreme temperatures or frequently towing near maximum capacity will lead to oil changes every 3,000-5,000 miles (4,800-8,000 km). Oil-life monitors from other automakers typically follow the same pattern.

But, what if I use AMSOIL Signature Series Synthetic Motor Oil, which is proven to neutralize acids, fight viscosity loss and resist volatility better than other oils, helping it last longer? How does the OLMS adjust its recommendations depending on oil quality? It can't, which brings us to another key point to remember about these systems. For all their benefits, **your OLMS cannot differentiate between a high-quality synthetic oil and a cheap conventional oil.**

In these cases, your OLMS may recommend an oil change in your heavy-use pickup after just 5,000 miles (8,000 km) when you know perfectly well the Signature Series in the engine is good for another 10,000 severe-service miles (16,100 km) since we guarantee the oil for up to 15,000 miles (24,100 km)/one year in severe service. The same principle holds for XL Synthetic Motor Oil, which carries a maximum drain interval of up to 12,000 miles (19,300 km)/one year.

Despite the sophistication of oil-life monitoring systems, they have drawbacks. You can rest assured, however, that our synthetic motor oils will deliver excellent protection in your vehicle for the drain interval we recommend, regardless of what the OLMS says. If you elect to extend your drain interval, but your OLMS calls for an oil change before reaching the end of the oil's guaranteed service life, simply reset the OLMS and follow the guidelines we provide on the product label. There's no sense wasting good oil.

The top three issues oil analysis uncovers

Find and solve engine issues before they become expensive problems.

Allen Bender | OIL ANALYZERS INC. MANAGER

We've all heard the famous axiom: An ounce of prevention is worth a pound of cure. It's especially true when it comes to vehicle maintenance, and few tools are more effective than used oil analysis. While oil analysis can identify all kinds of potential issues, I want to focus on the top three things we usually find and how it can help your customers save time and money.

Coolant contamination

Cooling-system problems account for up to 40 percent of all engine failures. Unfortunately, the cooling system is often neglected since coolant doesn't require maintenance as often as motor oil or other lubricants.

Coolant can contaminate the motor oil due to a number of problems, such as a bad head gasket, a faulty oil cooler or oil-cooler gaskets, or a cracked block or cylinder. In the case of a cracked block or cylinder, you're probably going to discover the issue pretty quickly. That's not necessarily the case with a leaking head gasket or bad oil cooler. In these cases, coolant can infiltrate the oil slowly and imperceptibly. You may check the coolant reservoir and oil regularly without noticing anything abnormal.

That's the beauty of oil analysis; it sees what your eyes miss. Regularly taking oil samples as part of an oil-analysis program provides ample opportunity to spot coolant contamination. The maintenance manager can pull the vehicle from service and investigate the problem before the engine fails. I don't know a single business owner who'd rather reactively send out a tow truck and have a vehicle fixed than prepare for it beforehand.

Excessive wear metals

Everything eventually wears out, but we can dramatically slow engine wear with superior lubricants and proper maintenance.

Here again, oil analysis helps spot issues before they morph into expensive problems. Regularly testing engine oil or other lubricants allows the maintenance manager to establish historic trends against which to compare future lubricant samples. This allows him to ensure normal wear metals, such as iron, aluminum and lead, follow historic trends with no abrupt spikes. If a report comes back with an alarmingly high lead level, for example, it may point to a main bearing wearing out. Abnormally high silicon might be a sign of a faulty air intake that's letting dirt infiltrate the engine.

This information provides time to investigate the issue and make the required repairs before it becomes a full-blown problem.

Fuel dilution

This is another common issue oil analysis often uncovers. Fuel dilution occurs when gasoline or diesel fuel washes past the piston rings and contaminates the oil in the crankcase. Excessive fuel can reduce the oil viscosity to the point where it cannot support the load in the engine or build a sufficient film to keep parts separated. Oil that has lost viscosity fails to provide adequate wear protection. In extreme cases, it can also create varnish and sludge that can clog tiny oil passages, like those found in variable-valve-timing solenoids, causing engine problems.

Several factors cause fuel dilution, like excessive idling, frequent short trips or leaking fuel injectors. It can also be characteristic of some engines, particularly turbocharged direct-injection (TDI) engines. In fact, we've seen a rise in cases of fuel dilution the past few years as TDI engines gain widespread use among automakers looking for every fuel-economy gain they can find.

I've said it already, but I'll say it again – oil analysis can identify fuel dilution and help managers plan a solution before it claims the engine. Regular reports allow users to establish a "normal" level of fuel dilution for the engine. Samples that deviate from acceptable historic levels indicate it's time to take action.

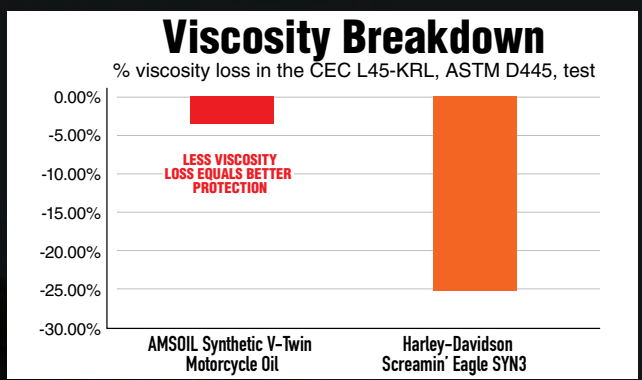
These are just three issues oil analysis can help solve. It's also the best way to maximize oil-change intervals and ensure you're getting every possible mile or hour out of your oil. If you haven't already, talk about the benefits of oil analysis with your commercial accounts and other customers. Use it as a tool when prospecting for customers to position yourself as a partner who can help uncover ways to benefit the business. Find out more at www.oaitesting.com. You can also get details about the Oil Analysis Co-op Program for commercial accounts in the Dealer Zone (Commercial Business Tools>Tools to Help You Succeed).

EVERYTHING YOUR HARLEY NEEDS, **INCLUDING BETTER PROTECTION**

Customers asked for more V-twin oil-change kits, and we've delivered. Four kits are now available, including kits with an extra quart of oil for larger Milwaukee-Eight* engines or a black oil filter instead of chrome. And, as always, Synthetic V-Twin Motorcycle Oil delivers **excellent protection against extreme heat** so you have **peace of mind your bike is protected**.

AMSOIL Resists Viscosity Breakdown

AMSOIL resists viscosity breakdown **6X better** than Harley-Davidson* SYN3* for **improved protection** against compensator and transmission gear wear.[BB]



*[BB]Based on testing of AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil purchased on 3/19/19 and Harley-Davidson Screamin' Eagle SYN3 purchased on 3/19/19 in the CEC L45-KRL, ASTM D445 test. *All trademarked names and images are the property of their respective owners and may be registered marks in some countries. No affiliation or endorsement claim, express or implied, is made by their use.*

AMSOIL V-Twin Oil Change Kits include...

- 4-5 quarts of 20W-50 Synthetic V-Twin Motorcycle Oil (MCV)
- 1 chrome or black AMSOIL Motorcycle Oil Filter (EAOM103/EAOM103C)
- 1 drain-plug O-ring

Check out the Motorcycle Product Guide at amsoil.com to find the right kit for your Harley-Davidson.

ATVs & UTVs Require a Little Oil to Do a Lot of Work

Like their automotive counterparts, UTVs and ATVs produce more power with each new model year. Manufacturers keep finding ways to increase power per cubic inch by using lighter-weight components, more precise fuel delivery and other innovations.

A typical 900-cc UTV puts out about 80 hp, with some easily eclipsing that number. For example, a Polaris* RZR* 1000, one of the most popular machines available, puts out a whopping 110 hp.

While enthusiasts and homeowners have no trouble finding ways to put all this power to use, sometimes lost in the equation is how little motor oil some of these machines use. Most rely on just 2-2.5 quarts of motor oil to protect against wear, help dissipate heat and keep parts clean. If the oil isn't up to the challenge, the extreme heat and stress of working hard or riding aggressively can quickly break down the oil and lead to wear and harmful deposits.

Inside the engine, churning parts combined with elevated heat create shearing forces that can tear apart, or shear, the molecular structure of the oil. Additionally, the intense pressure the oil undergoes as it is repeatedly forced through tight clearances, such as the interfaces of the piston ring/cylinder wall and cam lobe/lifter, also causes viscosity loss due to shear. Oil that has sheared out of its intended viscosity range can fail to form a protective lubricating film on critical engine parts, leading to accelerated wear.

Low-quality oil also tends to break down and create harmful deposits when faced with extreme heat and stress. Deposits can cause the rings to stick, reducing engine compression, which results in lost horsepower. Deposits also inhibit heat-transfer and reduce efficiency, eroding the like-new feeling you want when riding.

Differentials are no different

The same principle applies inside the differentials, which are easy to overlook when it comes to maintenance.

Every time you tow a loaded trailer, plow snow or lay into the throttle on a joy ride, all that engine power flows through the differential gears and bearings. The pinion gear can force extreme pressure on the ring gear, which can break the lubricant film and cause metal-to-metal

See page 35 to order.

AMSOIL Synthetic ATV/UTV Transmission & Differential Fluid

- Protection for demanding chores and terrain
- Protects heavily loaded, high-torque gears
- Superior all-weather protection

AMSOIL ATV/UTV Powertrain Fluid

- High-performance alternative to Polaris Demand Drive Fluid* and Polaris AGL Synthetic Gearcase Lubricant and Transmission Fluid*

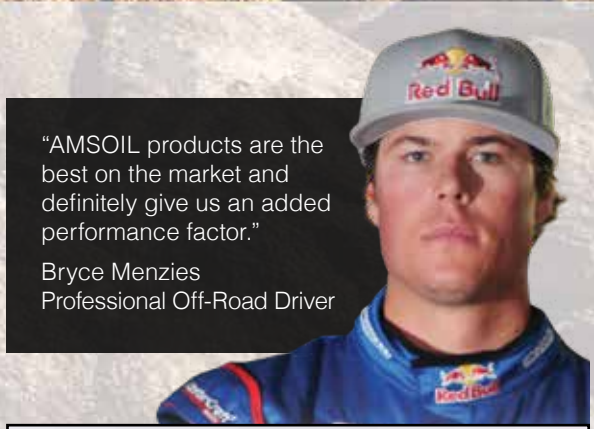
contact. Heat also increases, which causes the gear lube to break down and fail to provide good protection. Submerging differentials in water also invites water contamination, which reduces the oil's effectiveness. The front differentials on many machines hold only one-third to one-half a quart of gear lube. The same holds for rear differentials that don't share a sump with the transmission.

Given the thousands of dollars you invest in your rig, it pays to use the best lubricants money can buy to ensure your machine stays up and running no matter how hard you push it.

AMSOIL UTV Torture Test

To demonstrate the ability of AMSOIL Synthetic ATV/UTV Oil to protect in the toughest conditions, we installed it in a 2018 Polaris Ranger* and ran it on an engine dyno for 100 hours (4,000 miles [6,437 km]) at wide-open throttle (6,000 rpm). Engine oil temperature reached 280°F (138°C). Afterward, the engine teardown revealed that AMSOIL Synthetic ATV/UTV Motor Oil maintained viscosity and delivered flawless protection. As the image shows, the oil protected against piston scuffing despite extreme conditions. The piston-skirt coating remained intact, while the piston crown and ring lands demonstrated no abnormal deposits or stress. The piston rings remained free and didn't stick for maximum engine compression and power. For complete results, check out the UTV Torture Test video at youtube.com/amsoilinc. Enter "UTV" in the search.

Next time your UTV or ATV is ready for scheduled maintenance, switch to AMSOIL synthetic ATV/UTV lubricants to ensure superior protection and performance for your expensive machine. We offer a full line of products for whatever make or model you own.



"AMSOIL products are the best on the market and definitely give us an added performance factor."

Bryce Menzies
Professional Off-Road Driver

The piston skirt contained no scuffing and appears like-new, while the piston crown demonstrated no abnormal deposits following 100 severe-service hours.

Synthetic Gasoline Motor Oil

Signature Series Fights Wear

AMSOIL Signature Series Synthetic Motor Oil provides **75 percent more engine protection against horsepower loss and wear** than required by a leading industry standard[A], extending the life of vital components like pistons and cams.

[A]Based on independent testing in the ASTM D6891 test using 0W-20 as worst-case representation.

AMSOIL Keeps Pistons Cleaner

Even after doubling the length of the industry-standard test, AMSOIL delivered **40% cleaner pistons** than required by the standard.[FF]

[FF]Based on independent testing of AMSOIL Signature Series 5W-30 in the Sequence IIIH Engine Test (ASTM D8111), required by the ILSAC GF-6 and API SP specifications.

Signature Series Delivers Powerful Protection

AMSOIL delivers powerful protection. How good is it? An independent lab compared AMSOIL synthetic motor oil head-to-head against a leading competitor in a 100,000-mile (160,934-km) test[P]. AMSOIL provided far superior wear protection and kept bearings looking like new.

[P]Testing conducted in an independent lab using AMSOIL Signature Series 5W-30 Synthetic Motor Oil and a leading synthetic-blend 5W-30 motor oil in Ford F-150 trucks with 3.5L twin-turbo engines.

AMSOIL Resists Viscosity Increase

AMSOIL is barely challenged by the industry-standard testing, demonstrating only a 0.1% viscosity increase. Even when the test length is doubled, AMSOIL **delivered twice the viscosity control** required by the standard.[GG]

[GG]Based on independent testing of AMSOIL Signature Series 5W-30 in the Sequence IIIH Engine Test (ASTM D8111), required by the ILSAC GF-6 and API SP specifications.

Signature Series Helps Keep Valves Clean

AMSOIL fights volatility[U] **38% better** than Mobil 1® and **17% better** than Royal Purple®, helping reduce oil consumption and keep valves clean.

[U]Based on independent testing of AMSOIL Signature Series Synthetic 5W-20, Mobil 1® Advanced Synthetic 5W-20, Royal Purple® High Performance Synthetic 5W-20 in ASTM D5800. Oils purchased Oct.-Nov. 2018.

NEW CAN-AM ATV/UTV KITS NOW AVAILABLE

Since the introduction of our ATV/UTV Oil Change Kits, which are recommended for most Polaris* ATVs and UTVs, Dealers and customers have been asking for oil-change kits for Can-Am* machines. We're happy to announce the wait is over. New Can-Am ATV/UTV Oil Change Kits (CK1, CK2, CK3) are available Feb. 1 and provide the ideal combination of AMSOIL protection and convenience for owners of most Can-Am ATVs and UTVs.

Why Formula 4-Stroke® Powersports 0W-40 Synthetic Motor Oil?
In its owner's manuals, Can-Am recommends 5W-40 synthetic-blend oil for "general-purpose" use. However, it recommends additional viscosities depending on ambient conditions. For example, enthusiasts can opt for 0W-40 in cold temperatures for faster start-up protection, or 10W-50 in warm temperatures for increased resistance to heat. Because AMSOIL Formula 4-Stroke Powersports 0W-40 delivers exceptional all-weather protection, it's the lone viscosity we offer in our Can-Am Oil Change Kits. Its premium synthetic base oils and 0W rating mean it flows quickly in cold weather for excellent startup protection. In hot conditions, it resists oxidation and forms a durable lubricating film to deliver excellent wear protection. It delivers the best of both worlds all season long.

Perfect for retailers
Notify your customers of the availability of these new kits. Use their introduction as an opportunity to call on your current retail accounts to start a conversation that could lead to a sale. For more market insights, see the ATV/UTV Products Dealer Sales Brief in the Dealer Zone under the Learning Center tab.

CK1

- 4 quarts of Formula 4-Stroke® Powersports 0W-40 Synthetic Motor Oil
- Oil filter
- O-ring & washers

APPLICATIONS
- Maverick* X3

CK2

- 2.5 quarts of Formula 4-Stroke Powersports 0W-40 Synthetic Motor Oil
- Oil filter
- O-ring & washers

APPLICATIONS
- Outlander* 500-1000 • Renegade* 500-1000 • Commander* 800-1000 • Defender* HD8 & HD10 • Maverick 800-1000 • Traxter* HD8 & HD10

CK3

- 3.5 quarts of Formula 4-Stroke Powersports 0W-40 Synthetic Motor Oil
- Oil filter
- O-ring & washers

APPLICATIONS
- Defender HD5 • Outlander 400-450 • Traxter HD5

To find the correct AMSOIL ATV/UTV Oil Change Kit for your ATV or UTV, consult the ATV and UTV Product Guides at AMSOIL.com/guides.

Can-Am Oil Change Kits

U.S. PRICING Stock #	Units	Pkg./Size	Comm. Credits	U.S. Wholesale	U.S. P.C.	U.S. MSRP	U.S. Catalog
CK1	EA	1 Kit	10.91	49.59	52.10	66.95	70.80
CK2	EA	1 Kit	8.46	38.45	40.40	51.95	54.45
CK3	EA	1 Kit	10.58	48.10	50.55	64.95	68.35

CANADA PRICING Stock #	Units	Pkg./Size	Comm. Credits	Can. Wholesale	Can. P.C.	Can. MSRP
CK1C	EA	1 Kit	10.91	65.95	69.25	89.05
CK2C	EA	1 Kit	8.46	51.25	53.85	69.25
CK3C	EA	1 Kit	10.58	63.95	67.25	86.40

New AMSOIL Powersports Antifreeze & Coolant:

COOL UNDER PRESSURE

Available Feb. 2, new Powersports Antifreeze & Coolant (PSAF) is designed to cool high-revving, hot-running powersports engines while providing excellent freeze protection, cooling-system cleanliness and compatibility with metals, gaskets and hoses. It is recommended for all powersports applications that call for an ethylene-glycol 50:50 premix engine coolant, including...

- Motorcycles • Dirt bikes • ATVs • UTVs
- Snowmobiles • Outboard motors
- Personal watercraft

Competitive powersports coolants often carry narrow application recommendations, meaning enthusiasts have to buy multiple coolants to service their machines. AMSOIL Powersports Antifreeze & Coolant offers the convenience of using one product for all your powersports equipment.

In addition, its long-life formulation lasts up to five years, which is longer than other coolants. Customers value the convenience of changing antifreeze and coolant less often. Because it's pre-mixed 50:50 with high-purity water, it also eliminates the hassle of measuring and mixing fluids.

Cools hot-running engines

Enthusiasts love to push the limits of their motorcycles, UTVs, snowmobiles and other powersports equipment. Riding hard or pushing to get the job done increases engine heat, which can damage plastic and hoses. In extreme cases, it can deform metal, causing extensive damage to engine parts. To avoid these problems, enthusiasts want a powersports antifreeze and coolant they can depend on to fight extreme heat and protect their engines throughout a long service interval for maximum convenience.

AMSOIL Powersports Antifreeze & Coolant's ethylene-glycol formulation meets original equipment manufacturer (OEM) recommendations while providing excellent boil-over protection up to 226°F (108°C). It cools hot-running, high-revving engines, helping prevent engine damage so enthusiasts can rest assured their engines are protected no matter how hard they push their machines. For enthusiasts in northern climates, it delivers freeze protection down to -35°F (-37°C) for excellent all-season protection.

Provides long five-year service life

AMSOIL Powersports Antifreeze & Coolant is borate-, nitrite- and phosphate-free, which maximizes coolant life since these components deplete quickly. It helps prevent harmful cooling-system scale and deposits, which aids in heat transfer and helps components last as designed.

Excellent compatibility

AMSOIL Powersports Antifreeze & Coolant protects most cooling-system metals in addition to gasket and hose materials. It is specially formulated for powersports cooling systems that contain increased aluminum. Not only does it maximize system life, it helps prevent leaks and is compatible with most other coolants.

Fights corrosion

Corrosion on cooling-system parts inhibits heat transfer and shortens component life. AMSOIL Powersports Antifreeze & Coolant is formulated with robust corrosion inhibitors that help prevent corrosion, cavitation and scale. It protects metal surfaces, helping them remain clean and long-lasting.

Quarts reduce waste

To help reduce waste, AMSOIL Powersports Antifreeze & Coolant is available in quarts only. For many applications, a gallon provides more coolant than needed, resulting in partially used containers lying around the garage. Quart packaging allows customers to purchase only what they need, reducing cost and the hassles of storage.

- Helps reduce engine temperatures
- Provides all-season protection for up to five years
- Mixed with high-purity water to help prevent scale and deposits
- Safe for most cooling-system metals, gaskets & hoses

POWERSPORTS ANTIFREEZE & COOLANT DATA BULLETIN

Stock #	Qty.	U.S.	Can.
G3720	25	4.10	5.60

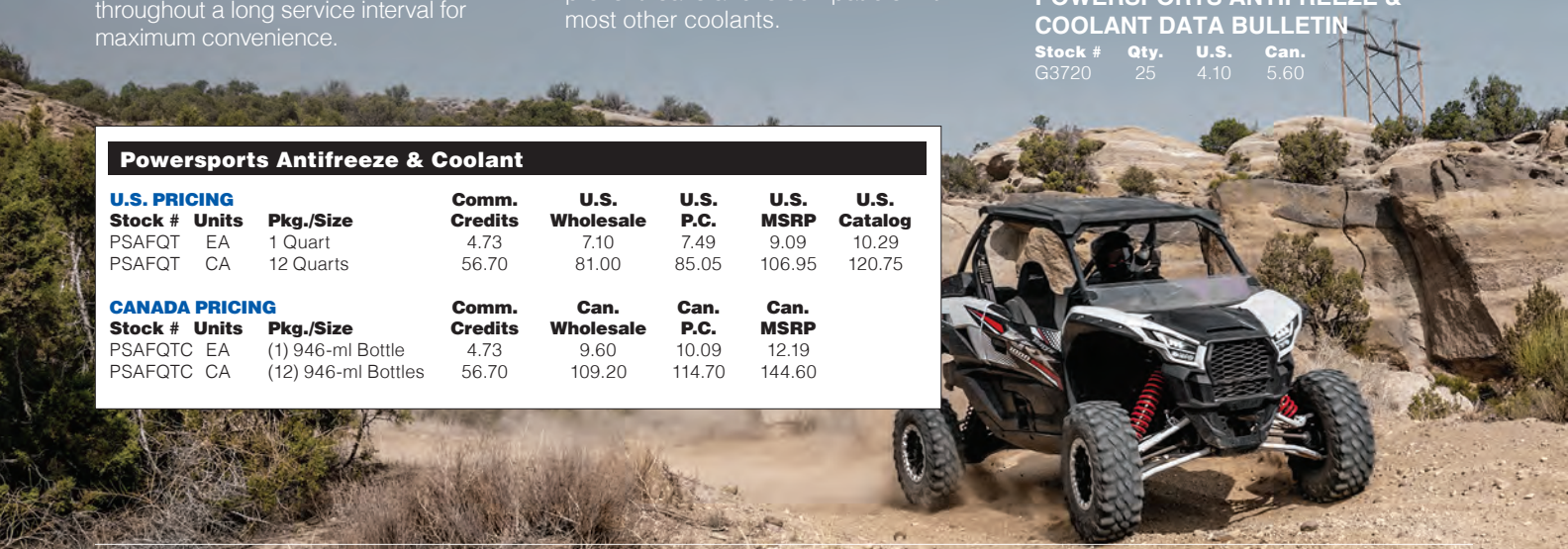
Powersports Antifreeze & Coolant

U.S. PRICING

Stock #	Units	Pkg./Size	Comm. Credits	U.S. Wholesale	U.S. P.C.	U.S. MSRP	U.S. Catalog
PSAFQT	EA	1 Quart	4.73	7.10	7.49	9.09	10.29
PSAFQT	CA	12 Quarts	56.70	81.00	85.05	106.95	120.75

CANADA PRICING

Stock #	Units	Pkg./Size	Comm. Credits	Can. Wholesale	Can. P.C.	Can. MSRP
PSAFQTC	EA	(1) 946-ml Bottle	4.73	9.60	10.09	12.19
PSAFQTC	CA	(12) 946-ml Bottles	56.70	109.20	114.70	144.60



AMSOIL Synthetic Small-Engine Oil Delivers Commercial-Grade Protection

Mowers, generators, pumps, compactors and other equipment often operate in hot, dirty conditions that lead to deposits and wear. This can cause reduced engine compression, robbing the engine of power. Over time, equipment becomes less efficient, requires more maintenance and eventually wears out.

Commercial-grade formulation

Most small-engine oils we've tested, however, are nothing more than re-labeled automotive oils, which are formulated with fuel economy in mind, not durability. That won't cut it. Compared to liquid-cooled automotive engines, small engines run hotter; operate under constant load; generate more oil-damaging contaminants; suffer from neglected maintenance; and are exposed to dirt, rain and other extremes. Simply put, they're far tougher on oil than most people think.

AMSOIL Synthetic Small-Engine Oil isn't merely a re-badged automotive oil. Instead, we designed it from the ground up specifically for small-engine dependability. You can rest assured your engines are protected even during periods of extended use when there's no time for scheduled maintenance.

It's made to solve the problems that plague small engines, including wear, power loss, oil consumption, harmful carbon deposits and stuck rings and valves, helping you get more work done and save money.

Reserve protection

AMSOIL Synthetic Small-Engine Oil is a long-life formulation that has repeatedly demonstrated its ability to safely exceed OEM drain intervals in the toughest conditions. Extensive severe-service testing proves its ability to provide service life of up to 200 hours or the manufacturer's longest recommendation. It provides an extra measure of protection when equipment goes longer between oil changes than is recommended by the OEM.

Applications

Use the appropriate viscosity of AMSOIL Synthetic Small-Engine Oil in small engines found in (not limited to) tractors, lawn and garden equipment, compactors, pumps, light towers, log splitters, welders, cement mixers and trowels, skid-steers, excavators, rototillers and compressors.

• Long service life
• Helps extend engine life
• Inhibits rust

PURSUING LANDSCAPER ACCOUNTS

Although it's still winter, landscaping season is right around the corner, and equipment maintenance is on the minds of landscape professionals across the nation.

Lawn and landscape contractors provide lawn-maintenance, landscaping, irrigation, hardscape, tree-removal, snow-removal and other services. Because they often perform maintenance and make maintenance decisions during the offseason, now is the ideal time to call upon them to gauge their interest in upgrading to AMSOIL products.

CONVERTING PROSPECTS TO CUSTOMERS

Highlighting the benefits of SABER® Professional Synthetic 2-Stroke Oil (ATP) is a great way to get in the door. Minimize the literature you bring on your first visit to the Commercial Program Catalog (G3469, G3474 Can.) and the SABER Professional Handout (G3564). Use the Handout to bookmark the catalog pages that highlight SABER Professional's performance.

Create Curiosity

There are two goals at this stage of the process: 1) piquing the prospect's interest by demonstrating your focus on solving his or her problems and 2) securing permission for more time to meet later. Keep your first interaction simple; you may only have a few minutes, and it takes time to build trust. Briefly introduce yourself and the AMSOIL brand. Sharing stories of how you've helped other businesses is a great opener.

Discover Needs

In this phase, you and the prospect work together to discover whether he or she has a need for AMSOIL products. Ask open-ended questions that steer the conversation toward problems they might be experiencing. It may take several calls before you've built enough trust for the prospect to give you the time to ask questions about the challenges he or she faces and the effect lost time, increased costs and other hassles have on the business.

Assessment

In the Assessment phase, you've uncovered the challenges the prospect faces. Now it's time to present the AMSOIL products that solve the problems so he or she can assess whether they're right for the business. This is the stage to introduce product claims and testimonies that demonstrate AMSOIL superiority and build the prospect's confidence in AMSOIL.

Ongoing Service

Upon receiving a customer order, determine what level of ongoing service you will provide. Will they require frequent visits? Or is checking in every few weeks acceptable? A concrete plan will help you meet their expectations and create happy and loyal customers.

For more information on selling to landscape accounts, consult the Commercial Products Dealer Sales Brief in the Dealer Zone (Learning Center>Dealer Sales Briefs).

More AMSOIL Products for Landscapers

Synthetic Water-Resistant Grease (GWR)
Provides outstanding water-washout and spray-off resistance for applications frequently exposed to water, mud, snow or ice.

Quickshot® (AQS)
Effectively addresses performance issues related to ethanol, water and dirty pump gas in two- and four-stroke gasoline-powered engines and powersports equipment fuel systems, restoring peak performance.

Semi-Synthetic Bar and Chain Oil (ABC)
Delivers excellent lubrication and protection, helping extend the life of bar and chain applications

Zero-Turn Mowers

SYNTHETIC SMALL-ENGINE OIL (AES, ASE, ASF)

- **Tough formulation preserves engine power** by fighting wear and deposits that reduce engine compression
- **Promotes long component life** through excellent severe-service protection of pistons, bearings and gears, which reduces maintenance
- **Maintains engine cleanliness** by resisting extreme heat and oil consumption

AMSOIL 10W-30 Synthetic Small Engine Oil 125 Hours

Leading Oil Brand 125 Hours

Preventing Exhaust-Valve Sticking

Following 125 hours of severe-service testing in a Honda* 5-hp engine, 10W-30 Synthetic Small-Engine Oil kept the valve guides in the engine pictured on the left clean and functional. In contrast, using a leading oil brand, the engine pictured on the right failed due to exhaust valve sticking. During engine disassembly, heavy deposits prevented test administrators from removing the valve.

SYNTHETIC HYDROSTATIC TRANSMISSION FLUID (AHF)

- **Helps maintain mower speed and responsiveness** due to excellent protection against wear and viscosity loss
- **Purpose-built** to withstand the unique demands of hydrostatic transmissions, unlike motor oils
- **Lasts up to 2X** original equipment manufacturer (OEM) recommendations, helping professionals save money and reduce downtime

String Trimmers

SABER® PROFESSIONAL SYNTHETIC 2-STROKE OIL (ATP)

- **Convenience** of one mix ratio for all equipment
- **Cuts costs by 50 percent or more** when mixed at 100:1
- **Clean, protected power** means equipment starts easier, runs better, lasts longer and boosts efficiency

AMSOIL SABER Professional 300 Hours

Leading Oil Brand 300 Hours

SABER Fights Carbon

Following 300 hours of professional-use testing in STIHL* string trimmers at the manufacturer mix ratio of 50:1, SABER Professional kept pistons and rings virtually free of carbon and wear (see the picture on the left), while use of a leading oil brand caused significant carbon buildup around the ring area (see the picture on the right). This engine is nearing the failure point.

PRODUCT SPOTLIGHT:
AMSOIL ENGINE AND TRANSMISSION FLUSH

We cover a range of topics on the AMSOIL blog at blog.AMSOIL.com, but our most widely read and commented-on post is the one about engine-flush products. People have several questions about the effectiveness and suitability of AMSOIL Engine and Transmission Flush (FLSH) for their vehicles. To prepare you to answer these questions and help improve your success when selling this great add-on product, we address the top questions here.

What is Engine and Transmission Flush?

It's a detergent-based additive designed to clean deposits and sludge from your engine. While motor oils contain detergents that help keep the engine clean, the formulation must also contain anti-wear, oxidation-inhibitor and other additives, limiting room for detergents. Engine and Transmission Flush, however, is designed solely to clean, and therefore packs a more potent cleaning punch.

What are its benefits?

1. Prepares your engine for new oil: Engine and Transmission Flush helps loosen sticky valves or piston rings and remove harmful sludge and other contaminants. Cleaning the engine prior to installing fresh oil ensures the new oil functions as intended and delivers maximum protection. The oil won't last as long or protect as well if it must contend with sludge and deposits from the previous oil.
2. Helps increase fuel efficiency: Contaminants circulating throughout the engine can lead to oil breakdown and increased viscosity – and higher-viscosity oil requires more energy to circulate throughout the engine. Sludge and deposits on engine parts can also increase resistance, which wastes fuel. Cleaning the engine helps ensure parts move efficiently, maximizing fuel economy.
3. Helps reduce oil consumption: If deposits in the piston-ring lands cause the rings to stick, oil can migrate into the combustion chamber, where it burns. This not only leads to harmful deposits, it also increases exhaust emissions as the burned oil exits the tailpipe. Engine and Transmission Flush helps free stuck rings and reduce oil consumption, in turn reducing emissions.
4. Helps reduce heat: Extreme heat reduces engine efficiency while increasing the rate at which the oil oxidizes (chemically breaks down). Sludge and deposits act as insulators that prevent the engine from dissipating heat as designed. Flushing your engine helps ensure it manages heat properly for optimum efficiency and oil life.
5. Convenience: You can safely use AMSOIL Engine and Transmission Flush in gas or diesel engines and automatic transmissions. And, while some solvent-based flush products require a cumbersome disposal process, Engine and Transmission Flush uses a detergent-based formulation allowing easy disposal with waste oil.

Signature Series Cleans

AMSOIL Signature Series Synthetic Motor Oil has **50% more** detergents[D] to help keep oil passages clean and promote oil circulation. It provides **90% better protection** against sludge.[DD]

The oil pick-up tube screen is virtually free of sludge.

[D]vs. AMSOIL OE Motor Oil
[DD]Based on independent testing of AMSOIL Signature Series 5W-30 in the ASTM D6593 engine test for oil screen plugging as required by the API SN specification.

Can flushing an engine or transmission create leaks?

This is a common question. There's a good deal of misinformation surrounding engine-flush products, which likely explains its origin.

In old, poorly maintained engines, time and neglect can cause seals to wear out, dry and crack. If using a low-quality oil, sludge and deposits can form that cover the seals, like Spackle* covering cracked plaster. This veneer of deposits papers over the worn seals and helps prevent them from leaking.

Flushing the engine dissolves the deposits and reveals the true nature of the seals, which can create a leak. The motorist then associates the engine flush with a fluid leak. In reality, the seals were already bad; the flush simply revealed their true condition.

If you suspect a customer's vehicle falls into this camp, it's best to leave well enough alone and skip the engine flush. While Engine and Transmission Fluid won't cause leaks, the customer must choose between sludge and deposits robbing engine performance or the seals showing their true condition.

Is flushing the engine necessary?

It depends on vehicle condition and maintenance practices. For customers who have used AMSOIL synthetic motor oil exclusively, flushing the engine prior to an oil change won't provide as noticeable a benefit as if they had been using a low-quality oil. However, flushing

the engine before each oil change ensures they derive the greatest benefits from the new oil. AMSOIL synthetic motor oil contains potent detergent additives that help keep engines clean.

If your customer wants to flush his or her engine regardless, Engine and Transmission Flush is perfectly safe to use in this scenario.

In vehicles with a suspect maintenance history switching to AMSOIL products for the first time, it's a good idea to give the engine a fresh start prior to installing new oil. However, it's not required. Doing so helps ensure your customer gets maximum benefit from the oil.

Is Engine and Transmission Flush safe?

Some motorists fear that flushing their engines or transmissions may loosen large chunks of debris that end up clogging narrow passages or the filter. Engine and Transmission Flush cleans at the molecular level, ensuring deposits dissolve and properly exit the engine or transmission with the oil when it's drained. It's perfectly safe to use.

How do I use Engine and Transmission Flush?

To flush the engine, add the entire bottle to the fill port and idle the engine for 10-15 minutes. Immediately drain the oil. Replace the oil filter and refill with new oil.

To flush an automatic transmission, add the entire bottle to the fill port and idle the engine for 10-15 minutes, shifting through drive and reverse. Do not place the vehicle under heavy load. Drain all the fluid, including from the torque converter, replace the filter and add new fluid. We don't recommend flushing a transmission without a removable pan or filter access.

For video instructions on flushing an engine, head to youtube.com/user/AMSOILinc and search "flush."

How well does Engine and Transmission Flush work?

To see the product in action, check out the before/after images here. They're also available on the product page at AMSOIL.com and AMSOIL.ca, as well as on the Engine and Transmission Flush product data bulletin (G2763).

Before Cleanup

Cylinder head pre-cleanup. Note the sludge deposits on and around the valve springs and push rod openings.

Before Cleanup

Automatic transmission clutch plates pre-cleanup.Varnish and glazing is heavy on some of the plates.

After Cleanup

Cylinder head after cleanup with AMSOIL Engine and Transmission Flush. The valve springs and push rod openings are noticeably cleaner, with fewer sludge deposits. The manufacturer's stamping is more easily seen.

After Cleanup

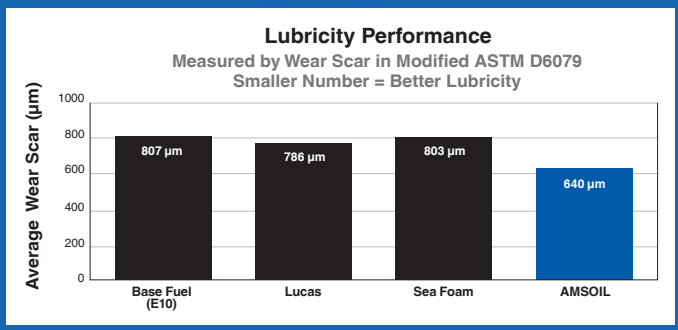
Automatic transmission clutch plates after cleanup with AMSOIL Engine and Transmission Flush reveal lighter glazing and varnish.

RESTORE HORSEPOWER AND PRESERVE PERFORMANCE

AMSOIL Upper Cylinder Lubricant delivers 18 percent more lubricity than Lucas* and 20 percent more than Sea Foam* for better retention of horsepower and fuel economy.[R]

Upper Cylinder Lubricant

- Lubricates fuel system and upper cylinders
- Fights ethanol-related corrosion
- Helps keep injectors clean
- Capless compatible

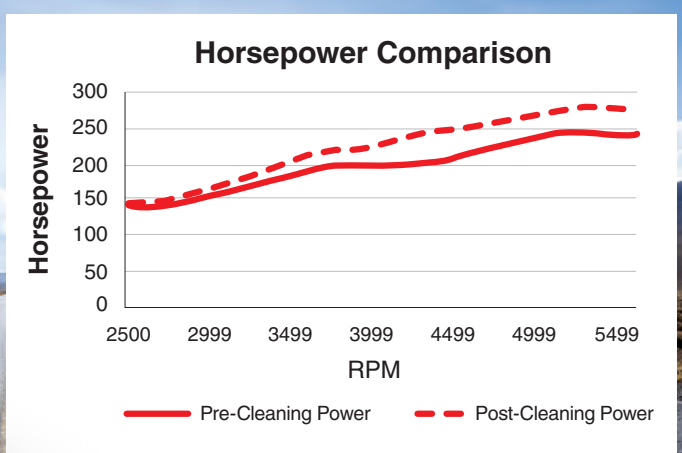


*[R]Based on independent testing of AMSOIL Upper Cylinder Lubricant, Lucas Upper Cylinder Lubricant and Sea Foam Motor Treatment obtained on 02/13/2019 using the ASTM D6079 modified for use with gasoline. *All trademarked names and images are the property of their respective owners and may be registered marks in some countries. No affiliation or endorsement claim, express or implied, is made by their use.*

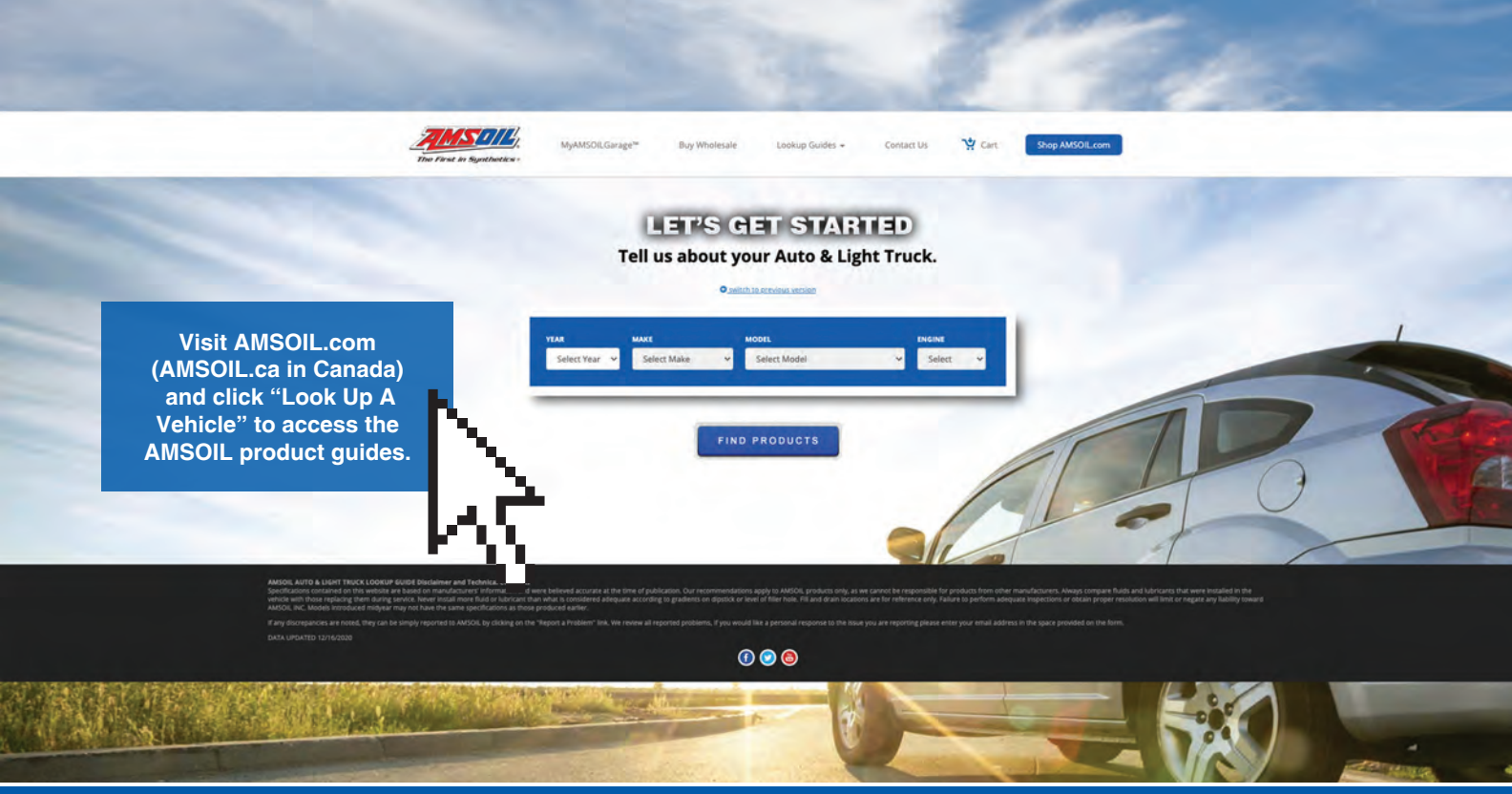
AMSOIL P.i.® restores up to 14% horsepower.[NN]

P.i.® Performance Improver

- Restores power and performance
- Reduces need for costly higher-octane fuel
- Reduces noise from carbon rap and pre-ignition
- Controls pre-ignition “knock”
- Maintains the engine efficiency, fuel economy and power of new vehicles
- Capless compatible



*[NN]Based on third-party testing in a 2016 Chevrolet® Silverado® 1500, 5.3L V-8 GDI with 100,616 miles, using one tank treated with AMSOIL P.i. Actual results may vary. *All trademarked names and images are the property of their respective owners, and may be registered marks in some countries. No affiliation or endorsement claim, express or implied, is made by their use.*



Product Guides Help You Make the Right Recommendations for Your Customers

AMSOIL product guides are the easiest way to find all the right products for your customers' vehicles and equipment. They're updated regularly, easy to use and best of all, totally free.

- Auto/Light Trucks • Motorcycles • ATVs • UTVs
- Snowmobiles • Marine Outboards • Personal Watercraft
- Small Engines • Heavy-Duty Commercial Vehicles

COMPLETE OIL CHANGE

AMSOIL product guides also offer an easy way to purchase a complete kit with the correct amount of oil and filter needed for a total oil change on the selected vehicle or equipment.

MORE THAN JUST MOTOR OIL

AMSOIL product guides provide recommendations for every vehicle component that requires lubrication, as well as recommendations for filters, fuel additives, cleaners and other preventive maintenance products.

AMSOIL
The First in Synthetics ®

CHANGE SERVICE REQUESTED

Published 12 times annually

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Donaldson
Filtration Solutions

WIX FILTERS

MANN FILTER

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DISCOVER

(Discover in U.S. only)

Spring will be here before you know it. Be sure your powersports customers and accounts know about our new Can-Am* ATV/UTV Oil Change Kits and Powersports Antifreeze & Coolant. my.AMSOIL.com

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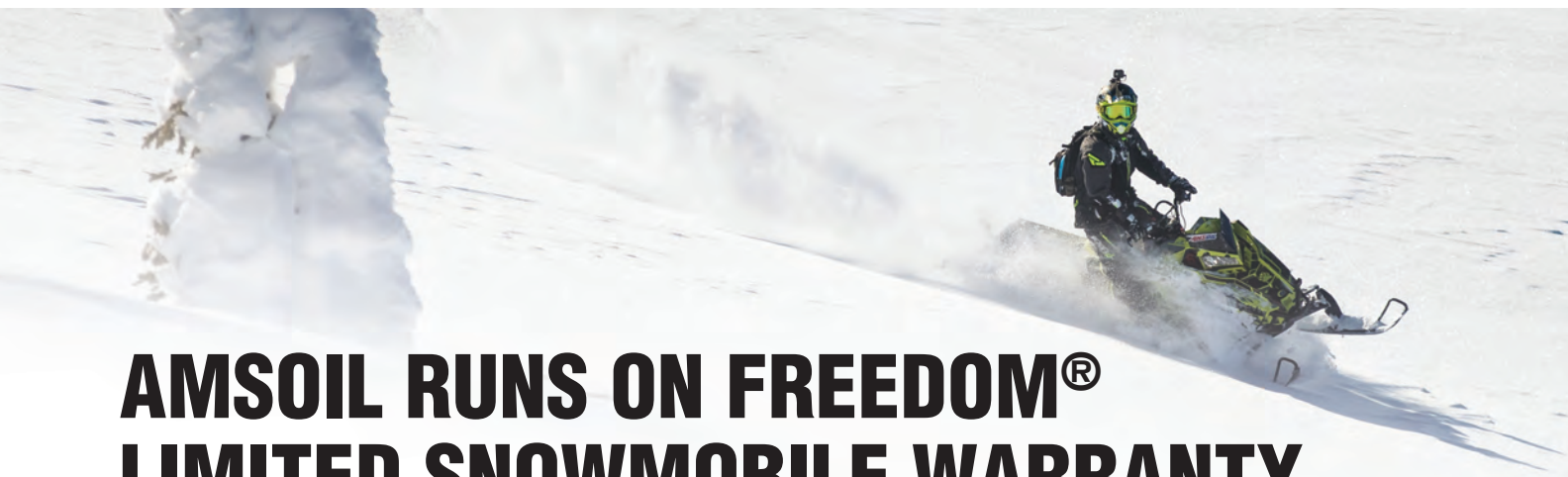

AMSOIL RUNS ON FREEDOM® LIMITED SNOWMOBILE WARRANTY

Don't let the powersports manufacturers bully you or your customers into buying their brand of oil. You have the freedom to choose your brand of oil and keep your warranty intact.

To show our support for riders and to double-down on our confidence in our snowmobile oil, we offer the Runs on Freedom Limited Snowmobile Warranty.

It covers engine repairs for **two years or 5,000 miles (8,000 km)**, whichever comes first, on current-model-year or newer sleds that use AMSOIL INTERCEPTOR® Synthetic 2-Stroke Oil exclusively.

It helps remove the last hurdle preventing prospects from switching to AMSOIL products in their sleds.

RUNS ON FREEDOM AMSOIL

Reach out to the riders and accounts you service this winter and use this powerful new limited warranty to secure more sales. To get details and register, visit **AMSOIL.com/rofwarranty (AMSOIL.ca/rofwarranty in Canada).**