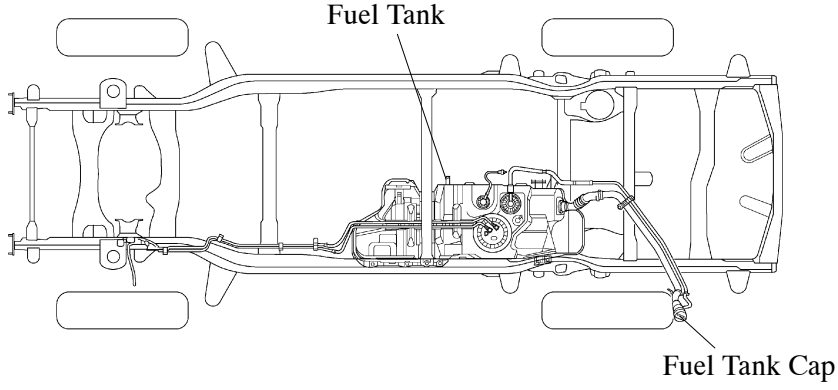
■FUEL SYSTEM

1. General

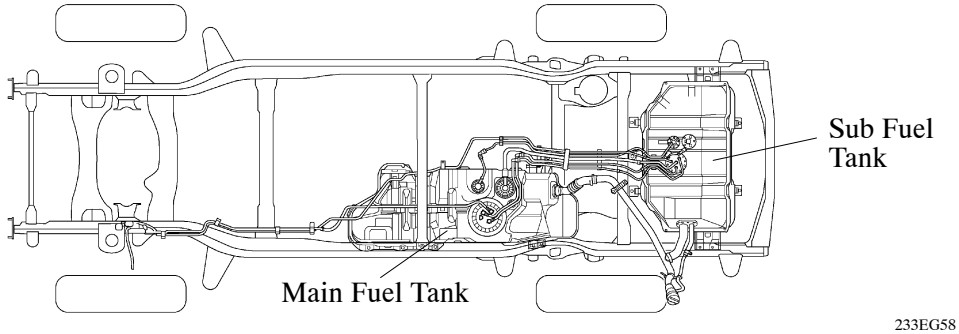
- On the new Land Cruiser/Land Cruiser Prado with the 1KZ-TE engine, the fuel tank has been located in the center of the vehicle. On the dual fuel tank model, the main fuel tank has been located in the center of the vehicle, and the sub tank in the rear of the vehicle.
- To improve evaporative emission performance, the new model has adopted the following items:
  - A multiplex layer plastic fuel tank has been adopted on the single fuel tank model, and as the main fuel tank on the dual fuel tank model.
  - A tether has been provided on the fuel tank cap to prevent the cap from being lost, which results in preventing the leakage of fuel or the evaporative gas.
- The quick-turn type fuel tank cap has been adopted to improve usability.

▶ Specifications ◀

Model			New	Previous
Fuel Tank Capacity liter (US qts, Imp. qts)	Single		95 (100.4, 83.6)	87 (91.9, 76.6)
	Dual	Main	95 (100.4, 83.6)	90 (95.1, 79.2)
		Sub	85 (89.8, 74.8)	70 (74.0, 61.6)



Single Fuel Tank Model



Dual Fuel Tank Model

2. Fuel Tank

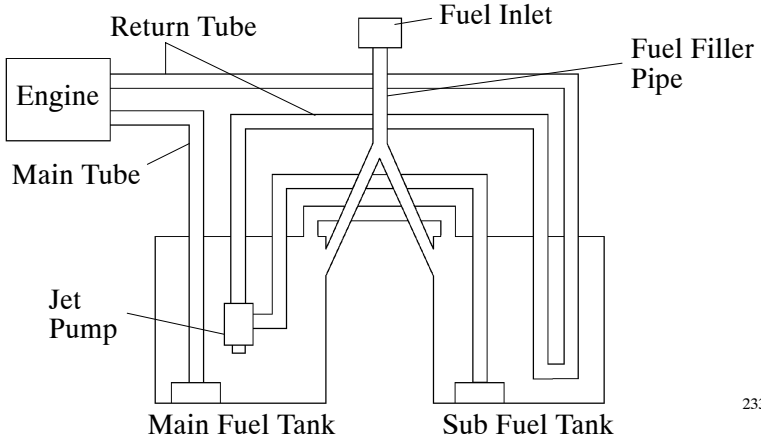
A multiplex layered plastic fuel tank consists of six layers of four types of materials.
For details, refer to the 3RZ-FE Engine Fuel System Section on page EG-8.

3. Construction of Dual Fuel Tank

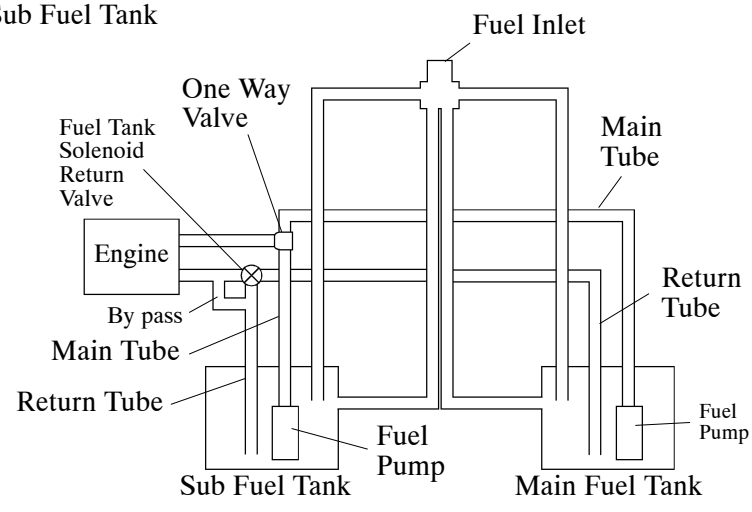
General

- On the previous model, a switch was manually operated to change the valve from the main fuel tank to the sub fuel tank. In contrast, a jet pump is provided in the main fuel tank of the new model in order to automatically transfer fuel from the sub fuel tank to the main fuel tank.
- On the dual fuel tank model, the return tube passes through the sub fuel tank and returns to the main fuel tank. This construction utilizes the heat of the return fuel that has been warmed by the engine to prevent the temperature in the sub fuel tank from decreasing.
- On the previous model, the fuel filler pipe has branched into two pipes directly below the fuel inlet. Therefore, the driver had to select whether to fill the main fuel tank or the sub fuel tank during refueling. On the new model, there is only one fuel filler pipe directly below the fuel inlet, which branches into two pipes at a midway point. Therefore, the driver can refuel without the need to distinguish the main fuel tank from the sub fuel tank.
  For details, refer to the 3RZ-FE Engine Fuel System Section on page EG-9.

▶ System Diagram ◀



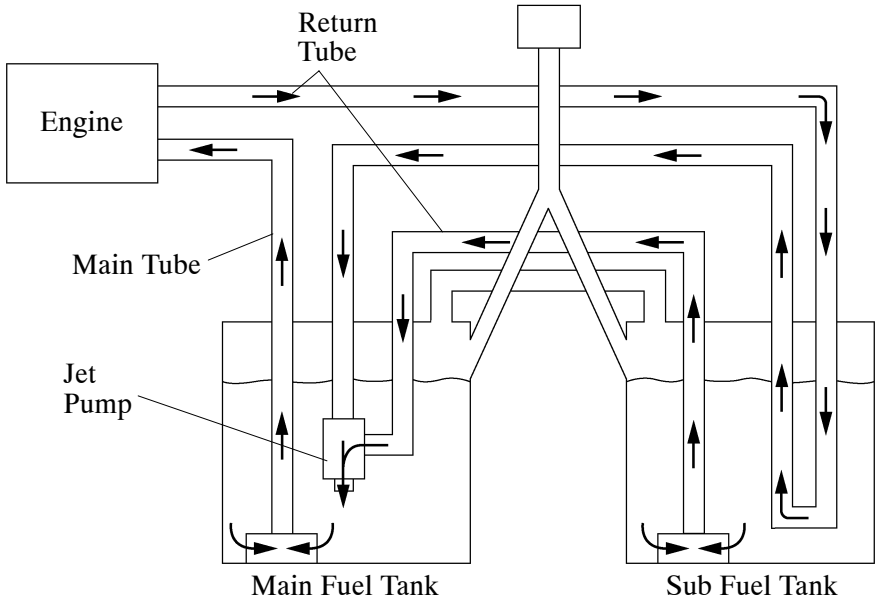
New



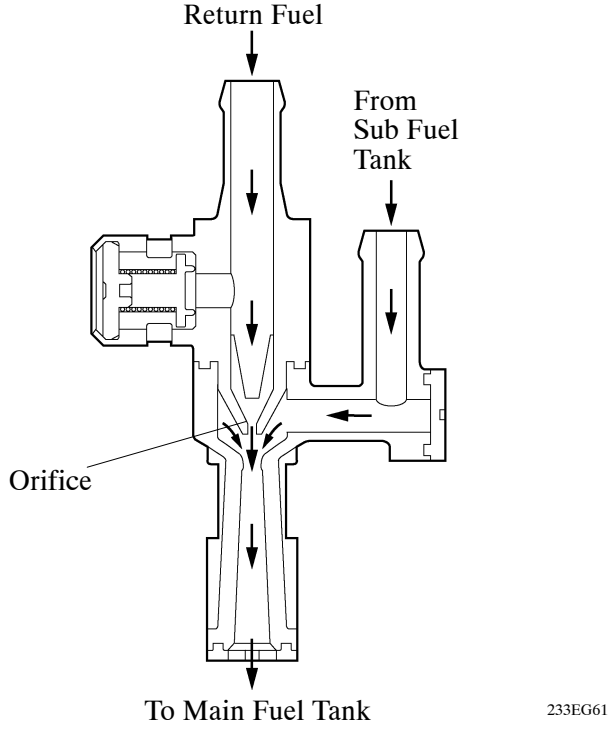
Previous

Operation

- The fuel to the engine is always supplied from the main fuel tank. The return fuel passes through the sub fuel tank and returns to the main fuel tank. During this process, the return fuel from the engine actuates the jet pump located in the main fuel tank, causing the fuel to be drawn from the sub fuel tank to the main fuel tank.
- In this system, the fuel amount fed from the jet pump is more than the fuel amount consumed by the engine, therefore, the fuel in the sub fuel tank side runs out quicker than the other.



- The return fuel from the engine passes through the orifice in the jet pump and returns to the main fuel tank. Because the flow speed of the return fuel increases as it passes through the orifice, a vacuum is created near the exit of the orifice. This vacuum causes the fuel to be drawn from the sub fuel tank to the main fuel tank.



Jet Pump