

General Description

CLUTCH SYSTEM

1. General Description

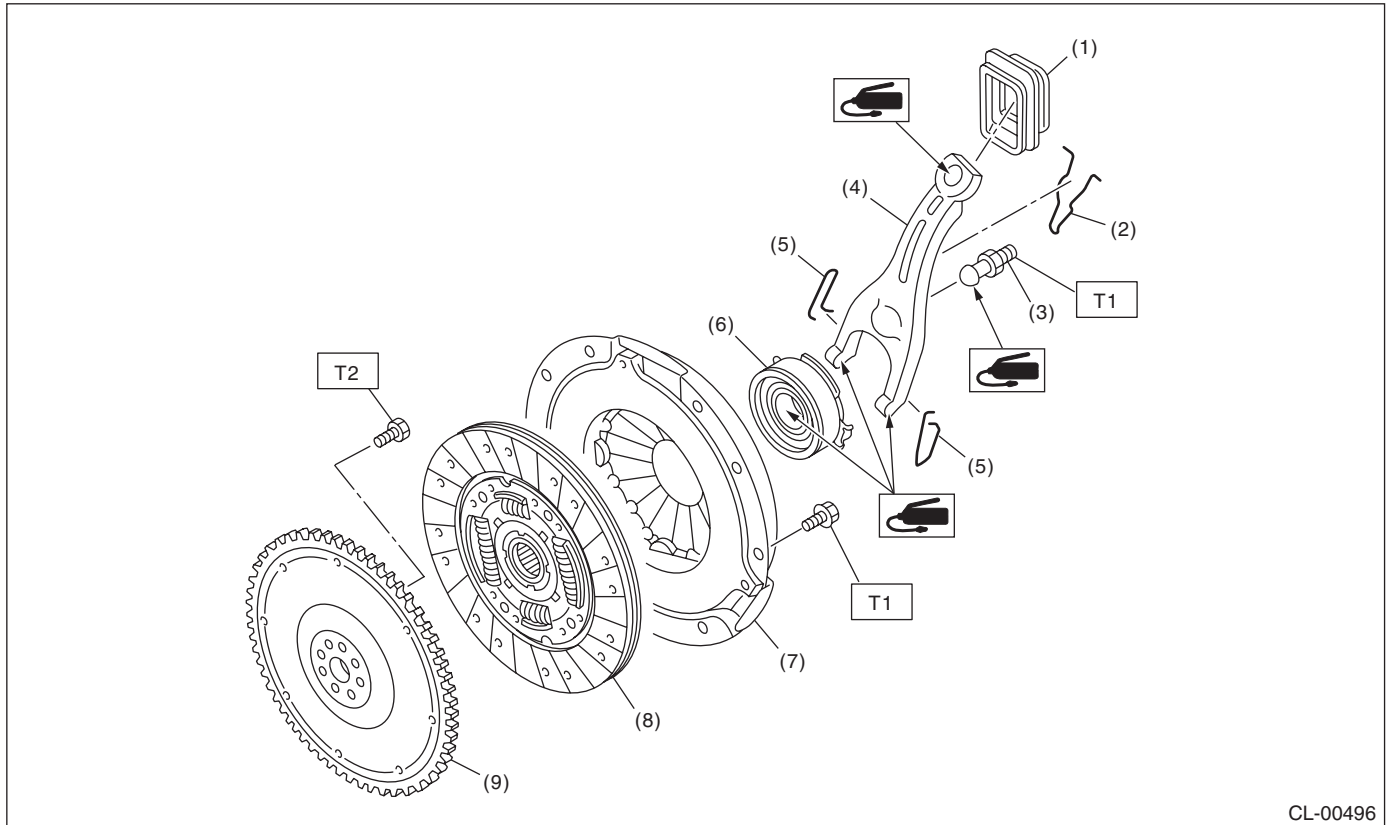
A: SPECIFICATION

Model			2.5 L non-turbo	2.5 L Turbo	
Transmission type			5MT		
Clutch cover	Type		Push type		
	Diaphragm set load N (kgf, lbf)		5,688 (580, 1,279)	7,850 (800, 1,764)	
Clutch disc	Facing material		Woven		
	O.D. × I.D. × thickness mm (in)		225 × 150 × 3.5 (8.86 × 5.91 × 0.138)	230 × 155 × 3.2 (9.06 × 6.10 × 0.126)	
	Spline outer diameter mm (in)		25.2 (0.992)		
	Depth of rivet head mm (in)	Standard value		1.3 — 1.9 (0.051 — 0.075)	
		Limit of sinking		0.3 (0.012)	
	Deflection limit mm (in)		0.7 (0.027) at R = 110 (4.33)	1.0 (0.039) at R = 110 (4.33)	
Clutch release lever ratio			1.6		
Release bearing			Grease-packed self-aligning		
Clutch pedal	Full stroke mm (in)		130 — 135 (5.12 — 5.31)	135 — 140 (5.31 — 5.51)	
	Free play mm (in)		4 — 13 (0.16 — 0.51)		
Flywheel	Type		Flexible		

Model			2.5 L Turbo		
Transmission type			6MT		
Clutch cover	Type		Pull type		
	Diaphragm set load N (kgf, lbf)		7,160 (730, 1,610)		
Clutch disc	Facing material		Woven		
	O.D. × I.D. × thickness mm (in)	Flywheel side	240 × 160 × 3.2 (9.45 × 6.30 × 0.126)		
		Clutch cover side	240 × 160 × 3.5 (9.45 × 6.30 × 0.138)		
	Spline outer diameter mm (in)		25.2 (0.992)		
	Depth of rivet head mm (in)	Flywheel side	1.35 — 1.95 (0.053 — 0.077)		
		Clutch cover side	1.65 — 2.25 (0.065 — 0.089)		
		Limit of sinking	0.3 (0.012)		
Deflection limit mm (in)		1.0 (0.039) at R = 110 (4.33)			
Clutch release lever ratio			1.7		
Release bearing			Grease-packed self-aligning		
Clutch pedal	Full stroke mm (in)		130 — 135 (5.12 — 5.31)		
	Free play mm (in)		4 — 13 (0.16 — 0.51)		
Flywheel	Type		Conventional		

B: COMPONENT**1. CLUTCH ASSEMBLY**

- 5MT non-turbo model



CL-00496

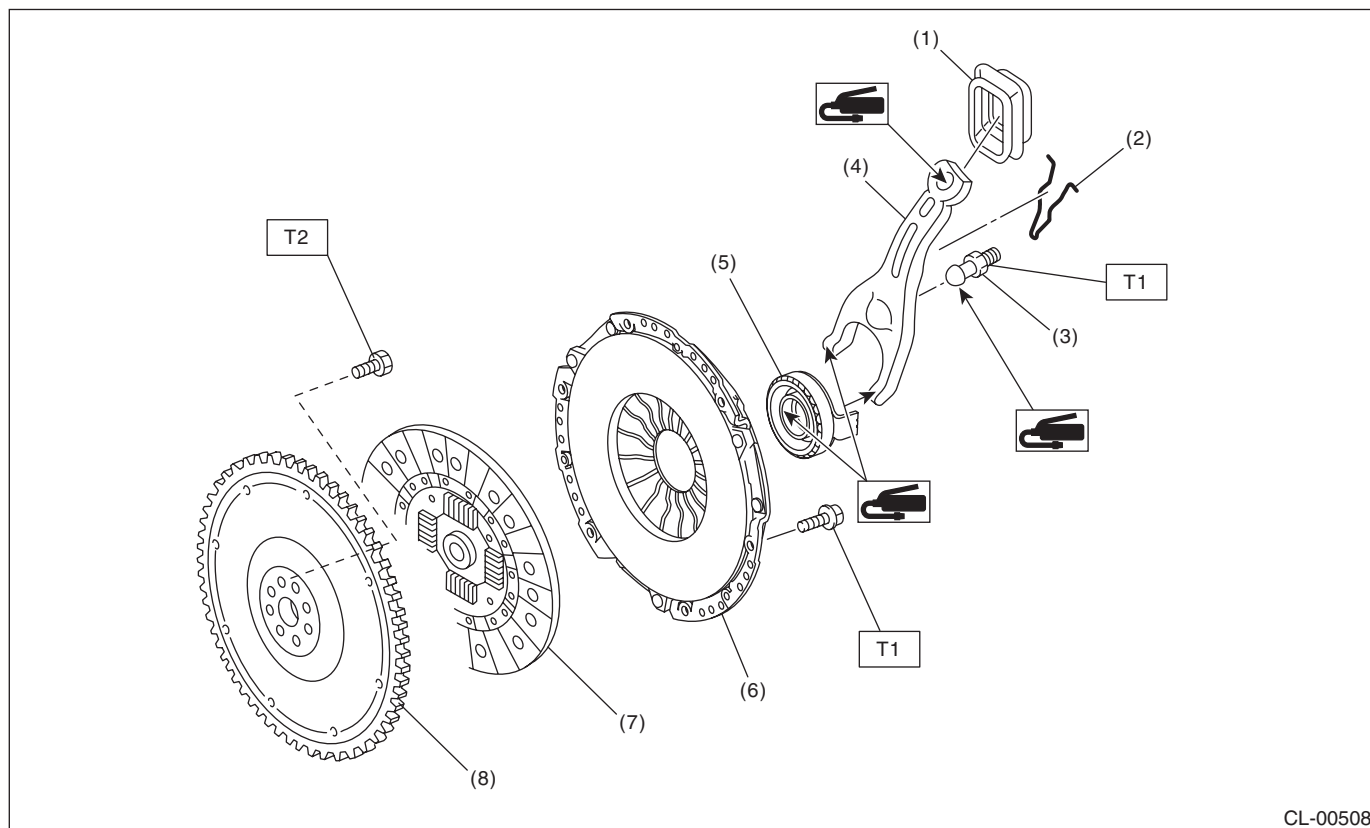
- | | |
|-------------------|-----------------------|
| (1) Dust cover | (6) Release bearing |
| (2) Lever spring | (7) Clutch cover |
| (3) Pivot | (8) Clutch disc |
| (4) Release lever | (9) Flexible flywheel |
| (5) Clip | |

Tightening torque: N·m (kgf-m, ft-lb)***T1: 16 (1.6, 11.8)******T2: 72 (7.3, 52.8)***

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- 5MT turbo model



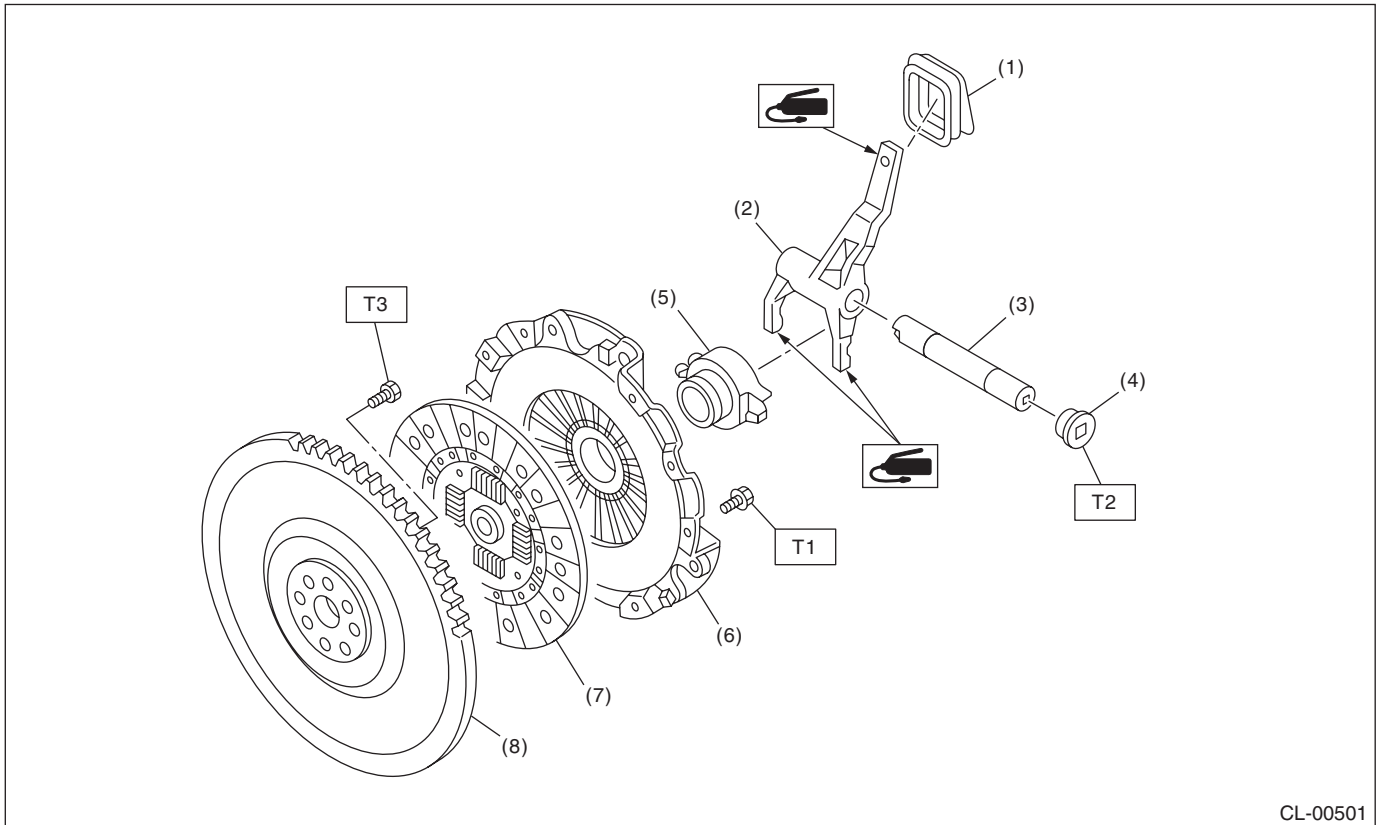
- | | |
|-------------------|-----------------------|
| (1) Dust cover | (5) Release bearing |
| (2) Lever spring | (6) Clutch cover |
| (3) Pivot | (7) Clutch disc |
| (4) Release lever | (8) Flexible flywheel |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 16 (1.6, 11.8)

T2: 72 (7.3, 52.8)

- 6MT model



- | | |
|-------------------|---------------------------|
| (1) Dust cover | (5) Release bearing |
| (2) Release lever | (6) Clutch cover |
| (3) Release shaft | (7) Clutch disc |
| (4) Plug | (8) Conventional flywheel |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 16 (1.6, 11.8)

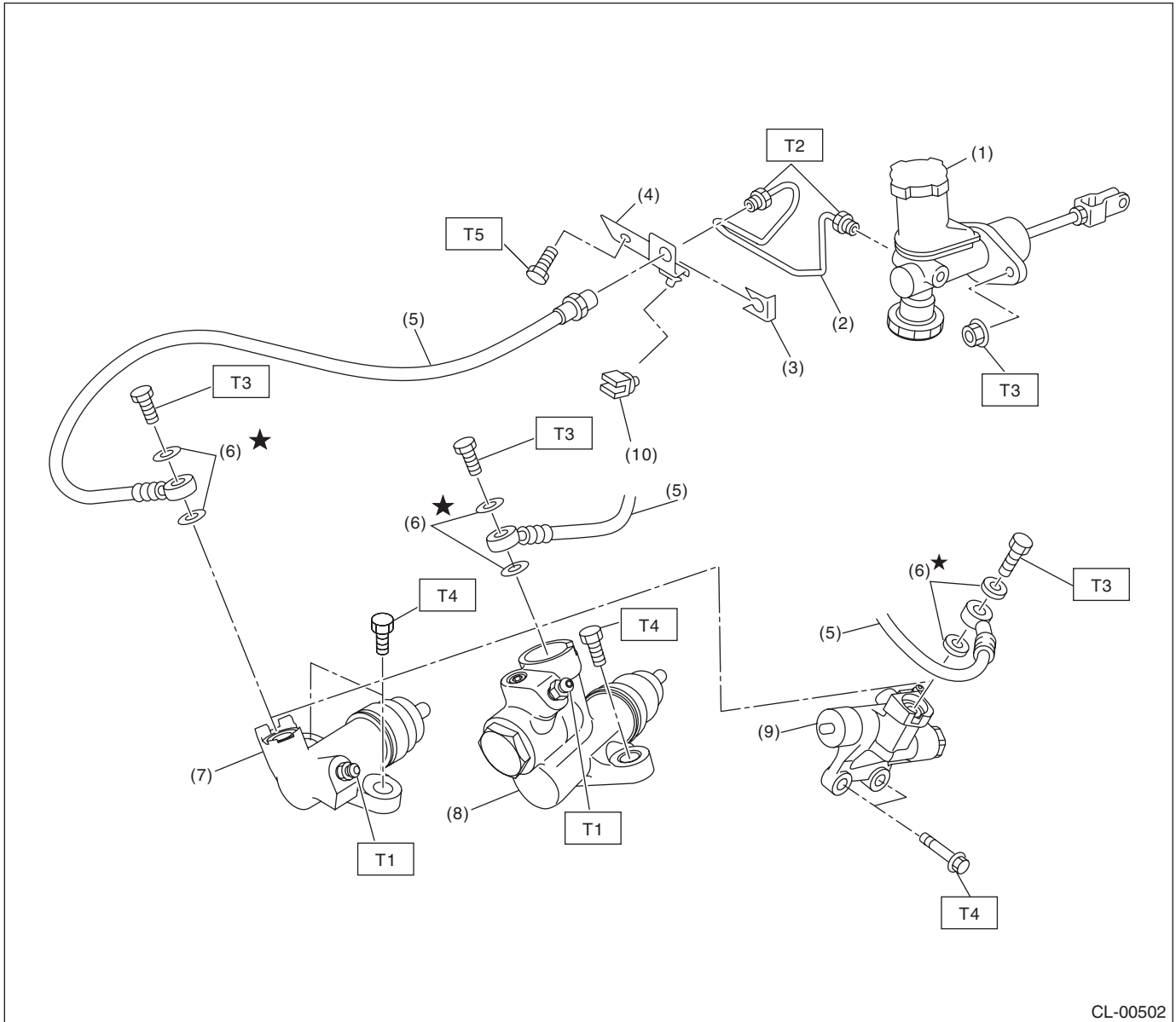
T2: 44 (4.5, 32.5)

T3: 81 (8.2, 59.4)

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2. CLUTCH PIPE AND HOSE



CL-00502

- | | |
|---|---|
| (1) Master cylinder ASSY | (8) Operating cylinder
(5MT turbo model) |
| (2) Clutch pipe | (9) Operating cylinder
(6MT turbo model) |
| (3) Clamp | (10) Clip |
| (4) Bracket | |
| (5) Clutch hose | |
| (6) Washer | |
| (7) Operating cylinder
(5MT non-turbo model) | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 8 (0.8, 5.8)

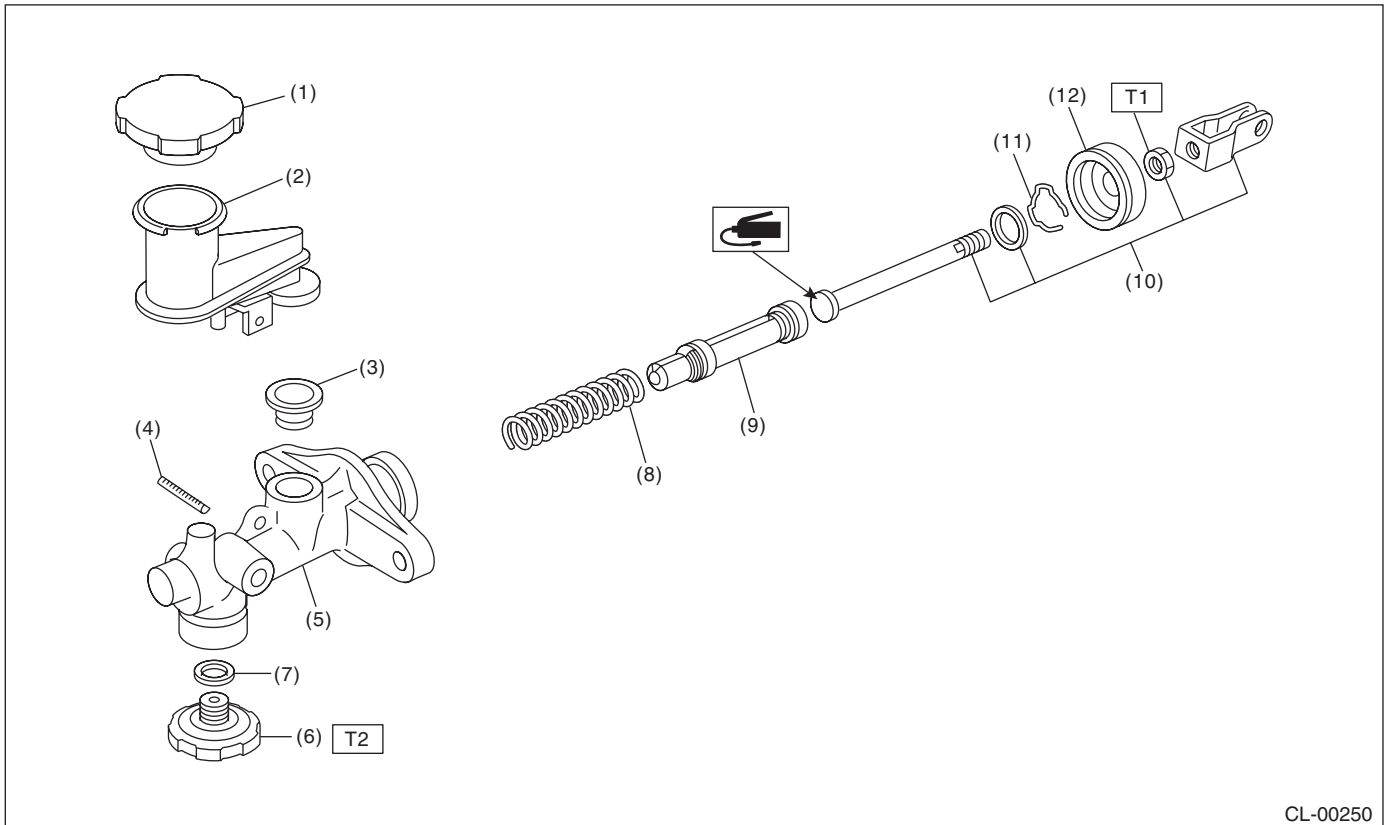
T2: 15 (1.5, 10.8)

T3: 18 (1.8, 13.0)

T4: 37 (3.8, 27.5)

T5: 25 (2.5, 18.4)

3. MASTER CYLINDER



CL-00250

- | | |
|---------------------|-----------------------|
| (1) Reservoir cap | (7) Gasket |
| (2) Reservoir tank | (8) Return spring |
| (3) Oil seal | (9) Piston |
| (4) Straight pin | (10) Push rod ASSY |
| (5) Master cylinder | (11) Piston stop ring |
| (6) Clutch damper | (12) Cylinder boot |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 10 (1.0, 7)

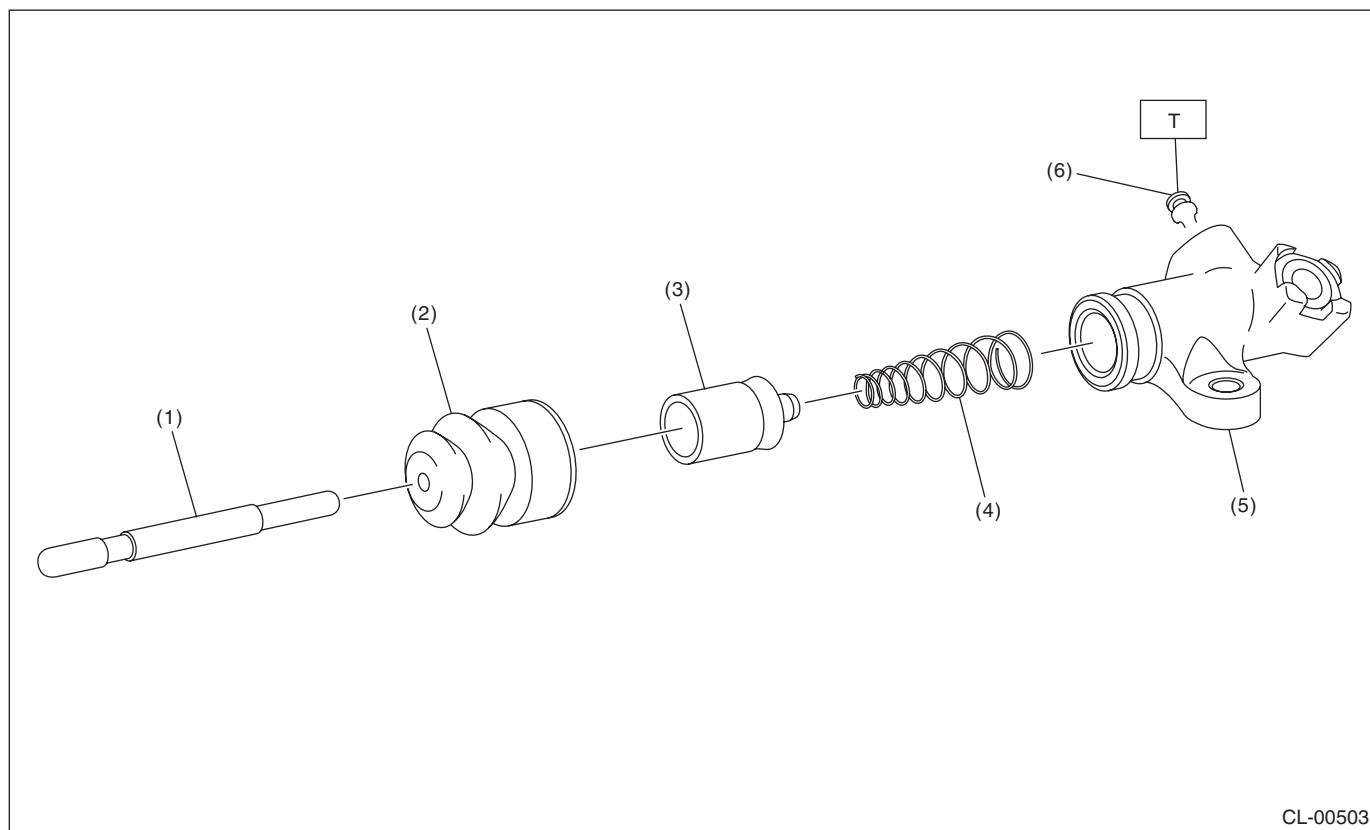
T2: 46.6 (4.75, 34.4)

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4. OPERATING CYLINDER

- 5MT non-turbo model

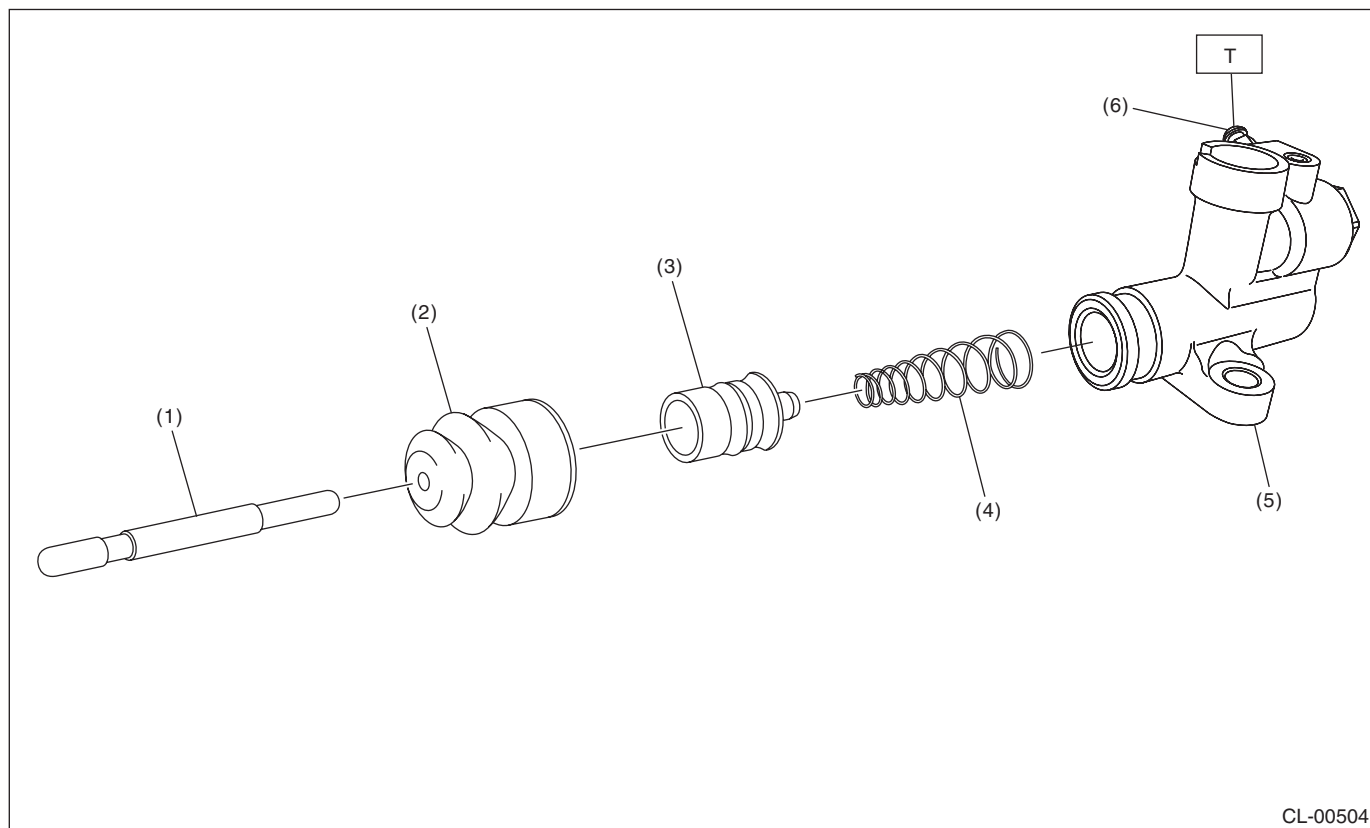


CL-00503

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|--------------|------------------------|
| (1) Push rod | (4) Piston spring |
| (2) Boot | (5) Operating cylinder |
| (3) Piston | (6) Bleeder screw |

Tightening torque: N·m (kgf-m, ft-lb)
T: 8 (0.8, 5.8)

- 5MT turbo model



CL-00504

- | | |
|--------------|------------------------|
| (1) Push rod | (4) Piston spring |
| (2) Boot | (5) Operating cylinder |
| (3) Piston | (6) Bleeder screw |

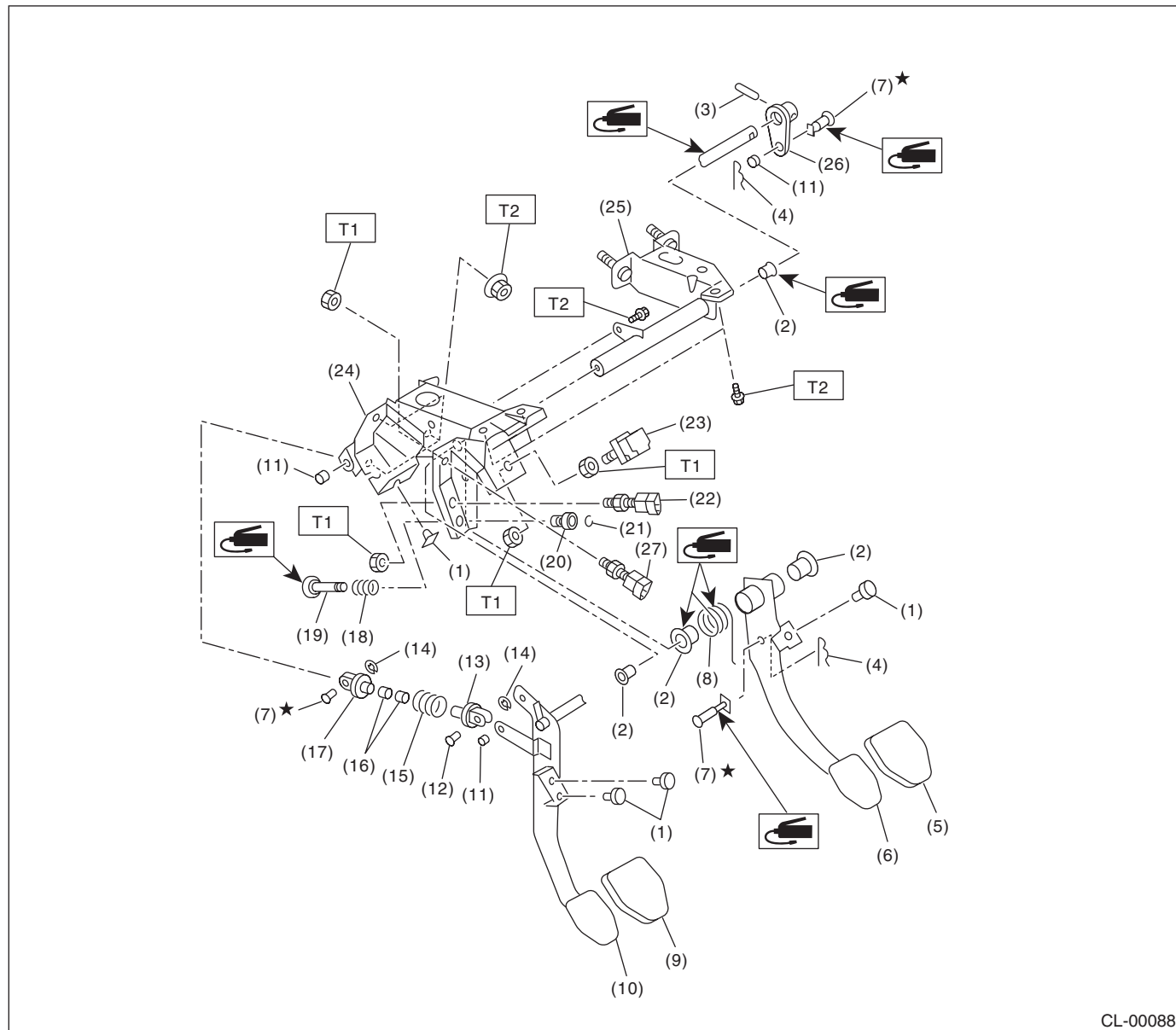
Tightening torque: N·m (kgf-m, ft-lb)

T: 8 (0.8, 5.8)

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5. CLUTCH PEDAL



CL-00088

- | | | |
|------------------------|-------------------------------------|-------------------------------------|
| (1) Stopper | (12) Clutch clevis pin | (23) Stop light switch |
| (2) Bushing | (13) Assist rod A | (24) Pedal bracket |
| (3) Spring pin | (14) Clip | (25) Clutch master cylinder bracket |
| (4) Snap pin | (15) Assist spring | (26) Lever |
| (5) Brake pedal pad | (16) Assist bushing | (27) Clutch switch (Clutch start) |
| (6) Brake pedal | (17) Assist rod B | |
| (7) Clevis pin | (18) Spring S | |
| (8) Brake pedal spring | (19) Rod S | |
| (9) Clutch pedal pad | (20) Bushing S | |
| (10) Clutch pedal | (21) Clip | |
| (11) Bushing C | (22) Clutch switch (Cruise control) | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 8 (0.8, 5.8)

T2: 18 (1.8, 13.0)

C: CAUTION

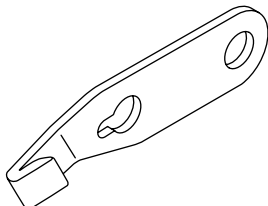
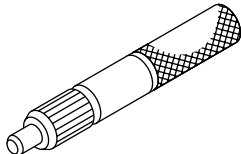
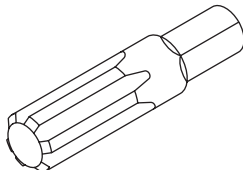
- Wear appropriate work clothing, including a cap, protective goggles and protective shoes when performing any work.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Before removal, 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.
- Use SUBARU genuine fluid, grease etc. or equivalent. Do not mix fluid, grease, etc. of different grades or manufacturers.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- Apply grease onto sliding or revolving surfaces before installation.
- Before installing O-rings or snap rings, apply sufficient amount of fluid to avoid damage and deformation.
- Before securing a part in a vise, place cushioning material such as wood blocks, aluminum plate or cloth between the part and the vise.
- Keep fluids away from the vehicle body. If any fluid contacts the vehicle body, immediately flush the area with water.

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D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-498497100</p>	498497100	CRANKSHAFT STOPPER	Used for stopping rotation of the flywheel when loosening/tightening bolts, etc.
 <p style="text-align: center;">ST-499747100</p>	499747100	CLUTCH DISC GUIDE	Used for installing the clutch disc to the flywheel.
 <p style="text-align: center;">ST-499057000</p>	499057000	TORX® PLUS	Used for removing the flywheel (dual mass fly-wheel type).

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and ampere.
Dial gauge	Used for measuring clutch disc run-out.
Depth gauge	Used for measuring clutch disc wear.