

(Fig. 1) Injection system

- 1) Fuel tank
- 2) Electro-pump
- 3) Fuel filter
- 4) Electro-injector
- 5) Lambda sensor
- 6) Fuel pressure regulator
- 7) Engine temperature sensor
- 8) Intake manifold

DESCRIPTION

Over the last years, the replacement of lead-based antiknock with new oxidized components and the use of gasoline containing a great amount of olefins (components derived from cracking) have determined a change in the composition of fuels. Engines, in turn, have gone through important transformations, involving both the mechanical structure and the carburetor's fuel inlet, going from the idle air control valve (Energy Saving) to city-driving gear systems that reduce pollution, all the way to mechanical and electronic injection systems that attempt to stoichiometrically improve the air/gas ratio, reducing pollution and fuel consumption, together with catalytic mufflers and Lambda sensors.

The Lambda sensor measures the amount of oxygen present in exhaust gas and, by sending a signal to the fuel system control unit, it calibrates the air-gas mixture so as to obtain a ratio of the two elements closest to the stoichiometric ratio and the best possible balance between fuel consumption and a lower amount of pollutants in the exhaust.

The Lambda sensor should be serviced before reaching 50,000 km and this operation should be performed once a year in case inappropriate fuel and/or lubricants have been used.

The drawing (see figure on the left) shows in detail a brand new engine's electronic injection system. Injection can be either "single point" (one injector) or "multi-point" (one injector per cylinder).

The use of low-quality gasoline, together with the presence of circulating oil vapors, can increase the formation of carbon deposits near the combustion chamber, in the injector, in the carburetor, on the intake valves and on the Lambda sensor.

In these cases the user might experience :

- Difficult start-up and/or "not well-rounded" functioning;

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- Inadequate efficiency of the engine at different speeds (such as the idle speed), tendency of the engine to turn off, unevenness during acceleration, vibrations (due to variation of the amount of fuel injected) ;
- Repairment expenses

PROPERTIES

SYNECO TOP-OIL is an additive for gasoline that allows to maintain a high level of functional efficiency and keep the surface of injectors, valves, sensors, and carburator clean, preventing the formation of deposits on the piston head.

APPLICATIONS

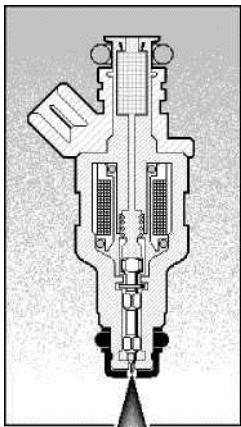
It is used in gasoline-powered vehicles in an average amount of 0,35-0,40%, meaning one 150cc can per 40L gas tank. Use of this product allows to maintain the engine's original performance or restore it; in this case (the "clean-up" phase) a 0,50% solution is recommended and, afterwards (the "keep clean" phase), the normal amount.

The product reduces fuel consumption, improves pick-up acceleration and efficiency of the e air/gas ratio (which affects exhaust gas composition), extends the service life of the muffler and of the Lambda sensor.

TECHNICAL CHARACTERISTICS

CHARACTERSTIC	U.M.	VALUE	METHOD
Color		Transparent	
Density at 15°C	Kg/l	0,805-0,830	ASTM D1298

(The values shown above refer to normal industrial production. They are approximate, may vary or be subject to improvement, and do not constitute technical specification.)



Electro-injector

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