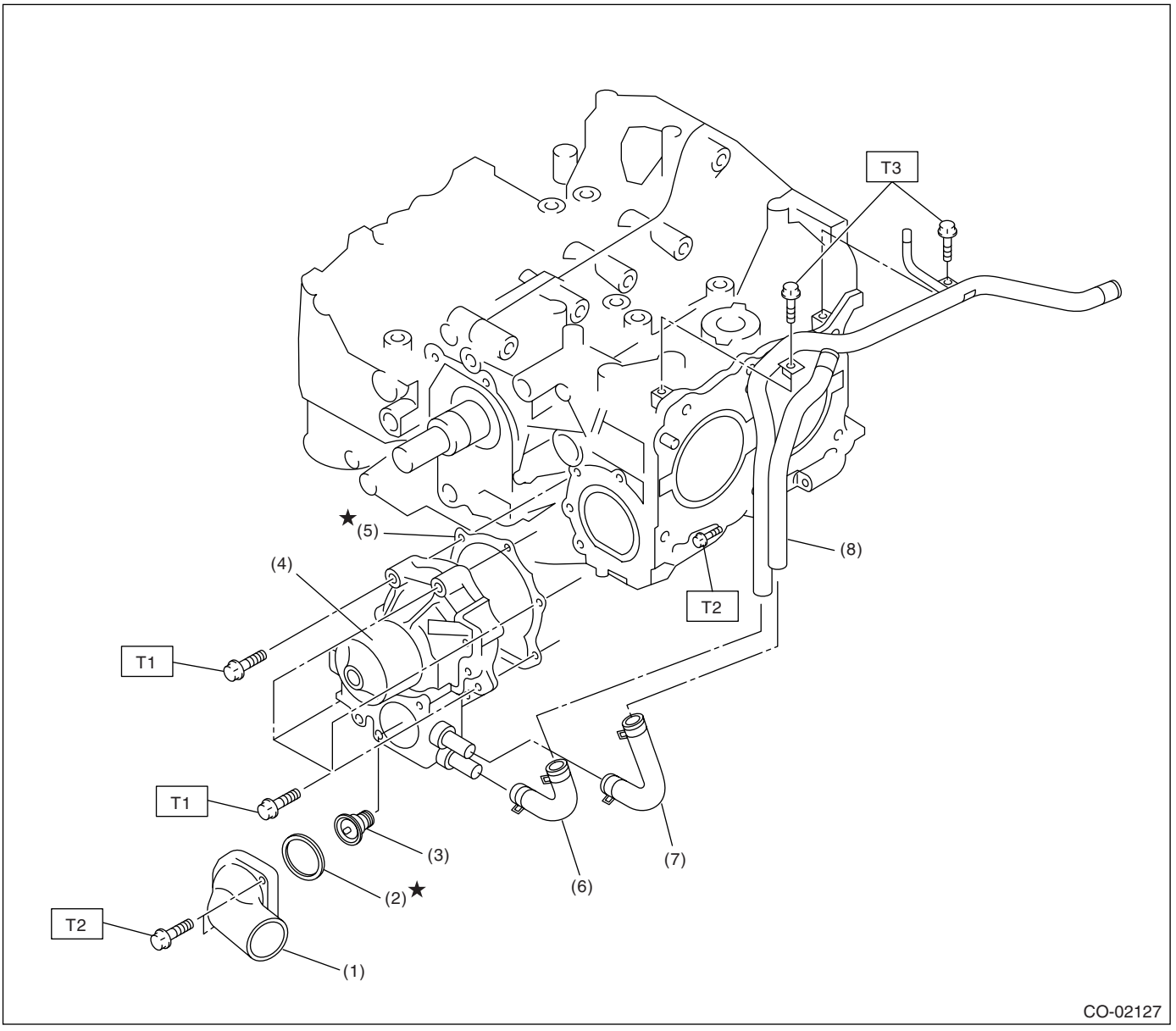
1. General Description

A: SPECIFICATIONS

Model			DOHC TURBO
Cooling system			Electric fan + Forced engine coolant circulation system
Total engine coolant capacity ℓ (US qt, Imp qt)			AT: Approx. 7.6 (8.03, 6.69) MT: Approx. 7.7 (8.14, 6.78)
Water pump	Type		Centrifugal impeller type
	Discharge performance I	Discharge	20 ℓ (5.3 US gal, 4.4 Imp gal)/min.
		Pump speed — Discharge pressure	760 rpm — 2.9 kPa (0.3 mAq)
		Engine coolant temperature	85°C (185°F)
	Discharge performance II	Discharge	100 ℓ (26.4 US gal, 22.0 Imp gal)/min.
		Pump speed — Discharge pressure	3,000 rpm — 49.0 kPa (5.0 mAq)
		Engine coolant temperature	85°C (185°F)
	Discharge performance III	Discharge	200 ℓ (52.8 US gal, 44.0 Imp gal)/min.
		Pump speed — Discharge pressure	6,000 rpm — 225.4 kPa (23.0 mAq)
		Engine coolant temperature	80°C (176°F)
	Impeller diameter		76 mm (2.99 in)
	Number of impeller vanes		8
	Pump pulley diameter		60 mm (2.36 in)
	Clearance between impeller and case	Standard	0.5 — 1.5 mm (0.020 — 0.059 in)
Thermostat	Type		Wax pellet type
	Starts to open		76 — 80°C (169 — 176°F)
	Fully opened		91°C (196°F)
	Valve lift		9.0 mm (0.354 in) or more/91°C (196°F)
	Valve bore		35 mm (1.38 in)
Radiator fan	Motor	Main fan	120 W
		Sub fan	120 W
	Fan diameter × Blade		320 mm (12.60 in) × 5 (main fan) 320 mm (12.60 in) × 7 (sub fan)
Radiator	Type		Down flow
	Core dimensions	Width × Height × Thickness	691.5 × 340 × 27 mm (27.22 × 13.39 × 1.06 in)
	Pressure range in which cap valve is open	Coolant filler tank side	Above: 108±15 kPa (1.1±0.15 kg/cm^2, 16±2 psi) Below: –1.0 to –4.9 kPa (–0.01 to –0.05 kg/cm^2, –0.1 to –0.7 psi)
		Radiator side	Above only: 137±14.7 kPa (1.40±0.15 kg/cm^2, 20±2.1 psi)
	Fins		Corrugated fin type
Reservoir tank	Capacity		0.5 ℓ (0.5 US qt, 0.4 Imp qt)

B: COMPONENT

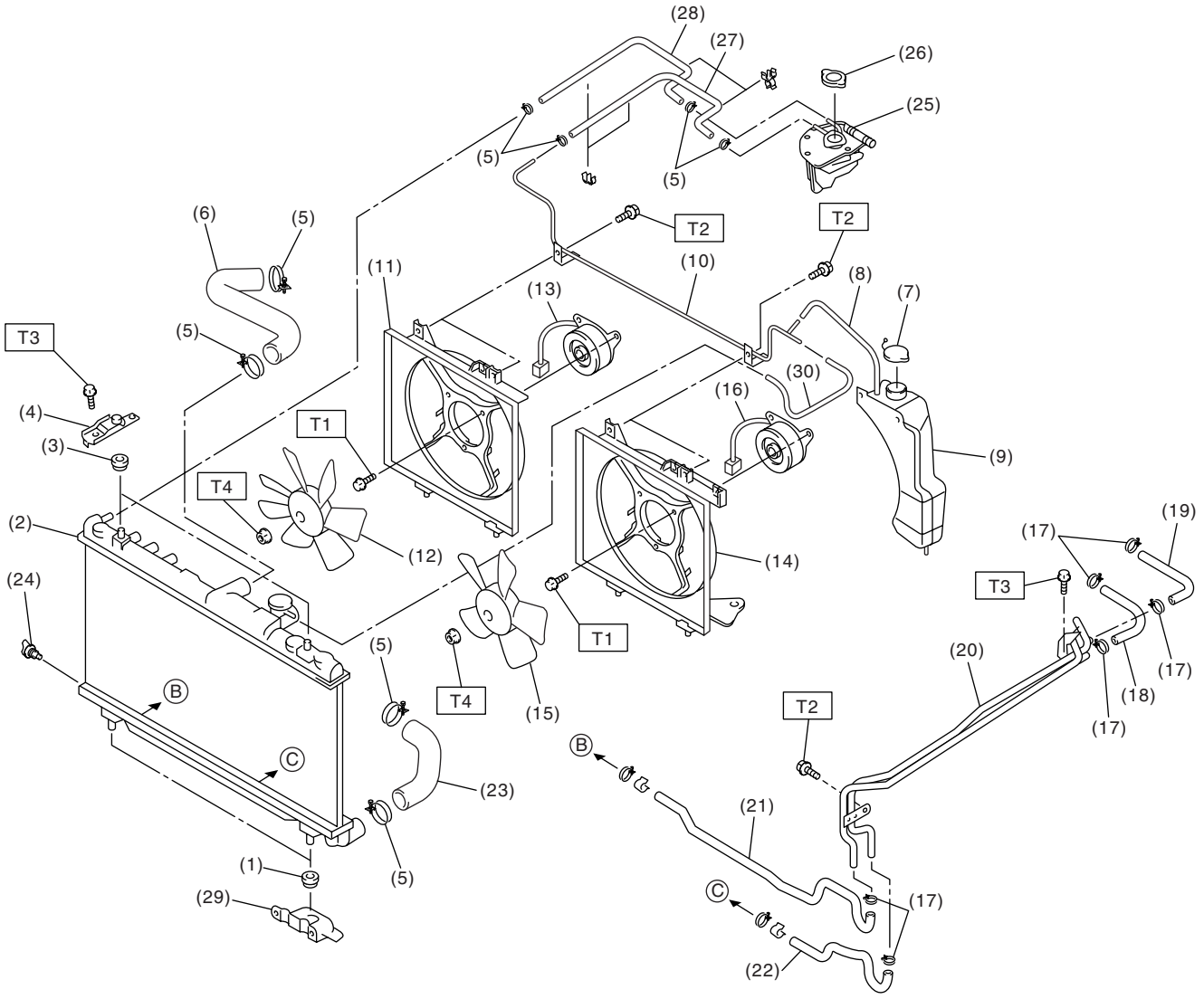
1. WATER PUMP



(1) Thermostat cover
(2) Gasket
(3) Thermostat
(4) Water pump ASSY
(5) Gasket
(6) Heater by-pass hose
(7) Coolant filler tank by-pass hose
(8) Water by-pass pipe

Tightening torque: N·m (kgf-m, ft-lb)
T1: First 12 (1.2, 8.7)
Second 12 (1.2, 8.7)
T2: 12 (1.2, 8.7)
T3: 6.5 (0.66, 4.8)

2. RADIATOR AND RADIATOR FAN



CO-02122

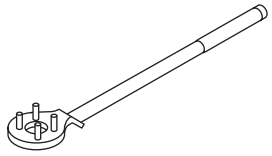
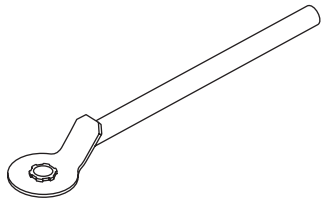
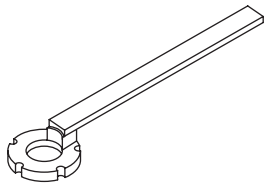
(1) Radiator lower cushion
(2) Radiator
(3) Radiator upper cushion
(4) Radiator upper bracket
(5) Clamp
(6) Radiator inlet hose
(7) Engine coolant reservoir tank cap
(8) Overflow hose A
(9) Engine coolant reservoir tank
(10) Overflow pipe
(11) Radiator sub fan shroud
(12) Radiator sub fan
(13) Radiator sub fan motor
(14) Radiator main fan shroud
(15) Radiator main fan
(16) Radiator main fan motor
(17) ATF hose clamp (AT model)
(18) ATF inlet hose A (AT model)
(19) ATF outlet hose A (AT model)
(20) ATF pipe (AT model)
(21) ATF inlet hose B (AT model)
(22) ATF outlet hose B (AT model)
(23) Radiator outlet hose
(24) Radiator drain plug
(25) Engine coolant filler tank
(26) Radiator cap (engine coolant filler tank cap)
(27) Engine overflow hose
(28) Engine air breather hose
(29) Radiator lower bracket
(30) Overflow hose B

Tightening torque: N·m (kgf-m, ft-lb)
T1: 4.4 (0.45, 3.3)
T2: 7.5 (0.76, 5.5)
T3: 18 (1.8, 13.0)
T4: 3.4 (0.35, 2.5)

C: CAUTION

• Wear working clothing, including a cap, protective goggles, and protective shoes during operation.
• Remove contamination including dirt and corrosion before removal, installation or disassembly.
• Keep the disassembled parts in order and protect them from dust or dirt.
• Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly, and replacement.
• Be careful not to burn your hands, because each part in the vehicle is hot after running.
• Be sure to tighten fasteners including bolts and nuts to the specified torque.
• Place shop jacks or safety stands at the specified points.
• Before disconnecting electrical connectors of sensors or units, be sure to disconnect the ground cable from battery.

D: PREPARATION TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-499977100	499977100	CRANKSHAFT PULLEY WRENCH	Used for stopping crankshaft pulley when loosening and tightening crankshaft pulley bolts.
 ST-499977500	499977500	CAMSHAFT SPROCKET WRENCH	Used for removing and installing intake camshaft sprockets.
 ST-499207400	499207400	CAMSHAFT SPROCKET WRENCH	Used for removing and installing exhaust camshaft sprockets.