

2. Major Difference

The major difference between the new 2UZ-FE engine on the '05 Toyota Tundra and the 2UZ-FE engine on the '04 Toyota Tundra are the following:

System		Features
Engine Specification		According to various changes, the following specifications are changed. • Valve Mechanism • Compression Ratio • Intake Valve Timing • Max. Output and Torque • Engine Service Mass
Engine Proper	Cylinder Head	• A lead-free valve seat is used. • The passage for the air injection is added.
	Cylinder Block	• A lead-free crankshaft bearing is used. • Oil jet for piston is added.
	Piston	Piston shape is changed.
	Connecting Rod	A lead-free connecting rod bearing is used.
Valve Mechanism		Intake camshaft for the VVT-i (Variable Valve Timing-intelligent) is used.
Lubrication System		Oil passage for the VVT-i and oil jet for the piston are added.
Intake and Exhaust System		• The throttle body shape is changed. • The material of the intake manifold is changed from aluminum to plastic. • The air injection pipe is provided on the exhaust manifold. • The capacity of the TWC (Three-Way Catalytic Converter) has been changed.
Fuel System		• The fuel tank has been changed from steel to multi-layer plastic. • The fuel filler pipe has been changed from steel to stainless steel.
Ignition System		The spark plug has been changed from conventional type spark plug to iridium-tipped spark plug.
Engine Control System		• Mass air flow meter is changed from the plug-in type to the slot-in type. • Camshaft position sensor is changed from the pick-up type to the magnetic resistance element type. • Two VVT-i sensors are added. • Knock sensor is changed from the resonant type to the non-resonant type. • Two air fuel ratio sensors are used. • Idle speed, when the shift position is D, is changed from 600 rpm to 550 rpm. • VVT-i control is added. • ACIS (Acoustic Control Induction System) control is added. • Air injection control is added. • The construction of the evaporative emission control system is changed.
Diagnosis		Some DTCs (Diagnostic Trouble Codes) have been added and discontinued.