
EXPERIMENTAL STUDY OF POST-INJECTION FOR SOOT REDUCTION AT MEDIUM LOAD OF A LIGHT-DUTY DIRECT INJECTION DIESEL ⁶

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Abstract: *This paper presents an experimental study on soot reduction by means of post injection. The post injection leads to higher temperature during the late combustion in the combustion chamber thus increases the oxidation rate of the soot previously formed. However, the optimization of the timing and quantity of the injection fuel is essential. The higher amount of injected fuel and retarded injection cause to lower thermal efficiency due to higher heat losses. The experiments were conducted on an automotive turbocharged diesel engine at typical operating points. The injection strategy consists of a pilot injection, main injection and a post injection. In order to assess the effect on post injection the pilot and main injection were constant. In-cylinder pressure was also recorder in order to evaluate the engine efficiency.*

Keywords: *soot, diesel engine, post injection*

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