

Press release



Source:

https://www.boschmediaservice.hu/en/press_release/water-injection-107.html

08/31/2016

ID: 107

Water injection

Water instead of gasoline: Bosch innovation reduces fuel consumption by up to 13 percent

- Bosch is the first and only supplier to offer water injection
- Extra bonus: water saves fuel and can increase engine power
- Online special with videos and animated films: www.bosch-waterboost.com

Did you know that even advanced gasoline engines waste roughly a fifth of their fuel? Especially at high engine speeds, some of the gasoline is used for cooling instead of for propulsion. With its new water injection, Bosch shows that it does not have to be that way. Particularly when accelerating quickly or driving on the freeway, the injection of additional water makes it possible to reduce fuel consumption by up to 13 percent. "With our water injection, we show that the combustion engine still has some tricks up its sleeve," says Dr. Rolf Bulander, chairman of the Bosch Mobility Solutions business sector and member of the board of management of Robert Bosch GmbH. The fuel economy offered by this Bosch technology comes especially to the fore in three- and four-cylinder downsized engines: in other words, in precisely the kind of engines to be found under the hood of any average midsize car.

Extra boost for the turbocharged engine

But it is not only in the area of fuel economy that the Bosch innovation comes into play. It can make cars more powerful as well. "Water injection can deliver an extra kick in any turbocharged engine," says Stefan Seiberth, president of the Gasoline Systems division at Bosch. Earlier ignition angles mean that the engine is operated even more efficiently. On this basis, engineers can coax additional power out of the engine, even in powerful sports cars.

The basis of this innovative engine technology is a simple fact: an engine must not be allowed to overheat. To stop this happening, additional fuel is injected into nearly every gasoline engine on today's roads. This fuel evaporates, cooling parts of the engine block. With water injection, Bosch engineers have exploited this

Robert Bosch Kft.
1103 Budapest,
Gyömrői út 104.
www.bosch.hu/en

Press information:
Mónika Hack
PR manager
Bosch Group in Hungary

E-mail: monika.hack@hu.bosch.com
Phone: + 36 1 879 8928
www.boschmediaservice.hu/en

physical principle. Before the fuel ignites, a fine mist of water is injected into the intake duct. Water's high heat of vaporization means that it provides effective cooling.

This is also the reason only a small additional volume of water is needed: for every one hundred kilometers driven, only a few hundred milliliters are necessary. As a result, the compact water tank that supplies the injection system with distilled water only has to be refilled every few thousand kilometers at the most.

And if the tank should run empty, there is nothing to worry about: the engine will still run smoothly – albeit without the higher torque and lower consumption provided by water injection.

More information:

Florian Flaig

phone: +49 711 811-6282

dr. Ferenc Ficzero

phone: +36 1 431-3852

Basic information:

Mobility Solutions is the largest Bosch Group business sector. In 2015, its sales came to 41.7 billion euros, or 59 percent of total group sales. This makes the Bosch Group one of the leading automotive suppliers. The Mobility Solutions business sector combines the group's expertise in three mobility domains – automation, electrification, and connectivity – and offers its customers integrated mobility solutions. Its main areas of activity are injection technology and powertrain peripherals for internal-combustion engines, diverse solutions for powertrain electrification, vehicle safety systems, driver-assistance and automated functions, technology for user-friendly infotainment as well as vehicle-to-vehicle and vehicle-to-infrastructure communication, repair-shop concepts, and technology and services for the automotive aftermarket. Bosch is synonymous with important automotive innovations, such as electronic engine management, the ESP® anti-skid system, and common-rail diesel technology.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 375,000 associates worldwide (as of December 31, 2015). The company generated sales of 70.6 billion euros in 2015. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology.

The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiaries and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing and sales network covers some 150 countries. The basis for the company's future growth is its innovative strength. Bosch employs 55,800 associates in research and development at 118 locations across the globe. The Bosch Group's strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life."

Additional information is available online at www.bosch.hu