

TROUBLESHOOTING

HINT: Before troubleshooting the turbocharger, first check the engine itself. (Valve clearance, engine compression, ignition timing etc.)

INSUFFICIENT ACCELERATION, LACK OF POWER OR EXCESSIVE FUEL CONSUMPTION

(Possible Cause)

(Check Procedure and Correction Method)

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| <p>1. TURBOCHARGING PRESSURE TOO LOW</p> | <p>Check turbocharging pressure. (See page EG1-202) Turbocharging pressure: 49 – 81 kPa (0.50 – 0.83 kgf/cm², 7.1 – 11.8 psi) If the pressure is below specifications, begin diagnosis from item 2.</p> |
| <p>2. RESTRICTED INTAKE SYSTEM</p> | <p>Check intake air system, and repair or replace parts as necessary. (See page EG1-202)</p> |
| <p>3. LEAK IN INTAKE AIR SYSTEM</p> | <p>Check intake air system, and repair or replace parts as necessary. (See page EG1-202)</p> |
| <p>4. RESTRICTED EXHAUST SYSTEM</p> | <p>Check exhaust system, and repair or replace parts as necessary. (See page EG1-202)</p> |
| <p>5. LEAK IN EXHAUST SYSTEM</p> | <p>Check exhaust system, and repair or replace parts as necessary. (See page EG1-202)</p> |
| <p>6. ERRATIC TURBOCHARGER OPERATION</p> | <p>Check rotation of impeller wheel. If it does not turn or turns with a heavy drag, replace the turbocharger assembly. Check axial and radial plays of impeller wheel. (See page EG1-215) Axial play: 0.13 mm (0.0051 in.) or less Radial play: 0.18 mm (0.0071 in.) or less If not within specification, replace the turbocharger assembly.</p> |

ABNORMAL NOISE

(Possible Cause)

(Check Procedure and Correction Method)

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| 1. TURBOCHARGING HEAT INSULATOR RESONANCE | Check for loose, improperly installed or deformed insulator mount bolts, and repair or replace as necessary. |
| 2. EXHAUST PIPE LEAKING OR VIBRATING | Check for deformed exhaust pipe, loose mount bolts or damaged gasket, and repair or replace as necessary. |
| 3. ERRATIC TURBOCHARGER OPERATION | Refer to Item 6 of INSUFFICIENT ACCELERATION, LACK OF POWER OR EXCESSIVE FUEL CONSUMPTION. |

EXCESSIVE OIL CONSUMPTION OR WHITE EXHAUST

(Possible Cause)

(Check Procedure and Correction Method)

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| <p>FAULTY TURBOCHARGER SEAL</p> | <p>Check for oil leakage in exhaust system.</p> <ul style="list-style-type: none"> Remove the turbine elbow from the turbocharger and check for excessive carbon deposits on the turbine wheel. Excessive carbon deposits indicate a faulty turbocharger. <p>Check for oil leakage in intake air system.</p> <ul style="list-style-type: none"> Check for axial and radial plays in impeller wheel, and replace the turbocharger if necessary. (See page EG1-215) <p>Axial play: 0.13 mm (0.0051 in.) or less Radial play: 0.18 mm (0.0071 in.) or less</p> <p>NOTICE: Some oil mist in the blowby from the PCV is normal.</p> <p>Do not mistake it for an oil leak from the turbocharger.</p> |
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