

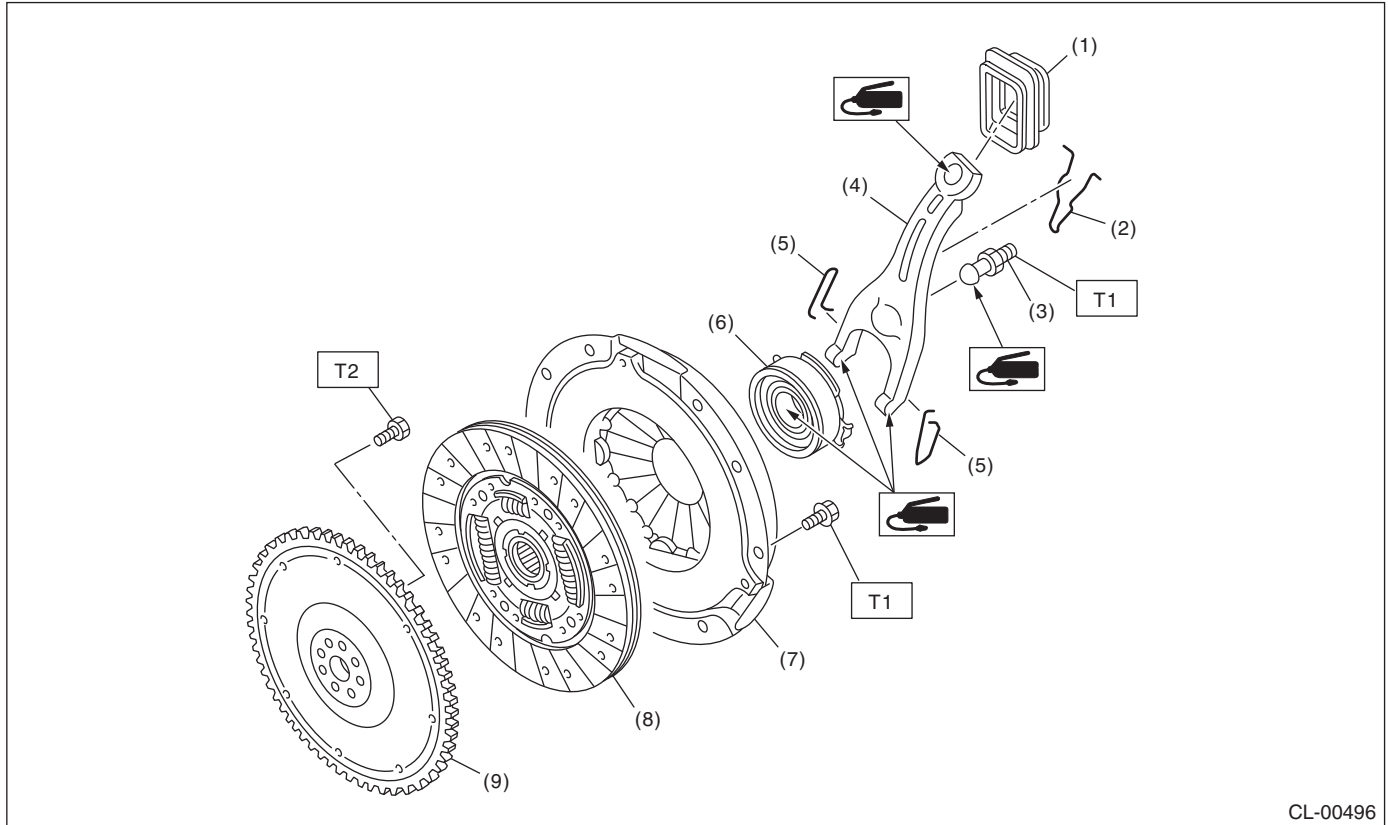
# General Description

## CLUTCH SYSTEM

### 1. General Description

#### A: SPECIFICATION

|                            |                                    |                             |                                       |
|----------------------------|------------------------------------|-----------------------------|---------------------------------------|
| Model                      |                                    | 2.5 L non-turbo             |                                       |
| Transmission type          |                                    | 5MT                         |                                       |
| Clutch cover               | Type                               | Push type                   |                                       |
|                            | Diaphragm set load N (kgf, lbf)    | 5,688 (580, 1,279)          |                                       |
| Clutch disc                | Facing material                    |                             | Woven (Non-asbestos)                  |
|                            | O.D. × I.D. × thickness<br>mm (in) | Clutch cover side           | 225 × 150 × 3.5 (8.86 × 5.91 × 0.138) |
|                            |                                    | Flywheel side               |                                       |
|                            | Spline outer diameter mm (in)      |                             | 25.2 (0.992), (Number of teeth: 24)   |
|                            | Depth of rivet head<br>mm (in)     | Clutch cover side           | 1.65 — 2.25 (0.065 — 0.089)           |
|                            |                                    | Flywheel side               |                                       |
|                            | Limit of sinking                   |                             | 0.3 (0.012)                           |
|                            | Deflection limit mm (in)           |                             | 0.7 (0.028) 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)     |                                       |
|                            | Free play mm (in)                  | 5 — 15 (0.20 — 0.59)        |                                       |
| Flywheel                   | Type                               | Flexible                    |                                       |

**B: COMPONENT****1. CLUTCH ASSEMBLY**

CL-00496

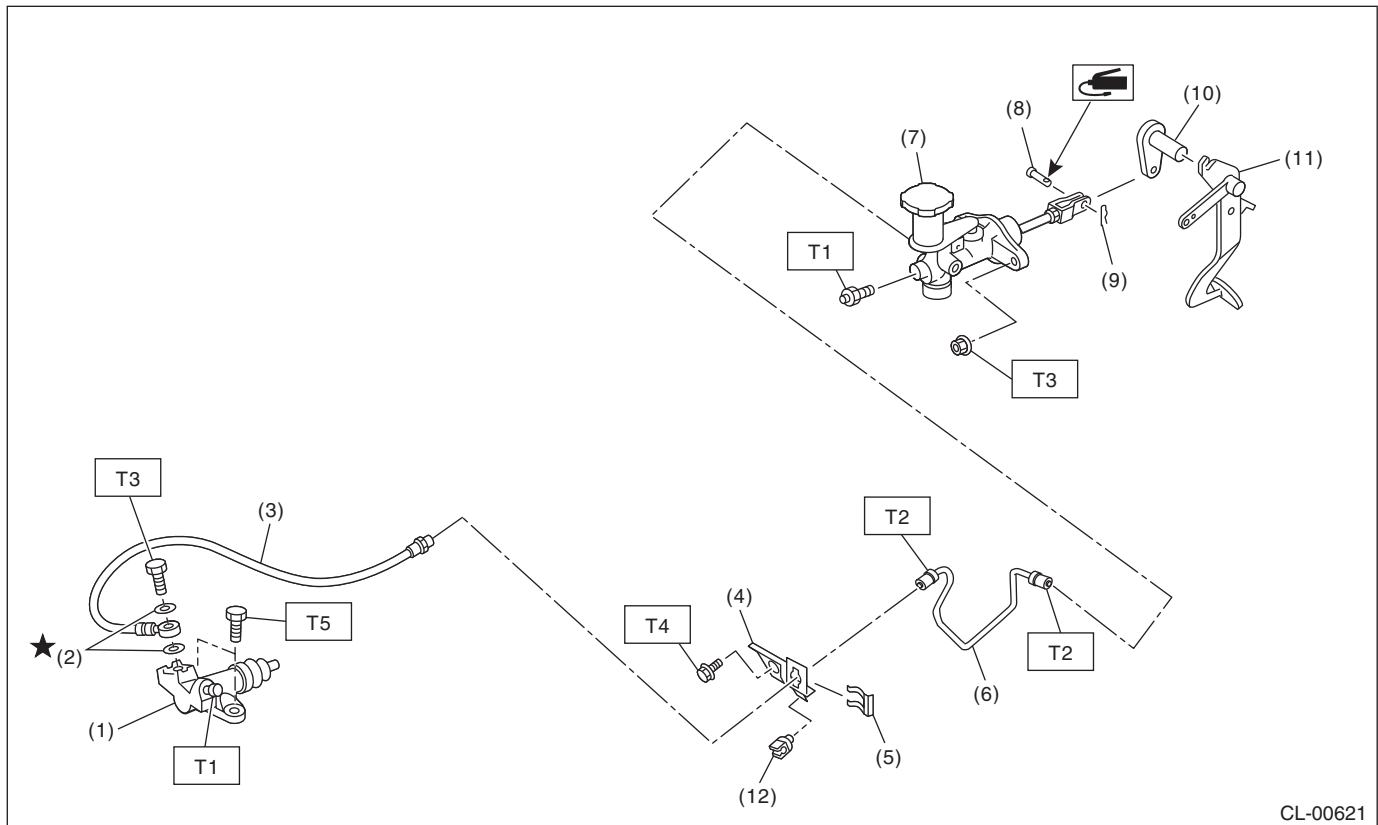
- |                   |                     |
|-------------------|---------------------|
| (1) Dust cover    | (6) Release bearing |
| (2) Lever spring  | (7) Clutch cover    |
| (3) Pivot         | (8) Clutch disc     |
| (4) Release lever | (9) Flywheel        |
| (5) Clip          |             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

***Tightening torque: N·m (kgf-m, ft-lb)******T1: 16 (1.6, 11.8)******T2: 72 (7.3, 53.1)***

# General Description

## CLUTCH SYSTEM

### 2. CLUTCH PIPE AND HOSE



- |                        |                          |
|------------------------|--------------------------|
| (1) Operating cylinder | (7) Master cylinder ASSY |
| (2) Washer             | (8) Clevis pin           |
| (3) Clutch hose        | (9) Snap pin             |
| (4) Bracket            | (10) Lever               |
| (5) Clip               | (11) Pedal               |
| (6) Clutch pipe        | (12) Clamp               |

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

***T1: 7.8 (0.8, 5.8)***

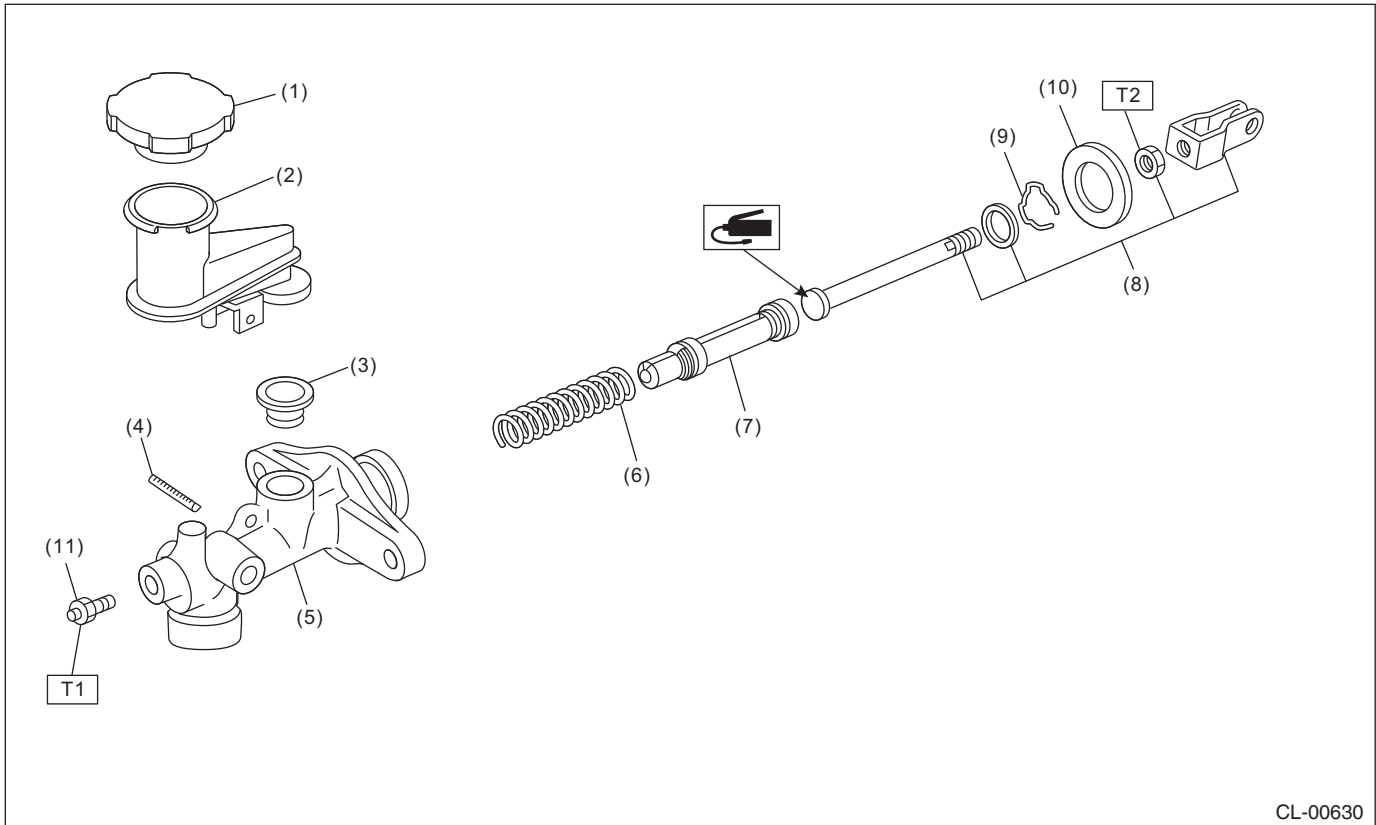
***T2: 15 (1.5, 11.1)***

***T3: 18 (1.8, 13.3)***

***T4: 25 (2.5, 18.4)***

***T5: 37 (3.8, 27.3)***

### 3. MASTER CYLINDER



CL-00630

- (1) Reservoir cap
- (2) Reservoir tank
- (3) Oil seal
- (4) Straight pin
- (5) Master cylinder

- (6) Return spring
- (7) Piston
- (8) Push rod ASSY
- (9) Piston stop ring
- (10) Seat

- (11) Breather screw

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

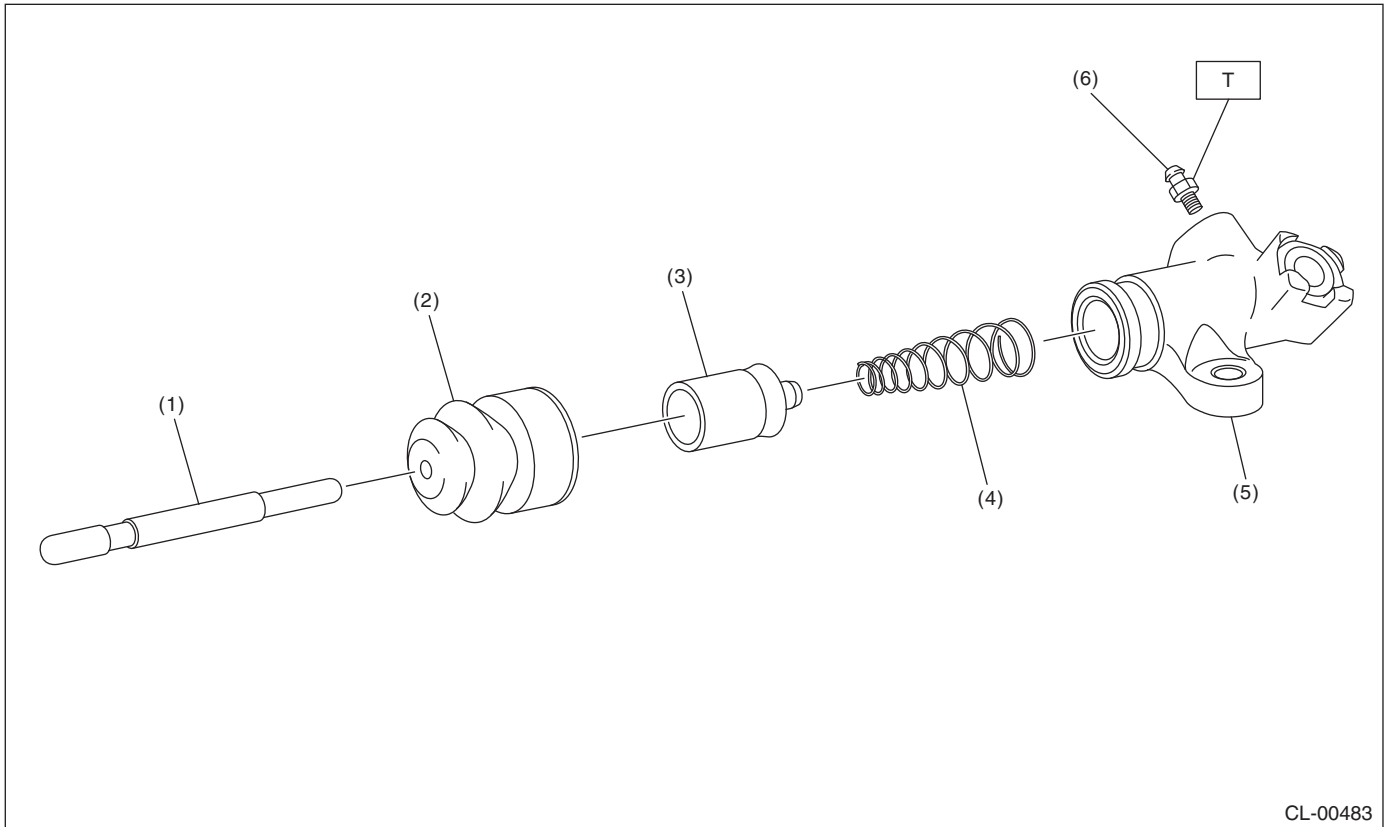
**T1: 7.8 (0.8, 5.8)**

**T2: 10 (1.0, 7.4)**

# General Description

## CLUTCH SYSTEM

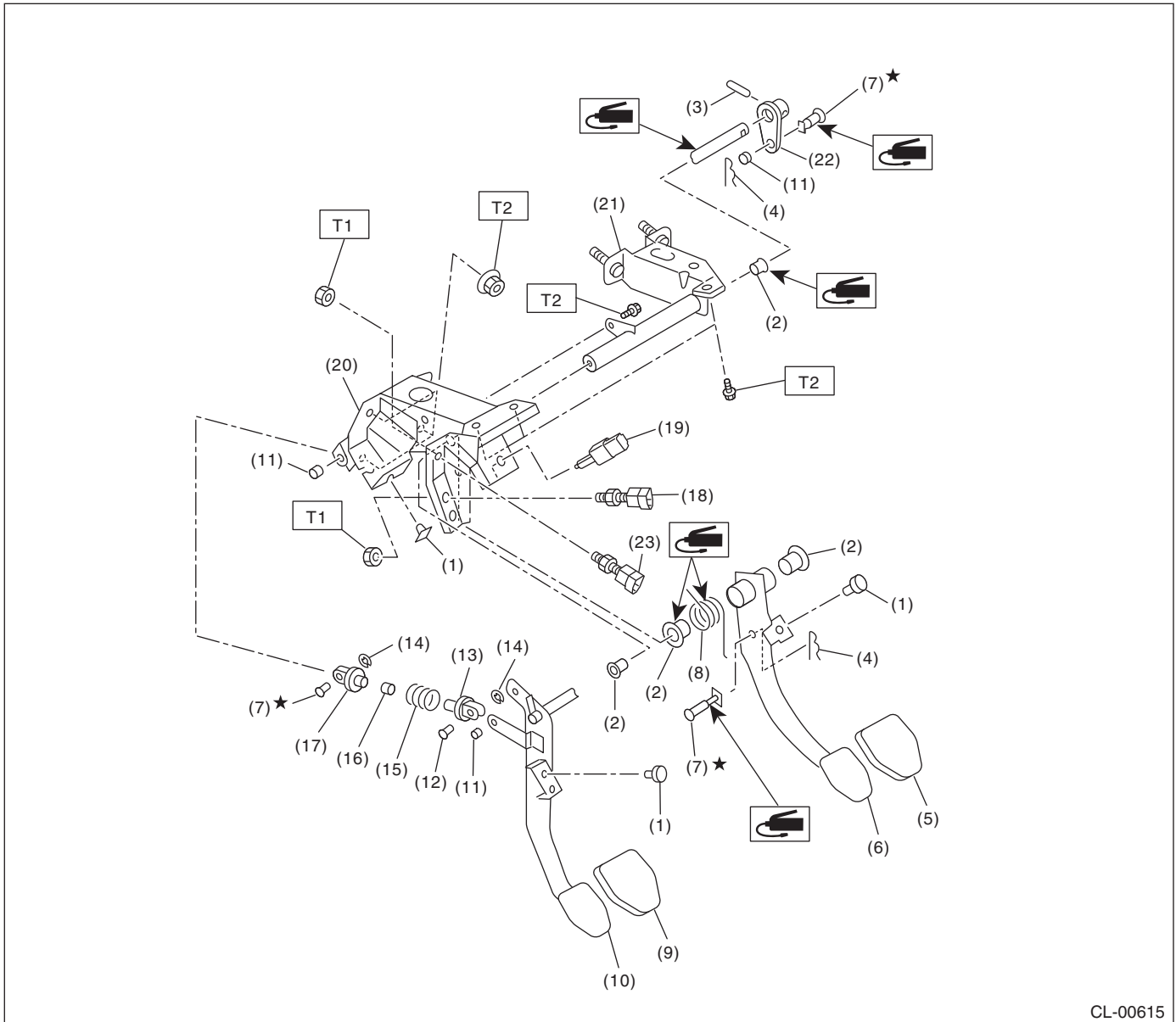
### 4. OPERATING CYLINDER



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

***Tightening torque: N·m (kgf-m, ft-lb)***  
***T: 7.8 (0.8, 5.8)***

### 5. CLUTCH PEDAL



CL-00615

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

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

**T1: 8 (0.8, 5.9)**

**T2: 18 (1.8, 13.3)**

## General Description

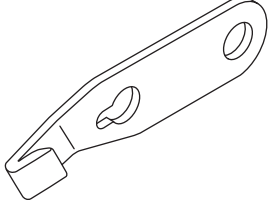
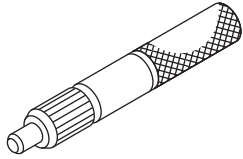
### CLUTCH SYSTEM

#### 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.

#### D: PREPARATION TOOL

##### 1. SPECIAL TOOL

| ILLUSTRATION                                                                                        | TOOL NUMBER | DESCRIPTION        | REMARKS                                                                          |
|-----------------------------------------------------------------------------------------------------|-------------|--------------------|----------------------------------------------------------------------------------|
| <br>ST-498497100  | 498497100   | CRANKSHAFT STOPPER | Used for stopping rotation of the flywheel when loosening/tightening bolts, etc. |
| <br>ST-499747100 | 499747100   | CLUTCH DISC GUIDE  | Used when installing the clutch disc to the fly-wheel.                           |

##### 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.               |