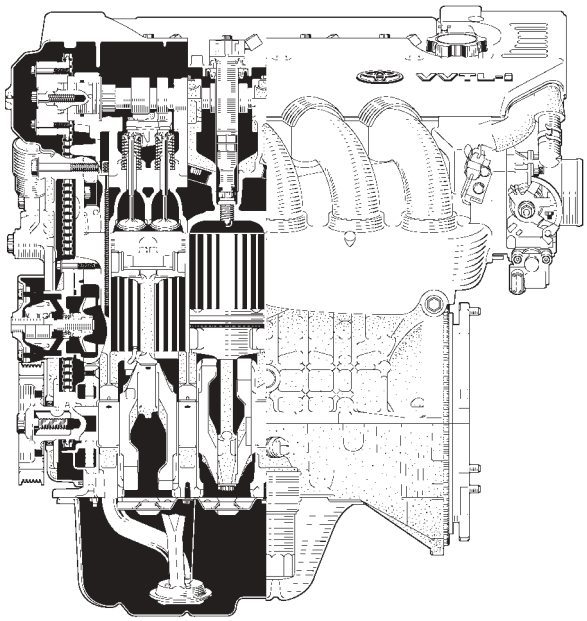
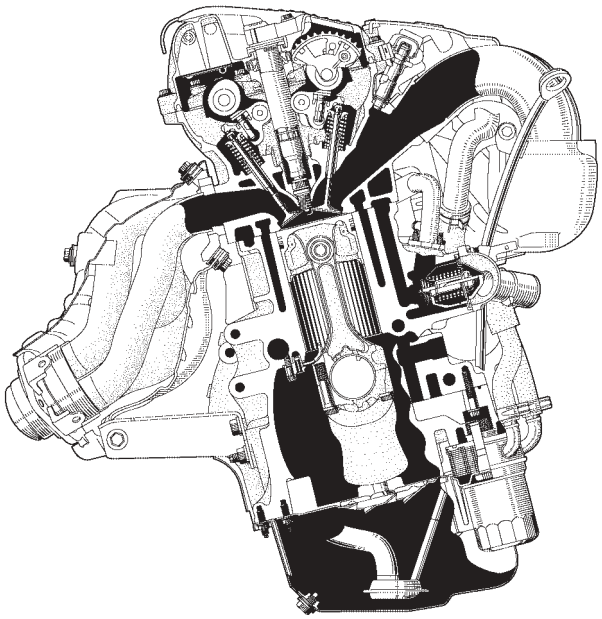
2ZZ-GE ENGINE

■ 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.