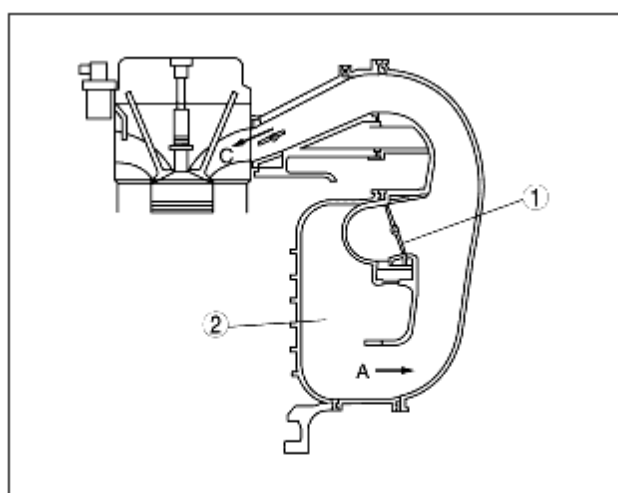


VARIABLE INTAKE-AIR SYSTEM OPERATION [LF]

B3E011300113T17

At engine speed less than 4,750 rpm (variable intake air shutter valve is closed)

- Intake manifold vacuum is applied to the variable intake-air shutter valve by the operation of the variable intake-air solenoid valve, closing the variable intake-air shutter valve.
- Under this condition, the effective intake manifold length is from the intake valve to the dynamic chamber (A-C). An inertia charging effect is obtained due to this elongated intake manifold length, air intake volume increases, and higher torque is obtained at low to medium engine speeds.



B3E0113T111

1	variable intake-air shutter valve (closed)
2	Dynamic chamber

At engine speed of 4,750 rpm or more (variable intake air shutter valve is open)

- The variable intake-air shutter valve is open.
- Under this condition, the effective intake manifold length is from the intake valve to the chamber (B-C). The intake air inertia effect is obtained at high engine speeds due to this shortened intake air pipe, increasing intake airflow amount in the cylinder, and higher torque at high engine speeds is obtained.

1	Variable intake-air shutter valve (open)
2	Dynamic chamber