



# **DEVELOPMENT OF TEACHING AIDS FOR DIESEL INJECTION SYSTEMS**

**By**

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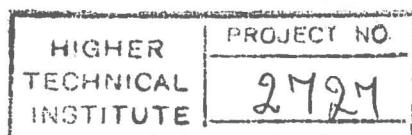
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To my family for its support and love

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### **APPENDIX A**

- A1. List of Torque Values
- A2. Special Tools

### **APPENDIX B**

Diagrams and Drawings of the Fuel Pumps

### **APPENDIX C**

Standards of Calibration Machine

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## SUMMARY

This project is divided into seven (7) Chapters :

Chapter 1 : Introduction - The Fuel System

Chapter 2 : In Line Fuel Injection Pump

Chapter 3 : Bosch Distributor - Type Fuel Injection Pumps

Chapter 4 : CAV Fuel Injection Pump

Chapter 5 : Fuel Injectors and Servicing - Testing Fuel Injectors

Chapter 6 : Trouble Shooting

Chapter 7 : Presentation of Calibration Machine

The first chapter, which is the Introduction of the project, describes the operation and the function of the Fuel Injection System as well as the several filters that are used.

In the next three chapters a detailed reference is made for the three kinds of Fuel Injection Pumps. The In-Line Fuel Injection, the Bosch Distribution and the CAV Fuel Injection Pump. Their functions and their operations are described in details.

In the fourth chapter - CAV Fuel Injection Pump - which is related also with the pump which was used in the Calibration Machine construction, a more detailed analysis is performed for the Pre-Test Procedure and for the Testing of the pump.

In the fifth chapter, a general reference is made for the Injectors, their Service and the Testing Procedure.

In the sixth chapter troubles which may possibly have their root in the injection system or its associated parts, are presented.

In the seventh, the Calibration Machine is presented. Its function and operation is described as well as its purpose of use. The instructions of use are also presented (Manual).