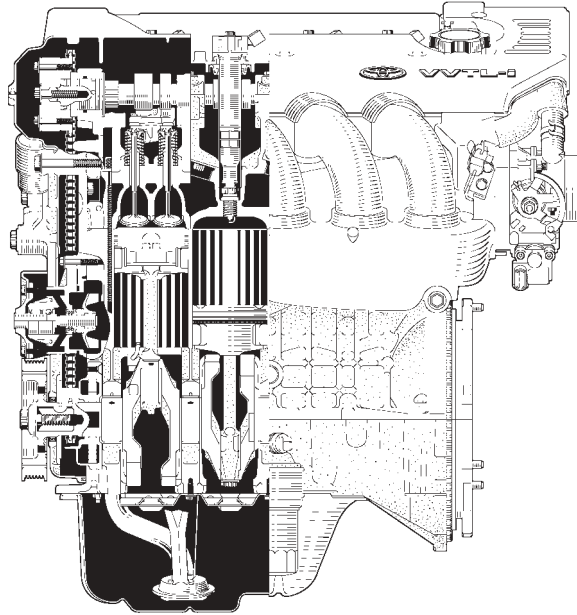


2ZZ-GE ENGINE

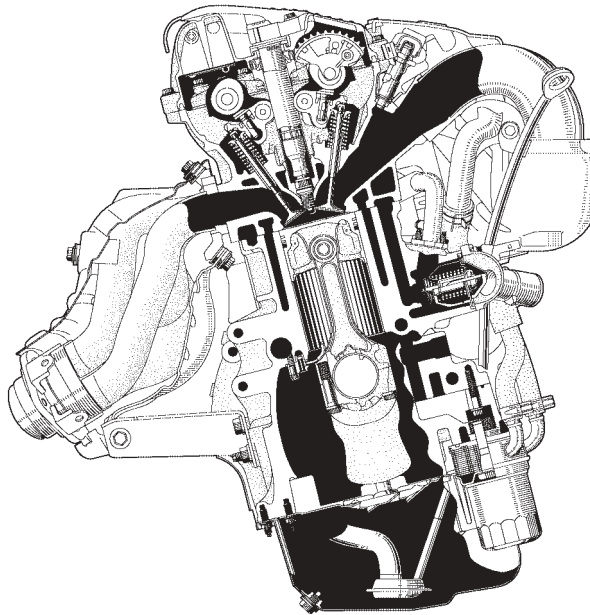
■ DESCRIPTION

The newly developed 2ZZ-GE engine has been adopted on the models for Australia.

Based on the 1ZZ-FE engine, its bore and stroke have been changed. The newly developed VVTL-i (Variable Valve Timing and Lift-intelligent) system has been adopted. As a result, further improvement in engine performance and fuel economy and reduction in exhaust emissions have been achieved. The basic construction and operation of this engine are the same as in the 1ZZ-FE engine.



174EG09



174EG10

► Engine Specifications ◀

Engine Type				2ZZ-GE			
No. of Cyls. & Arrangement				4-Cylinder, In-line			
Valve Mechanism				16-Valve DOHC Chain Drive			
Combustion Chamber				Pentroof Type			
Manifolds				Cross-Flow			
Fuel System				EFI			
Displacement			cm ³ (cu.in.)	1796 (109.7)			
Bore x Stroke			mm (in.)	82.0 x 85.0 (3.23 x 3.35)			
Compression Ratio				11.5 : 1			
Max. Output			[EEC]	140 kW @ 7600 rpm			
Max. Torque			[EEC]	180 N·m @ 6800 rpm			
Valve Timing	Intake	Low and Medium Speed Range	Open	−10° ~ 33° BTDC			
			Close	58° ~ 15° ABDC			
		High Speed Range	Open	15° ~ 58° BTDC			
			Close	97° ~ 54° ABDC			
	Exhaust	Low and Medium Speed Range	Open	14° BBDC			
			Close	34° ATDC			
		High Speed Range	Open	36° BBDC			
			Close	60° ATDC			
Valve Lift	Intake	Low and Medium Speed Range	mm (in.)	7.25 (0.29)			
		High Speed Range	mm (in.)	11.2 (0.44)			
	Exhaust	Low and Medium Speed Range	mm (in.)	7.25 (0.29)			
		High Speed Range	mm (in.)	10.0 (0.39)			
Fuel Octane Number				RON		95 or More*	
Oil Grade				API SJ EC or ILSAC			

*: Use only premium unleaded gasoline.