

MECHANISM

A quiet, pleasant ride and powerful performance, plus good fuel economy, nobles fun driving.

MO

Engine

A 2.0-liter gasoline engine, the 1AZ-FE, for all destinations, and a 2.0-liter diesel engine, the 1CD-FTV, for Europe.

1AZ-FE Engine

The newly adopted 1AZ-FE engine is a 2.0-liter, 16-valve DOHC, in-line 4-cylinder engine. This engine, in addition to being small and lightweight, is equipped with the VVT-i (Variable Valve Timing-intelligent) system and achieves high performance, quietness, and fuel economy. Furthermore, it is clean and easy on the environment, complying with European exhaust regulation STEP III.

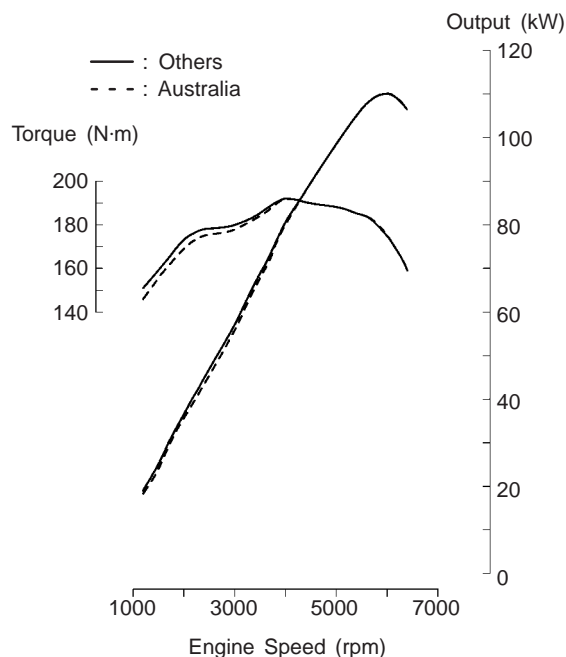
New Feature

- There are three new features: the air fuel ratio sensor, thin-wall ceramic TWC (Three-Way Catalytic Converter), and Oxygen sensor. Two of each of these are equipped in the exhaust manifold. Through these measures it complies with European exhaust regulation STEP III and has excellent exhaust purification capabilities.
- Weight-saving gains have been achieved with the adoption of a magnesium alloy diecast cylinder head cover, aluminum alloy cylinder block, plastic intake manifold, and PS (Planetary Reduction-Segment Conductor Motor) starter.

Outline of the Engine

No. of Cyls. & Arrangement	4-Cylinder, In-line
Valve Mechanism	16-valve DOHC, VVT-i, Chain Drive
Displacement cm ³ (cu.in.)	1998 (121.9)
Bore × Stroke mm (in.)	86.0 × 86.0 (3.39 × 3.39)
Compression Ratio	9.8
Maximum Output (kw / rpm)	110 / 6000
Maximum Torque (Nm / rpm)	192 / 4000

Engine Performance Curve



MECHANISM

1CD-FTV Engine

1CD-FTV TOYOTA D-4D (Direct injection 4 stroke common-rail Diesel engine) is a newly developed in-line 4-cylinder, 2.0-liter, 16-valve DOHC with intercooler turbo-charged diesel engine.

This is a high performance diesel engine that employs a direct injection system and common-rail system. It therefore achieves low fuel consumption, vibration and noise, has a long life expectancy and good serviceability, and meets European exhaust regulation STEP III.

New Feature

- With the installation of the Variable Nozzle turbocharger, power output is increased while both low emissions and low fuel consumption are achieved.
- With the adoption of the air-cooled intercooler that lowers intake air temperature, engine output improves while exhaust gas becomes cleaner.
- Due to the adoption of the EGR (Exhaust Gas Recirculation) cooler and step motor-type EGR valve, high-precision and efficient EGR control is possible, and clean emission has been achieved.
- A pressurized reservoir tank has been adopted to prevent the engine coolant from deteriorating upon contact with external air.

Outline of the Engine

No. of Cyls. & Arrangement	4-Cylinder, In-line
Valve Mechanism	16-valve DOHC, Gear and Belt Drive
Displacement cm ³ (cu.in.)	1995 (121.7)
Bore × Stroke mm (in.)	82.2 × 94.0 (3.24 × 3.7)
Compression Ratio	18.6
Maximum Output (kw / rpm)	85 / 4000
Maximum Torque (Nm / rpm)	250 / 1800 ~ 3000

Engine Performance Curve

