Hydrogen Supplementation on Internal Combustion Engines

Here is a synopsis of a sampling of research that has been done on Hydrogen supplementation in the IC engine, not just experiments or studies in progress: In 1974 John Houseman and D.J/Cerini of the Jet Propulsion Lab, California Institute of Technology produced a report for the Society of Automotive Engineers entitled "On-Board Hydrogen Generator for a Partial Hydrogen Injection Internal Combustion Engine". In 1974 F.W. Hoehn and M.W. Dowy of the Jet Propulsion Lab, prepared a report for the 9th Inter Society Energy Conversion Engineering Conference, entitled "Feasibility Demonstration of a Road Vehicle Fueled with Hydrogen Enriched Gasoline."

In the early eighties George Vosper P. Eng., ex-professor of Dynamics and Canadian inventor, designed and patented a device to transform internal combustion engines to run on hydrogen. He later affirms: "A small amount of hydrogen added to the air intake of a gasoline engine would enhance the flame velocity and thus permit the engine to operate with leaner air to gasoline mixture than otherwise possible. The result, far less pollution with more power and better mileage."

In 1995, Wagner, Jamal and Wyszynski, at the University of Birmingham UK, Engineering, Mechanical and manufacturing, demonstrated the advantages of "Fractional addition of hydrogen to internal combustion engines by exhaust gas fuel reforming." The process yielded benefits in improved combustion stability and reduced nitrogen oxides and hydrocarbon emissions.

Roy MacAlister, PE of the American Hydrogen Association states the "Use of mixtures of hydrogen in small quantities and conventional fuels offers significant reducti

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ons in exhaust emissions" and that "Using hydrogen as a combustion stimulant it is possible for other fuels to meet future requirements for lower exhaust emissions in California and an increasing number of additional states. Relatively small amounts of hydrogen can dramatically increase horsepower and reduce exhaust emissions."

At the HYPOTHESIS Conference, University of Cassino, Italy, June 26-29, 1995, a Hydrogen Injection group of scientists from the University of Birmingham, UK, presented a study about hydrogen as a fraction of the fuel. In the abstract of that study it stated: "Hydrogen, when used as a fractional additive at extreme lean engine operation, yields benefits in improved combustion stability and reduced nitrogen oxides and hydrocarbon emissions."

In the Spring of 1997, at an international conference held by the University of Calgary, a team of scientists representing the Department of Energy Engineering, Zhejiang University, China, presented a mathematical model for the process of formation and restraint of toxic emissions in hydrogen-gasoline mixture fueled engines. Using the theory of chemical dynamics of combustion, the group elaborated an explanation of the mechanism of forming toxic emissions in spark ignition engines. The results of their

experimental investigation conclude that because of the characteristics of hydrogen, the mixture can rapidly burn in hydrogen-gasoline mixture fueled engines, thus toxic emissions are restrained. These studies and other research on hydrogen as a fuel supplement generated big efforts in trying to develop practical systems to enhance internal combustion engine performance. A few of them materialized in patented devices.

In May of 2007 Purdue University conducted dynamometer testing on Diesel engines with HHO supplementation and concluded that "Amazing diesel test results average 15% overall Improvement with Hydrogen".

California Environmental Engineering (CEE) has tested this technology and found reduction on all exhaust emissions. They subsequently stated: "CEE feels that the result of this test verifies that this technology is a viable source for reducing emissions and fuel consumption on large diesel engines."

The American Hydrogen Association Test Lab tested this technology and proved that: "Emissions test results indicate that a decrease of toxic emissions was realized." Again, zero emissions were observed on CO.

Northern Alberta Institute of Technology. Vehicle subjected to dynamometer loading in controlled conditions showed drastic reduction of emissions and improved horsepower.

Corrections Canada tested several systems and concluded, "The hydrogen system is a valuable tool in helping Corrections Canada meet the overall Green Plan by: reducing vehicle emissions down to an acceptable level and meeting the stringent emissions standard set out by California and British Columbia; reducing the amount of fuel consumed by increased mileage." Additionally, their analysis pointed out that this solution is the most cost effective. For their research they granted the C.S.C. Environmental Award.

The real number one reason that HHO Supplementation has not been in the market has nothing to do with any conspiracies, however it is widely known that big oil and the government have done their utmost to rat hole the information, anyway the reason is simple economics. Until recently, fuel prices have been cheap enough that nobody cared about any HHO supplement.

For those of you who can't or don't, get out of the way for those of us that do!