

■ FEATURES OF 2AD-FHV ENGINE

The 2AD-FHV 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)
Engine Proper	A cylinder head and cylinder block made of aluminum alloy are used.			○		
	Pistons with an integrated combustion chamber are used in conjunction with the adoption of direct injection.	○				○
	Balance shafts which are directly driven by the crankshaft are used.	○	○			
Valve Mechanism	Hydraulic lash adjusters are 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.				○	
	A water cooled type oil cooler is used.	○				
Cooling System	The engine coolant used is TOYOTA Genuine SLLC (Super Long Life Coolant).				○	
Intake and Exhaust System	EGR and a catalytic converter are used.					○
	A rotary solenoid motor type diesel throttle control motor and a non-contact throttle position sensor are used in the throttle body.					○
	A linear solenoid type EGR valve is used.					○
	A variable nozzle vane type turbocharger is used.	○				○
	The exhaust manifold converter uses NSR and DPNR catalysts.					○
Fuel System	An HP3 type supply pump is used.	○	○	○		
	A common rail type fuel injection system is used.	○	○			○
	Compensation value (QR code) and piezo type injectors are used.	○	○			○
	An exhaust fuel addition injector is used.					○
Charging System	A segment conductor type alternator is used.	○		○		
	An alternator pulley with a clutch is used.				○	
Serpentine Belt Drive System	A serpentine belt drive system is used.			○	○	

Item		(1)	(2)	(3)	(4)	(5)
Engine Control System	A pilot injection control is used.	○	○			○
	A catalyst support control is used.					○
	A fuel pump control system which has the fuel transfer and priming functions is used.				○	○
	The cranking holding function is used.	○				
	An alternator charging control is used.					○
	An oil maintenance management system is used.				○	