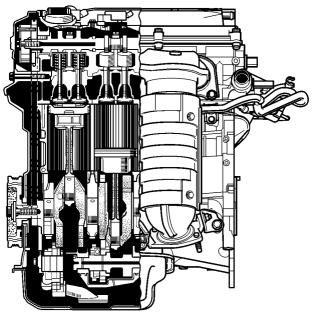
ENGINE

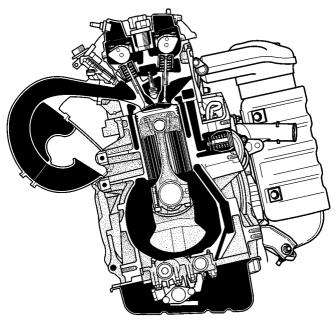
2AZ-FXE ENGINE

DESCRIPTION

- The '07 Camry Hybrid model uses the 2AZ-FXE engine that has been newly developed for hybrid system application. Based on the 2AZ-FE engine, the high-expansion ratio Atkinson cycle is used. It is an in-line 4-cylinder, 2.4-liter, 16-valve DOHC engine.
- This engine uses the VVT-i (Variable Valve Timing-intelligent) system, DIS (Direct Ignition System), ETCS-i (Electronic Throttle Control System-intelligent) and fuel vapor-containment system. These control functions achieve improved engine performance, fuel economy, and reduced exhaust emissions.



02HEG01TE



02HEG02TE

02HEG03TE

▶ Engine Specifications **◄**

Model			'07 Camry Hybrid Model		'07 Camry (For California)	'07 Camry (Except California)
Engine Type			2AZ-FXE		2AZ-FE	←
No. of Cyls. & Arrangement			4-Cylinder, In-line		←	←
Valve Mechanism			16-Valve DOHC, Chain Drive (with VVT-i)		+	←
Combustion Chamber			Pentroof Type		←	←
Manifolds			Cross-Flow		←	←
Fuel System			SFI		←	←
Ignition System			DIS		←	←
Displacement cm ³ (cu. in.)		2362 (144.2)		←	←	
Bore x Stroke mm (in.)		88.5 x 96.0 (3.48 x 3.78)		←	←	
Compression Ratio			12.5 : 1		9.8 : 1	←
Max. Output (SAE-NET)*1			110 kW @ 6000 rpm (147HP @ 6000 rpm)		116 kW @ 6000 rpm (155HP @ 6000 rpm)	118 kW @ 6000 rpm (158HP @ 6000 rpm)
Max. Torque (SAE-NET)*1			187 N·m @ 4400 rpm (138 ft·lbf @ 4400 rpm)		214 N·m @ 4000 rpm (158 ft·lbf @ 4000 rpm)	218 N·m @ 4000 rpm (161 ft·lbf @ 4000 rpm)
Valve Timing	Intake	Open	$0^{\circ} \sim 30^{\circ} \text{ BTDC}$		3° ~ 43° BTDC	←
		Close	100° ∼ 70° ABDC		65° ∼ 25° ABDC	+
	Exhaust	Open	45° BBDC		←	←
		Close	3° ATDC		←	←
Firing Order			1 - 3 - 4 - 2		←	←
Oil Grade			ILSAC		←	←
Octane Rating			87 or more		←	+
			AT-PZEV (CARB*3)	Tier2 (EPA*4)	PZEV (CARB*3)	Tier2 (EPA*4)
Emission		Tailpipe	LEVII-SULEV, SFTP	Tier2-Bin3, SFTP	LEVII-SULEV, SFTP	Tier2-Bin5, SFTP
Regulation	on	Evaporative	LEVII-Zero Evapo, ORVR	Tier2, ORVR	LEVII-Zero Evapo, ORVR	Tier2, ORVR
Engine Service Mass*2 (Reference) kg (lb)			126 (278)		130 (287)	←

^{*1:} Maximum output and torque rating is determined by revised SAE J1394 standard.

▶ Valve Timing **◄**

: Intake Valve Opening Angle : Exhaust Valve Opening Angle TDC 0° (Intake) 30° 3° (Exhaust) VVT-i Operation Range (30°) 280° 228° 100° VVT-i Operation Range (30°) 70° 45° BDC

^{*2:} Weight shows the figure with the oil and engine coolant fully filled.

^{*3:} CARB (California Air Resources Board)

^{*4:} EPA (Environmental Protection Agency)