

General Description

COOLING

1. General Description

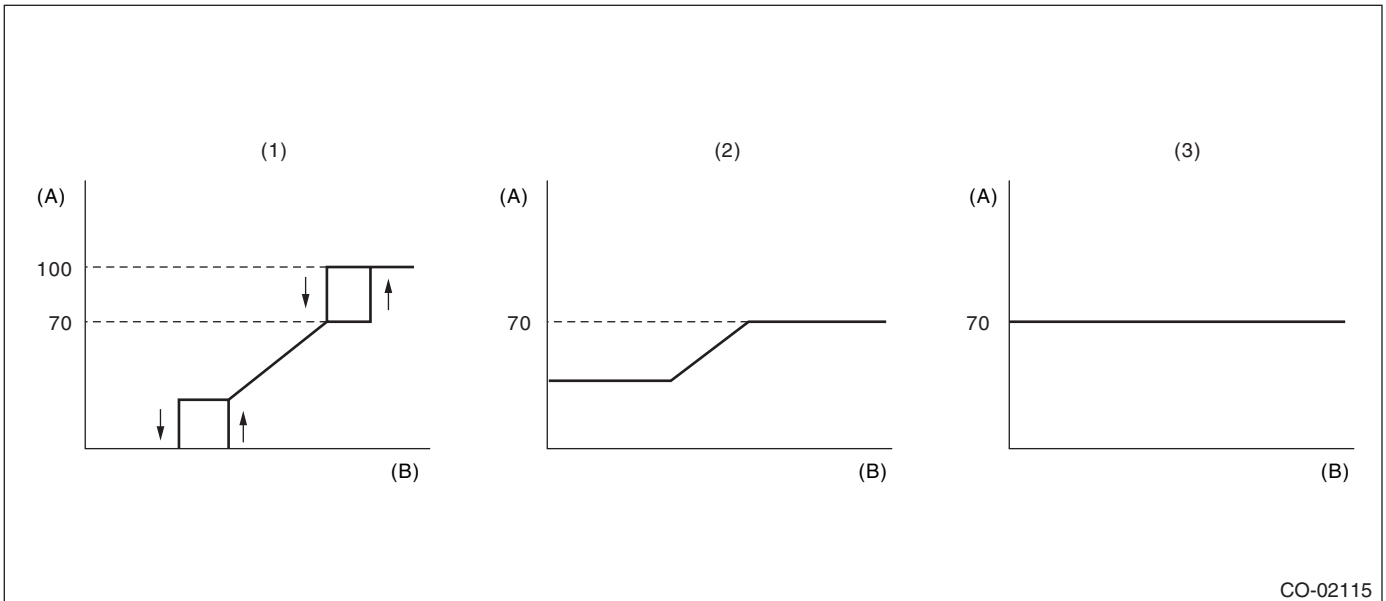
A: SPECIFICATION

Cooling system		Electric fan + Forced engine coolant circulation system		
Total engine coolant capacity		ℓ (US qt, Imp qt)	Approx. 7.2 (7.6, 6.3)	
Water pump	Type		Centrifugal impeller type	
	Discharge performance I	Discharge rate	320 (84.5, 70.4)	
		ℓ (US gal, Imp gal)/min		
		Pump speed — Discharge pressure	5,500 rpm — 176.5 kPa (18 mAq)	
	Engine coolant temperature		80°C (176°F)	
	Impeller diameter		mm (in)	73.2 (2.88)
	Number of impeller vanes		6	
Number of pump sprocket teeth		22		
Thermostat	Type		Wax pellet type	
	Starting temperature to open		80 — 84°C (176 — 183°F)	
	Fully opens		95°C (203°F)	
	Valve lift		mm (in)	9.0 (0.354) or more
	Valve bore		mm (in)	35 (1.38)
Radiator fan	Motor input	Main fan	W	160
		Sub fan	W	160
	Fan diameter / Blade	Main fan	320 mm (12.60 in)/5	
		Sub fan	320 mm (12.6 in)/7	
Radiator	Type		Down flow, pressure type	
	Core dimensions	Width × Height × Thickness	mm (in)	690 × 349 × 16 (27.17 × 13.74 × 0.63)
	Pressure range in which cap valve is open		kPa (kg/cm ² , psi)	Above: 108±14.7 (1.1±0.15, 16±2) Below: The atmospheric pressure or less
	Fins		Corrugated fin type	
Reservoir tank	Capacity		ℓ (US qt, Imp qt)	0.45 (0.48, 0.40)

A/C compressor	A/C middle pressure switch	Engine coolant temperature		
		Increase: less than 95°C (203°F) Decrease: less than 93°C (199°F)	Increase: 95 — 101°C (203 — 214°F) Decrease: 93 — 99°C (199 — 210°F)	Increase: More than 102°C (216°F) Decrease: More than 100°C (212°F)
OFF		0%	Refer to fig. (1)	100%
ON	OFF	Refer to fig. (2)		100%
	ON	Refer to fig. (3)		100%

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CO-02115

(1) A/C OFF control

(2) A/C ON control (A/C middle pressure switch OFF)

(3) A/C ON control (A/C middle pressure switch ON)

(A) Fan speed (%)

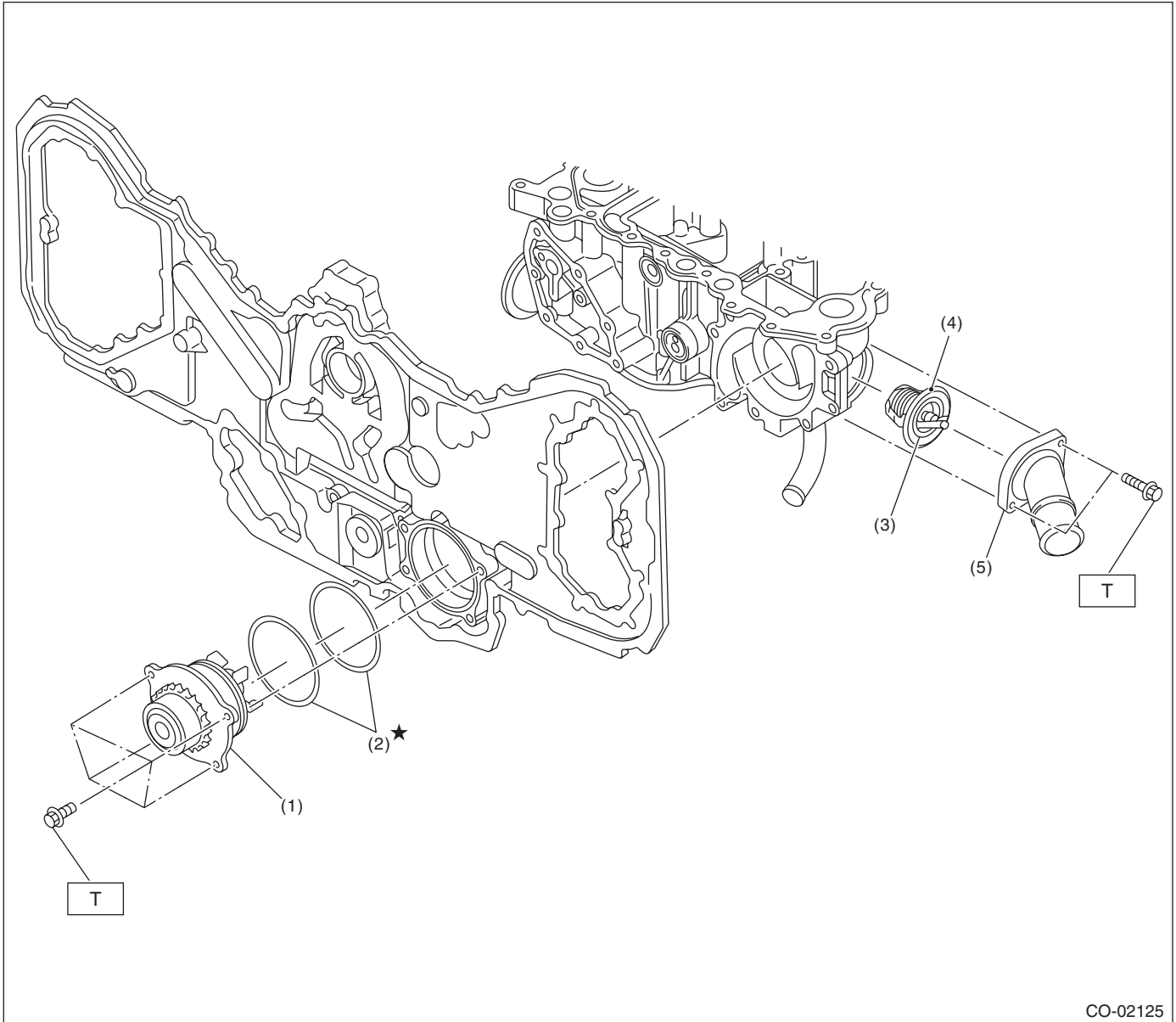
(B) Coolant temperature

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B: COMPONENT

1. WATER PUMP



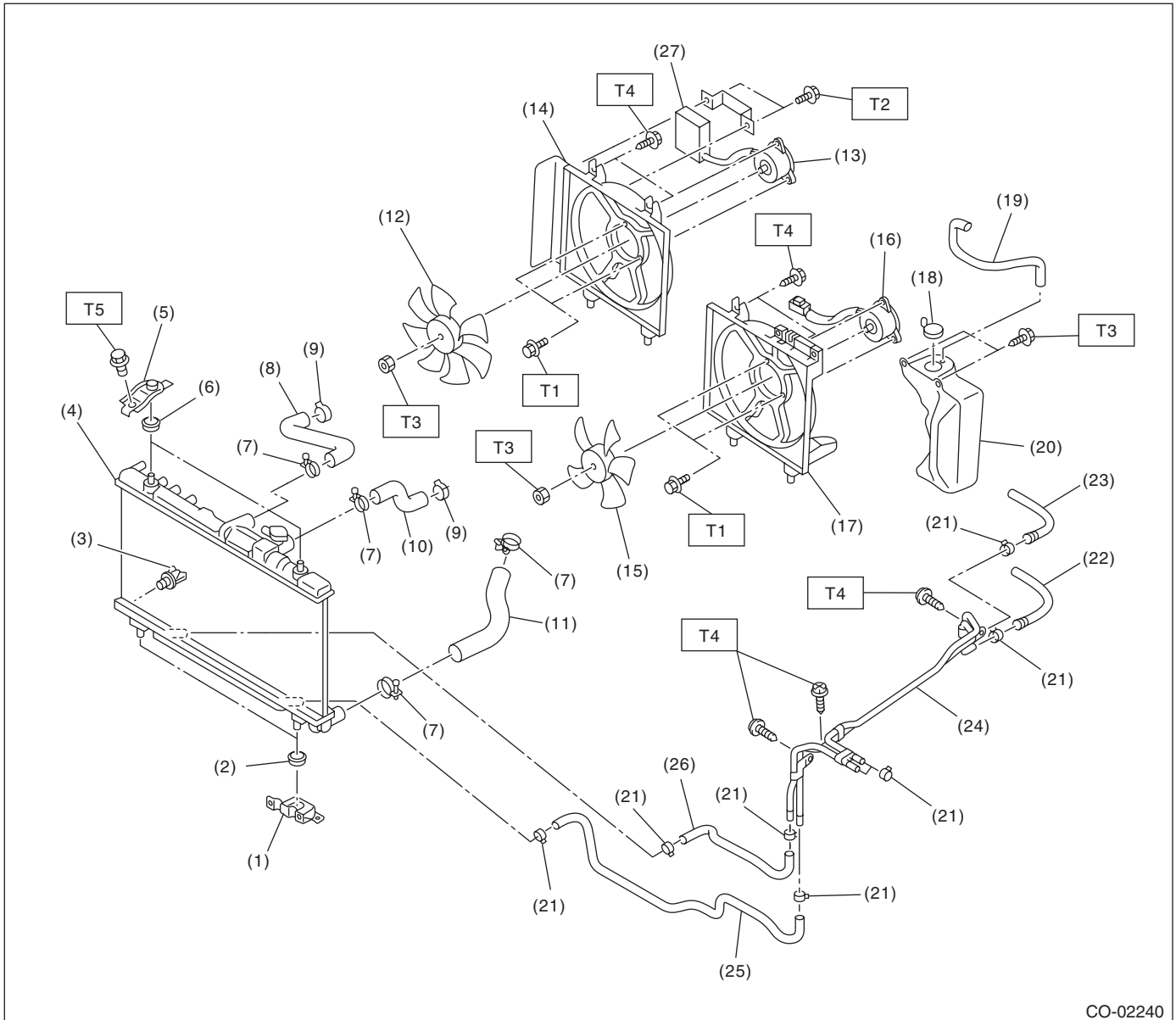
CO-02125

- | | |
|---------------------|----------------------|
| (1) Water pump ASSY | (4) Gasket |
| (2) O-ring | (5) Thermostat cover |
| (3) Thermostat | |

Tightening torque: N·m (kgf·m, ft·lb)

T: 6.4 (0.65, 4.7)

2. RADIATOR AND RADIATOR FAN



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- | | | |
|-------------------------------|--|--------------------------------|
| (1) Radiator lower bracket | (13) Radiator sub fan motor | (24) ATF pipe |
| (2) Radiator lower cushion | (14) Radiator sub fan shroud | (25) ATF hose C |
| (3) Engine coolant drain cock | (15) Radiator main fan | (26) ATF hose D |
| (4) Radiator | (16) Radiator main fan motor | (27) Radiator fan control unit |
| (5) Radiator upper bracket | (17) Radiator main fan shroud | |
| (6) Radiator upper cushion | (18) Engine coolant reservoir tank cap | |
| (7) Clamp | (19) Over flow hose | |
| (8) Radiator hose A | (20) Engine coolant reservoir tank | |
| (9) Clamp | (21) ATF hose clamp | |
| (10) Radiator hose B | (22) ATF hose A | |
| (11) Radiator hose B | (23) ATF hose B | |
| (12) Radiator sub fan | | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 3.8 (0.39, 2.8)

T2: 5.4 (0.55, 4.0)

T3: 6.2 (0.63, 4.6)

T4: 7.5 (0.76, 5.5)

T5: 12 (1.2, 8.9)

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C: CAUTION

- Wear appropriate work clothing, including a cap, protective goggles and protective shoes when performing any work.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Vehicle components are extremely hot after driving. Be wary of receiving burns from heated parts.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery.

D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
<p>ST-499977100</p>	499977100	CRANK PULLEY WRENCH	Used for stopping rotation of crank pulley when loosening and tightening crank pulley bolts.
<p>ST-499977500</p>	499977500	CAM SPROCKET WRENCH	Used for removing and installing intake cam sprocket.
<p>ST18231AA020</p>	18231AA020	CAM SPROCKET WRENCH	Used for removing and installing the exhaust cam sprocket.

2. GENERAL TOOL

TOOL NAME	REMARKS
Radiator cap tester	Used for measuring pressure.