THE STUDY ABOUT GASOLINE DIRECT INJECTION

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"I declared that i read this thesis and in my point of view this thesis is qualify in terms of scope and quality for the purpose of awarding the Diploma in Mechanical Engineering (Automotive)."

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ABSTRACT

Recently, a new system that is directly injected fuel into the cylinder of a spark ignition engine is widely applied to automotive engine in many countries. Although the multi-point fuel injection (MPI) system is very popular to automotive manufacturer before, this system is seems to be replaced by a system that directly injecting the fuel into the cylinder, which is called the Gasoline Direct Injection. With conventional MPI system, there are several disadvantages such as lower fuel efficiency, lower power output, higher level of Carbon Dioxide (CO_2) and Nitrogen Oxide (NOx).

In GDI system, the fuel efficiency and power output is higher compare to conventional system. The level of emissions such as Carbon Dioxide and Nitrogen Oxide are relatively low compare to conventional system. With GDI system, it is believed that all limitations associate with conventional system will be eliminate or be reduce at least.

This project is try to investigate the operations of GDI system and how this technology can bring benefits to us.

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