

Your Amsoil Information News Source

Amsoil = Environment

AMSOIL products were promoting environmental sustainability long before it became fashionable. Today, the company's environmental management system extends well beyond its products and has been registered to the ISO 14001:2004 standard. Becoming registered to the ISO 14001:2004 standard provides assurance to AMSOIL Dealers, customers and accounts that AMSOIL takes environmental stewardship seriously and has implemented processes to ensure reduced environmental impact.

If you want to learn more about Amsoil's commitment to the environment check out the February Amsoil Magazine for more information.



Watch Out For Low-Cost Lubricants

The Petroleum Quality Institute of America (PQIA) has recently issued a number of consumer warnings regarding low-cost lubricants on the market that could damage engines and transmissions. PQIA issued an alert in January for Super XXX and Liberty Gold Plus SMO motor oils; an alert in December for Super Star, Royal Star, City Star and Royal lubricants; and an alert in November for City Star and Everclear automatic transmission fluids. Among the problems cited with the lubricants are very low viscosities, lack of additives and high silicon levels.

Beware of:



Always know that you get what you pay for.

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New Preferred Customers

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Brian Kozak Lincoln, NE

Chris & Katie Olson Omaha, NE

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Direct Injection in Gasoline Engines? Could it be the future?

If you haven't had a chance to read the February 2013 Issue of Amsoil Magazine there was an article on Gasoline Direct Injection technology. Matt Erickson, technical product manager, explained this technology as being one potential solution that vehicle manufacturers are looking to as they tackle the challenging fuel economy requirements heading their way.

Before we delve in, there is a few ideas that I firmly believe.

1. It should be the responsibility of automotive manufacturers to be constantly striving to achieve maximum fuel economy, not just because a government organization says they should.

2. Engineers are pivotal in the future of vehicles, whether it be designing a system to achieve higher fuel efficiency or a method to reduce emissions.

3. Amsoil lubricants and fluids will be a key player in the successful integration of new technologies in future vehicle designs.

Gasoline Direct Injection (GDI) has several names including:

Petrol Direct Injection Direct Petrol Injection Spark Ignited Direct Injection Fuel Stratified Injection

In short, GDI is a modified form of the fuel injection system that is used in pretty much every vehicle over the last 25 years.

Traditional fuel injection systems will create an air and fuel mixture in the intake manifold. As the intake valve opens the piston is moving down creating a vacuum, sucking in the air/fuel mixture. Much like you would see at the doctor's office when you get a shot. As the doctor pulls back on the plunger of a syringe, the medication is being sucked into the syringe via the needle. Similarly, in an engine as the piston goes down it creates negative pressure, sucking the air/fuel mixture into the engine.

The difference with GDI technology is that the gasoline is highly pressurized and injected directly into the combustion chamber of each cylinder. The major advantage, as noted in the Amsoil Magazine article, is increased fuel efficiency and high power output. Additionally, it is easier to control emission levels with GDI systems.

The incorporation of GDI technology can be partnered with other technologies such as variable valve timing, continuous variable cam phasing, variable length intake manifolding and turbocharging.

Although we talk about GDI technology as a new and dandy innovation, it was actually invented by Leon Levavasseur in 1902, who also invented the V8 engine configuration in addition to many other automotive and aeronautical feats. In fact, there have been many mechanical marvels that have incorporated GDI technology since it's inception over 100 years ago. When you actually do the research, you can find GDI technology all over the place. There is one other idea that I believe:

When required to strive for something better, automotive companies seem to already have the solutions and it is amazing that our engineers can take technology, which is over 100 years old, combine it with some new technologies and ideas (i.e. computers) and walla we can achieve the new requirements thrown their way.

I think we should challenge them to hit the 100 mpg mark. Oh wait...it's already been achieved and it only took 3 months to figure out. <u>Check it out here.</u>

Perhaps we should do away with fossil fuels all together and have no "real" fuel and no emissions... actually...that's already be done too. <u>You can check it out here.</u>

As I say again, engineers are pivotal to the future of automobiles. It is also worth noting that regardless of the fuel or the technology system, without high quality lubricants and fluids, you will be getting zero miles to the gallon.

If your are interested in a little more information on Direct Injection Technology, you can check out these videos:

Looking at GM's Direct Injection Engine Technology

Holden SIDI

Ford EcoBoost

Porshe

Hyundai Theta Engine

The Altrum Minute

Should You Exercise When You're Sick?

Making the decision to exercise or not when you are sick depends on what the sickness is, according to WebMD, an online source for medical information. As an example, exercising with a cold may be OK, but if a fever is present, hitting the gym is not a good idea.

Exercising with a fever can further increase the body's internal temperature and can make you feel even worse, according to Lewis G. Maharam MD, a New York Citybased sports medicine expert. He recommends sitting out the exercise if your temperature is 101 degrees Farenheit or more.

Coughing and/or chest congestion also indicate it's a good time to take a break from exercise. Fatigue, widespread body and muscle aches and vomiting, upset stomach or stomach cramps also preclude exercise, according to experts.

The most important thing, regardless of the symptoms, is to pay attention to what your body tells you. If you don't feel up to it, and all you want to do is get some rest, then that's what your body needs. It's vital to understand that pushing yourself to do a full, normal exercise routine when you're ill will only stress the immune system even more and prolong the illness.

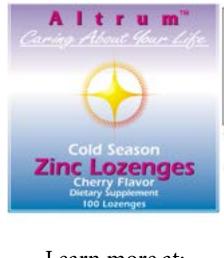
High-intensity exercise should be avoided when you're sick, because

intensive exercise boosts production of cortisol, a stress hormone that inhibits the activity of natural killer cells — a type of white blood cell that attacks and rids the body of viral agents.

The most important things to do when you're ill are rest, take fluids, eat properly and take nutritional supplements that can help fortify the body.

The time away from your workout may give you the sense you're slipping, but the sooner you recover the sooner you can get back to your regular routine.

If you feel that you are at the onset of a cold try taking three Zinc Lozenges and then thereafter, take one lozenge every two hours while awake, but don't exceed 12 lozenges per day. Zinc is important to help promote maintenance of a healthy immune system. Echinacea and Zinc are key ingredients that help support natural resistance.



Learn more at: <u>AltrumOnline.com</u>

Grow with AgGrand

Hassan Yarpezeshkan is the owner/grower of a 480-acre pistachio orchard in central California. This year, Yarpezeshkan and AMSOIL/ AGGRAND Dealer Greg Johnson teamed up to produce an extraordinary crop of pistachio nuts.

"Application of <u>AGGRAND</u> <u>Natural Kelp and Sulfate of Pot-</u> <u>ash at the right time produced a</u> 30-percent increase in total yield," Johnson said. Based on past production in these trees, that are between eight and 20 years old, AGGRAND demonstrates its benefits in conventional farming with great results, said Johnson.

"Further soil sampling this fall will give us a good idea of what other AGGRAND products we will use this fall and in the spring," said Yarpezeshkan. "The trees look very good, and I would say the natural kelp and potash made the difference."



Learn more at: <u>Aggrand.com</u>

Shop Talk.......with Jon Olson

I have several how-to videos on youtube related to automotive maintenance and often receive comments regarding the videos. I had a comment on my "<u>Rear Differential Fluid Replacement</u>" video wanting to know where I got my information about the service interval for the Rear Dif in my 2001 Ford F-150. This individual then quoted the service manual stating:

"Your vehicle's rear axle is filled with a synthetic rear axle lubricant and is considered lubricated for life. These lubricants do not need to be checked or changed unless a leak is suspected, service is required or the axle assembly has been submerged in water. The axle lubricant should be changed any time the rear axle has been submerged in water."

This is a very legitimate question and comment. I responded by noting:

It is always good practice to check all of your fluids regularly, this includes fluids which the manufacturer claims are good for "life". Automotive fluids and lubricants do not last forever and Ford does not provide manufacturer specifications on what they determine is the "life" of the vehicle or the "life" of the lubricant. As the video demonstrated, this fluid had about 100,000 miles on it and there were significant amounts of metallic particles floating about. No amount of this is good.

This concept of "it is good for life" reminds me of the time when my drill quit working. I called the

manufacturer and said, "My drill quit working and the warranty on the drill is for life...I want you to replace it for free".

I was asked when the drill was purchased and responded by saying that the drill was over 30 years old. I was then informed that the life of the tool had been exceeded and it is no longer covered by the warranty.

My point is that just because the manufacturer claims something will last a "lifetime", there is no clear indication of how long that time actually is. The consumer needs to take responsibility because in many cases the manufacturer will not. Especially when it comes to vehicles. Proper care and performing the preventative maintenance tasks are essential in protecting yourself and your investment. You can't count on words in the owner's manual to keep your vehicle running.

Automotive Lingo

Wheel Alignment

Wheel alignment is part of standard automobile maintenance that consists of adjusting the angles of the wheels so that they are set to the car manufacturer's specifications.

The purpose of this adjustment is to reduce tire wear and to ensure the vehicle is traveling straight and true.

Most often wheel alignments may be required after hitting a curb.

Don's Corner

with Don Olson

Our newsletter is specifically to let you know how you can get the best operation from your vehicle(s). It is your own responsibility to ensure your vehicles are in top preforming condition ... preventive and corrective maintenance kept up to date.

www.amsoil.com

This includes changing fluids in your vehicle(s) at proper intervals and using the best products available

You are also responsible for your personal health—eating right (most of the time) and using an excellent food supplement plan (ALTRUM).

www.altrumonline.com

Using AGGRAND liquid organic fertilizers on your lawns, gardens, and farmland replenishes the nutrients in the soil for more nutritious food production.

www.aggrand.com

AMSOIL for:

#1 Your best lubrication.

#2 Your best food supplementation

#3 AGGRAND liquid organic fertilizers to replenish the nutrients in your soil.

All at wholesale from AMSOIL.

Contact us now!