2. Major Difference (from 1AZ-FSE Engine)

Item		Outline
Engine Proper	Cylinder Block	The cylinder bore has been changed.
	Piston	The piston diameter has been increased.
	Crankshaft	● The balance shaft drive gear has been installed onto the crankshaft. ● A balance shaft has been adopted.
Valve Mechanism		The cam profile has been changed in conjunction with the change in the valve timing.
Lubrication System		A water-cooled oil cooler has been adopted.
Intake and Exhaust system		An exhaust pipe with a double-wall pipe construction has been adopted.

3. Features of 2AZ-FSE Engine

The 2AZ-FSE engine has been able to achieve the following performance through the adoption of the items listed below.

(1) High performance and fuel economy

(2) Low noise and vibration

(3) Lightweight and compact design

(4) Good serviceability

(5) Clean emission

Item		(1)	(2)	(3)	(4)	(5)
Engine Proper	A cylinder block made of aluminum alloy along with a magnesium head cover is used.			○		
	High rigidity cylinder block is used.		○			
	Timing chain and chain tensioner are used.			○	○	
	The VVT-i system is used.	○				○
Intake And Exhaust System	Intake manifold made of plastic is used.			○		
	A dual TWC (Three-Way Catalytic Converter) and under floor Catalytic Converter for reducing exhaust emissions during engine warming is used.					○
	The intake air control system is used.	○				○
Fuel System	Direct injection is used.	○				○
	Plastic made fuel Tank has been adopted.			○		
	Quick connectors are used to connect the fuel hose with the fuel pipe.				○	
	Slit nozzle type injectors that support high-pressure fuel injection have been adopted.	○				○
Ignition System	The DIS (Direct Ignition System) makes ignition timing adjustment unnecessary.					○
	Iridium-tipped spark plugs is used.	○			○	
Starting System	The planetary reduction type starter with the interpolar magnet has been adopted.			○		