■FEATURES OF 1KD-FTV ENGINE

The 1KD-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)	New Model	Previous Model
							1KD-FTV	2KD-FTV
Engine Proper	The cylinder head cover is made of plastic and the cylinder head is made of aluminum alloy.			○			○	○
	2 balance shafts are built into the cylinder block.		○				○	—
	Shim-less type valve lifters are used.	○					○	○
	The injector is provided in the bore center to improve its air utilization rate.	○				○	○	○
	The passage for the EGR is provided in the cylinder head.					○	○	○
	The piston provided in the combustion chamber is used in conjunction with the adoption of direct injection.	○				○	○	○
	The crankshaft pulley uses a torsional damper.		○				○	○
Valve Mechanism	A camshaft is driven by a timing belt and gear.		○	○			○	○
	An automatic tensioner is provided for the timing belt.				○		○	○
Cooling System	TOYOTA Genuine SLLC (Super Long Life Coolant) is used.				○		○	○

(Continued)

Item		(1)	(2)	(3)	(4)	(5)	New Model	Previous Model
							1KD-FTV	2KD-FTV
Intake and Exhaust System	Swirl control valves are used.	○	○			○	○	—
	An oxidation catalytic converter is used in the front exhaust pipe.					○	○	○
	A rotary solenoid motor type throttle control motor is used in the throttle body.	○	○			○	○	○
	A variable nozzle vane type turbocharger and high efficiency intercooler are used.	○		○		○	○	—
	A conventional type turbocharger is used.	○		○		○	—	○
	An EGR is used.					○	○	○
	An EGR valve position sensor is used.					○	○	○
	A water-cooled type EGR cooler is used.					○	○	—
Fuel System	An HP3 type supply pump is used.	○	○	○			○	○
	A common-rail type fuel injection system is used.	○	○			○	○	○
	An injector on which compensation value and QR (Quick Response) code are printed is used.	○				○	○	○
	A fuel filter warning switch that detects the clogging of the fuel filter is used.				○		○	○
	Fuel coolers 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	A non-contact type throttle position sensor is used.	○					○	○
	A pilot injection control system is used.	○	○			○	○	○

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