05I7H–03

# BASIC INSPECTION

When the malfunction is not confirmed in the DTC check, troubleshooting should be carried out in all the possible circuits considered as possible causes of the problem. In many cases, by carrying out the basic engine check shown in the following flowchart, the problem can be found quickly and efficiently. Therefore, using this check is essential in the engine troubleshooting.

| 1 | CHECK BATTERY VOLTAGE |
|---|---|

**NOTICE:**
**Carry out the battery voltage check with the engine stopped and ignition switch OFF.**

| | OK | NG |
|---|---|---|
| Voltage | 22 V or more | Less than 22 V |

NG → CHARGE OR REPLACE BATTERY

OK

| 2 | CHECK IF ENGINE WILL CRANK |
|---|---|

NG → PROCEED TO PROBLEM SYMPTOMS TABLE ON PAGE 05–22

OK

| 3 | CHECK AIR FILTER |
|---|---|

(a) Visually check if the air filter is not contaminated with dirt or oil.

NG → CLEAN OR REPLACE AIR FILTER

OK

| 4 | CHECK FUEL QUALITY |
|---|---|

(a) Check that only diesel fuel is used.
(b) Check that the fuel does not contain any impurity.

NG → REPLACE FUEL

OK

| 5 | CHECK ENGINE OIL (See page 17–1) |
|---|---|

NG → ADD OR REPLACE ENGINE OIL

OK

| | |
|---|---|
| 6 | CHECK ENGINE COOLANT (See page 16–1) |

NG → REPLACE ENGINE COOLANT (See page 16–3)

OK

| | |
|---|---|
| 7 | CHECK IDLE SPEED AND MAXIMUM SPEED (See page 14–1) |

NG → REPLACE INJECTION OR SUPPLY PUMP ASSY (See page 11–10)

OK

| | |
|---|---|
| 8 | CHECK DIAGNOSTIC CIRCUIT |

NG → REPAIR OR REPLACE

OK

| | |
|---|---|
| 9 | CHECK VACUUM PUMP |

NG → REPAIR OR REPLACE VACUUM PUMP

OK

PROCEED TO PROBLEM SYMPTOMS TABLE (See page 05–22)