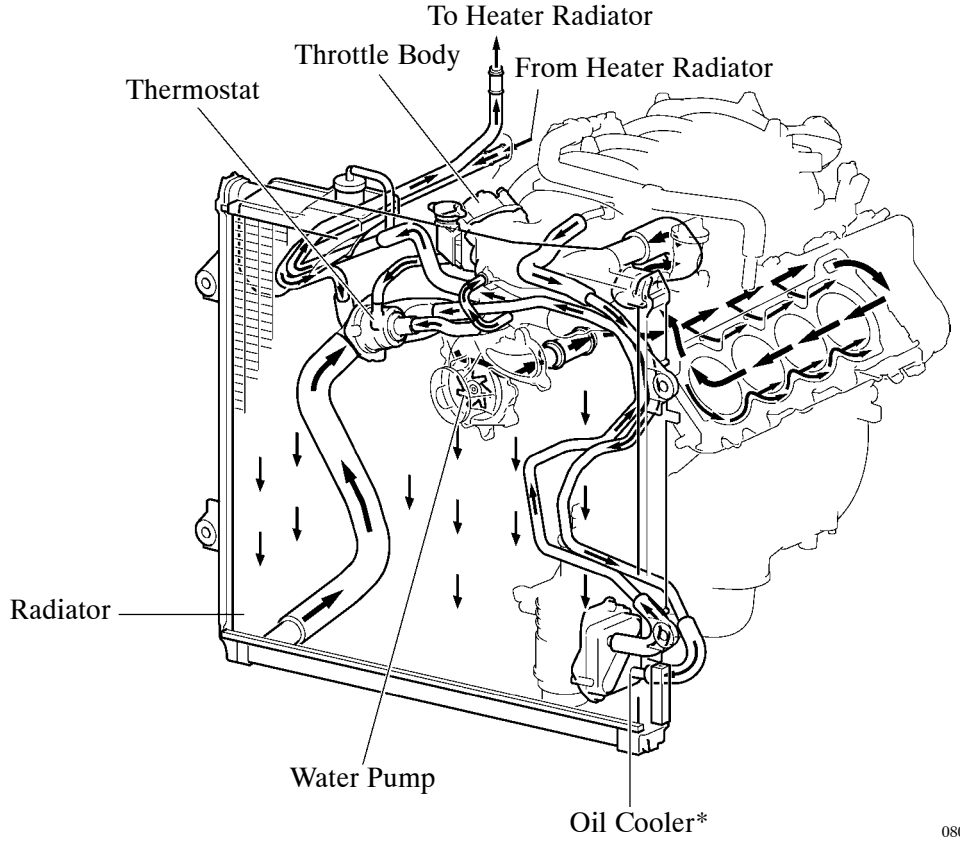
7. Cooling System

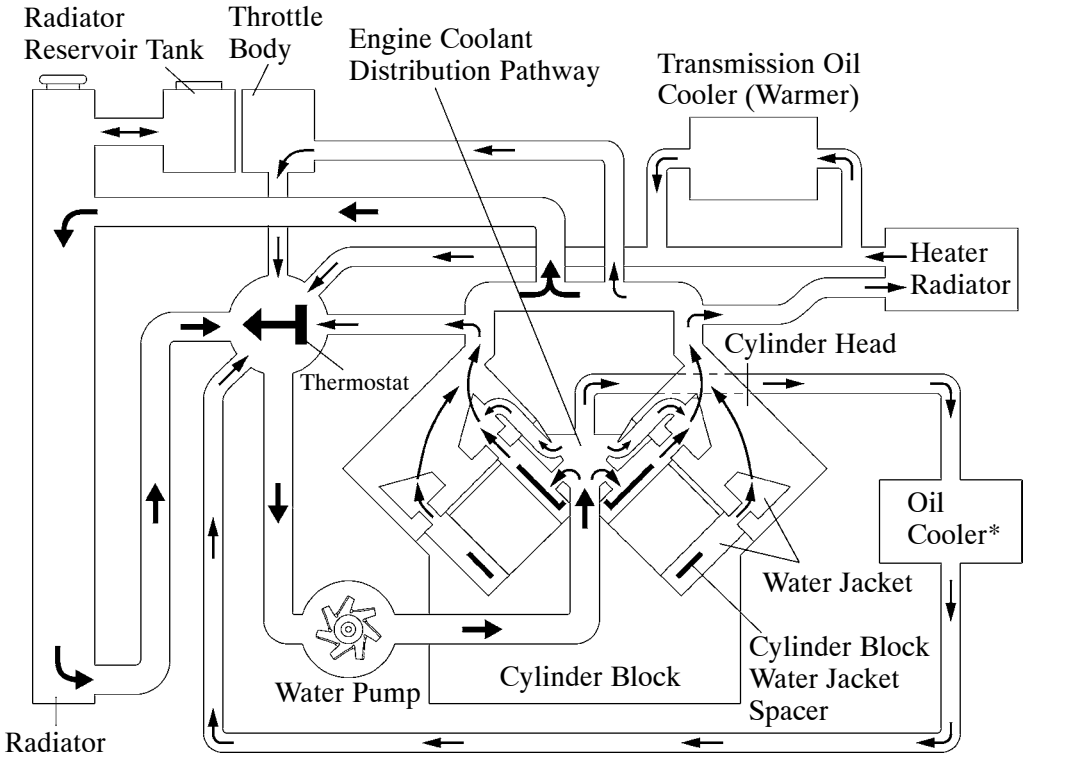
General

- The cooling system uses a pressurized forced circulation system with an open air type reservoir tank.
- An engine coolant distribution pathway is provided between the left and right banks of the cylinder block.
- A thermostat with a bypass valve is located on the plastic water inlet to maintain suitable temperature distribution in the cooling system.
- An aluminum radiator core is used for weight reduction.
- A 2-stage temperature-controlled coupling fan is used. It rotates at lower speeds when the engine is cold to minimize fan noise.
- TOYOTA Genuine Super Long Life Coolant (SLLC) is used as the engine coolant.



*: Towing package models

▶ Water Circuit ◀



*: Towing package models

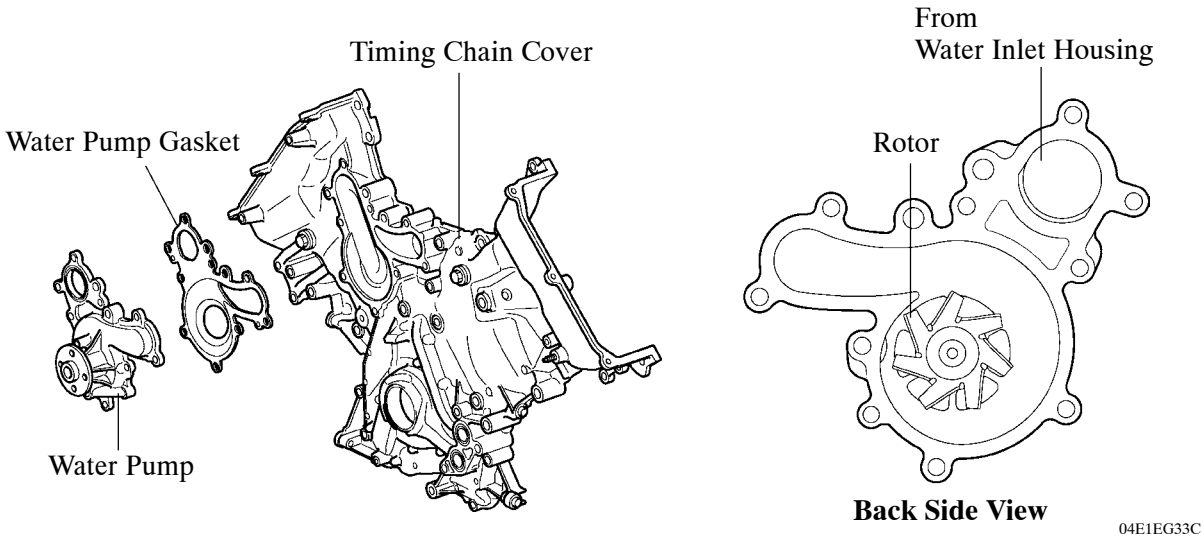
▶ Specifications ◀

Engine Coolant	Type		Use TOYOTA Genuine Super Long Life Coolant (SLLC) or similar high quality ethylene glycol-based non-silicate, non-amine, non-nitrite and non-borate coolant with long-life hybrid organic acid technology (coolant with long-life hybrid organic acid technology is a combination of low phosphates and organic acids). Do not use plain water alone.
	Color		Pink
	Maintenance Intervals	First Time	100000 mile (160000 km)
		Subsequent	Every 50000 mile (80000 km)
Thermostat	Opening Temperature	°C (°F)	80 – 84 (176 – 183)

- SLLC is pre-mixed (50% coolant and 50% deionized water for U.S.A), so no dilution is needed when adding or replacing SLLC in the vehicle.
- The new maintenance interval (every 50000 miles / 80000 km) can also be applied to vehicles that initially use LLC (red-colored), if the SLLC (pink-colored) is used for the engine coolant change.

Water Pump

- A rust-resistant water pump rotor made of stainless steel is used.
- The water pump circulates the engine coolant to the engine coolant distribution pathway located between the left and right banks of the cylinder block.



Engine Coolant Distribution Pathway

The water pump circulates the engine coolant and directs it to the engine coolant distribution pathway located between the left and right banks. From there, the engine coolant is uniformly distributed to each cylinder of the cylinder block, and also directly discharged to the cylinder heads. As a result, the cooling performance of the cylinder heads is assured and reliability is improved.

