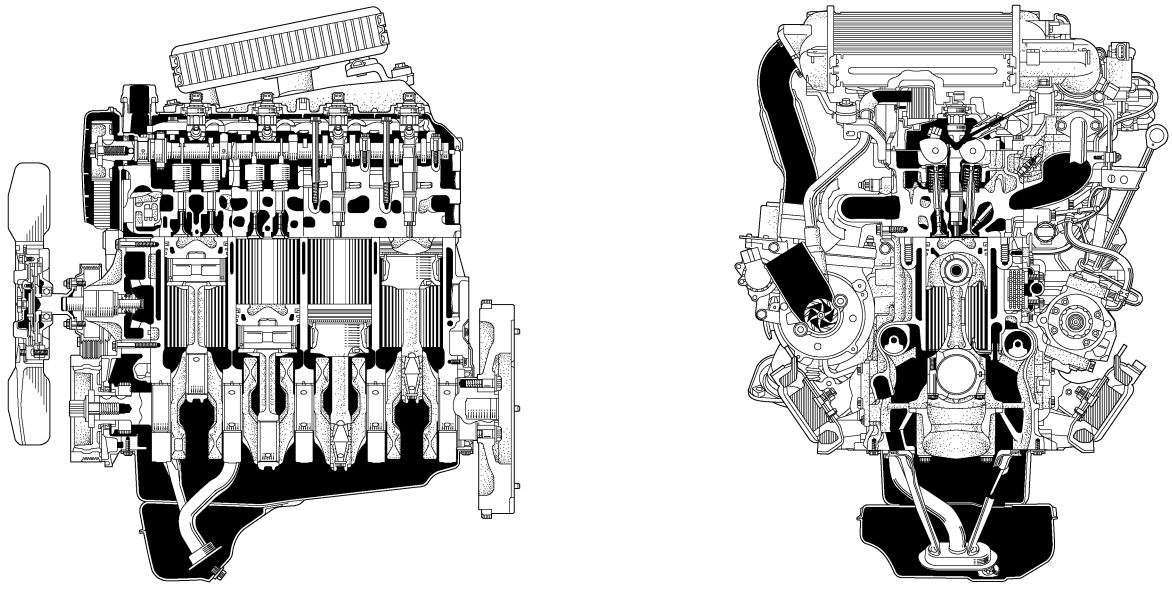
1KD-FTV AND 2KD-FTV HIGH VERSION ENGINES

■ DESCRIPTION

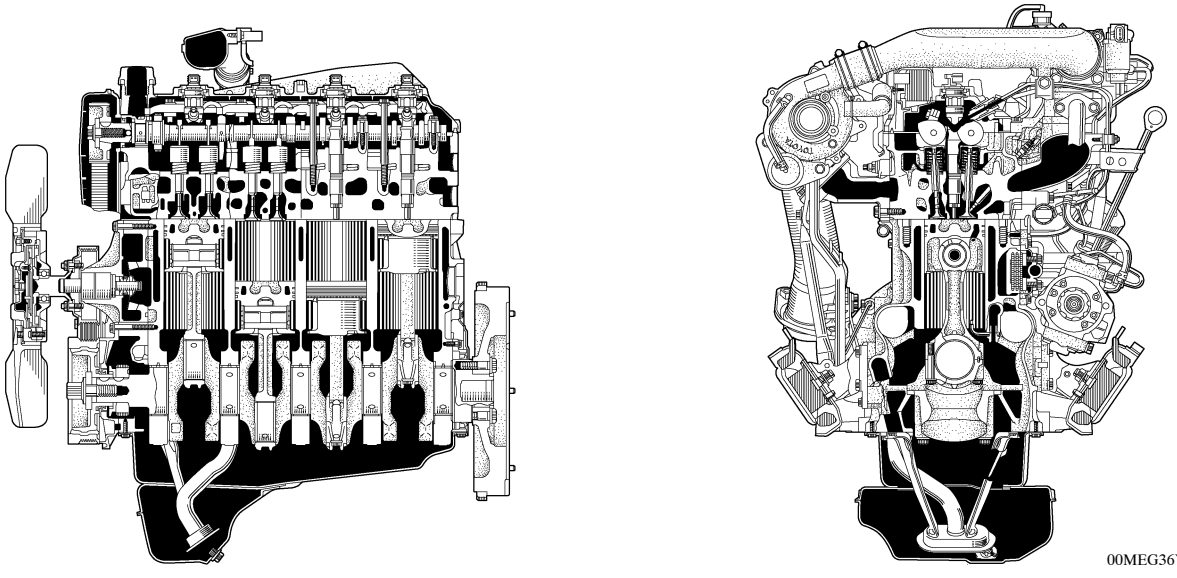
- The 1KD-FTV TOYOTA D-4D (Direct injection 4-stroke common-rail Diesel engine) is a 3.0 liter, in-line 4-cylinder, 16-valve DOHC diesel engine with turbocharger.
- The 2KD-FTV High Version TOYOTA D-4D is a 2.5 liter, in-line 4-cylinder, 16-valve DOHC diesel engine with turbocharger.
- These engines use direct injection system and common-rail system to achieve higher performance, clean emission, low noise and low vibration.
- An intercooler is provided on the models with 1KD-FTV engine. This lowers the intake air temperature and improves power output.
- The basic construction and operation of both the 1KD-FTV and 2KD-FTV High Version engines are the same.

▶ 1KD-FTV Engine ◀



271EG97

▶ 2KD-FTV High Version Engine ◀



00MEG36Y

▶ Engine Specifications ◀

Engine Type			1KD-FTV	2KD-FTV High Version
No. of Cyls. & Arrangement			4-cylinder, In-line	←
Valve Mechanism			16-valve DOHC, Belt & Gear Drive	←
Combustion Chamber			Direct Injection Type	←
Manifolds			Cross-flow	←
Fuel System			Common-rail Type	←
Displacement			2982 cm^3 (182.0 cu. in.)	2494 cm^3 (152.2 cu. in.)
Bore × Stroke			96.0 × 103.0 mm (3.78 × 4.06 in.)	92.0 × 93.8 mm (3.62 × 3.69 in.)
Compression Ratio			17.9 : 1	18.5 : 1
Max. Output	[SAE-NET]		120 kW @ 3400 rpm	75 kW @ 3600 rpm
Max. Torque	[SAE-NET]		343 N·m @ 1400 - 3200 rpm	260 N·m @ 1600 - 2400 rpm
Valve Timing	Intake	Open	2° BTDC	←
		Closed	37° ABDC	31° ABDC
	Exhaust	Open	45° BBDC	30° BBDC
		Closed	0° ATDC	←
Firing Order			1-3-4-2	←
Fuel Cetane Number			48 or Higher	←
Emission Regulation			EURO III*2	EURO III
			EURO I*3	
			Tier 1*4	
Engine Service Mass*1 (Reference)			260 kg (573 lb)	235 kg (518 lb)

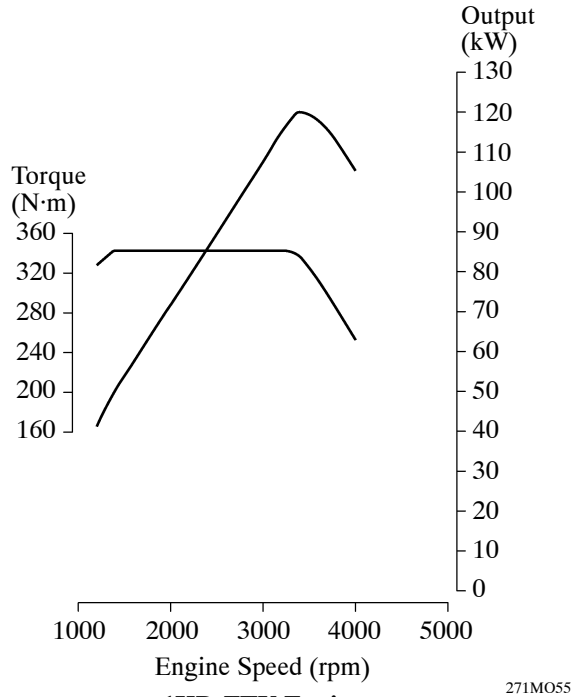
*1: Weight shows the figure with the oil and water fully filled.

*2: Models for Thailand, Indonesia, Philippines, South Africa (except export package), Central & South America (except models for Brazil and high altitude country, TASA made export package and TMT made export package) and Vietnam

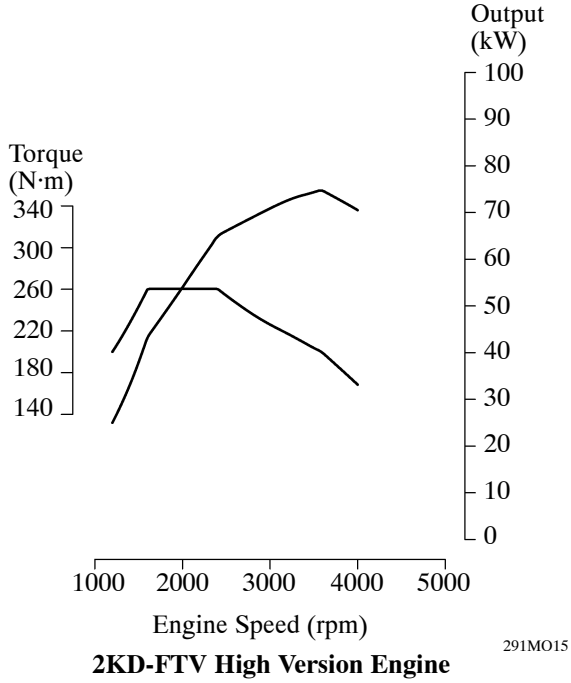
*3: Models for high altitude country, TSAM made export package, TASA made export package and TMT made export package

*4: Models for Brazil

▶ Performance Curve ◀



1KD-FTV Engine



2KD-FTV High Version Engine

EG