SERVICE MANUAL

Common Rail System for
The MITSUBISHI FUSO FIGHTER 6M60 Engine

OPERATION

April, 2004
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1. GENERAL DESCRIPTION

1-1. Outline

- This manual describes the common rail system installed in the 6M60 engine of the Mitsubishi Fuso Fighter. The most significant difference to the conventional common rail system is that this system employs a compact and lightweight HP4 supply pump, and a G2 injector with better response. For more details on the common rail system, refer to service manual No. 00400041 "Common Rail System for HINO J05D/J08E Type Engine", issued in October 2003.
## 2. PRODUCT APPLICATION LIST

### 2-1. Vehicle Specifications

<table>
<thead>
<tr>
<th>Vehicle Name</th>
<th>Engine Model</th>
<th>Engine Displacement</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitsubishi Fuso Fighter</td>
<td>6M60</td>
<td>7,545 cc</td>
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### 2-2. Component Part Numbers

<table>
<thead>
<tr>
<th>Part Name</th>
<th>DENSO P/N</th>
<th>Mitsubishi P/N</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>Injector</td>
<td>095000-5450</td>
<td>ME302143</td>
<td></td>
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<tr>
<td>Rail</td>
<td>095440-0570</td>
<td>ME302292</td>
<td></td>
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<tr>
<td>Flow Damper</td>
<td></td>
<td>ME743861</td>
<td>Rail Component Parts</td>
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<tr>
<td>Pressure Limiter</td>
<td></td>
<td>ME743862</td>
<td></td>
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<tr>
<td>Pc sensor</td>
<td></td>
<td>ME743864</td>
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<tr>
<td>Supply Pump</td>
<td>294050-0050</td>
<td>ME302145</td>
<td>12V Specification</td>
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<td>ECU</td>
<td>275800-3401</td>
<td>ME302751</td>
<td>6M60T1</td>
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<td>275800-3411</td>
<td>ME302752</td>
<td>6M60T2</td>
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<td></td>
<td>275800-3451</td>
<td>ME302986</td>
<td>6M60T1 (Allison AT)</td>
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<tr>
<td>Boost Pressure Sensor</td>
<td>079800-5580</td>
<td>MK369080</td>
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<td>TDC (MRE) Sensor</td>
<td>949979-1420</td>
<td>ME301026</td>
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<td>NE (MPU) Sensor</td>
<td>029600-0570</td>
<td>MC885578</td>
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<td>Intake Air Temperature Sensor</td>
<td>071500-2571</td>
<td>ME352426</td>
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<td>Fuel Temperature Sensor</td>
<td>179730-0030</td>
<td>MC885579</td>
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<td>Accelerator Position Sensor</td>
<td>198300-7030</td>
<td>ME162376</td>
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3. GENERAL DESCRIPTION OF MAIN NEW FEATURES

3-1. Common Rail Specifications and Engine Elements

<table>
<thead>
<tr>
<th>Common Rail Specifications</th>
<th>FK6</th>
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<tbody>
<tr>
<td>Main Elements</td>
<td>HP-4 + G2</td>
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<tr>
<td>Pressure Used</td>
<td>170MPa</td>
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<table>
<thead>
<tr>
<th>Engine Elements</th>
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<tbody>
<tr>
<td>Model</td>
<td>L6, TI, 4 valves.</td>
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<tr>
<td>Engine Displacement</td>
<td>7.5L</td>
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<tr>
<td>Output</td>
<td>199kW/2700rpm</td>
</tr>
<tr>
<td>Torque</td>
<td>785N•m/1400rpm</td>
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</table>

3-2. System Configuration

A. Overall System
<table>
<thead>
<tr>
<th>Date</th>
<th>Revision Contents</th>
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</table>
| 2007. 09 | • SCV: Explanation of compact SCV added to "Suction Control Valve (SCV)". (Operation: Refer to page 1-30.)  
• "Repair" section added. |
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1. GENERAL DESCRIPTION

1.1 Changes In Environment Surrounding The Diesel Engine

Throughout the world, there is a desperate need to improve vehicle fuel economy for the purposes of preventing global warming and reducing exhaust gas emissions that affect human health. Diesel engine vehicles are highly acclaimed in Europe, due to the good fuel economy that diesel fuel offers. On the other hand, the "nitrogen oxides (NOx)" and "particulate matter (PM)" contained in the exhaust gas must be greatly reduced to meet exhaust gas regulations, and technology is being actively developed for the sake of improved fuel economy and reduced exhaust gases.

(1) Demands on Diesel Vehicles

- Reduce exhaust gases (NOx, PM, carbon monoxide (CO), hydrocarbon (HC) and smoke).
- Improve fuel economy.
- Reduce noise.
- Improve power output and driving performance.

(2) Transition of Exhaust Gas Regulations (Example of Large Vehicle Diesel Regulations)

- The EURO IV regulations take effect in Europe from 2005, and the 2004 MY regulations take effect in North America from 2004. Furthermore, the EURO V regulations will take effect in Europe from 2008, and the 2007 MY regulations will take effect in North America from 2007. Through these measures, PM and NOx emissions are being reduced in stages.