■ FEATURES OF 1AZ-FE AND 2AZ-FE ENGINES

The 1AZ-FE and 2AZ-FE engines have achieved the following performance through the adoption of the items listed below.

(1) High performance and reliability
(2) Low noise and vibration
(3) Lightweight and compact design
(4) Good serviceability
(5) Clean emission and fuel economy

Section	Item	(1)	(2)	(3)	(4)	(5)
Engine Proper	A cylinder block made of aluminum alloy along with a magnesium alloy die-cast cylinder head cover is used.			○		
	The taper squish shape is used for the combustion chamber.	○				○
	A resin gear balance shaft is used.*		○	○		
Valve Mechanism	The shim-less type valve lifters are used.	○		○		
	The VVT-i system is used.	○				○
Intake And Exhaust System	Intake manifold made of plastic is used.			○		
	The linkless-type throttle body is used.			○	○	
	A thin-wall ceramic TWC (Three-Way Catalytic converter) is used.					○
Fuel System	The fuel returnless system is used.			○	○	○
	Quick connectors are used to connect the fuel hose with the fuel pipe.			○	○	○
	12-hole type fuel injectors with high atomizing performance are used.	○				○
Ignition System	Iridium-tipped spark plugs are used.	○			○	
Charging System	The segment conductor type alternator is used.	○	○	○		
Starting System	PS (Planetary reduction-Segment conductor motor) type starter is used.	○		○		
Engine Control System	The ETCS-i is used.	○				○
	The DIS (Direct Ignition System) makes ignition timing adjustment unnecessary.	○			○	○
	The non-contact type sensor is used in the throttle position sensor.	○				
	The planar type air-fuel ratio sensor is used.					○

*: Only for 2AZ-FE Engine Models