

■ FEATURES OF 1GZ-FE ENGINE

Features of the 1GZ-FE engine are listed below.

Item	Features
High Performance and Economy	<ul style="list-style-type: none"> ● A taper squish configuration has been adopted to improve the combustion efficiency. ● Iridium-tipped spark plugs have been adopted to improve ignition. ● The VVT-i (Variable Valve Timing-intelligent) system is used to improve fuel economy, engine performance and reduce exhaust emissions. ● ACIS (Acoustic Control Induction System) is used to deliver high power output in all engine speed ranges. ● A high compression ratio of 10.5 : 1 is used.
Lightweight and Compact Design	<ul style="list-style-type: none"> ● Cylinder block and cylinder head made of aluminum alloy. ● Cylinder head size is reduced by using two single roller timing chains. ● Compact, lightweight accessory drive system by means of serpentine, single belt and bracketless accessory installation. ● Aluminum pipe intake manifold and stainless steel exhaust manifold are used. ● Lightweight yet high-strength magnesium diecast cylinder head covers are used.
Low Noise and Low Vibration	<ul style="list-style-type: none"> ● A highly rigid crankshaft with 12-balance weights is used. ● Use of an aluminum oil pan having an integral stiffener. ● An electronically controlled hydraulic cooling fan system is used to improve cooling performance and reduce cooling fan noise. ● Resin coating is applied to the contact surfaces of the cylinder heads and the cylinder head covers to reduce the noise that is created by the difference in their thermal expansion rates.
Good Serviceability	<ul style="list-style-type: none"> ● An auto-tensioner is provided for V-ribbed belt. ● The DIS (Direct Ignition System) makes ignition timing adjustment unnecessary. ● Two single roller timing chains are used. ● Quick connectors are used to connect the fuel hoses with the fuel pipes.
Clean Emissions	<ul style="list-style-type: none"> ● 4-hole type fuel injectors have been adopted to improve the atomization of fuel. ● Aluminum cylinder block has been adopted to improve the warm-up performance. ● The exhaust manifold and the catalyst have been integrated to improve the warm-up performance of the TWC (Three-Way Catalytic Converter).