

FINAL PROJECT REPORT

MARA UNIVERSITY OF TECHNOLOGY  
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FACULTY OF MECHANICAL ENGINEERING  
(AUTOMATIVE)



FINAL PROJECT  
(MJP 885)

PERFORMANCES OF FUEL INJECTION SYSTEM IN DIESEL  
ENGINE USING DISTRIBUTOR TYPE FUEL INJECTION PUMP

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INJECTION PUMP**

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# CONTENT

| <u>Topic</u>  | <u>Page</u> |
|---|-------------|
| 1) Acknowledgement                                    | 1           |
| 2) Abstract   | 3           |
| 3) Objective  | 4           |
| 4) Introduction                                       | 5           |
| 5) Chapter # 1  |             |
| a) Fuel injection pump                                |             |
| i) The Diesel kiki-type distributor pump              | 12          |
| ii) Construction and operation                        | 13          |
| iii) Fuel supply pump                                 | 14          |
| iv) Pumping and distributor section and fuel delivery | 16          |
| v) Fuel metering                                      | 18          |
| vi) The delivery valve                                | 19          |
| vii) Governor section                                 | 20          |
| viii) Variable speed governor                         | 21          |
| ix) Solenoid shut-off valve                           | 24          |
| x) Automatic Advance Unit                             | 25          |
| xi) Starting Aids                                     | 28          |
| xii) Air-fuel ratio control                           | 29          |
| xiii) Anti-reverse operation                          | 30          |
| xiv) VE injection pump timing                         | 31          |
| 6) Chapter # 2  |             |
| a) Fuel pump service & removal at engine              |             |
| i) Fuel pump service                                  | 34          |
| ii) Injection pump removal                            | 35          |
| 7) Chapter # 3  |             |
| a) Installation fuel pump & adjustment                |             |
| i) Installation                                       | 37          |
| ii) Adjustment  | 38          |

|   |     |
|---|-----|
| iii) Checking fuel pump                             | 40  |
| iv) Disassembly                                     | 42  |
| 8) Chapter # 4                                      |     |
| a) Injection pump 'removal & inspection'            |     |
| i) Preparation                                      | 43  |
| ii) Removal fuel pump VE types                      | 44  |
| iii) Inspection                                     | 50  |
| 9) Chapter # 5                                      |     |
| a) Installation fuel pump & inspection              |     |
| i) Assembly   |     |
| ➤ Preparation                                       | 51  |
| ii) Installation                                    | 64  |
| iii) Testing of injection pump                      |     |
| ➤ Preparation                                       | 65  |
| 10) Chapter # 6                                     |     |
| i) Adjustment                                       | 68  |
| ii) Types of experiment on fuel pump                | 73  |
| iii) Service data control lever angle               | 79  |
| 11) Chapter # 7                                     |     |
| i) Service data & specifications                    | 80  |
| ii) Tightening torque                               | 89  |
| 12) Chapter # 8                                     |     |
| i) Special service tools                            | 90  |
| 13) Chapter # 9                                     |     |
| a) Injector & inspection                            |     |
| i) Introduction                                     | 93  |
| ii) Construction                                    | 94  |
| iii) Operation                                      | 97  |
| iv) Type of injector use in 'engine diesel VE-type' | 98  |
| v) Injector service                                 | 99  |
| vi) Inspection of the injector component            | 100 |

## ABSTRACT

This project introduced the fuel injection system in diesel engine using distributor type pump. Normally, the vehicle using this pump is **“Nissan SD 22 series (104749-4040)”**.

The process or principal workings are also introduced in this project. All the component and part must be to know for knowledge the functions. It is included the constructions, operation, governor section (variable speed governor operation, higher speed operation, idle and maximum speed governor), solenoid operation, advance unit, fuel pump timing, and etc.

Beside that, fuel pump must calibrate with use **“calibration machine”** before to applied to the vehicle.

The service manual has been prepared primarily for assisting service personal in providing effective service and maintenance of **“fuel pump diesel series”** for the vehicle.

The distributor fuel pumps VE types, which includes for maintenance, adjustments, removal and installation, disassembly and assembly of components, and troubleshooting.

All information, illustrations and specifications contained in service manual are based on the latest product information available at the any time.

When to removal the all component, keep clean the surround places because the fuel pump components are very sensitive to dirt. Any components have to remove, it is must to remind or put a mark for installing back.

The fuel injector is the important component in the fuel injection system. The installation the pump is also sensitive to deposit. It is included the constructions, operation, service injector, inspections, reassembly, and trouble-shooting. Each component in injector, which service must to make adjustment to follow the manual manufacturers. Adjustment to injector depends on manual manufacturer’s fuel pump type. All part in fuel injection pump and injector, we must know the function. Normally, a good fuel pump show the reading same with the manual manufacturer’s fuel pump.