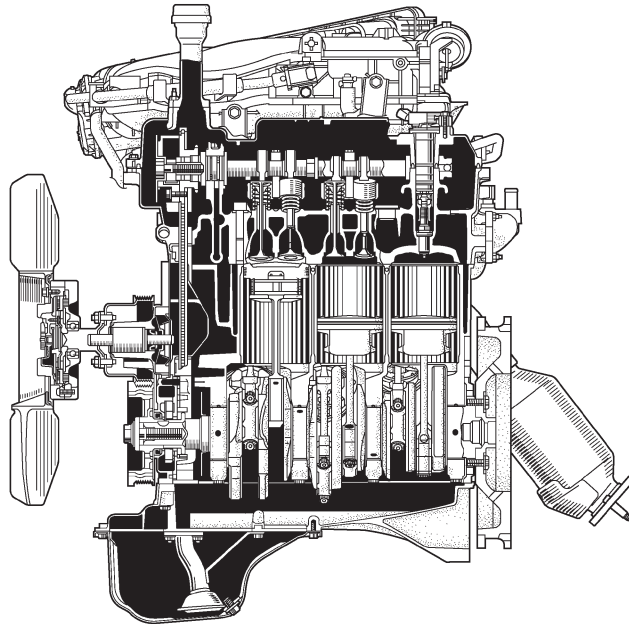


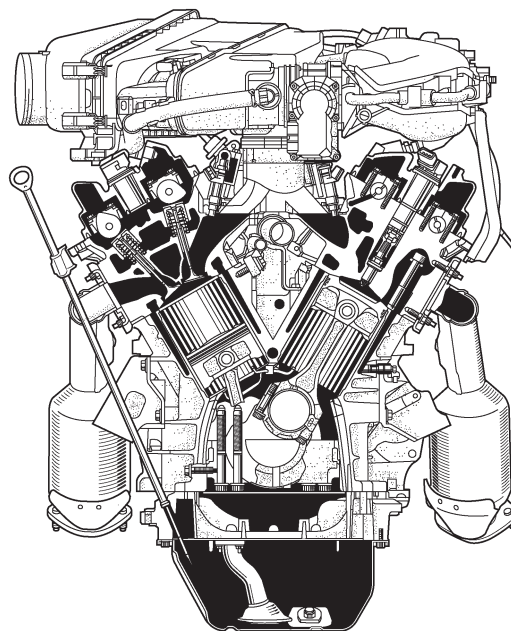
1GR-FE ENGINE

■ DESCRIPTION

- A newly developed V-type, 6-cylinder, 4.0-liter, 24-valve DOHC 1GR-FE engine has been adopted on the Australian model. In addition, the VVT-i (Variable Valve Timing-intelligent) system, ACIS (Acoustic Control Induction System), and the ETCS-i (Electronic Throttle Control System-intelligent) have been adopted on this engine. These control functions have been optimized to further improve engine performance and fuel economy, and to reduce exhaust emissions.
- This engine has been made compact and lightweight through the adoption of an aluminum cylinder block and plastic type of intake air chamber, fuel delivery pipe, and water inlet pipe.



271EG67



271EG68

► Engine Specifications ◀

No. of Cyls. & Arrangement			6-Cylinder, V Type	
Valve Mechanism			24-Valve DOHC, Chain Drive (with VVT-i)	
Combustion Chamber			Pentroof Type	
Manifolds			Cross-flow	
Fuel System			EFI	
Ignition System			DIS	
Displacement		cm ³ (cu. in.)	3,956 (241.4)	
Bore x Stroke		mm (in.)	94.0 x 95.0 (3.70 x 3.74)	
Compression Ratio			10.0 : 1	
Max. Output		[SAE-NET]	MT	175 kW @ 5,200 rpm
			AT	175 kW @ 5,200 rpm
Max. Torque		[SAE-NET]	MT	343 N·m @ 2,400 ~ 4,800 rpm
			AT	376 N·m @ 3,800 rpm
Valve Timing		Intake	Open	42° BTDC ~ 8° ATDC
			Close	10° ABDC ~ 60° ABDC
		Exhaust	Open	54° BBDC
			Close	2° ATDC
Firing Order			1-2-3-4-5-6	
Fuel			Unleaded Gasoline	
Research Octane Number			95 or higher	
Oil Grade			API SJ, SL, EC or ILSAC	
Emission Regulation			EURO III	
Engine Service Mass* (Reference)		kg (lb)	166 (366)	

*: Weight shows the figure with oil and water fully filled.

► Valve Timing ◀

◁ : Intake Valve Opening Angle

▴ : Exhaust Valve Opening Angle

