

Title	The analysis of the fuel injection process in high speed diesel engine
Sub Title	
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Publisher	慶應義塾大学藤原記念工学部
Publication year	1964
Jtitle	Proceedings of the Fujihara Memorial Faculty of Engineering Keio University (慶應義塾大学藤原記念工学部研究報告). Vol.17, No.66 (1964. ) ,p.50(6)- 50(6)
JaLC DOI	
Abstract	
Notes	Summaries of Doctor and Master Theses Master of Engineering, 1964 Mechanical Engineering
Genre	Departmental Bulletin Paper
URL	<a href="https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=KO50001004-00170066-0006">https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=KO50001004-00170066-0006</a>

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## The Analysis of the Fuel Injection Process in High Speed Diesel Engine

Toshiji AKITA\*

There are many reports for the fuel injection process in diesel engine and in this paper, one of the numerical calculating method is described. It is the method in which characteristics is applied under consideration of the friction on pipe wall.

As the equations of continuity for the pump and nozzle are approximated by interpolating equations, they can be connected by characteristics and then the analysis of the fuel injection process becomes possible.

Such results are shown in figures. We can know the pressure variation, but the results do not agree with their experimental results perfectly. If it is small enough, the difference of two results will be small.

It is described in the appendix of this paper how to simulate the wave function by a electronic analog computer with two dead time genetators. This method is not attempted yet, but the such simulation will be possible. Though it has a few disadvantages, it will be very useful for its simple circuit.

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