PERFORMANCE

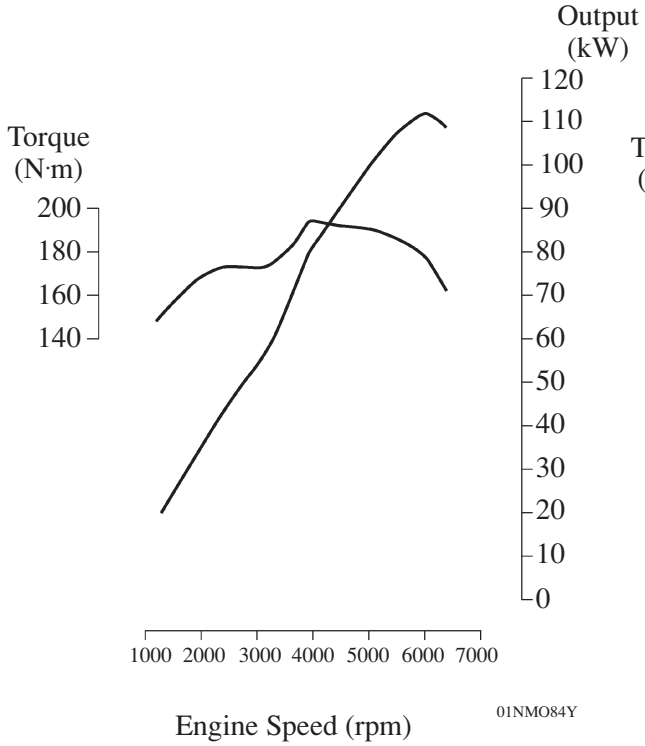
Power Train

Engine

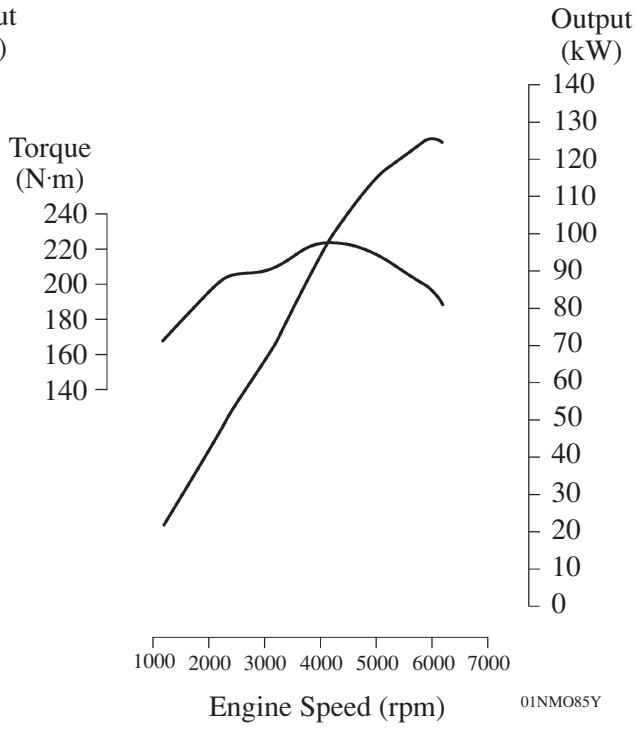
- The 1AZ-FE and 2AZ-FE engines have been carried over from the previous model. These engines realize high performance, quietness, fuel economy, and clean emissions through the use of the VVT-i (Variable Valve Timing-intelligent) system, DIS (Direct Ignition System), and ETCS-i (Electronic Throttle Control System-intelligent).

Engine Type	1AZ-FE	2AZ-FE
No. of Cyls. & Arrangement	4-cylinder, In-line Type	←
Valve Mechanism	16-valve DOHC, Chain Drive (with VVT-i)	←
Displacement cm^3 (cu. in.)	1998 (121.9)	2362 (144.2)
Bore x Stroke mm (in.)	86.0 x 86.0 (3.39 x 3.39)	88.5 x 96.0 (3.48 x 3.78)
Compression Ratio	9.8 : 1	←
Maximum Output [EEC]	112 kW @ 6000 rpm	125 kW @ 6000 rpm
Maximum Torque [EEC]	194 N·m @ 4000 rpm	224 N·m @ 4000 rpm

▶ 1AZ-FE Engine ◀



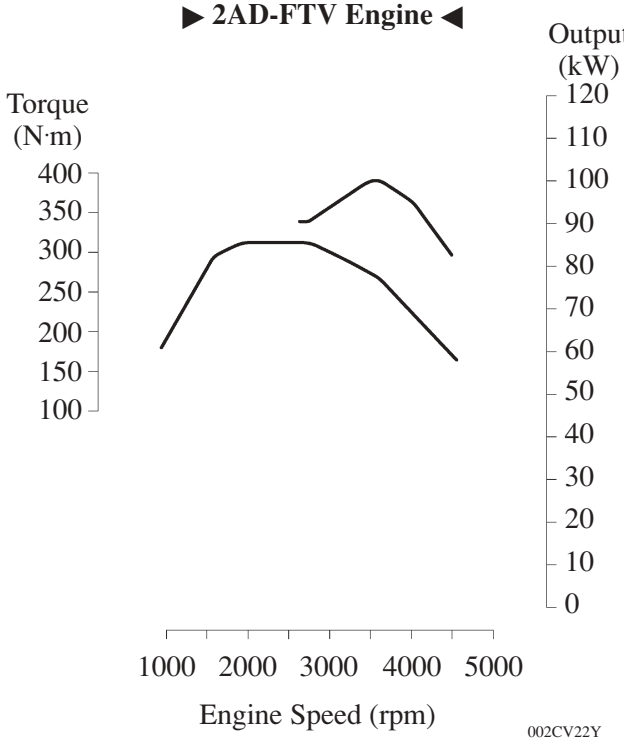
▶ 2AZ-FE Engine ◀



- A new, 2AD-FTV Toyota D-4D (direct injection, 4-stroke common-rail diesel), turbocharged, intercooler diesel engine is used. This engine realizes high performance, clean emissions, low noise, and low vibration through the use of a direct injection system and a common-rail system.
- A new 2AD-FHV engine, which offers higher performance over the 2AD-FTV engine and provides an additional D-CAT (Diesel Clean Advanced Technology), is used.

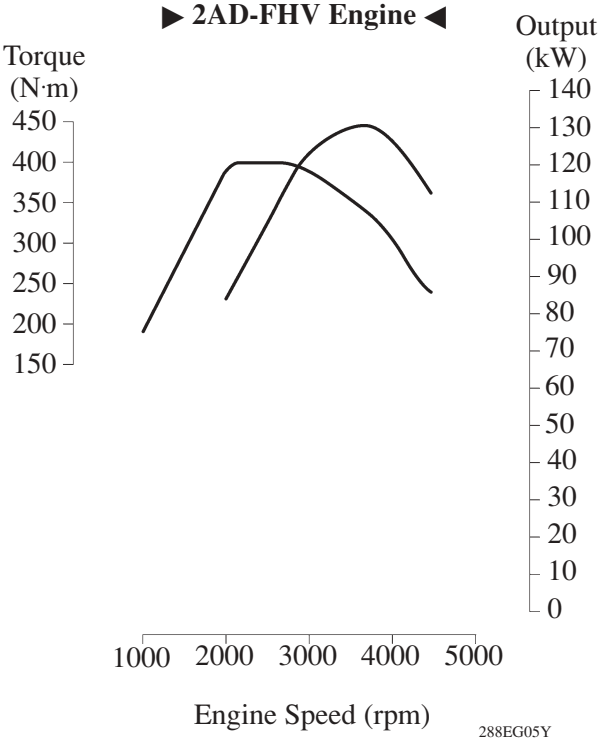
Engine Type	2AD-FTV	2AD-FHV
No. of Cyls. & Arrangement	4-cylinder, In-line Type	←
Valve Mechanism	16-valve DOHC, Chain and Gear Drive	←
Displacement cm^3 (cu. in.)	2231 (136.1)	←
Bore x Stroke mm (in.)	86.0 x 96.0 (3.39 x 3.78)	←
Compression Ratio	16.8 : 1	15.8 : 1
Maximum Output [EEC]	100 kW @ 3600 rpm	130 kW @ 3600 rpm
Maximum Torque [EEC]	310 N·m @ 2000 – 2800 rpm	400 N·m @ 2000 – 2600 rpm

▶ 2AD-FTV Engine ◀



002CV22Y

▶ 2AD-FHV Engine ◀



288EG05Y

Transaxle

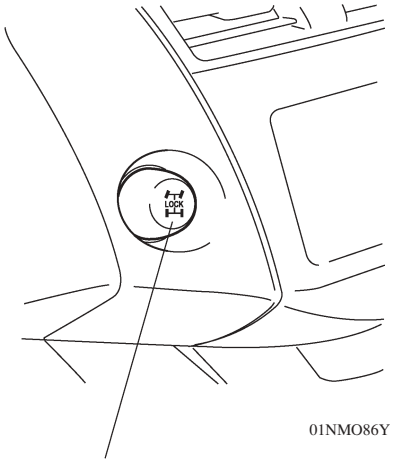
- A new EA64F 6-speed manual transaxle is used with the 2AD-FTV and 2AD-FHV engines.
- A new E352 5-speed manual transaxle and U241E 4-speed automatic transaxle are used on the 2WD models.
- The E352F and E359F 5-speed manual transaxles and the U140F 4-speed automatic transaxle are carried over from the previous model.
- A new GF1A transfer is used.

Transaxle Type		5-speed Manual			6-speed Manual	4-speed Automatic	
		E352	E352F	E359F	EA64F	U140F	U241E
Drive Type		2WD	4WD				2WD
Transfer Type		—	GF1A				—
Combination with Engine		2AZ-FE	1AZ-FE	2AZ-FE	2AD-FTV 2AD-FHV	1AZ-FE 2AZ-FE	2AZ-FE
Gear Ratio*	1st	3.833	←	←	3.818	3.938	3.943
	2nd	2.045	←	1.913	←	2.194	2.197
	3rd	1.333	←	1.258	1.218	1.411	1.413
	4th	1.028	←	0.972	0.880	1.019	1.020
	5th	0.820	←	0.775	0.809	—	—
	6th	—	—	—	0.711	—	—
	Reverse	3.583	←	←	4.139	3.141	3.145

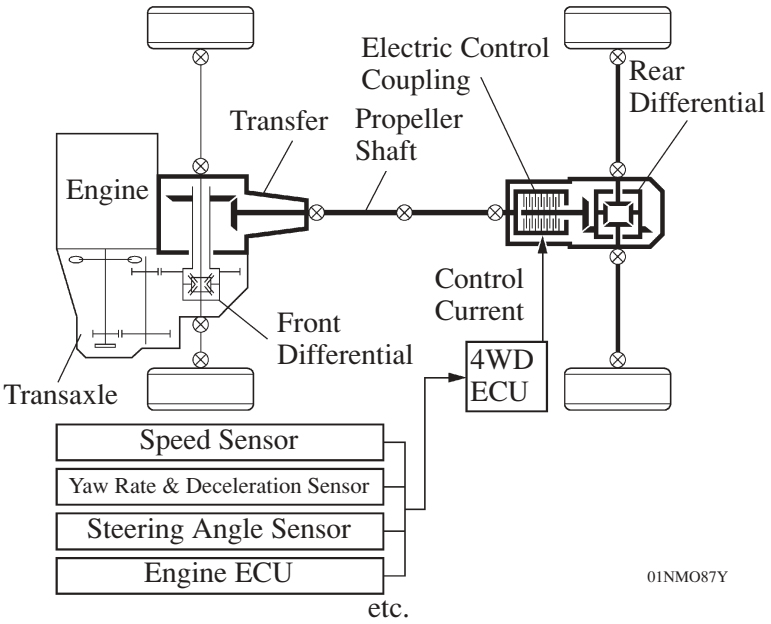
*: Counter gear ratio is included on A/T model.

Active Torque Control 4WD System

- A new active torque control 4WD system with an electric control coupling is used.
- The active torque control 4WD system, which has an electric control coupling that is in the front part of the rear differential, transmits torque to the rear wheels when needed, and only in the amount needed, based on information provided by various sensors.
- By operating the four-wheel drive lock switch provided on the instrument panel, the driver can select the following modes: the AUTO mode to optimally control the torque that is transmitted to the rear wheels, and the LOCK mode that locks the torque that is transmitted to the rear wheels to the maximum amount.



Four-wheel Drive Lock Switch



System Configuration Diagram