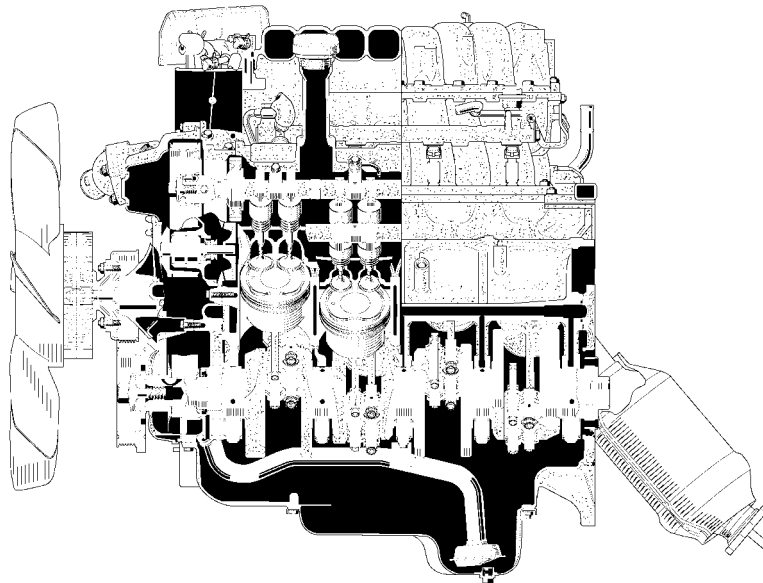


ENGINE

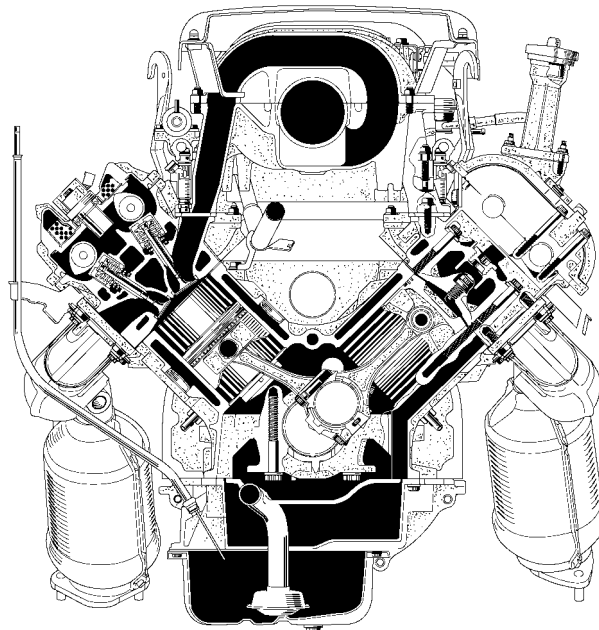
2UZ-FE ENGINE

■ DESCRIPTION

- The 2UZ-FE engine is a V8, 4.7-liter, 32-valve DOHC engine. This engine has been developed to achieve high performance, quiet operation, and fuel economy. In addition, it has adopted the ETCS-i (Electronic Throttle Control System-intelligent) to ensure excellent controllability of the vehicle and to improve its comfort.
- The basic construction and operation are the same as the 2UZ-FE engine on the '03 Sequoia.
- In contrast to the '02 4Runner, a portion of the evaporative emission control system of the '03 4Runner has been changed in order to comply with the LEV-II (Low Emission Vehicle-II) evaporative emission regulations.



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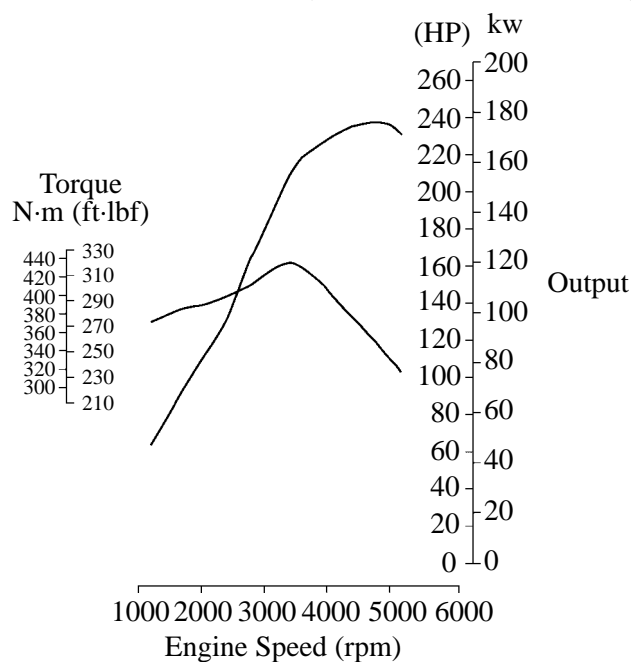
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► Engine Specifications ◀

Engine Type		2UZ-FE	
No. of Cyls. & Arrangement		8-Cylinder, V Type	
Valve Mechanism		32-Valve DOHC, Belt & Gear Drive (without VVT-i)	
Combination Chamber		Pentroof Type	
Manifolds		Cross-Flow	
Fuel System		SFI	
Displacement		cm ³ (cu. in.)	4664 (284.5)
Bore × Stroke		mm (in.)	94.0 × 84.0 × (3.70 × 3.31)
Compression Ratio		9.6 : 1	
Max. Output		(SAE-NET)	175 kW @ 4800 rpm (235 HP @ 4800 rpm)
Max. Torque		(SAE-NET)	434 N·m @ 3400 rpm (320 ft·lbf @ 3400 rpm)
Valve Timing	Intake	Open	3° BTDC
		Close	36° ABDC
	Exhaust	Open	46° BBDC
		Close	3° ATDC
Firing Order		1 - 8 - 4 - 3 - 6 - 5 - 7 - 2	
Research Octane Number		96 or higher	
Octane Rating		91 or higher	
Engine Service Mass* (Reference)		kg (lb)	255.5 (562.8)
Oil Grade		API SL, EC or ILSAC	
Tailpipe Emission Regulation		LEV, SFTP	
Evaporative Emission Regulation		LEV-II, ORVR	

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

► Performance Curve ◀



► Valve Timing ◀

↗ : Intake Valve Opening Angle
↘ : Exhaust Valve Opening Angle

