



MAGAZINE

APRIL 2022



195-HP

TURBOCHARGED UTV

NO MATCH

FOR AMSOIL PRODUCTS

| PAGE 8

A close-up photograph of a person's hands holding a blue oil filter over a car engine. The person is wearing a blue and white plaid shirt. The background is a blurred green, suggesting an outdoor setting. The engine components are visible in the foreground.

GET A HEAD START ON SPRING OIL CHANGE SEASON

Warmer weather is often the cue to perform vehicle maintenance – oil changes in particular. It's a great time of year to reach out to existing customers and make new relationships with potential customers.

CONTACT EXISTING CUSTOMERS

Touch base with your catalog customers, P.C.s, commercial accounts and retail accounts to share the latest news and remind them of the many benefits AMSOIL provides.

INTRODUCE YOURSELF TO PROSPECTS

Now is a great time to walk into a shop, introduce yourself and start building a relationship with potential new accounts.

REACH OUT TO INSTALLERS

Spring is typically a busy time for installers. Show your support for these accounts by calling to check in or stopping by their shops to see if you can assist in their efforts to keep the spring oil changes flowing.



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APRIL 2022

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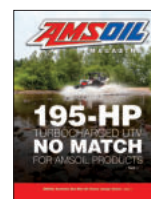
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Letters to the Editor

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THE COVER

We put this 2021 Can-Am® Maverick® X3 DS Turbo RR through severe dyno testing to test the performance of AMSOIL Formula 4-Stroke® Powersports Synthetic Oil (AFF).



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From the President

AMSOIL is a strategic, goal-driven company. We spend a fair amount of time examining all relevant factors to set realistic, but aggressive, goals; then we design strategies and tactics to help us achieve those goals. We have shared our growth goal the past couple of years, and set it at 8% year-over-year growth again this year. We base our targets on a fiscal year that runs from July 1 to June 30, and this fiscal year has delivered more than its share of unique challenges.

Raw-materials shortages and pricing volatility have dominated our activities. The AMSOIL team has successfully delivered creative solutions to limit the effects of these issues for you and our customers. We have navigated the most volatile period on record with minimal tangible issues – so far. Market turmoil is expected to continue for many more months, and we will continue grappling with these issues to minimize their impact on you and our customers.

I am happy to report that AMSOIL is strong and growing despite these unprecedented problems. We are entering the final quarter of the fiscal

year in position to achieve our 8% goal, but we are riding the edge. I am sure we will hit our target. Are you achieving the same level of growth? I sincerely hope so. Brand recognition is growing, sales are increasing and AMSOIL is growing stronger. You can take advantage of this growth to grow. Leverage our growing brand strength by wearing AMSOIL clothing and advertising your status with AMSOIL. Get out and spread the word locally. Join your local commercial club or chamber of commerce.

So many things affect success. Skill, hard work, market forces – the list is long. People who succeed in any business have one thing in common: commitment. They stick with it. They are not deterred by setbacks, challenges or temporary failure, and their tenacity is rewarded. We are in an enviable position compared to many of our competitors. We are still growing despite massive market challenges. Those issues are not letting up, but neither are we. We will continue to fight and grow. What will you do?

Alan Amatuzio
President & CEO

LETTERS TO THE EDITOR

OIL CATCH CAN

Add it to your engine for longevity?

Carleton Akana

AMSOIL: Thank you for asking, Carleton. There are several manufacturers and designs of catch cans, so results may vary, but our experience shows they can remove contaminants (primarily water, oil and fuel) from air circulating throughout the PCV system and prevent them from returning to the intake. However, our evaluation did not determine the long-term effects on engine longevity.

EA042 OIL FILTER

Probably the second most popular oil filter ever made and it's unavailable? Now I'll have to waste several quarts of AMSOIL [motor oil] during the 25,000-mile oil change because I will have to change the filter every 5,000 miles.

When will this come available?

Thanks

Marvin Kelch

AMSOIL: We understand your frustration, Marvin, and we are frustrated too. The EA042 Oil Filter was out of stock for a few weeks, but is available once again. If you're currently using a WIX oil filter with AMSOIL Signature Series Synthetic Motor Oil, we recommend changing the filter at 12,000 miles. Supply-chain issues are creating significant challenges for the entire industry. All manufacturing components are in short supply. As a result, you may see some AMSOIL products temporarily placed on backorder. In these cases, we encourage you to continue checking AMSOIL.com (AMSOIL.ca in Canada) for availability. We are doing all we can to ensure all products are available as soon as possible. The majority of AMSOIL products are available as normal and we expect that to continue; despite our best efforts, however, supplies of raw materials for grease, aerosols and filters continue to pose challenges and likely will for a few more months. Thank you for understanding; we apologize for the inconvenience.

GREASE

I would like to reach out to the team that coordinates packaging products at AMSOIL. The easy-pack is a wonderful invention that helps set AMSOIL gear lube apart from the competition. There is also a grease cartridge on the market now that I know personally is a game changer because I own and have used this new style cartridge for a couple years now. A German company has reinvented the cartridge with a more user-friendly, less-waste, "no-leak" design. I heard about the unfortunate incident on losing a partner that packages grease for AMSOIL due to a fire. This would be a great time for a new partner and to boost grease sales with this new cartridge. Most of Europe has already adopted this cartridge. In fact, John Deere* grease is now available in the cartridge overseas. This cartridge requires a special gun. This new gun could also be a part of the AMSOIL product line. After all, AMSOIL partners with and offers products made by other companies already. I hope AMSOIL will consider this opportunity. I know in the farm and ranch community, lube-shuttle guns and grease are the rage these days.

Tyler Rhoton

AMSOIL: Thank you for your positive feedback on our easy-pack design and for sharing this grease-cartridge information, Tyler. The disaster with one of our grease partners this last summer was a tragedy. Since then, we've worked hard to find new partners and continue providing our customers with high-performance AMSOIL synthetic grease. Upon examining this lube-shuttle design, we have concerns about the cartridge not being universal. Many customers already have grease guns, and many only use them intermittently. Asking them to buy another grease gun would be an uphill battle. We will, however, further evaluate this design to fully understand the advantages and disadvantages, how it could work with our manufacturing capabilities and how it could benefit Dealers and customers.

UPS DELIVERY

It is apparent that UPS has little to no regard for your packages. They left my package in the snowbank below my mailbox, which is 1/4 mile from my house and is not visible from my house. You will also note that it was delivered at 4:43 p.m., which is well beyond the normal USPS mail delivery and after dark. If I wouldn't have checked the tracking on this package it would have been in the snowbank overnight and been in danger of the snowplow this morning.

This lack of regard for AMSOIL packages seems to be the normal practice for UPS in recent years. I have filed formal complaints to UPS multiple times over the previous three years, and I have sent emails to AMSOIL to make sure you are aware of this issue. I am at a loss about what else I should/can do. It seems that after the first snowflake they will not venture off the blacktop road. I live on a gravel, well-maintained, township (public) road, so I expect delivery to my home, not 1/4 mile away in a snowbank. Is that asking too much?

Again, I don't know what you can do about this issue. However, I wanted to make sure you are aware of what is happening once UPS takes your packages for delivery. I suspect that you are expecting better care of your packages than what UPS is now doing.

Wayne A. Edgerton

AMSOIL: Thank you for bringing this to our attention, Wayne. We spoke with our UPS contact, and this was the result of a UPS driver not following proper delivery procedures. Your local UPS center manager has been notified and the expectation is that future deliveries are to be brought to your residence.

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.



Matt Erickson | VP, PRODUCT DEVELOPMENT

AMSOIL synthetic motor oil helps you breathe easier

Oxygen is great in your lungs, but it's not so great in your motor oil.

Oxygen comprises about 20% of our atmosphere. It's the third most common element in the universe. Without it we'd all be doomed. Yet, oxygen can cause problems inside your engine.

A lubricant's ability to fight oxidation is vital to engine and equipment protection and performance, so let's take a closer look at the oxidation process.

What is oil oxidation?

Oxidation occurs when the addition of oxygen changes a chemical substance. Take an apple, for example, which quickly turns brown when cut due to oxygen.

Metal also succumbs to oxidation, sometimes in just a matter of hours. Have you ever noticed your brakes grinding after letting your car sit for the day in wet weather? That sound is your brake pads scouring rust from the rotors.

Motor oil oxidation

Motor oil isn't immune to oxidation. In fact, oxidation is the most common chemical reaction a lubricant in service will undergo. As oil reacts with oxygen, a permanent chemical change to the oil molecules occurs. This can result in several problems, including the following:

- Formation of sludge and deposits that reduce engine efficiency and increase the risk of engine failure
- Increased oil viscosity, which reduces fuel efficiency
- Reduced resistance to foam, corrosion and rust formation, inviting wear
- Reduced oil life, causing you to change oil more often

Heat accelerates oil oxidation

A number of factors accelerate oxidation, particularly heat. Every 18°F (10°C) increase in temperature doubles the rate of oxidation. That doesn't bode well for motorists driving modern turbocharged vehicles that create increased heat compared to older vehicles.

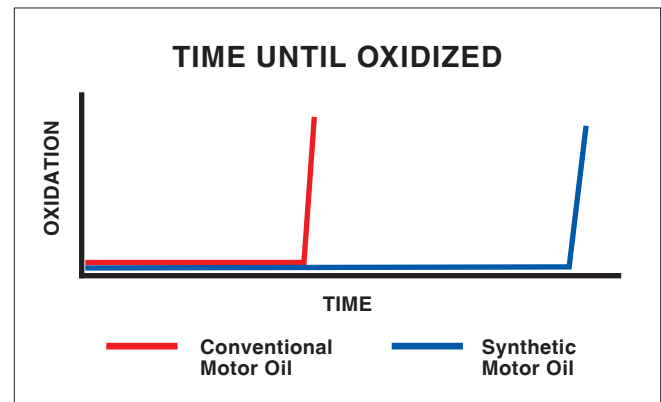
Heat isn't the only oxidation accelerant – certain metals, acids and water can also hasten oxidation. So can large volumes of entrained air, known as foaming.

Can we prevent motor oil oxidation?

Unfortunately, no. Nature is relentless, and all motor oil will eventually oxidize. But we can dramatically slow oxidation through use of synthetic base oils and antioxidant additives.

AMSOIL synthetic lubricants are formulated using synthetic base oils with a saturated molecular structure, meaning oxygen has limited locations to attach and cause issues. This provides inherent heat and oxidation stability compared to unsaturated conventional oils that have a high number of locations where oxygen can easily attach.

AMSOIL synthetic lubricants also contain high-performance antioxidants. These additives are sacrificial in nature, meaning they deplete over time, effectively “taking one for the team”



and protecting the overall formulation from oxidation.

In the graph, you can see the difference this makes. The graph shows results of a bench test that measures the time it takes an oil sample to oxidize. Starting with good synthetic base oils with inherently better oxidation resistance, then protecting them with high-performing antioxidants, results in significantly longer-lasting oil performance.

The performance improvement also shows up in engine tests. Signature Series 5W-30 Synthetic Motor Oil's (ASL) performance in the Sequence IIH Test provides a dramatic example. The test exposes the oil to intense heat, which speeds the oxidation process and can lead to deposits and sludge. Even after doubling the length of the test, Signature Series provided 40% cleaner pistons than required by the standard.¹

While oxygen lets you breathe, AMSOIL synthetic motor oil lets you breathe easy since your engine is protected against oxidation.

¹Based on independent testing of AMSOIL Signature Series 5W-30 in the Sequence IIH Engine Test (ASTM D8111), required by the ILSAC GF-6 and API SP specifications.

The Can-Am* Maverick* X3 DS Turbo RR **rips** to 60 mph in just 4.3 seconds and **tops out** at nearly 100 mph thanks to the turbo's 18 pounds of boost.



195-HP TURBOCHARGED UTV NO MATCH FOR AMSOIL PRODUCTS

A silver lining to the pandemic lockdowns a couple years ago has been the remarkable growth of the powersports market. People in search of entertainment options descended upon powersports dealerships and bought motorcycles, dirt bikes, ATVs and other machines at a frantic pace.

In 2020, sales of UTVs alone increased 30%. UTVs, also known as side-by-sides, have become increasingly popular over the past several years, and the pandemic only accelerated sales in an already robust market category. In fact, sales of AMSOIL ATV/UTV products jumped 45% from 2019-2020 and another 25% from 2020-2021, led by our popular ATV/UTV oil-change kits for Polaris* and Can-Am* machines.

For Work or Play

Enthusiasts value UTVs for their versatility, which is one reason sales keep increasing. You can divide the category into two subsets:

UTILITY/PLEASURE RIDERS

- 74% of the market
- Use their machines for general enjoyment, chores and property maintenance
- Typically ride on dirt roads, through wooded areas, pastures/fields and on their own land.
- The Polaris Ranger* is the prototypical utility machine and the most popular of its kind.

SPORT & TRAIL RIDERS

- 26% of the market and growing
- Typically ride for pleasure on trails, dirt roads and motocross tracks

- Often ride with family and friends while camping, hunting or fishing
- The Can-Am Maverick* is a popular sport UTV

A few years ago, we conducted our UTV Extreme Dyno test in which we put a Polaris Ranger through the paces in our mechanical lab. Despite elevated engine-oil temperatures and increased stress, AMSOIL Synthetic ATV/UTV Motor Oil performed flawlessly and provided excellent protection. Check out the video by visiting youtube.com/AMSOILINC and entering "UTV Extreme Dyno" in the search field.

SALES SUPPORT FOR SPORT RIDERS

To provide additional sales support to help you reach owners of sport UTVs, we recently conducted another extreme dyno test, this time using a 2021 Can-Am Maverick X3 DS Turbo RR. Its turbocharged engine makes more power than some cars on the road today and propels it to nearly 100 mph (160 km/h).

- 1,500-lb. dry weight
- 195 hp
- 153 lb. ft. torque
- 0-60 mph (97 km/h) in 4.3 seconds
- 18 psi boost pressure



OUTSTANDING TRANSMISSION PROTECTION

The transmission was operated in high gear throughout the test, increasing severity. The gear teeth appear in excellent condition, demonstrating the oil's increased protection.



We turned it loose in the real world prior to lab testing to establish a baseline for engine temperature, oil temperature, rpm and other measurements. We used this information to design a test plan that pushed the machine beyond real-world conditions to determine if AMSOIL Formula 4-Stroke® Powersports Synthetic Oil (AFF) and SEVERE GEAR®

BULLETPROOF ENGINE & TURBO PROTECTION



The piston is free of heavy crown deposits with no stuck rings for maximum compression and power. The skirt contains no scuffing despite severe operation at high temperatures and boost pressure.



The piston undercrown is clean and free of deposits despite the extreme temperatures, demonstrating the oil's excellent detergency.



The turbocharger journal bearing is clean and appears in like-new condition despite extreme heat and boost pressure. The oil provided excellent turbo protection.



75W-140 Synthetic Gear Lube (SVO) are capable of delivering reserve protection no matter how hard enthusiasts push their UTVs.

Can-Am Maverick Extreme Dyno Test

- 100 hours (3,421 miles [5,028 km])
- Periods of wide-open throttle
- 244°F (118°C) max. oil temp.
- Max. 8,000 rpm
- 220°F (104°C) max. transaxle temp.

The test plan included periods of wide-open throttle to simulate climbing a hill or sand dune, for example, followed by periods of mid- and low-throttle to simulate slowing down for a corner or other obstacle. Hitting wide-open throttle and then throttling down creates severe heat cycles that invite deposits and varnish on the pistons, rings, turbo bearing and other components. Stuck rings reduce engine compression, which also reduces power. Excessive piston-crown deposits can lead to damaging pre-ignition, while deposits on the turbo bearing or shaft, called turbo coking, can reduce turbo performance and life. The maximum oil temperature we recorded during our pre-test shakedown was 212°F (100°C), while it maxed out at 244°F (118°C) during our lab test, illustrating the test's severity.

After testing, we disassembled the engine and transaxle and examined all critical parts for wear, deposits and other distress.

Test Results

As the images show, AMSOIL Formula 4-Stroke® Powersports Synthetic Oil delivered outstanding protection despite the strenuous operating conditions.

The piston skirt contains no deposits, scuffing or scoring. The piston crown demonstrates normal, light deposits given the extreme conditions. The piston rings remained free and did not stick for maximum engine compression and power.

The turbo bearing appears in like-new condition and contains no deposits or noticeable wear, which is impressive given the extreme heat of the test. The oil performed flawlessly despite the extreme conditions and proved its ability to protect today's powerful, turbocharged UTV engines for maximum service life and performance.

The transmission gear contains no scuffing, scoring or deposits; it appears in like-new condition. AMSOIL SEVERE GEAR® 75W-140 Synthetic Gear Lube (SVO) was used in the transaxle since the manufacturer requires an SAE 140 gear lube in this application.

Pique Prospects' Curiosity

Scan the QR code for a short video that shows these impressive test results; share it on social media, via text or on your website to start a conversation with prospects and pique

Why didn't you use AMSOIL Synthetic ATV/UTV Transmission & Differential Fluid (AUDT) in this application?

Can-Am specifies use of an SAE 140 gear lube in the Maverick's transaxle, and AMSOIL Synthetic ATV/UTV Transmission & Differential Fluid's viscosity is closer to SAE 90. As the results show, SEVERE GEAR 75W-140 is more than up to the challenge of this powerful, turbocharged UTV.

their curiosity about AMSOIL products.

Link to the AMSOIL online store with a Dealer-number transferring link so you get credit for any sales or customer registrations, as shown here.



AMSOIL Synthetic Dirt Bike Oil Tames 'Jumpy' Clutch

Joe Quackenbush of Manti, Utah began riding motorcycles years ago to escape stress in his life. “The motorcycle was my escape,” he said. “The feeling you get on a motorcycle – it’s just an awesome experience.” It’s so awesome that Quackenbush rides 12 months out of the year despite the occasional inclement weather in central Utah. “I followed a snowplow on my KLR* last year,” he said.

His love of riding and his job as a property appraiser puts thousands of miles on his trio of enduro bikes each year. Quackenbush owns a KTM* 1090, a KLR 650 and a new Yamaha* WR250F. “Today, I have to go out on the Wasatch Plateau, and I’ll be doing 150 miles of dirt roads,” he said.

Research led him to AMSOIL

Quackenbush, who has a background in teaching physics, recently discovered the excellent performance of AMSOIL Synthetic Dirt Bike Oil after trying it in his new Yamaha. “I was all dead set on using Yamalube* in this brand-new bike,” he said. But then he noticed AMSOIL Synthetic Dirt Bike Oil and decided to do some research. “I’ve always looked at everything scientifically,” he said. “The more research I did on it, the more I realized, ‘Wait a minute; they’re using better synthetics, they’re testing this stuff, people swear by it and maybe I should give it a try.’”

“It wasn’t like riding a bucking bronco anymore”

Switching from the factory-fill oil to AMSOIL provided immediate benefits, notably in clutch feel. “The clutch, for a new bike, was a little jumpy,” he said.

“[It] was like it was either engaged or not engaged; there was no in between.”

Draining the factory oil and installing AMSOIL 10W-40 Synthetic Dirt Bike Oil (DB40) solved the problem. “I couldn’t believe the feel of the clutch,” he said. “Much more of a transition. Much smoother. A better overall feel of the clutch. It wasn’t like riding a bucking bronco anymore.”

AMSOIL turns down the heat

Switching to AMSOIL products also reduced engine heat. “I also noticed that the bike ran a lot cooler,” said Quackenbush. Following a ride one day while still using the original factory-fill oil, Quackenbush noticed a strange smell. “I came back and smelled something burning. It was my pant leg on the exhaust,” he said, reasoning the engine had been running abnormally hot. Later, after changing to AMSOIL Synthetic Dirt Bike Oil, he placed his hand on the clutch cover following a ride and noticed it was warm to the touch; by comparison, it had felt hot when using the factory-fill oil.

Oil clings to engine parts

The Yamaha includes a sight glass in the oil sump, which provided more

confirmation of AMSOIL Synthetic Dirt Bike Oil’s increased performance – the oil appeared to cling to engine parts better after shutting off the engine.

“When you turn the engine off with the Yamalube, the sight window fills right up,” he said. “What that’s telling me is it’s not adhering inside the engine.” However, the window takes longer to fill using AMSOIL Dirt Bike Oil, suggesting it remains in the upper end of the engine longer due to improved viscosity retention during operation.

100,000 miles in sight

Quackenbush is so happy with AMSOIL Synthetic Dirt Bike Oil that he plans to use it in his KTM 1090 and KLR 650. The KTM has 41,000 miles (66,000 km) on it, while the KLR has 35,000 miles (56,300 km). “My goal for the 1090 is 100,000 miles (161,000 km) and I’m almost halfway there,” he said. AMSOIL products will go a long way toward helping him reach his goal.

“Believe the hype,” he said. “If you want to protect the engine and you want the engine to have longevity, then oil becomes critical.”

“I couldn’t believe the feel of the clutch... It wasn’t like riding a bucking bronco anymore.”

Joe Quackenbush was set to use the original equipment manufacturer oil in his new Yamaha WR250F – until he discovered AMSOIL Synthetic Dirt Bike Oil.



Testimonials are the subjective experiences of our customers and are not intended to be construed as a guarantee that your results will be the same; individual results may vary.

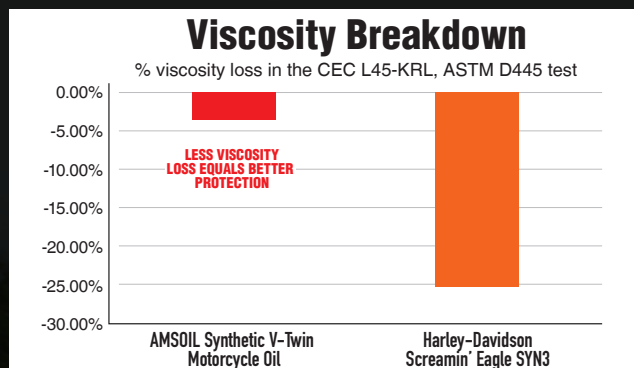
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SYNTHETIC
DIRT
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• CONFIDENT CLUTCH FEEL
• PROTECTS GEARS
• RESISTS HEAT
SAE 10W-40
1 U.S. QUART • 946 mL
AMSOIL
MAGAZINE

EVERYTHING YOUR HARLEY NEEDS, INCLUDING BETTER PROTECTION

Four V-twin oil-change kits are 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.

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.





CHANGE SERVICE REQUESTED

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WE HONOR



(Discover in U.S. only)

It's time for the spring shuffle, when everyone moves the summer stuff to the front of the garage and the winter stuff to the back. Check in with your customers to make sure they have the AMSOIL products they need to do the job right.
AMSOIL.com



Minimum 10%
Post-Consumer Fiber

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