2. Features of 2AD-FTV Engine

The 2AD-FTV engine has 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

Item		(1)	(2)	(3)	(4)	(5)	With DPF	Without DPF
Engine Proper	A cylinder head and cylinder block made of aluminum alloy are used.			○			○	○
	Piston provided with combustion chamber is used in conjunction with the adoption of direct injection.	○				○	○	○
Valve Mechanism	Hydraulic lash adjuster is used.	○	○		○		○	○
	A timing chain and chain tensioner are used.		○	○	○		○	○
	Roller rocker arms are used.	○				○	○	○
Lubrication System	An oil filter with a replaceable element is used.				○		○	○
	The water-cooled type oil cooler is used.	○					○	○
Cooling System	TOYOTA Genuine SLLC (Super Long Life Coolant) is used.				○		○	○
Intake and Exhaust System	A rotary solenoid type diesel throttle control motor is used in the throttle body.					○	○	○
	A linear solenoid type EGR valve is used.					○	○	○
	A water-cooled type EGR cooler is used.					○	○	○
	A water-cooled type EGR cooler with a bypass is used.					○	○	—
	The variable nozzle vane type turbocharger is used.	○				○	○	○
	The exhaust manifold converter uses oxidation catalyst and DPF catalyst.					○	○	—
Fuel System	A common-rail type fuel injection system is used.	○	○			○	○	○
	Solenoid type injectors on which compensation value and QR code are printed are used.	○				○	○	○
	An exhaust fuel addition injector is used.					○	○	—
Charging System	A segment conductor type alternator is used.	○		○			○	○
	An alternator pulley with a one-way clutch is used.				○		○	○

(Continued)

Item		(1)	(2)	(3)	(4)	(5)	With DPF	Without DPF
Serpentine Belt Drive System	A serpentine belt drive system is used.			○	○		○	○
Engine Control System	A pilot injection control system is used.	○					○	○
	An oil maintenance management system is used.				○		○	○
	A charging control system is used.					○	○	○
	A catalyst support control is used.					○	○	—

3. Engine Proper

Cylinder Head

A hole for installing the exhaust fuel addition injector is located on the No.4 exhaust port of the cylinder head.

