

NEW FEATURES

■ 5VZ-FE ENGINE

1. General

- The composition of the TWC (Three-Way Catalytic Converter) has been changed to comply with the LEV (Low Emission Vehicle) and SFTP (Supplementary Federal Test Procedure) emission regulations.
- The same link type ETCS-i (Electronic Throttle Control System-intelligent) that is used on the '03 Toyota Tundra with the 5VZ-FE engine has been adopted on the models other than Sport grade model. For details of ETCS-i control, refer to page 231.
- To comply with the OBD-II (On-Board Diagnosis II) regulations, all the DTC (Diagnostic Trouble Code) have been made to correspond to the SAE controlled codes. Some of the DTC have been further divided into smaller detection areas than in the past, and new DTC have been assigned to them. For details, refer to 2003 General Features section.

► Engine Specifications ◀

Model		'03 Model	'02 Model	
No. of Cyls. & Arrangement		6-Cylinder, V Type	←	
Valve Mechanism		24-Valve DOHC, Belt & Gear Drive	←	
Combustion Chamber		Pentroof Type	←	
Manifolds		Cross-Flow	←	
Fuel System		SFI	←	
Ignition System		DIS	←	
Displacement	cm ³ (cu. in.)	3378 (206.1)	←	
Bore × Stroke	mm (in.)	93.5 × 82.0 (3.68 × 3.23)	←	
Compression		9.6 : 1	←	
Max. Output	SAE-NET	142 kW @ 4800 rpm (190 HP @ 4800 rpm)	←	
Max. Torque	SAE-NET	298 Nm @ 3600 rpm (220 ft lbf @ 3600 rpm)	←	
Valve Tim- ing	Intake	Open	4° BTDC	←
		Close	42° ABDC	←
	Exhaust	Open	46° BBDC	←
		Close	4° ATDC	←
Firing Order		1-2-3-4-5-6	←	
Research Octane Number		91 or more	←	
Emission Regulation		LEV and SFTP	—	
Oil Grade		API SL-EC or ILSAC	←	
Engine Service Mass	kg (lb)	M/T : 189 (416.7) A/T : 179 (394.6)	←	

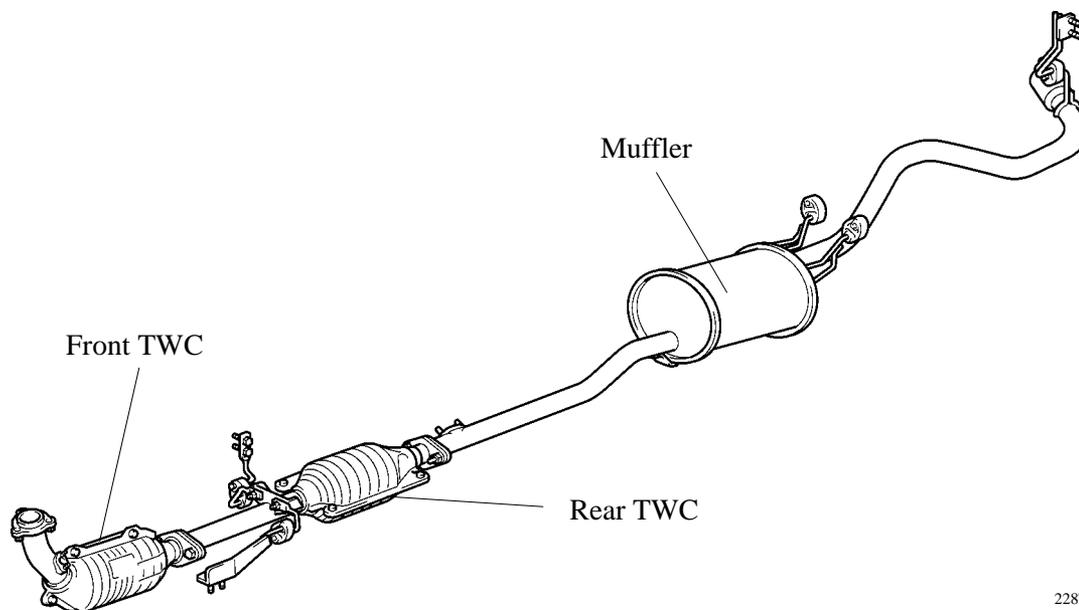
2. Major Difference

Item	Outline
Engine Proper	The material of the intake and exhaust valve seats has been changed to one that excels in heat resistance.
Intake and Exhaust System	<ul style="list-style-type: none"> • Adoption of the ETCS-i* • Changed composition of TWC
Engine Control System	<ul style="list-style-type: none"> • Provided a linear type accelerator pedal position sensor in the throttle body* • Addition of failsafe functions related to ETCS-i*. • Correspondence of all DTC (Diagnostic Trouble Code) to SAE-controlled codes
Other	Configuration and structure are the same as '02 model

*: except Sport grade model

3. TWC (Three-Way Catalytic Converter)

In place of the metallic type front TWC that was used on the '02 model, the '03 model has adopted an ultra thin-wall, ceramic type front TWC to improve exhaust gas reduction performance and comply with the LEV and SFTP emission regulations.



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