

AMSOIL[®]

MAGAZINE

► PREFERRED CUSTOMER EDITION

SPRING 2025



SPRING OIL-CHANGE SEASON IS HERE

| PAGE 4



**Introducing New Synthetic ATV/UTV
Dual-Clutch Transmission Fluid**

| PAGE 10



AMSOIL Signature Series Ultra-Low-Viscosity 100% Synthetic ATF

**Advanced Protection for High-
Performance 10-Speed Transmissions**

AMSOIL Signature Series Ultra-Low-Viscosity 100% Synthetic Automatic Transmission Fluid is designed specifically for transmissions requiring FORD MERCON* ULV and GM DEXRON* ULV specifications.

- **Withstands** extreme heat and pressure to resist shear.
- **Advanced** friction modifiers help deliver smooth, reliable shifts.
- **Boosted** dose of antioxidants help defend against heat.
- **Protects** against sludge and varnish deposits that can clog narrow passages and contribute to clutch glazing.
- **Formulated** to withstand the rigors of heavy towing, elevated temperatures and challenging terrain.
- **Remains** fluid in sub-zero temperatures.





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THE COVER

As spring draws near, it's time to change oil in your vehicle and prepare for summer – and AMSOIL has everything you need to get it done.

Spring Oil-Change Season is Here

Prepare your vehicles and equipment for summer projects and powerful fun.



It's a tradition that began out of necessity and continues to this day: spring oil changes. Prior to the introduction of multigrade oils, the method to maintain proper motor-oil viscosity year-round was seasonal oil changes in the spring and fall. Multigrade motor oil eliminated the need to change oil by the season, but the habit has stuck and many of us still change our oil in the spring or fall. Perhaps that makes sense. While our minds are focused on changing oil in our vehicles, we are also reminded to begin storing equipment from the current season and start preparing our powersports toys and power equipment for the next season. As spring draws near, it's time to change oil in your vehicle and prepare for summer – and AMSOIL has everything you need to get it done.

Your Vehicle

No matter what you drive or how you drive, AMSOIL provides specially formulated motor oil designed to protect your vehicle. Different vehicles endure different challenges depending on their design and usage. We engineer motor oil to target those unique conditions and maximize power, performance and protection in all vehicles. Which motor oil is right for your vehicle?

AMSOIL Signature Series 100% Synthetic Motor Oil is engineered for enthusiasts seeking maximum protection and performance. It's precision-formulated with cutting-edge technology and a passion for making the world's best motor oil.



	SIGNATURE SERIES	EXTENDED-LIFE (XL)	HIGH-MILEAGE	HYBRID	OE
WEAR PROTECTION	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓
ENGINE CLEANLINESS	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓	✓ ✓
SERVICE INTERVAL	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓
EXTREME-TEMP PERFORMANCE	✓ ✓ ✓ ✓	✓ ✓	✓ ✓	✓ ✓ ✓ ✓	✓ ✓
CORROSION PROTECTION	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓ ✓ ✓ ✓	✓ ✓
OIL-CONSUMPTION CONTROL	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓ ✓
VISCOSITY CONTROL	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓ ✓ ✓ ✓	✓ ✓
LEAK PROTECTION	✓ ✓ ✓ ✓	✓ ✓	✓ ✓ ✓ ✓	✓ ✓	✓ ✓
SEVERE-SERVICE PROTECTION	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓ ✓	✓ ✓

AMSOIL Extended-Life 100% Synthetic Motor Oil is overbuilt for road warriors so you can confidently drive up to 20,000 miles (32,000 km) or one year between oil changes.¹ A proprietary combination of advanced synthetic base oils and a boosted additive package promotes cleanliness and prolonged engine life.

AMSOIL 100% Synthetic High-Mileage Motor Oil is designed for the unique demands of high-mileage engines, helping extend the life of your vehicle. It delivers purpose-built protection at a time in your vehicle's life where it could benefit from more-robust maintenance.

Infrequent engine usage and increased start/stop activity of hybrid engines place demands on lubricants not common in traditional vehicles. **AMSOIL 100% Synthetic Hybrid Motor Oil** delivers purpose-built protection for the hybrid-drive cycle to maximize engine life, efficiency and performance.

AMSOIL OE 100% Synthetic Motor Oil delivers 100% synthetic engine protection for advanced automotive technology, including turbos and direct injection.

While you're changing your oil, it's also a great time to treat your engine to a dose of AMSOIL P.i.® AMSOIL P.i. attacks carbon and sludge buildup head-on with concentrated detergents that aggressively clean stubborn, power-robbing deposits from injectors, valves and the combustion chamber. Third-party testing demonstrated the performance of P.i. using a 2016 Chevrolet® Silverado® with 100,616 miles (161,926 km) on the odometer. Following a single treatment with P.i., the truck measured an incredible 14% improvement in horsepower.²

 **SHOP BY VEHICLE**
ADD NEW

The Ultimate Oil Change
Right product. Right package. Right to your door.
[AMSOIL.com/AMSOIL.ca](https://www.amsoil.com/AMSOIL.ca)

¹Normal Service – Up to 20,000 miles (32,000 km) or one year, whichever comes first, in personal vehicles not operating under severe service. ²Based 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.

Your Motorcycle

In ideal summer riding weather, your V-twin can generate extreme heat and undergo stress that leads to oil consumption and engine and transmission wear. AMSOIL 100% Synthetic V-Twin Motorcycle Oil fights the viscosity-destroying effects of extreme engine heat during hot summer riding. In fact, it provides 6X better viscosity stability than Harley-Davidson* SYN3.³

Metric motorcycles are designed to deliver maximum performance and responsiveness, with engines that often surpass 10,000 rpm. AMSOIL 100% Synthetic Metric Motorcycle Oil is engineered for those extremes to maximize performance in engines and transmissions on four-stroke metric sport bikes, cruisers, touring motorcycles and adventure bikes.

ATVs and UTVs

From performing demanding chores to tearing up challenging terrain, ATVs and UTVs are put through extreme stress. AMSOIL 100% Synthetic ATV/UTV Motor Oil is designed to protect hard-working and performance ATVs and UTVs. Advanced synthetic technology resists oxidation and protects against extreme heat to help prevent sludge and varnish.

Boats and PWCs

AMSOIL 100% Synthetic Marine Engine Oil is specially engineered for marine applications. Its durable formulation protects in severe conditions, from all-day trolling to high-rpm operation, while advanced additives help prevent deposits, rust and corrosion.



³Based on testing of AMSOIL 20W-50 Synthetic V-Twin Motorcycle Oil and Harley-Davidson Screamin' Eagle SYN3 purchased on 1/26/24 in the CEC L45-KRL, ASTM D445 test.



Lawnmowers and Power Equipment

Small engines run hot, operate under constant load, generate oil-damaging contaminants and are exposed to dirt, rain and other extremes. They're far tougher on oil than most people think. AMSOIL 100% Synthetic Small-Engine Oil was designed from the ground up specifically for small-engine dependability.

For handheld power equipment like chainsaws and string trimmers, AMSOIL SABER® Professional 100% Synthetic 2-Stroke Oil withstands high-temperature operation to fight carbon buildup in gas-powered two-stroke engines. Its excellent detergency properties fight power-robbing deposits to keep exhaust ports and spark arrestor screens clean for easy starting and maximum power.

Just the Beginning

Spring is just around the corner and summer is close behind. The products above only scratch the surface of AMSOIL product offerings. Visit AMSOIL.com/AMSOIL.ca to get everything you need to keep summer rolling strong.



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IRONCLAD PROTECTION

NEW SEVERE GEAR® 75W-85 100% Synthetic Gear Lube (SVL)

Engineered for maximum performance in severe-duty applications, such as towing, racing, off-roading and high ambient temperatures. Proprietary additives form an iron-sulfide barrier on gear surfaces for the ultimate line of defense.

- **Advanced** protection against wear.
- **Controls** thermal runaway.
- **Protects** against rust and corrosion.
- **Long** oil, seal and equipment life.

Use in differentials, manual transmissions and other gear applications requiring any of the following specifications: API GL-5/MT-1, MIL-PRF 2105E, SAE J2360, Ford XY-75W85-QL, GM 19300457, 19418501, 92184900, 19369842, Ram 68210057AB, 68083381AA, 68364258AA, 68232947AB, 68378949AA, 05136035AC, Toyota Genuine Gear Oil LT, 08885-02506





Exhaust Power Valves

Cleanliness is key to maintaining optimum exhaust-power-valve performance.

Len Groom | SR. PRODUCT MARKETING MANAGER, POWERSPORTS & POWER EQUIPMENT

Exhaust power valves are a key component in two-stroke engines, balancing throttle response and power delivery to maintain optimal engine performance. Larger exhaust ports provide more airflow and additional performance at higher engine speeds, but can compromise horsepower and torque at lower speeds. Smaller exhaust ports provide better low-speed performance, but their restrictive size leads to reduced power as engine speed increases.

Adjustable exhaust valves that increase in size with engine speed were developed more than 50 years ago. Activation of these power valves can be controlled using exhaust or cylinder pressure, mechanically with cable or linkage or more commonly with an electronic control system that monitors engine rpm and throttle position for continuous performance optimization. Modern two-stroke engines are primarily found in off-road and racing vehicles, including snowmobiles, dirt bikes and go karts, so the importance of power-valve maintenance has become an afterthought for many.

Power-Valve Functionality

Modern two-stroke exhaust power valves are designed to dynamically adjust the exhaust-port size in response to varying engine speeds. At low engine speeds, the power valve covers a portion of the exhaust port, creating better low-rpm performance. The valve retracts as engine speed increases, creating a larger exhaust port and maximizing high-speed power without sacrificing low- and mid-range performance and throttle response.

Because the power valves are located within the exhaust stream, they are exposed to high temperatures and a constant flow of contaminants. A combination of carbonaceous material, unburned fuel and oil residue can form

deposits on power valves, restricting their movement. Eventually, these deposits get thick enough to cause the valve to stop moving, greatly reducing engine power and performance.

Minimal force is used to activate power valves, so even moderate restriction from deposit formation can render the valve inoperable and periodic maintenance is required to maintain peak performance. For example, snowmobile manufacturers recommend that valve cleaning be performed at least annually and at most every 1,000 miles (1,600 km). Power valves that are subjected to extensive idle or operation at continuous low speeds may require more frequent service.

Power-Valve Cleaning

On inspection, the valve should move freely with little or no resistance and not be stuck in place. Discoloration and deposits are normal, but hard, dry carbon is worse than soft, oily deposits. Anything that hinders valve movement requires removal. Use AMSOIL Power Foam to dissolve residue and loosen deposits and a non-metallic brush to remove deposits without damaging the valve surfaces.

Deposit Prevention

Quality two-stroke oil can improve the cleanliness, performance and longevity of exhaust power valves. The advanced formulation of AMSOIL INTERCEPTOR® 100% Synthetic 2-Stroke Oil (AIT) features a high dose of detergents that inhibit deposit formation on critical components to prevent exhaust power valve sticking, maximize engine performance and extend maintenance intervals.



INTRODUCING NEW SYNTHETIC ATV/ UTV DUAL-CLUTCH TRANSMISSION FLUID

ATVs and UTVs are a thrilling way to enjoy backcountry off-roading, dune and desert riding and racing. They offer many advantages over other off-road vehicles, including lower cost, better fuel economy, easier maintenance and adaptability to almost any terrain. They are sturdy, agile and easy to transport, providing increased mobility that is ideal for difficult-to-reach locations and operation in harsh environments.

North America is the largest ATV/UTV market, with about \$6 billion in sales and 5% growth annually. Millions of these ATV and UTV owners are seeking peak performance, so manufacturers like Polaris,* Can-Am,* Honda,* Kawasaki,* and Yamaha* continue to deliver advanced technology, including turbocharged engines for more power and dual-clutch transmissions for smoother power delivery. Dual-clutch transmissions (DCT) are designed to maximize power delivery and improve performance with seamless, split-second shifting, but they can suffer from shudder or lurching at slow speeds.

To address the challenges of modern vehicle technology, AMSOIL continues to lead the market in developing application-specific lubricants. New AMSOIL Synthetic ATV/UTV Dual-Clutch Transmission Fluid (AUDCT) is engineered to ensure stable synchronizer engagement that prevents shudder, producing consistently fast, smooth shifting and helping extend the life of dual-clutch transmissions. We've already tested and proven its superior anti-wear protection in the new Can-Am Maverick* R dual-clutch transmission under heavily loaded, high-temperature operation, making it the first, best and only alternative to the manufacturer-branded DCT fluid.



The extreme pressure and high torque generated by ATVs and UTVs can mechanically shear oils, causing them to lose viscosity and reducing their ability to protect against wear. AMSOIL Synthetic ATV/UTV products have outstanding film strength that resists extreme pressure to provide superior anti-wear protection for heavily loaded, high-torque mechanical components.

Turbocharged engines and aggressive driving generate extreme heat that can cause lubricants to break down, leading to harmful deposits that accelerate engine wear. AMSOIL Synthetic ATV/UTV products resist the effects of extreme heat for cleaner and cooler operation, so you can comfortably and confidently push your machine to its limits.

AMSOIL ATV/UTV products are engineered to provide the superior performance, protection and peace of mind required for performing demanding chores and tackling tough terrain. They are also Warranty Secure® to maintain your manufacturer warranty, no matter what brand of ATV or UTV you own. Protect every adventure with our full line of AMSOIL ATV/UTV products.

AMSOIL ATV/UTV Oil-Change Kits for Can-Am and Polaris

- A complete AMSOIL ATV/UTV oil change in a box.

AMSOIL 100% Synthetic ATV/UTV Motor Oil

- Helps keep shrouded engines cool.
- Resists oxidation to help maintain peak performance.



NEW AMSOIL Synthetic ATV/UTV Dual-Clutch Transmission Fluid

- Delivers fast, smooth shifts for Can-Am Maverick R dual-clutch transmissions.
- Lab-tested anti-wear protection under heavily loaded, high-temperature operation.



AMSOIL Synthetic ATV/UTV Dual-Clutch Transmission Fluid

U.S. PRICING

Stock #	Units	Pkg./Size	U.S. P.C.
AUDCTQT	EA	1 Quart	\$18.39
AUDCTQT	CA	12 Quarts	\$209.05

Not available in Canada.

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AMSOIL Synthetic ATV/UTV Transmission & Differential Fluid and Powertrain Fluid

- Protects high-torque gears and bearings and heavily loaded hubs and differentials.



AMSOIL DOMINATOR® 100% Synthetic Racing Grease

- Exceptional high-speed friction reduction and extreme-temperature performance.



AMSOIL 100% Synthetic Chaincase & Gear Oil

- Inhibits oxidation, rust and corrosion to promote long chain and gear life.



AMSOIL Powersports Antifreeze & Coolant

- 50/50 pre-mixed, noncorrosive ethylene-glycol formula lasts up to five years.



Get Specialized Protection and Performance **for Your ATV/UTV.**



AMSOIL Shock Therapy® Suspension Fluid

- Resists fade to provide smooth and consistent dampening.

AMSOIL Mudslinger® Mud and Dirt Repellent

- Protects against UV damage and repels mud, dirt and snow for easy cleaning.

Consult the AMSOIL Product Guides to find the right AMSOIL products for all your vehicles at AMSOIL.com/AMSOIL.ca.

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PRODUCT SPOTLIGHT:

AMSOIL Brake & Parts Cleaner (BPC)

WHAT IS IT?

- **Professional-strength** parts cleaner.

WHAT DOES IT DO?

- **Quickly** removes oil, grease, brake fluid and other contaminants from brake parts and other automotive components.
- **Cleans** brake parts with no major disassembly.
- **Leaves** no residue, helping eliminate brake squeal and chatter.
- **Dries** quickly.

WHO IS IT FOR?

- **Automotive enthusiasts, do-it-yourselfers, commercial accounts.** Applications include brake parts, brake pads, calipers, drums and more.

Not available in California, New Jersey or Canada.

Online Store: [AMSOIL.com](https://www.AMSOIL.com) | **Telephone:** 1-800-777-7094
EZ Online Order Form: my.AMSOIL.com



BRAKE & PARTS CLEANER

**PROFESSIONAL
STRENGTH**

**Quickly Removes Grease and Oil
Leaves No Residue
Dries Quickly
Chlorinated Formula**

CAUTION:
VAPOR MAY BE HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
CONTACT IRRITATES EYES AND SKIN.
CONTENTS UNDER PRESSURE.
Carefully read precautions on back panel.

NET WEIGHT 19 OZ. • 539 g



LUBRICATION 101: A LOOK AT BASIC LUBRICATION CONCEPTS

Lubrication can be a daunting subject for someone unfamiliar with its basic concepts. Even someone with experience in the field can be confused by the multitude of lubricants available on the market today. Reviewing a few basic lubrication principles can make it easier to understand why proper lubrication is necessary in every application.

FRICITION

Webster defines friction as the “rubbing of one body against another,” and as “resistance to relative motion between two bodies in contact.”

Friction can be beneficial. It generates heat that can be used to start a fire, and it is the principle behind a vehicle’s braking system.

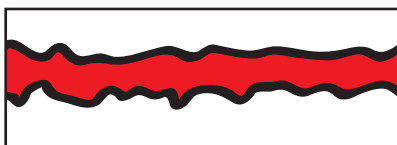
Friction can also be detrimental. The heat generated as the result of friction can cause damage to an engine. Because contact is required to generate friction, wear can take place in these areas of contact, leading to material failures, overheating and the formation of deposits. Although there are many ways to reduce friction, the most common way is through the use of a fluid or semi-fluid lubricant. The key characteristic of lubricants is that they are not readily compressible, minimizing component contact or eliminating contact altogether.

TYPES OF LUBRICATION

There are three types of lubrication conditions that can exist between two surfaces:

HYDRODYNAMIC LUBRICATION

SURFACES SEPARATED BY BULK LUBRICANT FILM



■ Boundary Film ■ Bulk Lubricant

Hydrodynamic or Full-Film Lubrication is the condition in which surfaces are completely separated by a continuous film of lubricating fluid. The non-compressible nature of this film separates the surfaces

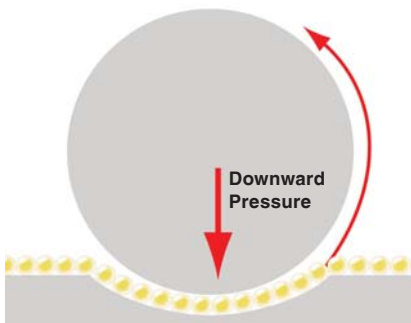
and prevents metal-to-metal contact. The lubricant's viscosity assumes responsibility for the majority of wear protection; additives play a limited role. Although full-film lubrication does not generally allow metal-to-metal contact, abrasive wear or scratching can still occur if dirt particles penetrate the lubricating film.

Engine components operating under a full-film lubrication regime include the crankshaft, camshaft and connecting rod bearings, and piston pin bushings. Under normal loads, transmission and rear-axle bearings also operate under a full-film regime.

Elasto-Hydrodynamic Lubrication exists when a sudden reduction of the oil film causes a temporary increase in viscosity. When viscosity increases, the film can become rigid, creating a temporary elastic deformation of the surfaces. The lubricant's viscosity and additives work together to protect surfaces in an elasto-hydrodynamic regime.

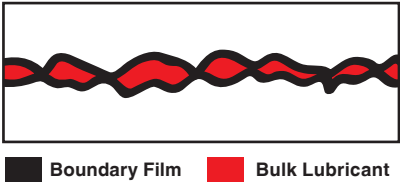
Anti-wear additives are often relied upon to protect engine bearings in high-load conditions, while both anti-wear and extreme-pressure additives work to protect gears in high-load conditions.

ELASTO-HYDRODYNAMIC LUBRICATION
BULK LUBRICANT AND BOUNDARY
FILM PLAY A ROLE



The shear strength of the fluid increases due to an increase in load or pressure of a surface and behaves as though it were stronger than the metal surface it acts against, thus causing the surface to deform.

BOUNDARY LUBRICATION
PERFORMANCE ESSENTIALLY
DEPENDENT ON BOUNDARY FILM



Boundary Lubrication is a condition in which the lubricant film becomes too thin to provide total surface separation. This may be due to excessive loading, low speeds or a change in the fluid's characteristics. In such cases, occasional metal-to-metal contact takes place between surfaces, and the surfaces are almost entirely dependent on the lubricant's additives to provide protection.

Anti-wear additives protect the cam lobes, cylinder walls and piston rings in engine high-load conditions, while anti-wear and extreme-pressure additives protect ring and pinion gears in rear axles.

OTHER LUBRICANT FUNCTIONS
Though minimizing friction and wear is the primary function of a lubricant, it is also required to perform the following tasks:

Clean – A lubricant must maintain internal cleanliness by suspending contaminants or keeping contaminants from adhering to components.

Cool Moving Elements – Reducing friction minimizes the amount of heat generated and lowers the operating temperature of the components. A lubricant must also absorb heat from the components and transport it to a location where it can be safely dissipated.

Prevent Contamination – The lubricant must act as a dynamic seal in locations such as the piston, piston ring and cylinder contact areas.

LUBRICATION 101:

A LOOK AT BASIC LUBRICATION CONCEPTS

This minimizes contamination by combustion byproducts, for example, in the lubricating system. Lubricants are also relied upon to support mechanical seals found elsewhere and to minimize external contamination and fluid loss.

Dampen Shock – The lubricant may be required to cushion the blows of mechanical shock. A lubricant film can absorb and disperse these energy spikes over a broader contact area.

Transfer Energy – A lubricant may be required to act as an energy transfer medium as in the case of hydraulic equipment or lifters in an automotive engine.

Prevent Corrosion – A lubricant must have the ability to prevent or minimize internal component corrosion. This can be accomplished either by chemically neutralizing the corrosive products or by setting up a barrier between the components and the corrosive material.

COMPONENTS OF A LUBRICANT

Lubricants are generally composed of two groups of materials. **Base oils** comprise 75 to 95 percent of the finished product. The most commonly used base oils are derived from petroleum crude oil. **Additives** are usually added to the base oils to enhance or impart new properties. The use of such special chemical compounds is another way to minimize friction and wear, and they can offer protection when the lubricating fluid cannot maintain component separation.

INCREASED DEMAND ON LUBRICANTS

As time goes on, the lubrication needs of equipment continue to change. As equipment becomes more advanced and sophisticated, the demands placed upon the required lubricants become more severe. What may have been a preferred lubricant in the past is likely to be totally unacceptable today.

The automotive industry is an excellent example of how demands on equipment have changed. The engines used in today's vehicles require significantly more from a motor oil than they did in the past.

Modern vehicles are requiring lighter viscosity oils for improved fuel economy, but feature engines that output more power per cubic inch of displacement than ever before. To achieve this power level, vehicle manufacturers are adding turbochargers that expose motor oils to higher temperatures and greater stress. Meanwhile, requirements for cleaner exhaust emissions have contributed to higher levels of contaminants in the oil and increased the oil's operating temperature. By reducing aerodynamic drag, manufacturers have also minimized the amount of air that flows over engines and drivetrains, causing operating temperatures to trend further upward. Even with all these changes, manufacturers are requiring lubricants to last longer than they ever did before.



HOW ARE SYNTHETIC OILS DIFFERENT?

Although the engineering of synthetic base oils varies, synthetics are generally made through a reaction process that significantly improves the consistency of the base oil and its molecular uniformity. Conventional petroleum base oils, on the other hand, are obtained through a process of distillation.

Distillation slightly limits the molecular diversity that may exist within the base oil, but does not completely eliminate nonessential molecular structures. This is important because unnecessary molecular structures produce variations in the base oil's performance. The ideal lubricant's chemical composition is one in which the molecular construction is identical throughout, such as in a synthetic base oil. Because of the way synthetic base oils are produced, they are molecularly uniform and contain significantly less undesirable materials than a conventional base oil.

Molecular uniformity also affects the properties that each type of lubricant possesses. The properties of conventional oils tend to vary due to inconsistencies in the crude oil from which they are obtained. The properties and performance features of synthetics, on the other hand, are predictable due to their molecular uniformity.

AMSOIL synthetic lubricants are formulated to take advantage of the superior properties of premium synthetic base oils and top-of-the-line additives. They provide excellent lubrication and wear protection and have been designed to resist the chemical breakdown processes that limit the service life of conventional petroleum oils.

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POWERFUL PROTECTION WITH A SLED WARRANTY TO MATCH

Don't let the snowmobile manufacturer dictate which oil you use. Choose the superior protection provided by AMSOIL INTERCEPTOR® for your new, current-model-year or newer sled and we'll back you with our Runs on Freedom Limited Snowmobile Warranty that covers engine repairs for up to two years/ 5,000 miles/8,000 km.*



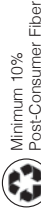
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