

■ FEATURES OF 1VD-FTV ENGINE

The 1VD-FTV 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	Cylinder head cover is made of plastic and cylinder head is made of aluminum alloy.	○		○		
	A cylinder block made of compact graphite iron used.		○	○		
	Piston provided in combustion chamber is used in conjunction with the adoption of direct injection.	○				○
	The piston skirt is coated with resin.	○				○
	The passage for the EGR system is provided in the cylinder head.			○		○
	Nutless-type plastic region tightening bolt is used in the connecting rod.			○		
	Crankshaft pulley uses a torsional damper.		○			
Valve Mechanism	Hydraulic lash adjusters are used.	○	○		○	
	A camshaft is driven by a timing chain and gear.		○	○		
	Roller rocker arms are used.	○				○
Cooling System	TOYOTA Genuine SLLC (Super Long Life Coolant) is used.				○	
Intake and Exhaust System	The rotary solenoid motor type diesel throttle control motor and a non-contact throttle position sensor are used in the throttle body.					○
	A variable nozzle vane type turbocharger and high efficiency intercooler are used.	○		○		○
	An air-cooled type intercooler is used.	○				○
	The linear solenoid type EGR valve is used.					○
	A water-cooled type EGR cooler is used.					○
	Oxidation catalytic converter is used.					○

(Continued)

Item		(1)	(2)	(3)	(4)	(5)
Fuel System	HP4 type supply pump is used.	○	○	○		
	A common-rail type fuel injection system is used.	○	○	○		
	Solenoid type injectors on which compensation value and QR (Quick Response) code are printed are used.	○	○			○
	A fuel filter, in which the fuel filter element alone can be replaced, is used.				○	
	A fuel filter warning switch that detects the clogging of the fuel filter is used.				○	
	Fuel cooler is used.	○				○
Charging System	Segment conductor type alternator is used.			○		
Serpentine Belt Drive System	A serpentine belt drive system is used.				○	
Engine Control System	An air flow meter is used.					○
	The non-contact sensor is used in the accelerator pedal position sensor and throttle position sensor.	○				
	A pilot injection control system is used.	○	○			○