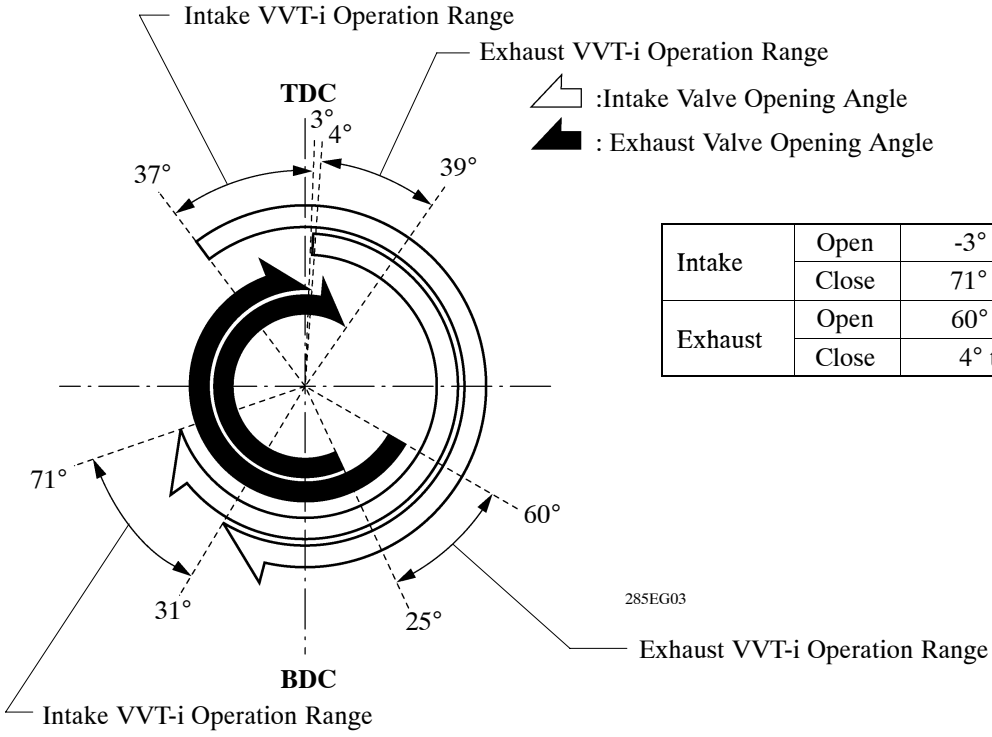
■ENGINE SPECIFICATION

Engine Type				2GR-FE
No. of Cyls. & Arrangement				6-Cylinder, V Type
Valve Mechanism				24-Valve DOHC, Chain Drive (With Dual VVT-i)
Combustion Chamber				Pentroof Type
Flow of Intake and Exhaust Gasses				Cross-Flow
Fuel System				EFI
Ignition System				DIS
Displacement cm^3 (cu. in.)				3456 (210.9)
Bore × Stroke mm (in.)				94.0 × 83.0 (3.70 × 3.27)
Compression Ratio				10.8 : 1
Max. Output (EEC)				201 kW @ 6200 rpm
Max. Torque (EEC)				337 N·m @ 4700 rpm
Oil Capacity	Models for Australia (With Oil Cooler)		Dry	7.1 liters (7.5 US qts, 6.2 Imp. qts)
			With Oil Filter	6.1 liters (6.4 US qts, 5.4 Imp. qts)
			Without Oil Filter	5.7 liters (6.0 US qts, 5.0 Imp. qts)
	Models for China (Without Oil Cooler)		Dry	6.8 liters (7.2 US qts, 6.0 Imp. qts)
			With Oil Filter	6.1 liters (6.4 US qts, 5.4 Imp. qts)
			Without Oil Filter	5.7 liters (6.0 US qts, 5.0 Imp. qts)
Oil Grade				API grade SL "Energy-Conserving", SM "Energy-Conserving" or ILSAC
Engine Coolant	Type			TOYOTA Genuine Super Long Life Coolant or the following*1
	Capacity	Models for Australia	With Front Heater	9.5 liters (10.0 US qts, 8.4 Imp. qts)
			With Front and Rear Heater	11.7 liters (12.4 US qts, 10.3 mp. qts)
		Models for China	With Front Heater	8.8 liters (9.3 US qts, 7.7 Imp. qts)
			With Front and Rear Heater	11.0 liters (11.6 US qts, 9.7 Imp. qts)
Spark Plug	Type		DENSO Made	FK20HR11 (Iridium)
	Plug Gap mm (in.)			1.0 - 1.1 (0.0394 - 0.0433)
Firing Order				1 - 2 - 3 - 4 - 5 - 6
Research Octane Number (RON)				91 or higher
Emission Regulation				EURO IV
Engine Service Mass*2 (Reference)				163 kg (359 lb)

*1: Similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology. (Coolant with long-life hybrid organic acid technology consists of a combination of low phosphates and organic acids.)

*2: The figure shown is the weight of the part without coolant and oil.

▶ Valve Timing ◀



Intake	Open	-3° to 37° BTDC
	Close	71° to 31° ABDC
Exhaust	Open	60° to 25° BBDC
	Close	4° to 39° ATDC

▶ Performance Curve ◀

