■ FEATURES OF 2ZR-FE ENGINE

The 2ZR-FE 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 is used.			○		
	Spiny liners are used.	○				
	The skirt portion of the piston has a resin coating applied to reduce friction.	○	○			○
	Low tension piston rings are used	○				○
Valve Mechanism	A timing chain and chain tensioner are used.		○		○	
	Hydraulic lash adjusters are used.		○		○	
	Roller rocker arms are used		○		○	
Cooling System	The engine coolant that is used is the TOYOTA Genuine SLLC (Super Long Life Coolant).				○	
Intake and Exhaust System	An intake manifold made of plastic is used.			○		
	An upright intake port is used.	○				
	A stainless steel exhaust manifold is used.			○		
	The TWCs (Three-Way Catalytic Converters) are used on the front pipe.					○
Fuel System	A fuel returnless system is used.			○	○	○
	Quick connectors are used to connect the fuel hose with the fuel pipe.				○	
Ignition System	The DIS (Direct Ignition System) makes ignition timing adjustment unnecessary.	○			○	○
	Long-reach, thin-electrode type iridium tipped spark plugs are used.	○			○	○
Charging System	A segment conductor type alternator is used.	○		○		
Serpentine Belt Drive System	A serpentine belt drive system is used	○		○	○	
Engine Control System	MRE (Magnetic Resistance Element) type camshaft position sensors are used	○				
	The ETCS-i (Electronic Throttle Control System-intelligent) is used.	○				
	The Dual VVT-i (Variable Valve Timing- intelligent) is used.	○				○
	The starter control (cranking hold function) is used.	○				