NEW FEATURES

1KD-FTV ENGINE

■ DESCRIPTION

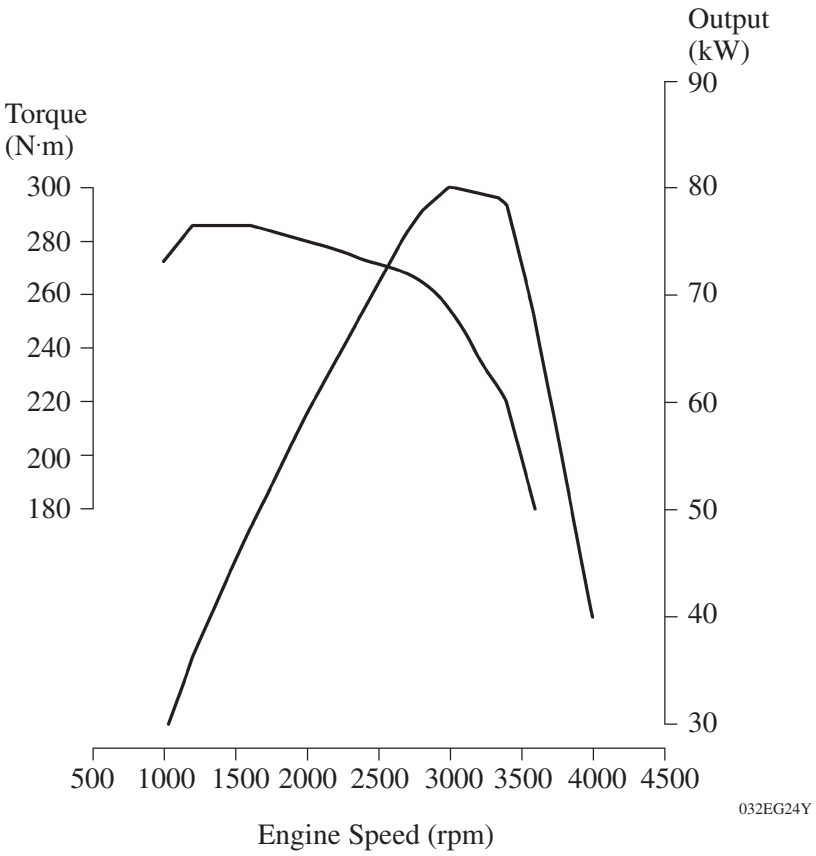
- The 1KD-FTV engine is newly provided on the Australia, New Zealand, Hong Kong, and Singapore models.
- The 1KD-FTV TOYOTA D-4D (Direct Injection, 4-stroke Common-rail Diesel Engine) is a 3.0-liter, inline 4-cylinder, 16-valve DOHC with intercooler turbocharged diesel engine. Based on the 2KD-FTV engine of the previous model, various parts of this engine have been revised to realize high performance, clean emissions, low noise, and low vibration.

▶ Engine Specifications ◀

Model			New	Previous
Engine Type			1KD-FTV	2KD-FTV
No. of Cyls. & Arrangement			4-cylinder, In-line	←
Valve Mechanism			16-valves, DOHC, Belt & Gear Drive	←
Combustion Chamber			Direct Injection Type	←
Manifolds			Cross-flow	←
Fuel System			Common-rail Type	←
Displacement	cm^3 (cu. in.)		2982 (182.0)	2494 (152.2)
Bore x Stroke	mm (in.)		96.0 x 103.0 (3.78 x 4.06)	92.0 x 93.8 (3.62 x 3.69)
Compression Ratio			16.0 : 1	18.5 : 1
Max. Output	(EEC)		80 kW @ 3000 rpm	75 kW @ 3600 rpm
Max. Torque	(EEC)		286 N·m @ 1200 – 1600 rpm	260 N·m @ 1600 – 2400 rpm
Valve Timing	Intake	Open	2° BTDC	2° BTDC
		Close	37° ABDC	31° ABDC
	Exhaust	Open	45° BBDC	30° BBDC
		Close	0° ATDC	0° ATDC
Firing Order			1-3-4-2	←
Fuel Cetane Number			50 or more	←
Emission Regulation			EURO IV	EURO III*2 EURO II*3
Oil Grade			API: CF-4, CF, G-DLD-1 or ACEA B1, 5W-30	←
Engine Service Mass*1 (Reference)	Kg (lb)		260 (573)	222 (489)

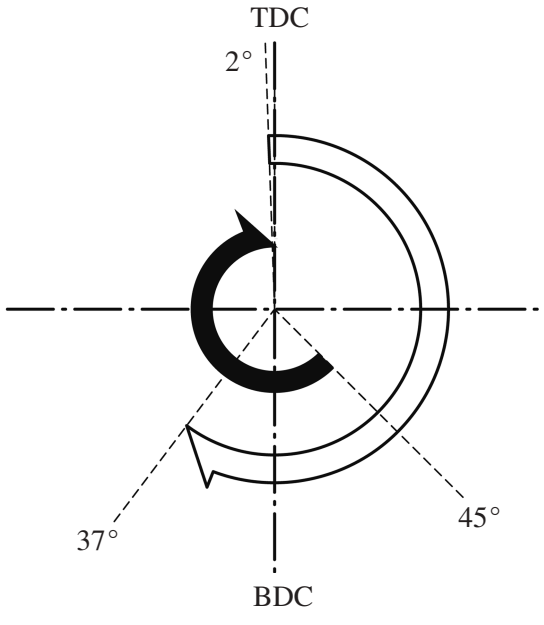
*1: Weight shows the figure with the oil and engine coolant fully filled.
*2: Hong Kong and Singapore Models
*3: Australia and New Zealand Models

▶ Performance Curve ◀



▶ Valve Timing ◀

: Intake Valve Opening Angle
: Exhaust Valve Opening Angle



NF