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

The 1NZ-FE and 2NZ-FE engines have achieved the following performance through the use 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	The cylinder block made of aluminum is used.			○		
	An offset crankshaft is used.	○	○			○
	The taper squish shape is used for the piston head.	○				○
Valve Mechanism	The timing chain and chain tensioner are used.	○		○	○	
	The VVT-i system is used.*1	○				○
Intake and Exhaust System	The intake manifold made of plastic is used.			○		
	The link-less type throttle body is used.			○	○	
	The stainless steel exhaust manifold is used.			○		
	A TWC (Three-Way Catalytic converter) is used.					○
	A rearward exhaust layout is used to realize the early activation of the catalyst.					○
Fuel System	The 12-hole type injectors are used.*1	○				○
	The 4-hole type injectors are used.*2	○				
	The fuel returnless system is used.			○	○	○
	The quick connectors are used to connect the fuel hose with the fuel pipes.				○	
Ignition System	The DIS (Direct Ignition System) makes ignition timing adjustment unnecessary.	○			○	○
Engine Control System	The ETCS-i (Electronic Throttle Control System-intelligent) is used.	○				○
	The non-contact type sensor is used in the throttle position sensor and accelerator pedal position sensor.	○				
	The cranking hold function is used.	○				
	The evaporative emission control system is used.					○

*1: Unleaded Gasoline Models

*2: Leaded Gasoline Models