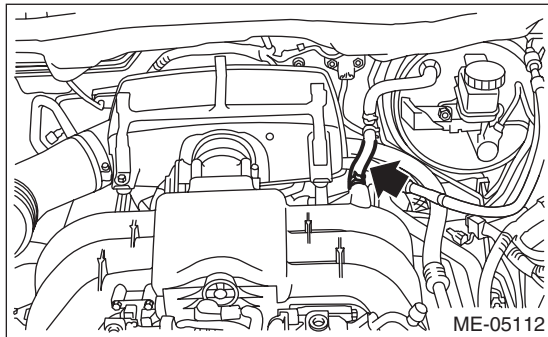


5. Intake Manifold Vacuum

A: INSPECTION

- 1) Warm up the engine.
- 2) Remove the collector cover.
- 3) Disconnect the brake booster vacuum hose from the intake manifold, and install the vacuum gauge.



- 4) Keep the engine at idle speed and read the vacuum gauge indication.

NOTE:

Condition of engine inside can be diagnosed by observing the behavior of the vacuum gauge needle as described in table below.

Intake manifold vacuum (at idling, A/C OFF):

Standard

**Less than -60.0 kPa (-450 mmHg,
 -17.72 inHg)**

- 5) After inspection, install the related parts in the reverse order of removal.

| Diagnosis of engine condition by measurement of intake manifold vacuum | |
|---|---|
| Vacuum gauge indication | Possible engine condition |
| 1. Needle is steady but lower than standard value. This tendency becomes more evident as engine temperature rises. | Leakage around intake manifold gasket, disconnection or damage of vacuum hose |
| 2. Needle intermittently drops to position lower than standard value. | Leakage around cylinder |
| 3. Needle drops suddenly and intermittently from standard value. | Sticky valve |
| 4. When engine speed is gradually increased, needle begins to vibrate rapidly at certain speed, and then vibration increases as engine speed increases. | Weak or broken valve springs |
| 5. Needle vibrates above and below standard value in narrow range. | Defective ignition system |