

Olson Marketing

# Monthly

April 2013 - Issue #20

## Your Amsoil Information News Source

### P.i. Performance Improver Gasoline Additive

P.i. improves fuel mileage an average of 2.3% and up to 5.7%. Reduces emissions such as hydrocarbons (HC) up to 15%, carbon monoxide (CO) up to 26% and nitrous oxides (NOx) up to 17%. Restores power and performance. Reduces the need for costly higher octane fuel.

#### Untreated Fuel Leads to Poor Engine Performance

A vehicle demonstrates its best efficiency and engine performance when it is new. As the engine ages, its performance suffers from gasoline fuel-generated deposits that form on the fuel injectors, intake valves and combustion chamber. Additives are required to control deposit formation.

#### Treated Fuel Delivers Maximum Performance

AMSOIL P.i. is the most potent gasoline additive available today. As a concentrated detergent, it is unsurpassed in cleaning combustion chamber deposits, intake valve deposits and port fuel injector deposits. AMSOIL P.i. helps maintain peak engine efficiency, fuel economy, power and drivability in newer low mileage engines.

#### Recommendations

Treat one full tank of gas with one bottle of [Amsoil's P.I. Performance Improver](#) every 4,000 miles of service. Safe for use with catalytic converters, oxygen sensors, oxygenated gas and 10 percent ethanol blended gas. Not recommended for two-cycle engines.



Check it out by clicking [HERE](#)

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#### New Preferred Customer

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Lincoln, NE

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# Exploring the Fuel Delivery System Injectors

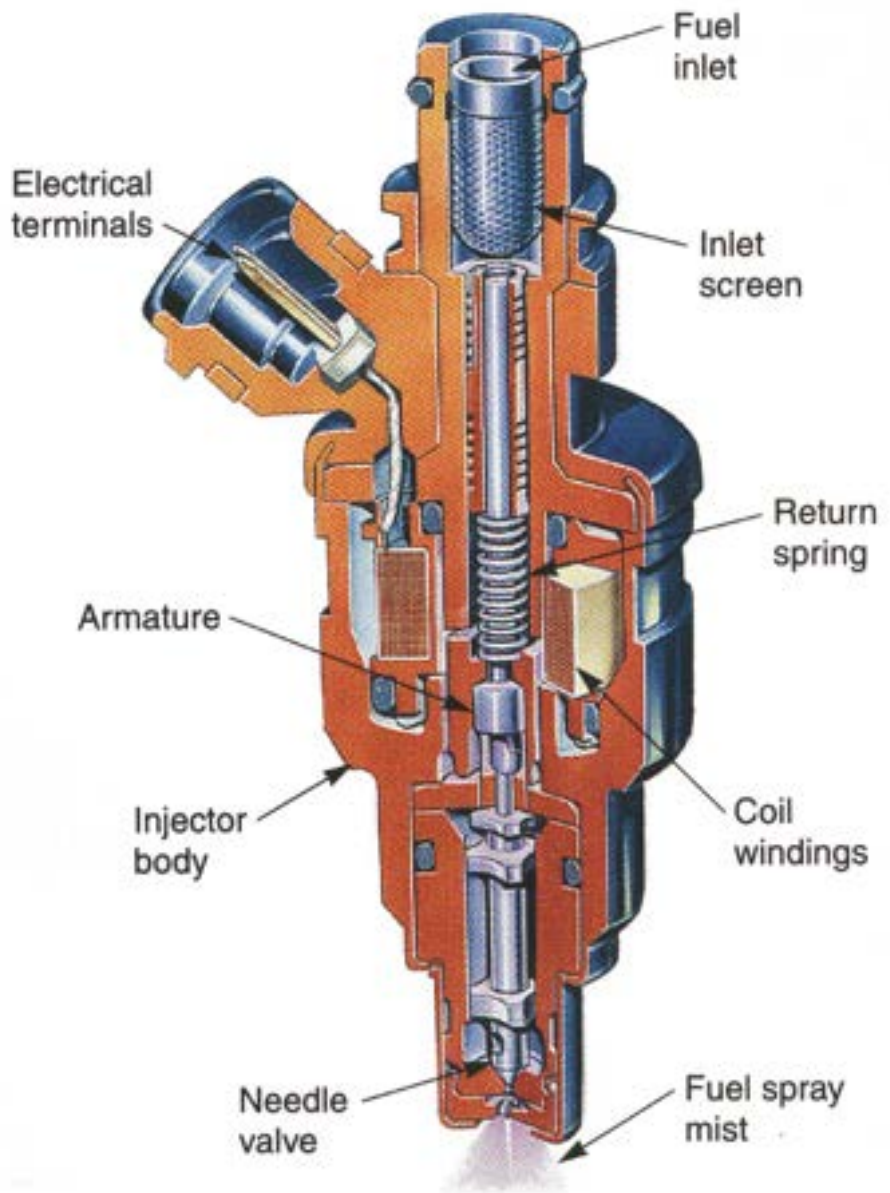
## Fuel Delivery System Basics

The fuel delivery system of an Electronic Fuel Injection (EFI) system includes an electric fuel pump, a fuel filter, a pressure regulator, fuel injectors, and connecting lines and hoses.

The electronic fuel pump draws gasoline out of the tank and forces it into the pressure regulator. The fuel pressure regulator controls the amount of pressure entering the injector valves. When the required pressure is attained, the regulator returns excess fuel to the tank. The purpose of this is to maintain a specific amount of fuel pressure for proper injector operation.

A fuel injector for an EFI system is a coil- or solenoid-operated fuel valve. When not energized, spring pressure hold the injector closed, keeping fuel from entering the engine. As current is applied to the injector coil, the magnetic field attracts the injector armature and the valve opens allowing a fuel mist to enter the intake manifold to be mixed with air prior to entering the combustion chamber to be burned.

Fuel injectors can easily get clogged with buildup of fuel varnish deposits. This will reduce the amount of fuel that the injector sprays, which in turn may cause the engine to run lean and misfire, hesitate or stall. Problems can occur even with the slightest buildup of deposits. Since the injector orifice is so small, it doesn't take much residue to restrict the flow of fuel or to disrupt the spray



pattern. For good combustion, the injectors must produce a fine cone-shaped mist of fuel vapor. Wear or deposits in the nozzle can create "streamers" of liquid fuel that vaporize and burn poorly. This, in turn, can cause hesitation, emissions and performance problems.

Injector replacement can run upwards of \$300 per injector and often a simple "cleaning" won't solve the problem.

As a consumer you can ensure your injectors continue to operate properly through the use of [Amsoil's P.I. Performance Improver Gasoline Additive](#).

Treat one full tank of gas with one bottle of [Amsoil's P.I. Performance Improver](#) every 4,000 miles of service. Safe for use with catalytic converters, oxygen sensors, oxygenated gas and 10 percent ethanol blended gas. Not recommended for two-cycle engines.

## The Altrum Minute

The digestive system normally has what is called “good” bacteria and “bad” bacteria. Maintaining the correct balance between the “good” bacteria and the “bad” bacteria is necessary for optimal health. Things like medications, diet, diseases and the environment can upset that balance.

Research is establishing supplementation with [probiotics](#) can be important for a variety of reasons. “Probiotics enhance the immune system by favorably altering the GI tract micro-ecology,” said ALTRUM Manager Greg Sawyer. “They prevent unfriendly organisms from gaining a foothold in the body, as well as the overgrowth of yeast and fungus, therefore, improving digestive support.”

### [Probiotics](#) — ‘For Life’

The word “probiotic” means “for life,” which is why these microflora are so important. The scientific definition of a probiotic is: A live microbial food supplement that beneficially affects the host by improving its intestinal microbial balance.

### What [Probiotics](#) Can Do

- \* Help improve digestion and absorption of vitamins
- \* Help stimulate the body’s natural defense mechanism — the immune system
- \* Help manufacture vitamins needed by the body
- \* Help inhibit the growth of harmful bacteria that cause digestive stress

Learn more at:

[AltrumOnline.com](http://AltrumOnline.com)

## Grow with AgGrand

### Quick Questions and Answers

Q. Are AGGRAND fertilizers more expensive to use than most chemical fertilizers?

A. No. In many cases AGGRAND fertilizers are less expensive to use per season than chemical fertilizers.

Q. Can I use AGGRAND fertilizers on all types of plants?

A. AGGRAND fertilizers work great on all fruits, vegetables, flowers, lawns, trees, shrubs and even houseplants.

Q. AGGRAND natural fertilizers have a lower NPK grade than chemical fertilizers. Does this mean they are less effective than chemical fertilizers?

A. Not at all. In fact, tests demonstrate that AGGRAND products stimulate the soil microbial activity that helps process nutrients, making them more available to plants. Plant nutrient efficiency can be very low with many chemical fertilizers and the rest becomes run-off that can contaminate surface and ground-water.

Click Below To:



Q. Why should I stop using my usual brand of fertilizer and start using AGGRAND fertilizer?

A. Our tests show that AGGRAND fertilizer out-performs other fertilizers. AGGRAND fertilizers are ideal for all vegetables, fruits, flowers, lawns, trees, shrubs and houseplants and do not cause the environmental concerns associated with chemical fertilizers.

Learn more at:

[Aggrand.com](http://Aggrand.com)

Click Below To:



## Automotive Lingo

### Parts, Assemblies and Systems

A part is the smallest removable item on a vehicle. Typically a part is not able to be disassembled. An electrical or electronic part is usually known as a **component**.

An assembly is a set of fitted parts designed to complete a function. For example, the brake caliper assembly is the grouping of parts that fit together to form the caliper (shown at bottom). In the past, technicians would take assemblies apart, replace parts, and put them back together during maintenance, service, and repair operations. Nowadays, assemblies are typically replaced with new ones and the old one gets sent to a factory for rebuilding.

An automotive system is a group of related parts and assemblies that perform a specific function. The steering system will include the steering wheel, steering shaft, steering gears, linkage, etc.

## Shop Talk

with Jon Olson

Regular preventative maintenance checks may be the simplest way to save money. By simply checking your automotive fluids regularly, you can easily identify potential problems with your vehicle.

Transmission fluid should be checked when the engine is running. It should be red in color and not smell burnt. If it is brown or smells burnt, it is time to get it replaced.

Oil should be a golden brown, brake fluid should be clear yellow, power steering fluid may also be a clear yellowish color (or red if your power steering fluid calls for transmission fluid), and coolant should be green, orange, or yellow (depending on the type).

Low fluid amounts mean your vehicle is either using or losing fluid which could indicate problems.

I recommend checking all fluids once a month.

## Don's Corner

with Don Olson

To review our earlier newsletters:

Oil should be changed every three months with AMSOIL OE synthetic

Oil should be changed every six months using AMSOIL XL synthetic

Oil should be changed every year using the AMSOIL Signature synthetic

Oil filters should be changed every oil change. (Some AMSOIL premium oil filters call for changing every 15,000 miles due to the size of the filter and the sump of the vehicle.)

Air filters checked every oil change and changed (cleaned) as necessary

Fuel filter every 5 years

Transmission fluid every 30,000 to 60,000 miles (3 to 5 years) (with filter --- do not back flush system)

Radiator coolant every 60,000 or 5 years

Brake fluid every two years ... (have the brake system 'bled' on the year you don't replace fluid)

Power Steering fluid every three years

Rear end or differential every 50,000 miles

Wiper blades once a year

Spark plugs and Wire sets every 100,000 miles

Performance Improver (PI) every 4,000 miles (keeps the upper intake and injectors clean)

