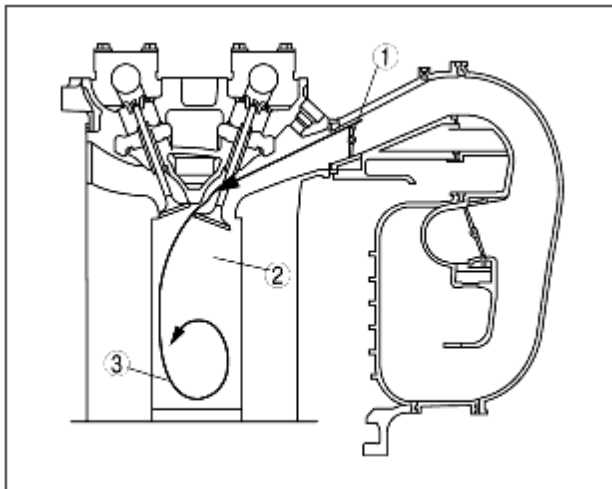


VARIABLE TUMBLE SYSTEM OPERATION [LF]

B3E011300113T20

Engine speed approx. 3,750 rpm or more and engine coolant temperature approx. 63°C {145°F} and more (variable tumble shutter valve is closed)

• Intake manifold vacuum is applied to the variable tumble shutter valve actuator by the operation of the variable tumble solenoid valve, closing the variable tumble shutter valve. At this time, the intake passage is narrower than normal, increasing intake airflow speed and also creating a powerful air tumble in the combustion chamber.



B3E0113T114

1	Variable tumble shutter valve (closed)
2	Combustion chamber
3	Air tumble