

General Description

BRAKE

1. General Description

A: SPECIFICATION

Model		2.5 i, 2.5 i-LTD, OUTBACK 2.5i, -LTD, OUTBACK 3.0 R, -LTD, -LLB, OUTBACK 2.5GT, -LTD	2.5GT, -LTD
Front disc brake	Size	16-inch type	17-inch type
	Type	Disc (Floating type, ventilated)	
	Effective disc diameter mm (in)	244 (4.61)	261 (10.28)
	Disc thickness × Diameter mm (in)	24 × 294 (0.94 × 11.57)	30 × 316 (1.18 × 12.44)
	Effective cylinder diameter	42.8 (1.685) × 2	
	Pad dimensions (Length × Width × Thickness) mm (in)	117.8 × 50.5 × 11.0 (4.638 × 1.988 × 0.433)	130.0 × 53.5 × 11.0 (5.118 × 2.106 × 0.433)
	Clearance adjustment	Automatic adjustment	
Rear disc brake	Size	15-inch type	
	Type	Disc (Floating type,solid)	Disc (Floating type,ventilated)
	Effective disc diameter mm (in)	238 (9.37)	254 (10.0)
	Disc thickness × Diameter mm (in)	10 × 274 (0.39 × 10.79)	18 × 290 (0.71 × 11.42)
	Effective cylinder diameter mm (in)	38.1 (1.500)	
	Pad dimensions (Length × Width × Thickness) mm (in)	92.0 × 33.0 × 9.0 (3.622 × 1.299 × 0.354)	82.4 × 33.7 × 9.0 (3.244 × 1.327 × 0.354)
	Clearance adjustment	Automatic adjustment	
Master cylinder	Type	Tandem	
	Effective diameter mm (in)	23.8 (15/16)	
	Reservoir type	Sealed type	
	Brake fluid reservoir capacity cm ³ (cu in)	205 (12.51)	
Brake booster	Type	Vacuum suspended	
	Effective diameter mm (in)	208 + 229 (8.19 + 9.02)	
Brake line		Dual circuit system	
Brake fluid CAUTION: • Avoid mixing brake fluid of different brands to prevent fluid performance from degrading. • When filling with brake fluid, be careful not to allow any dust to enter the reservoir. • Use new SUBARU genuine brake fluid when replacing or refilling the fluid.		FMVSS No. 116, DOT3, or DOT4	

General Description

BRAKE

NOTE:

Refer to “PB” section for parking brake specifications. <Ref. to PB-2, SPECIFICATION, General Description.>

Item			Standard	Limit	
Front brake	Pad thickness	mm (in)	Excluding 17-inch type	11 (0.43)	1.5 (0.059)
			17-inch type	11 (0.43)	1.5 (0.059)
	Disc thickness	mm (in)	Excluding 17-inch type	24 (0.94)	22 (0.87)
			17-inch type	30 (1.18)	28 (1.10)
	Disc runout		mm (in)	—	0.05 (0.0020)
Rear brake (disc type)	Pad thickness	mm (in)	Solid disc	9.0 (0.354)	1.5 (0.059)
			Ventilated disc	9.0 (0.354)	1.5 (0.059)
	Disc thickness	mm (in)	Solid disc	10 (0.39)	8.5 (0.335)
			Ventilated disc	18 (0.71)	16 (0.63)
	Disc runout		mm (in)	—	0.05 (0.0020)
Parking brake	Inside diameter		mm (in)	170 (6.69)	171 (6.73)
	Lining thickness		mm (in)	3.2 (0.126)	1.5 (0.059)
	Lever stroke		5 — 6 notches/200 N (20 kgf, 45 lb)		

		Brake pedal force N (kgf, lb)	Fluid pressure kPa (kgf/cm ² , psi)
Brake booster	Brake fluid pressure with engine stopped	147 (15, 33)	545 (6, 79)
		294 (30, 66)	1,564 (16, 227)
	Brake fluid pressure with engine running and vacuum pressure at 66.7 kPa (500 mmHg, 19.69 inHg)	147 (15, 33)	6,003 (61, 870)
		294 (30, 66)	11,273 (115, 1,635)

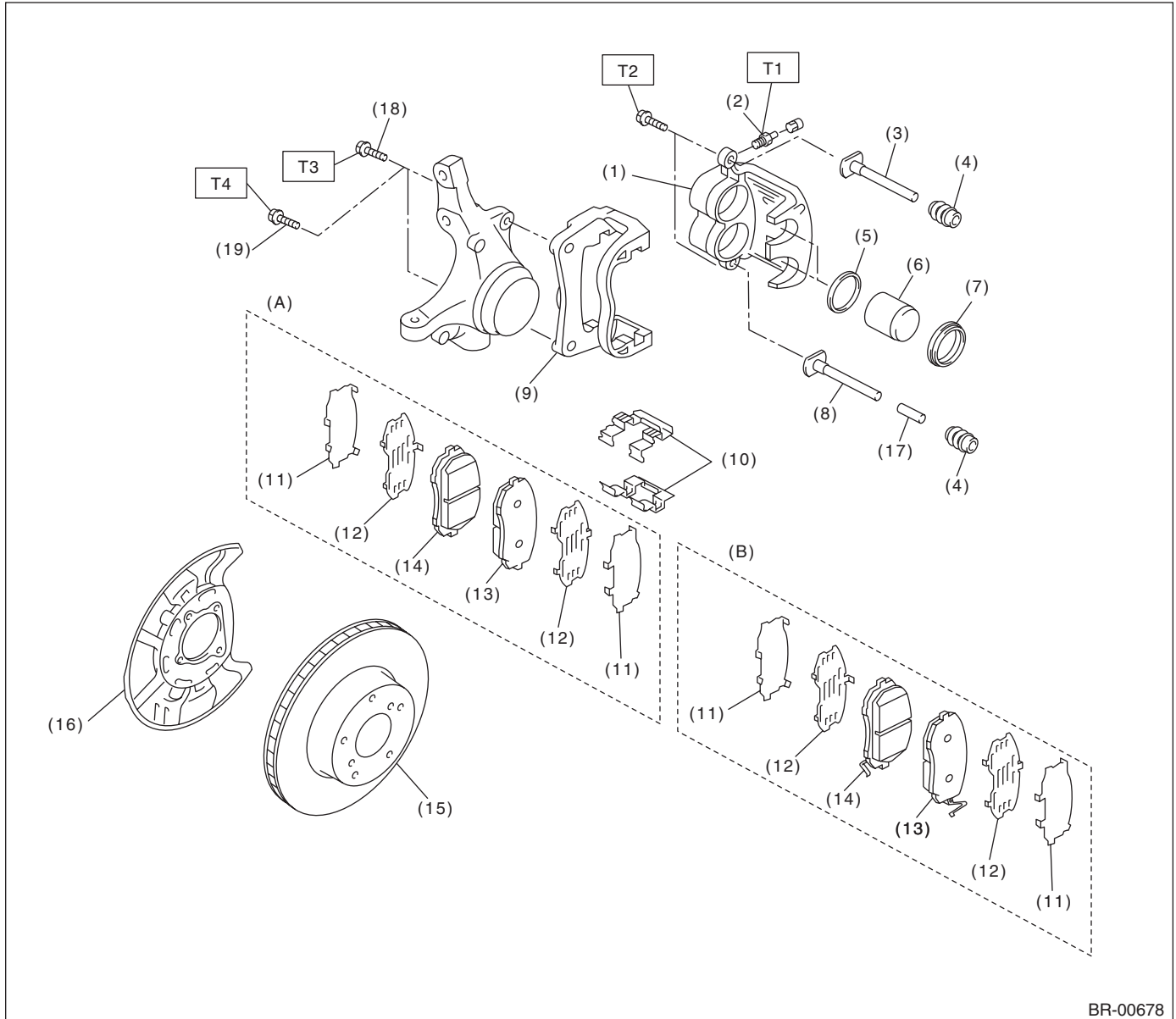
Brake pedal	Free play	mm (in)	0.5 — 2 (0.02 — 0.08) [When pulling the brake pedal upward with a force of less than 10 N (1 kgf, 2 lb).]
-------------	-----------	---------	--

General Description

BRAKE

B: COMPONENT

1. FRONT DISC BRAKE



BR-00678

(A) 16-inch type

(B) 17-inch type

- (1) Caliper body
- (2) Air bleeder screw
- (3) Guide pin (black)
- (4) Pin boot
- (5) Piston seal
- (6) Piston
- (7) Piston boot
- (8) Lock pin (silver)
- (9) Support

- (10) Pad clip
- (11) Outer shim
- (12) Inner shim
- (13) Pad (Outside)
- (14) Pad (Inside)
- (15) Disc rotor
- (16) Disc cover
- (17) Bushing
- (18) Bolt with washer

- (19) Flange bolt

Tightening torque: N·m (kgf-m, ft-lb)

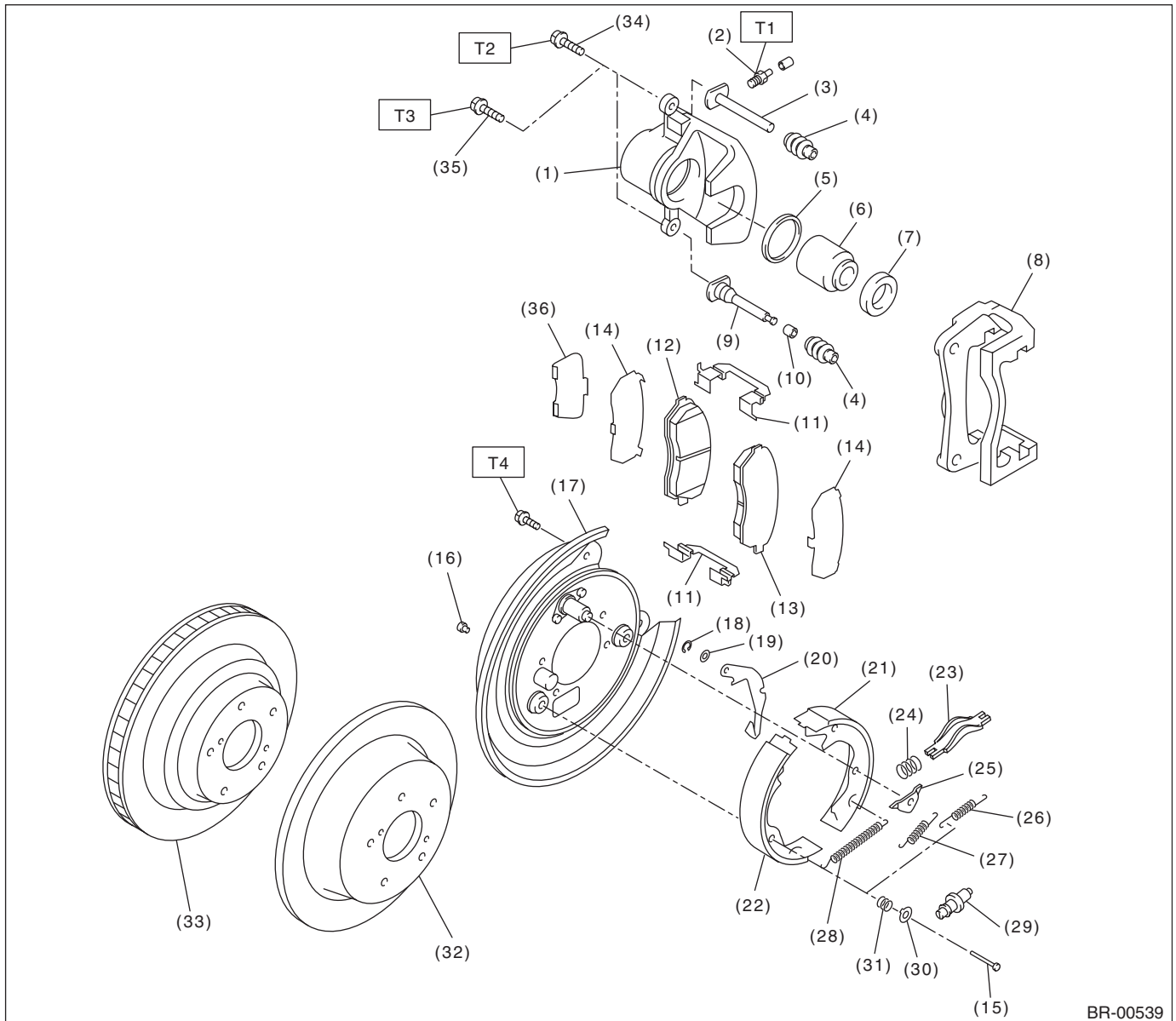
T1: 8 (0.8, 5.8)

T2: 27 (2.8, 19.9)

T3: 80 (8.2, 59)

T4: 120 (12.2, 88.5)

2. REAR DISC BRAKE



BR-00539

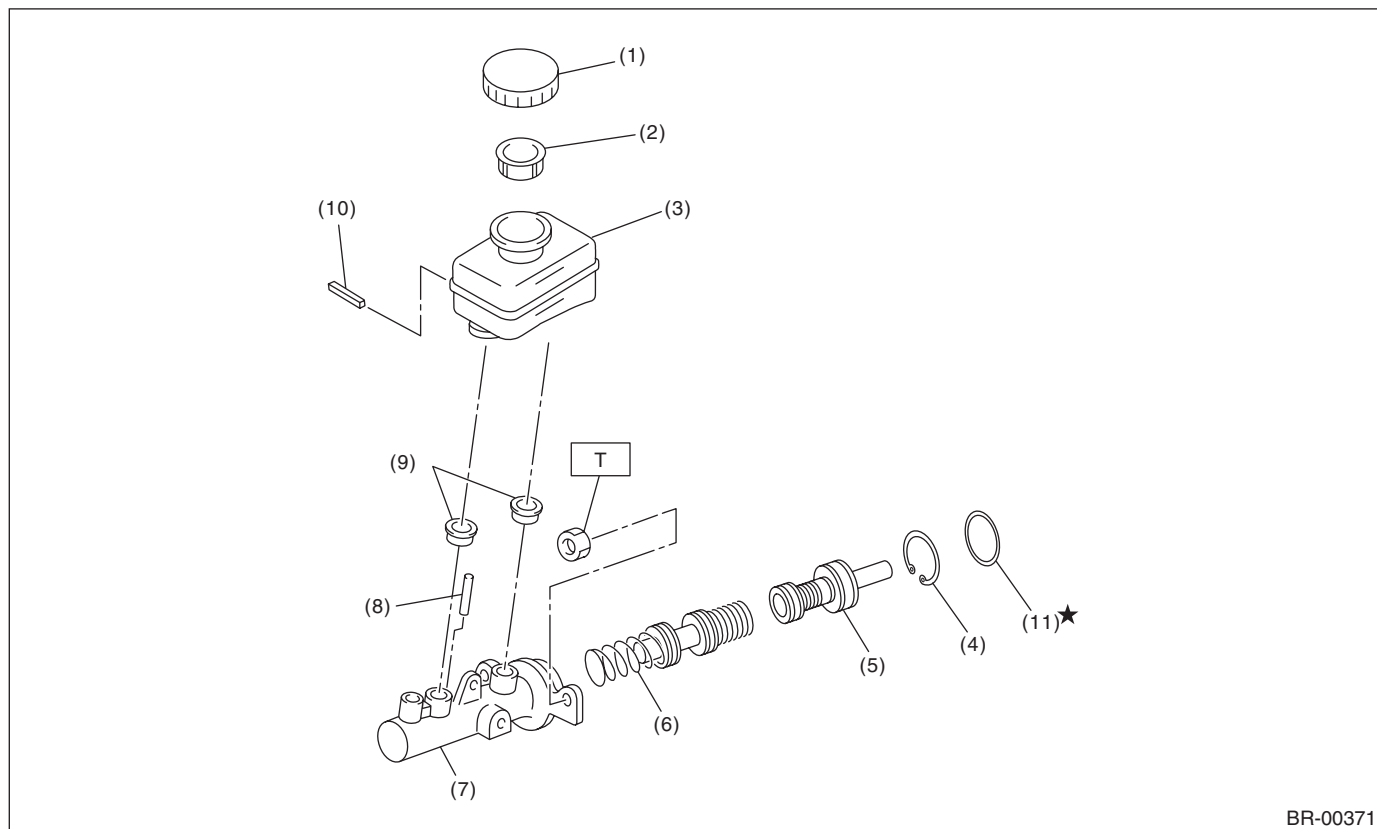
(1) Caliper body	(15) Shoe hold-down pin	(29) Adjuster
(2) Air bleeder screw	(16) Cover	(30) Shoe hold-down cup
(3) Guide pin (black)	(17) Back plate	(31) Shoe hold-down spring
(4) Pin boot	(18) Retainer	(32) Disc rotor (Solid type)
(5) Piston seal	(19) Spring washer	(33) Disc rotor (Ventilated type)
(6) Piston	(20) Parking brake lever	(34) Bolt (For solid disc brake)
(7) Piston boot	(21) Parking brake shoe (Secondary)	(35) Bolt (For ventilated disc brake)
(8) Support	(22) Parking brake shoe (Primary)	(36) Shim (for solid disc brake)
(9) Lock pin (silver)	(23) Strut	
(10) Bushing	(24) Strut shoe spring	
(11) Pad clip	(25) Shoe guide plate	
(12) Inner pad	(26) Secondary shoe return spring	
(13) Outer pad	(27) Primary shoe return spring	
(14) Shim	(28) Adjusting spring	

Tightening torque: N·m (kgf·m, ft·lb)**T1: 8 (0.8, 5.8)****T2: 27 (2.8, 19.9)****T3: 37 (3.7, 27.2)****T4: 66 (6.7, 48.7)**

General Description

BRAKE

3. MASTER CYLINDER



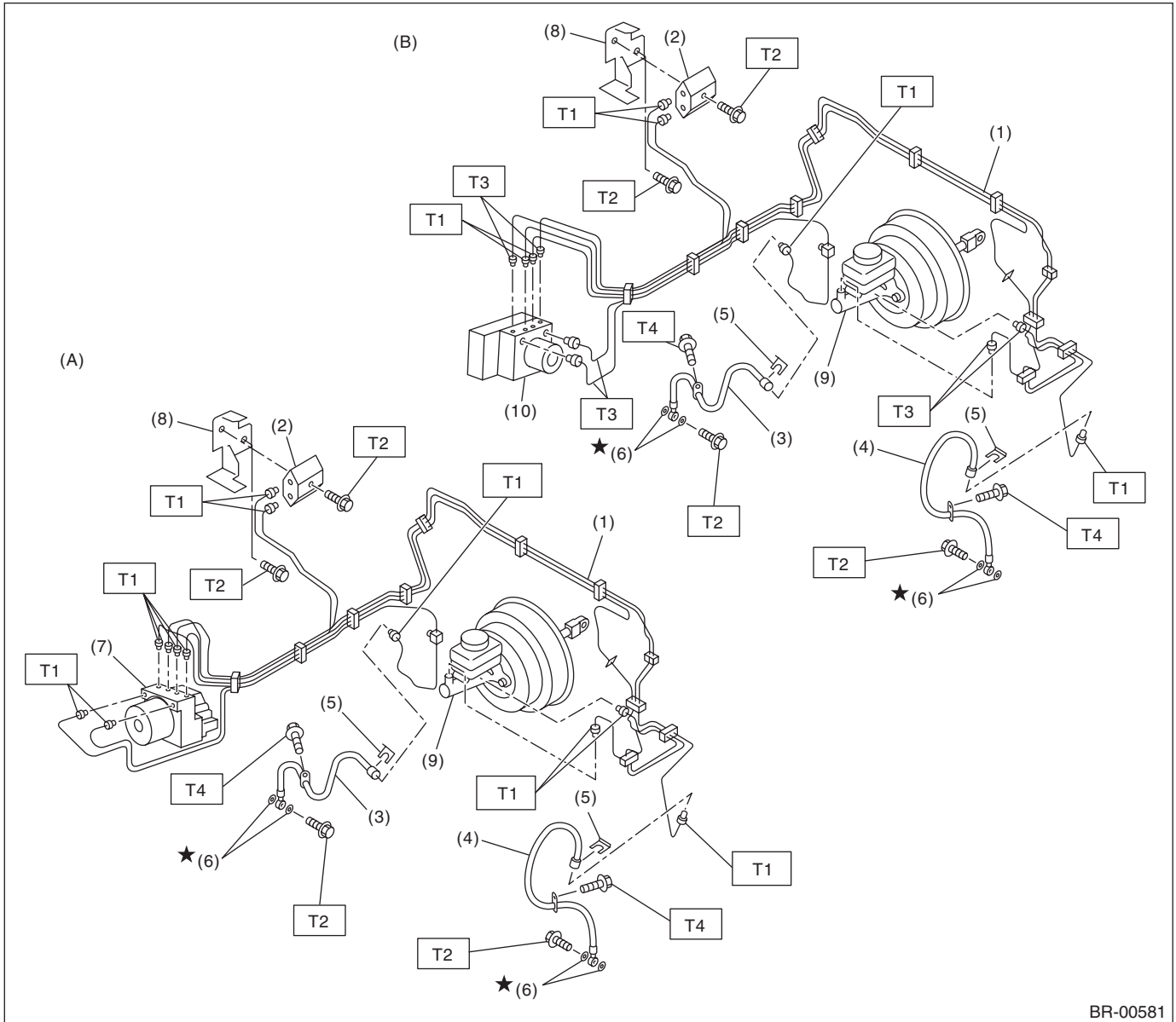
- (1) Cap
- (2) Filter
- (3) Reservoir tank
- (4) C-ring
- (5) Primary piston

- (6) Secondary piston
- (7) Cylinder body
- (8) Cylinder pin
- (9) Seal
- (10) Pin

- (11) O-ring

Tightening torque: N·m (kgf-m, ft-lb)
T: 13 (1.3, 9.6)

4. FRONT BRAKE PIPES AND HOSES



BR-00581

(A) Model with ABS

(B) Model with vehicle dynamics control (VDC)

- | | |
|---------------------------|---|
| (1) Front brake pipe ASSY | (7) ABS control module and hydraulic control unit (ABSCM&H/U) |
| (2) Two-way connector | (8) Bracket |
| (3) Front brake hose RH | (9) Master cylinder |
| (4) Front brake hose LH | (10) VDC control module & hydraulic control unit (VDCCM&H/U) |
| (5) Clamp | |
| (6) Gasket | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.5, 10.8)

T2: 18 (1.8, 13.0)

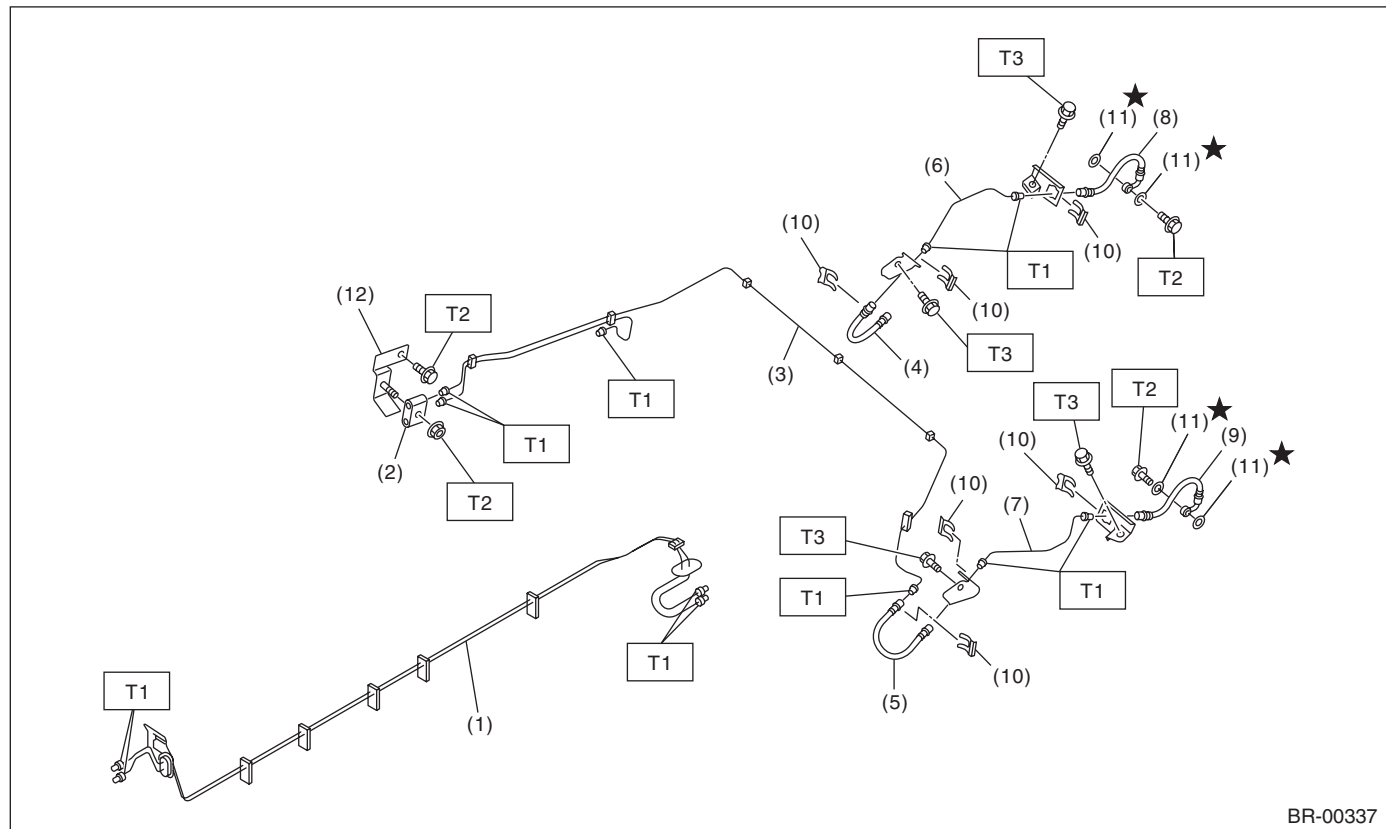
T3: 19 (1.9, 14.0)

T4: 33 (3.4, 24.3)

General Description

BRAKE

5. CENTER AND REAR BRAKE PIPES AND HOSES



BR-00337

- | | |
|----------------------------|-----------------------------|
| (1) Center brake pipe ASSY | (7) Rear brake pipe LH |
| (2) Two-way connector | (8) Rear brake hose rear RH |
| (3) Rear brake pipe ASSY | (9) Rear brake hose rear LH |
| (4) Rear brake hose RH | (10) Clamp |
| (5) Rear brake hose LH | (11) Gasket |
| (6) Rear brake pipe RH | (12) Bracket |

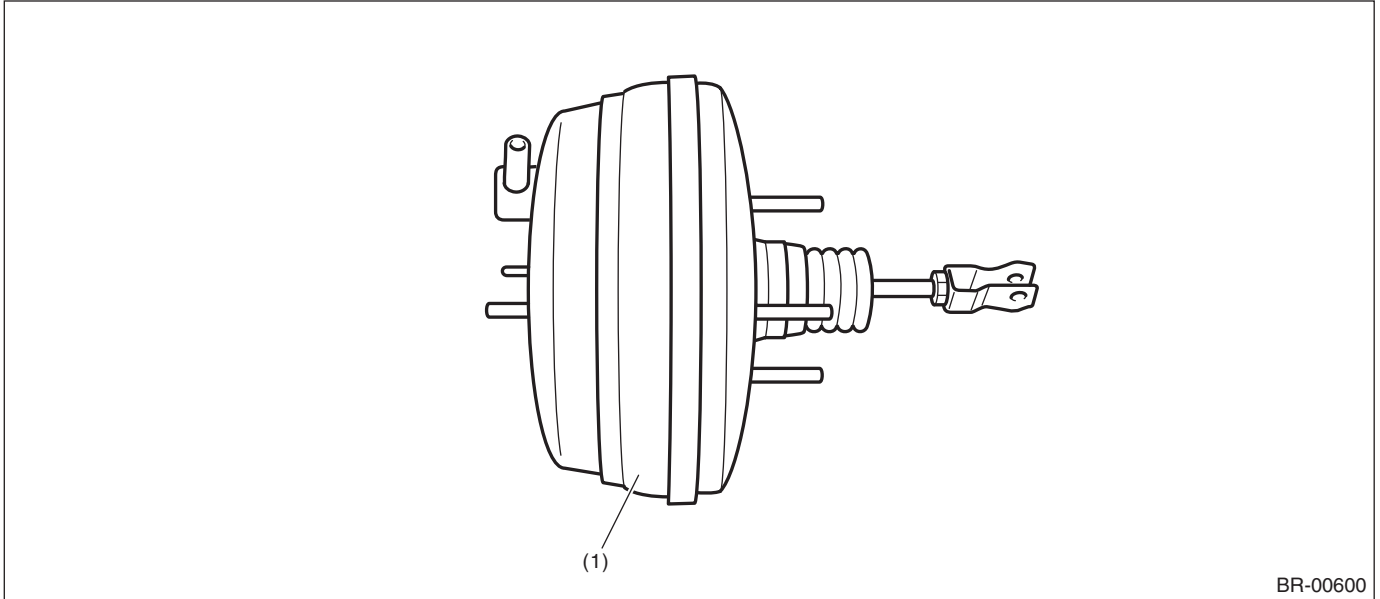
Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.5, 10.8)

T2: 18 (1.8, 13.0)

T3: 33 (3.4, 24.3)

6. BRAKE BOOSTER



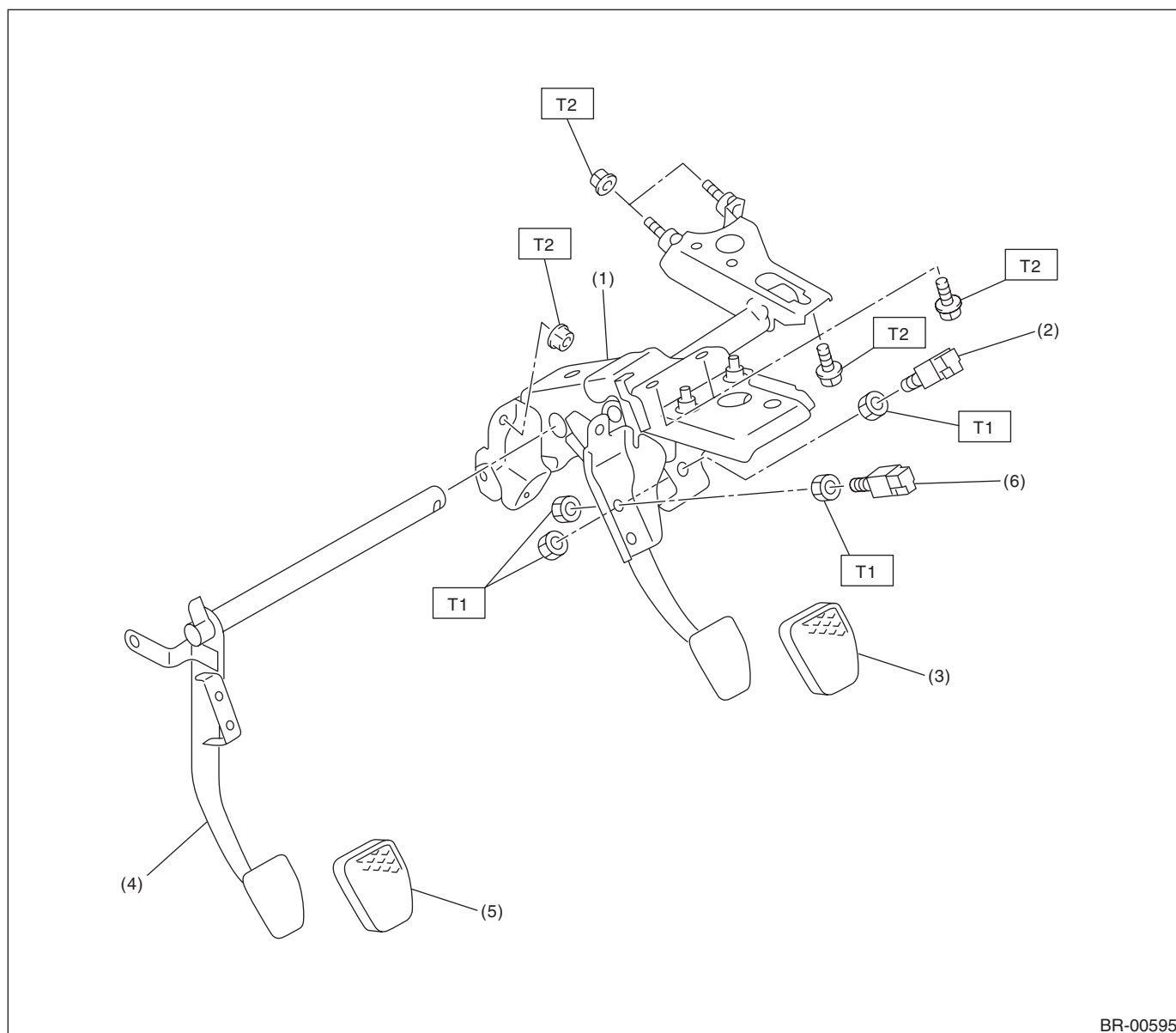
(1) Brake booster

General Description

BRAKE

7. BRAKE PEDAL

- MT model



- (1) Brake pedal ASSY
- (2) Stop light switch
- (3) Brake pedal pad

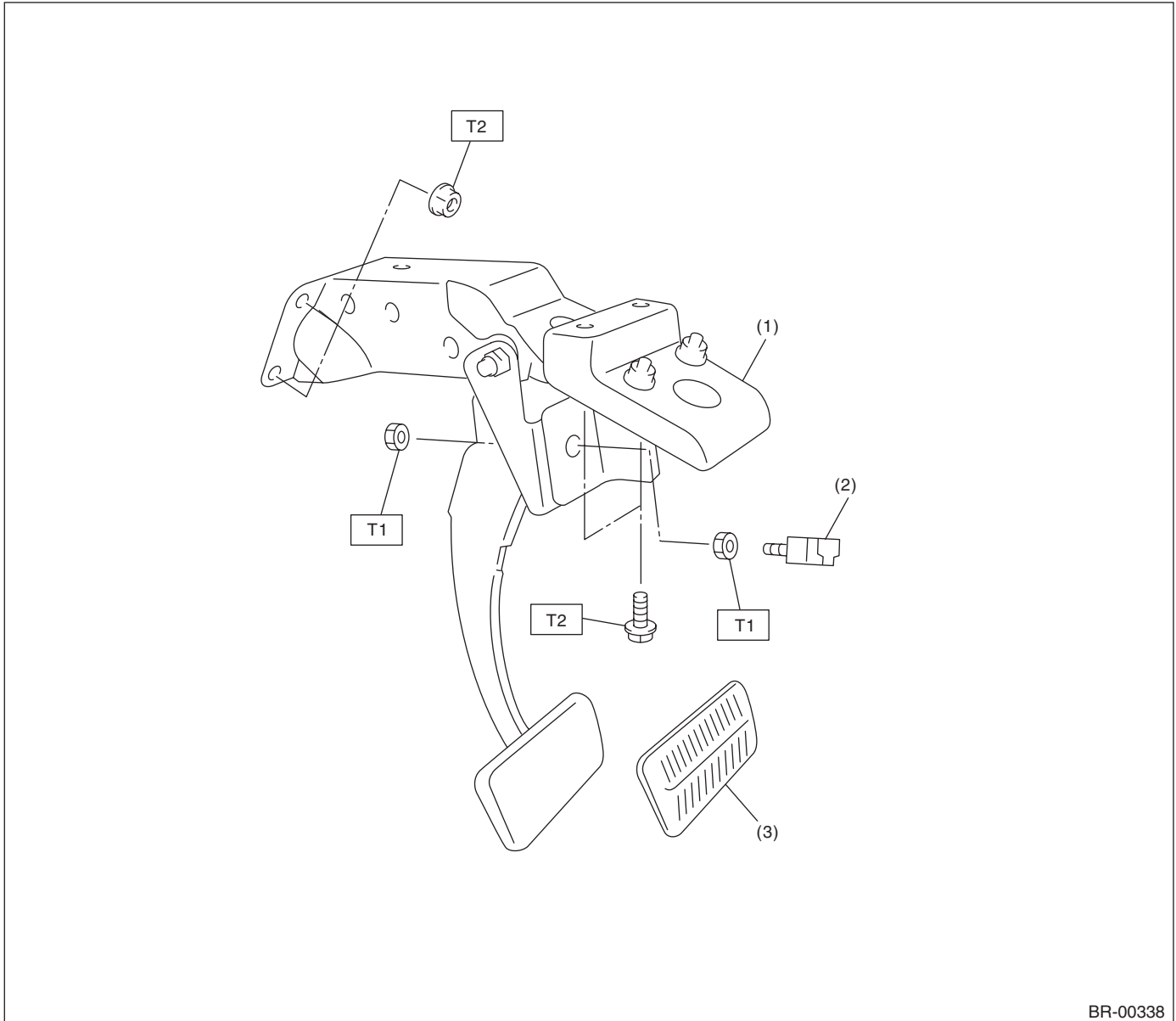
- (4) Clutch pedal
- (5) Clutch pedal pad
- (6) Clutch switch

Tightening torque: N·m (kgf-m, ft-lb)

T1: 8 (0.8, 5.8)

T2: 18 (1.8, 13.0)

- AT model



- (1) Brake pedal ASSY
- (2) Stop light switch

- (3) Brake pedal pad

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.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Use SUBARU genuine grease etc. or equivalent. Do not mix grease etc. of different grades or manufacturers.
- Before securing a part in a vise, place cushioning material such as wood blocks, aluminum plate or cloth between the part and the vise.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.

General Description

BRAKE

D: PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	REMARKS
Snap ring pliers	Used for removing and installing snap rings.