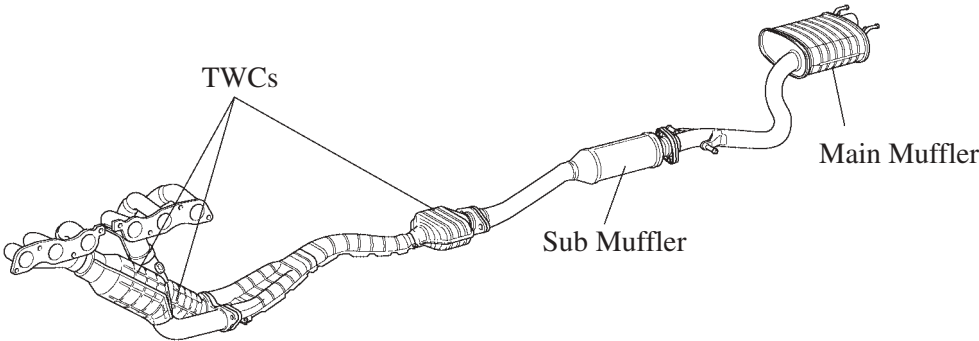
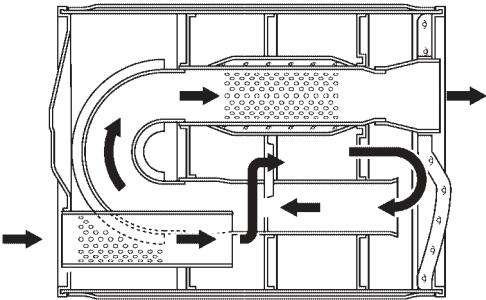


6. Muffler

- A main muffler and sub muffler with large capacities are used to reduce the exhaust noise.
- A long tail pipe construction has been adopted in the main muffler to reduce low-frequency booming noise.



204EG45



Main Muffler Cross-Section

204EG44

■ FUEL SYSTEM

1. General

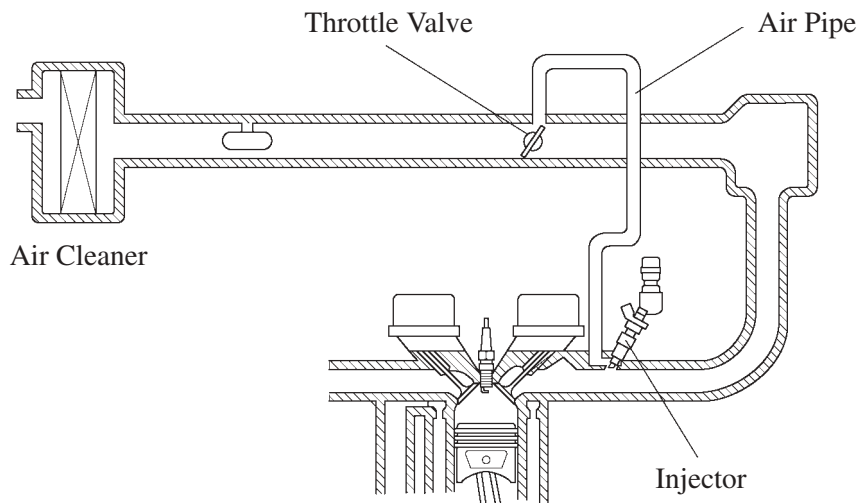
- An air-assist system has been adopted.
- A compact 4-hole type fuel injector has been used.
- A fuel returnless system has been used to reduce evaporative emissions.
- A saddle-shaped fuel tank has been adopted.
- A fuel cut control is adopted to stop the fuel pump when the airbag is deployed at the front or side collision.  
For details, refer to [page 51](#).

► Specification ◀

Pressure Regulator	Adjusting Pressure	kPa (kgf/cm <sup>2</sup> )	324 (3.3)
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## 2. Air-Assist System

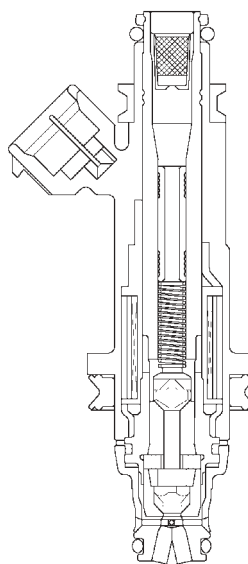
This system is designed to regulate air intake (atmospheric side) using the throttle valve, and direct it to the nozzle of the fuel injector inside the intake manifold (negative pressure side). This promotes atomization of the fuel while reducing emissions and improving fuel economy and idle stability.



150EG55

## 3. Fuel Injector

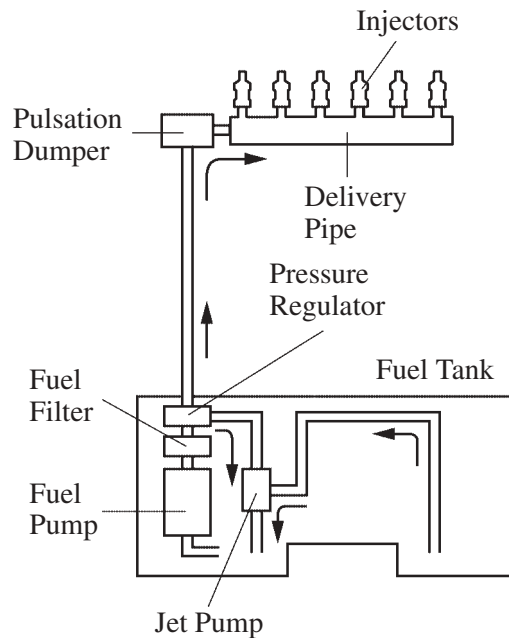
- A compact 4-hole type fuel injector has been adopted.
- Air introduced from the throttle body, air pipe and air gallery flows through the air chamber formed by the o-ring and insulator under the fuel injector and then is mixed with the fuel. This design promotes atomization of the fuel.



150EG53

## 4. Fuel Returnless System

- The IS300/IS300 SportCross have adopted a fuel returnless system to reduce evaporative emissions. With the pressure regulator housed inside the fuel tank, this system eliminates the return of fuel from the engine area.
- In addition, a jet pump has been adopted to use the fuel in the fuel tank effectively.
- The fuel filter is installed in the fuel tank.



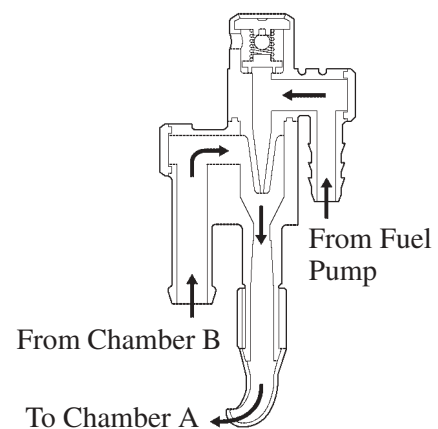
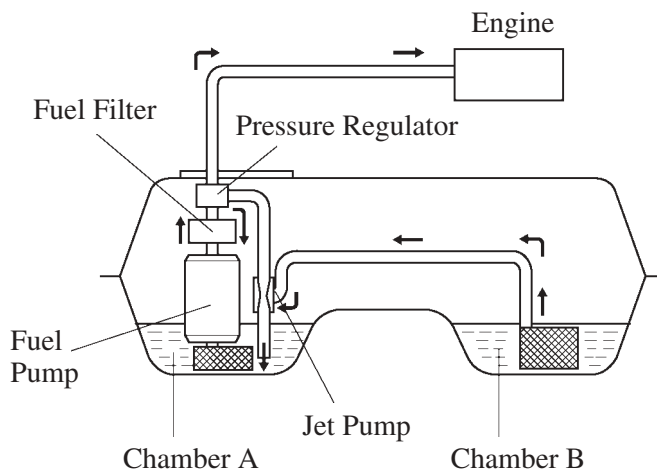
204EG28

## 5. Jet Pump

A jet pump is adopted in the fuel tank. Since the propeller shaft is located below its center bottom, the fuel tank of the IS300/IS300 SportCross is shaped as indicated below.

A fuel tank with such a shape tends to cause the fuel to be dispersed into both chamber A and chamber B when the fuel level is low, stopping the fuel in chamber B from being pumped out. To prevent this from occurring, a jet pump has been provided to transfer the fuel from chamber B to chamber A.

This is accomplished by utilizing the flow of the fuel, so that the vacuum created by the fuel, as it passes through the venturi is used to suck the fuel out of chamber B and send it to chamber A.



152EG07

**Jet Pump**

152EG06