■MAJOR DIFFERENCES

Major differences of the new 1HD-FTE engine and previous 1HD-FT engine are listed below.

Item	Features
Engine Proper	 A cylinder head cover made of resin has been adopted for weight reduction and low-noise operation. The rigidity of the cylinder block has been improved to reduce noise and vibration. Newly designed pistons have been adopted to improve the engine performance and reliability. The crankshaft has been made highly rigid to reduce noise and vibration. The crankshaft bearings have been machine-bored to improve their reliability.
Cooling System	 An aluminum radiator core is used for weight reduction. A step-up linear type temperature controlled fluid coupling has been adopted to improve cooling performance.
Lubrication System	 A high-performance oil filter element has been adopted to improve the cleanliness of the engine oil. The oil capacity of the engine has been increased to improve its reliability. A drip pan is provided on the oil cooler cover to improving serviceability.
Intake and Exhaust System	 A ball joint has been adopted in the front exhaust pipe to reduce noise and vibration. An oxidation catalytic converter has been adopted in the front exhaust pipe to reduce exhaust emissions.
Turbocharger System	 A compact turbocharger has been adopted to attain a widely ranging high-efficiency region from the low- to the high-speed range. An intercooler has been adopted to improve engine performance.
Fuel System	 A radial plunger type electronically controlled injection pump that produces a high injection pressure has been adopted to improve the engine performance while reducing exhaust emissions. The injection nozzles have been optimized to improve the engine performance and reduce exhaust emissions.
Starting System	The 12/24 volt switchover system has been discontinued to simplify the wiring system.
Engine Control System	 An electronic fuel injection system has been adopted. M-OBD (Multiplex On-Board Diagnosis) system is adopted.