

General Description

BRAKE

1. General Description

A: SPECIFICATION

Front disc brake	Type		Disc (Floating type, ventilated)
	Effective disc diameter	mm (in)	261 (10.28)
	Disc thickness × Diameter	mm (in)	30 × 316 (1.18 × 12.44)
	Effective cylinder diameter		42.8 (1.685) × 2
	Pad dimensions (Length × Width × Thickness)	mm (in)	130.0 × 53.5 × 11.0 (5.118 × 2.106 × 0.433)
	Clearance adjustment		Automatic adjustment
Rear disc brake	Type		Disc (Floating type, ventilated)
	Effective disc diameter	mm (in)	284.5 (11.2)
	Disc thickness × Diameter	mm (in)	18 × 320 (0.71 × 12.59)
	Effective cylinder diameter	mm (in)	40.46 (1.592)
	Pad dimensions (Length × Width × Thickness)	mm (in)	95.5 × 34.8 × 11.0 (3.759 × 1.370 × 0.433)
	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)	285 (17.39)
Brake booster	Type		Vacuum suspended
	Effective diameter	mm (in)	238 + 261 (9.37 + 10.28)
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

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NOTE:

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

Item		Specification	Limit
Front brake	Pad thickness mm (in)	11 (0.43)	1.5 (0.059)
	Disc thickness mm (in)	30 (1.18)	28 (1.10)
	Disc runout mm (in)	—	0.05 (0.0020)
Rear brake (disc type)	Pad thickness mm (in)	11.0 (0.433)	1.5 (0.059)
	Disc thickness mm (in)	18 (0.71)	16 (0.63)
	Disc runout mm (in)	—	0.05 (0.0020)
Parking brake	Inside diameter mm (in)	210 (8.27)	211 (8.31)
	Lining thickness mm (in)	4.0 (0.157)	1.5 (0.059)
	Pedal stroke	5 to 6 notches/300 N (30 kgf, 67.5 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)	590 (6, 86)
		294 (30, 66)	1,654 (17, 240)
	Brake fluid pressure with engine running and vacuum pressure at 66.7 kPa (500 mmHg, 19.69 inHg)	147 (15, 33)	8,539 (87, 1,238)
		294 (30, 66)	15,373 (157, 2,229)

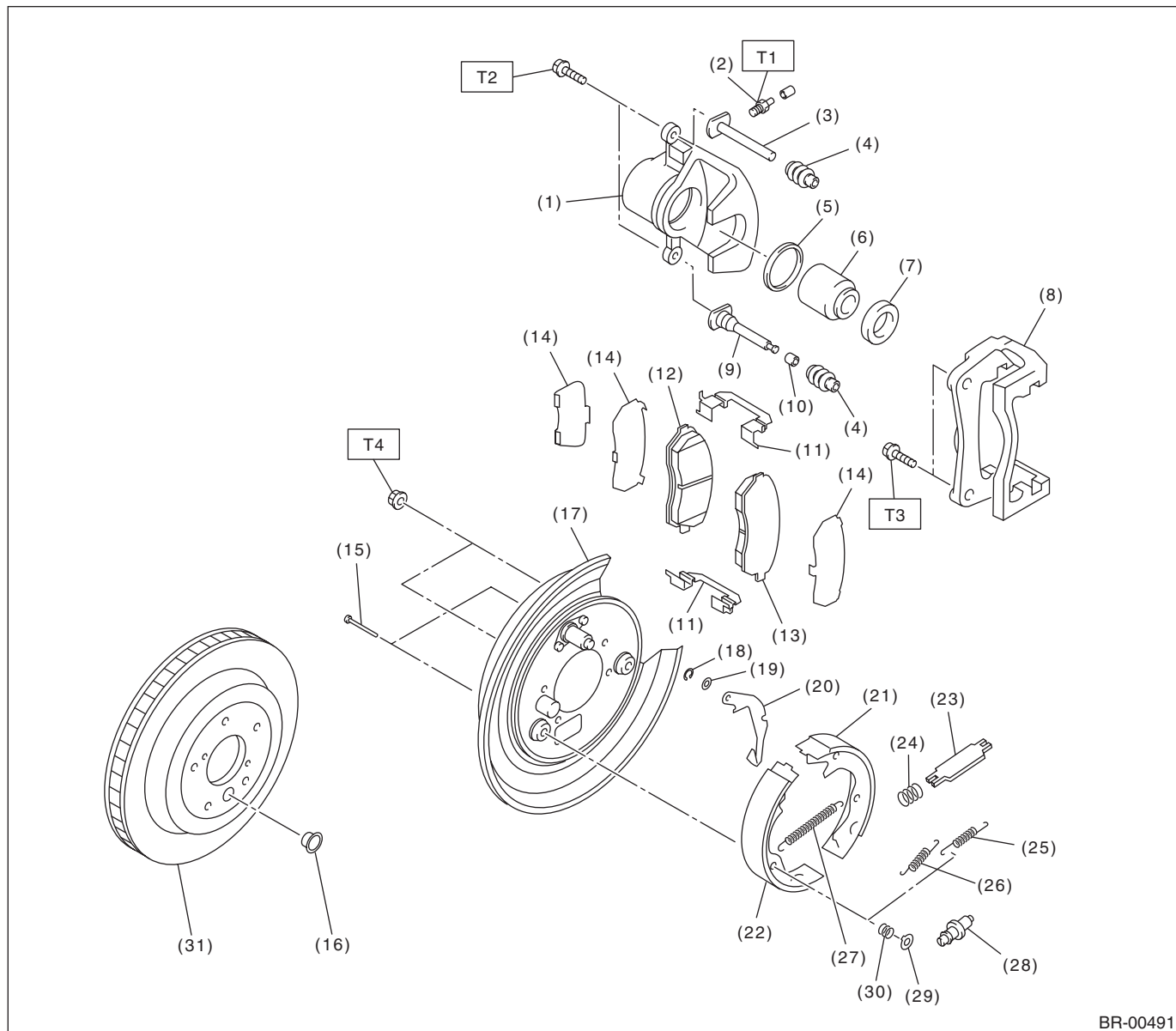
Brake pedal	Free play mm (in)	0.5 — 2 (0.02 — 0.08) [When pulling the brake pedal upward with a force of less than 10 N (1 kgf, 2 lb).]
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1. FRONT DISC BRAKE



- T3: 120 (12.2, 88.5)***

2. REAR DISC BRAKE



BR-00491

- | | | |
|-----------------------|-------------------------------------|-----------------------------------|
| (1) Caliper body | (13) Outer pad | (25) Secondary shoe return spring |
| (2) Air bleeder screw | (14) Shim | (26) Primary shoe return spring |
| (3) Guide pin (Green) | (15) Shoe hold pin | (27) Adjusting spring |
| (4) Pin boot | (16) Cover | (28) Adjuster |
| (5) Piston seal | (17) Back plate | (29) Brake shoe cup |
| (6) Piston | (18) Retainer | (30) Brake shoe spring |
| (7) Piston boot | (19) Spring washer | |
| (8) Support | (20) Parking brake lever | |
| (9) Lock pin (Yellow) | (21) Parking brake shoe (Secondary) | |
| (10) Bushing | (22) Parking brake shoe (Primary) | |
| (11) Pad clip | (23) Strut | |
| (12) Inner pad | (24) Strut shoe spring | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 8 (0.8, 5.8)

T2: 27 (2.8, 19.9)

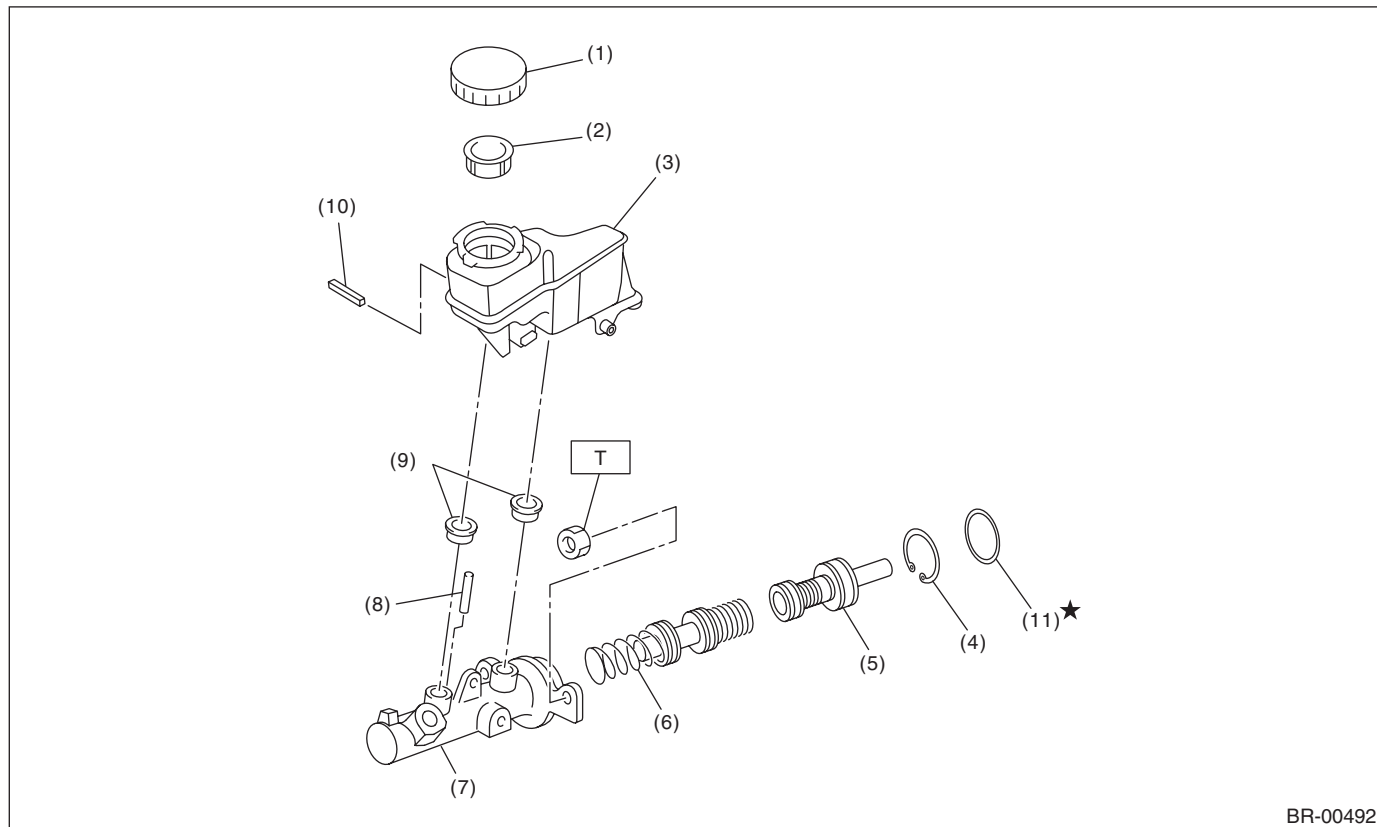
T3: 66 (6.7, 48.7)

T4: 75 (7.6, 55.3)

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3. MASTER CYLINDER



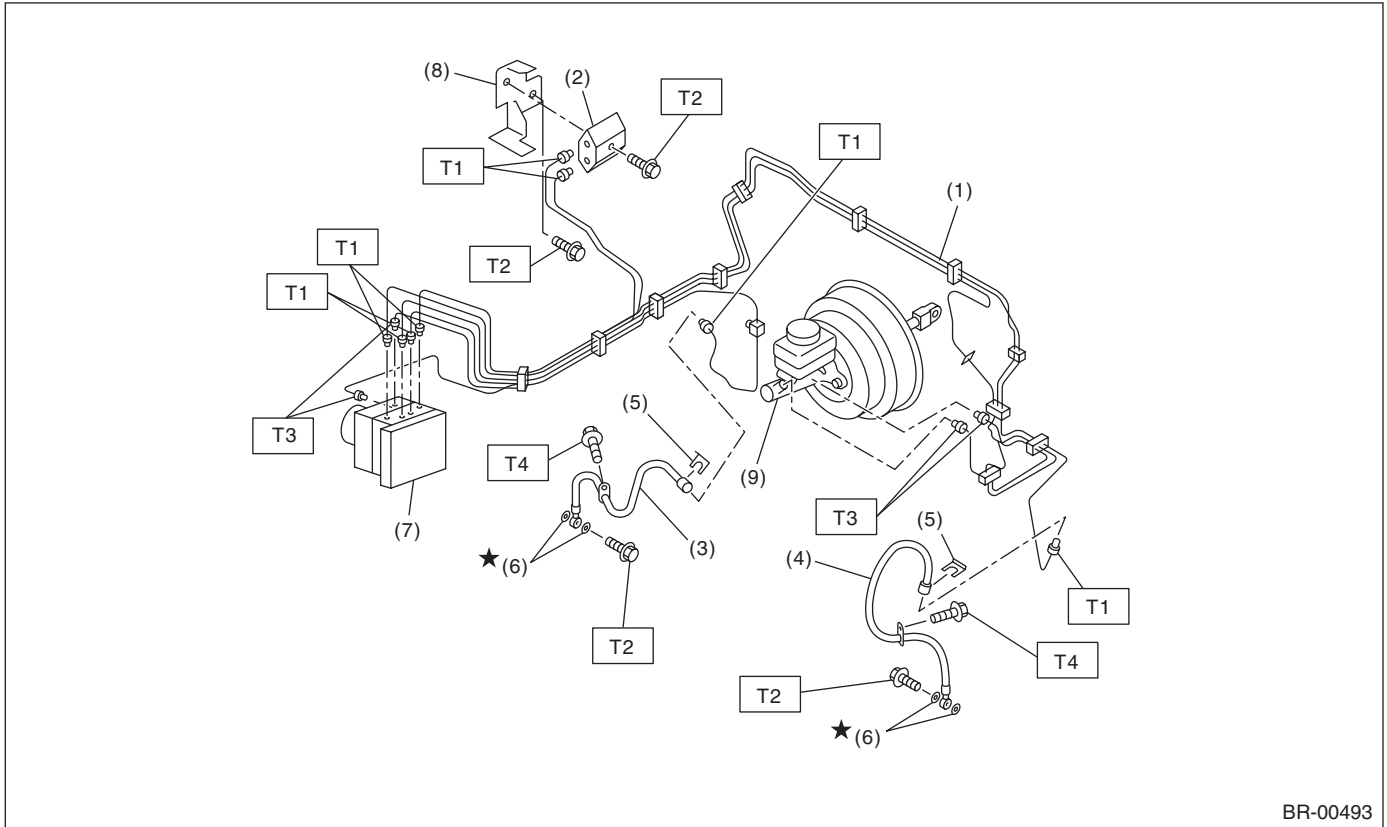
- (1) Cap
- (2) Filter
- (3) Reservoir tank
- (4) C-ring
- (5) Primary piston

- (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: 25 (2.5, 18.4)

4. FRONT BRAKE PIPES AND HOSE



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

Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.5, 10.8)

T2: 18 (1.8, 13.0)

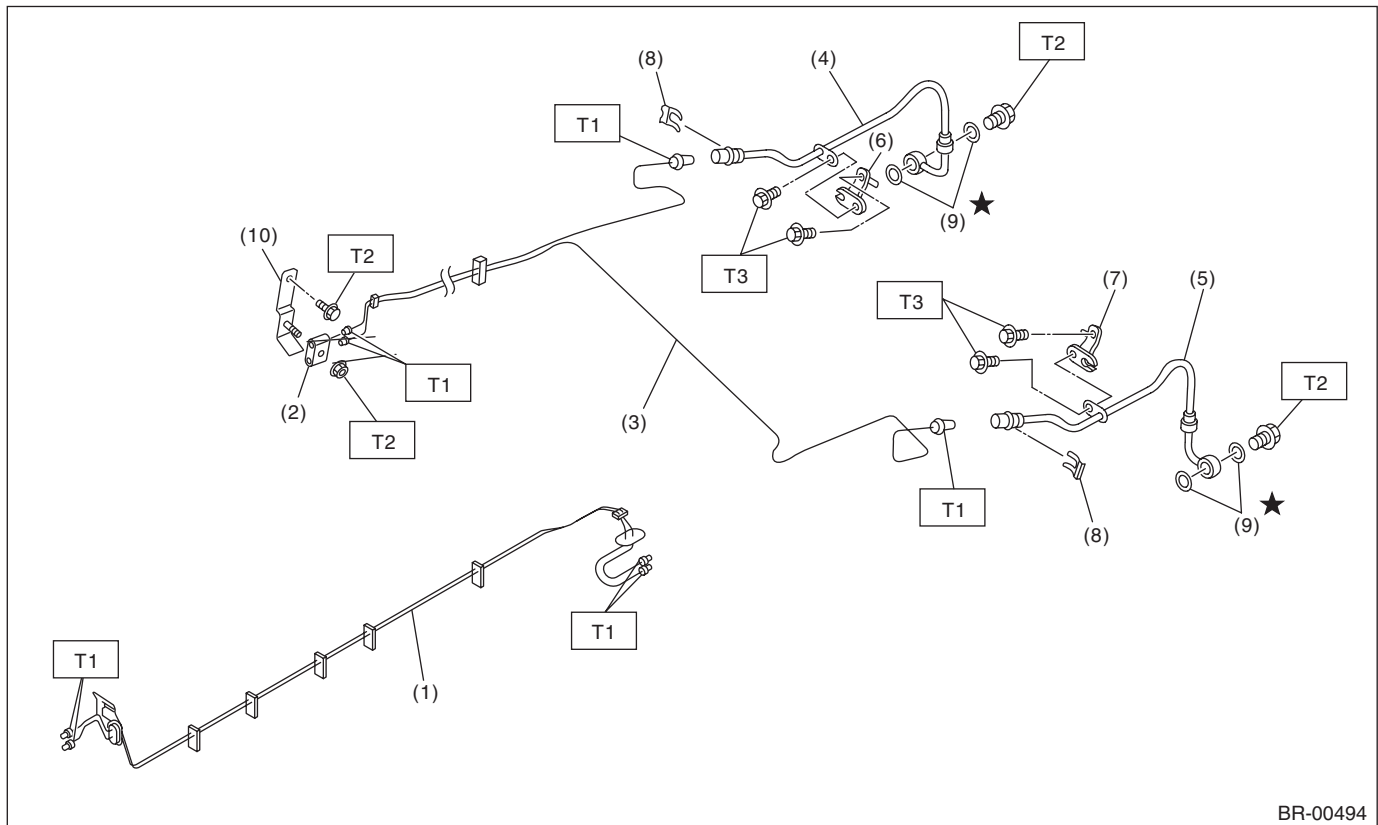
T3: 19 (1.9, 14.0)

T4: 33 (3.4, 24.3)

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5. CENTER AND REAR BRAKE PIPES AND HOSE



- (1) Center brake pipe ASSY
- (2) Two-way connector
- (3) Rear brake pipe ASSY
- (4) Rear brake hose RH
- (5) Rear brake hose LH

- (6) Rear brake hose bracket RH
- (7) Rear brake hose bracket LH
- (8) Clamp
- (9) Gasket
- (10) Bracket

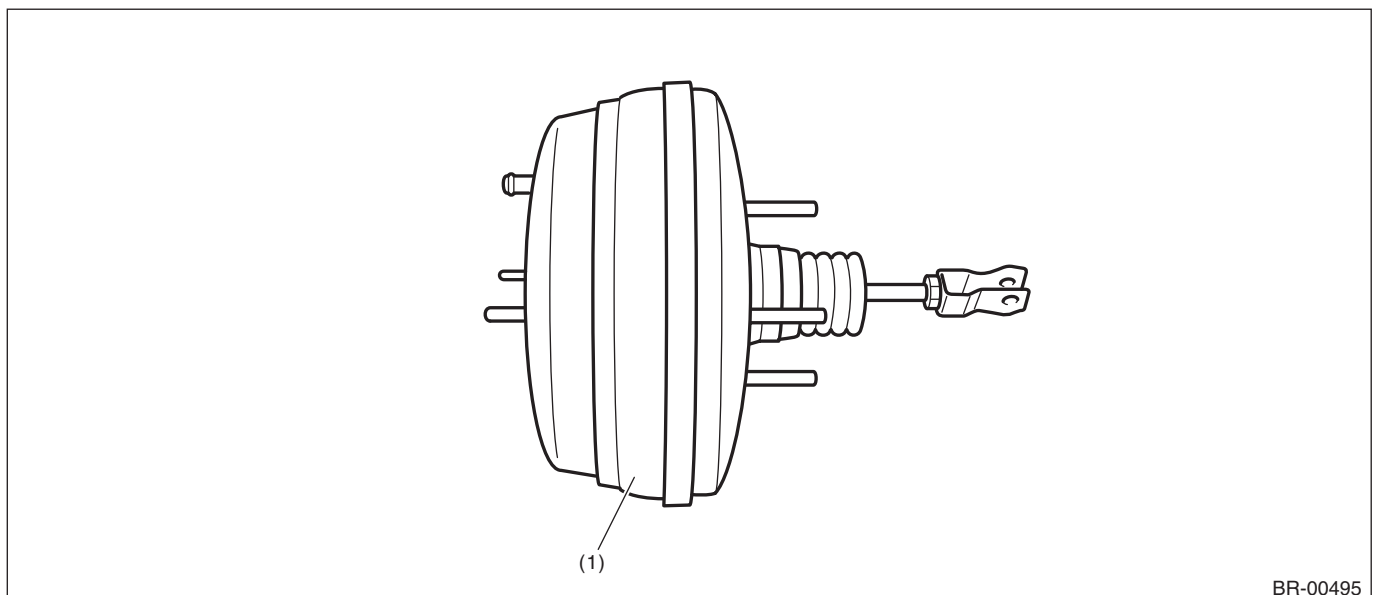
Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.5, 10.8)

T2: 18 (1.8, 13.0)

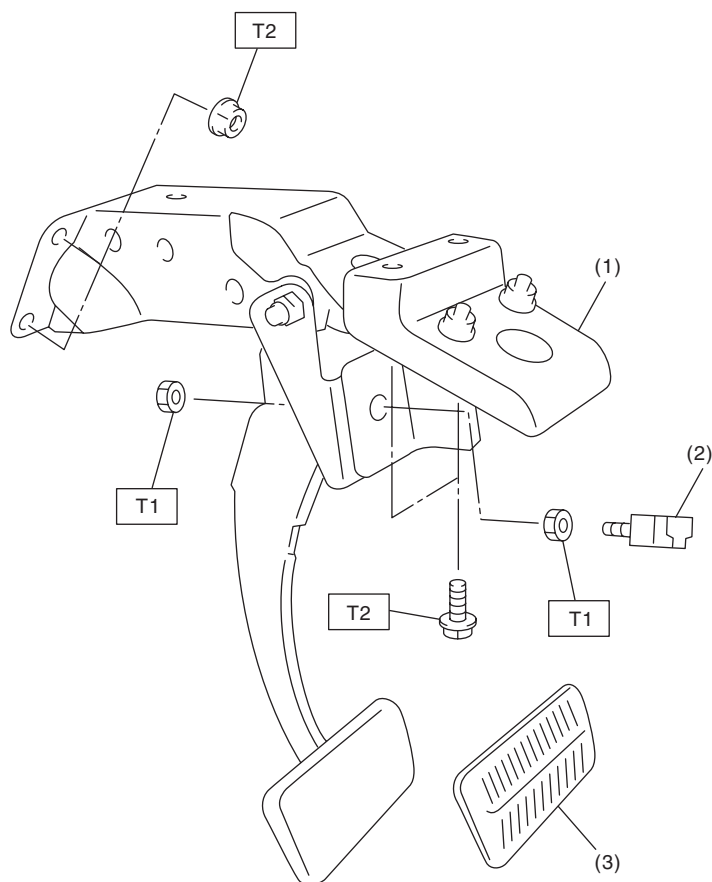
T3: 33 (3.4, 24.3)

6. BRAKE BOOSTER



- (1) Brake booster

7. BRAKE PEDAL



BR-00338

(1) Brake pedal ASSY

(3) Brake pedal pad

(2) Stop light switch

Tightening torque: N·m (kgf-m, ft-lb)

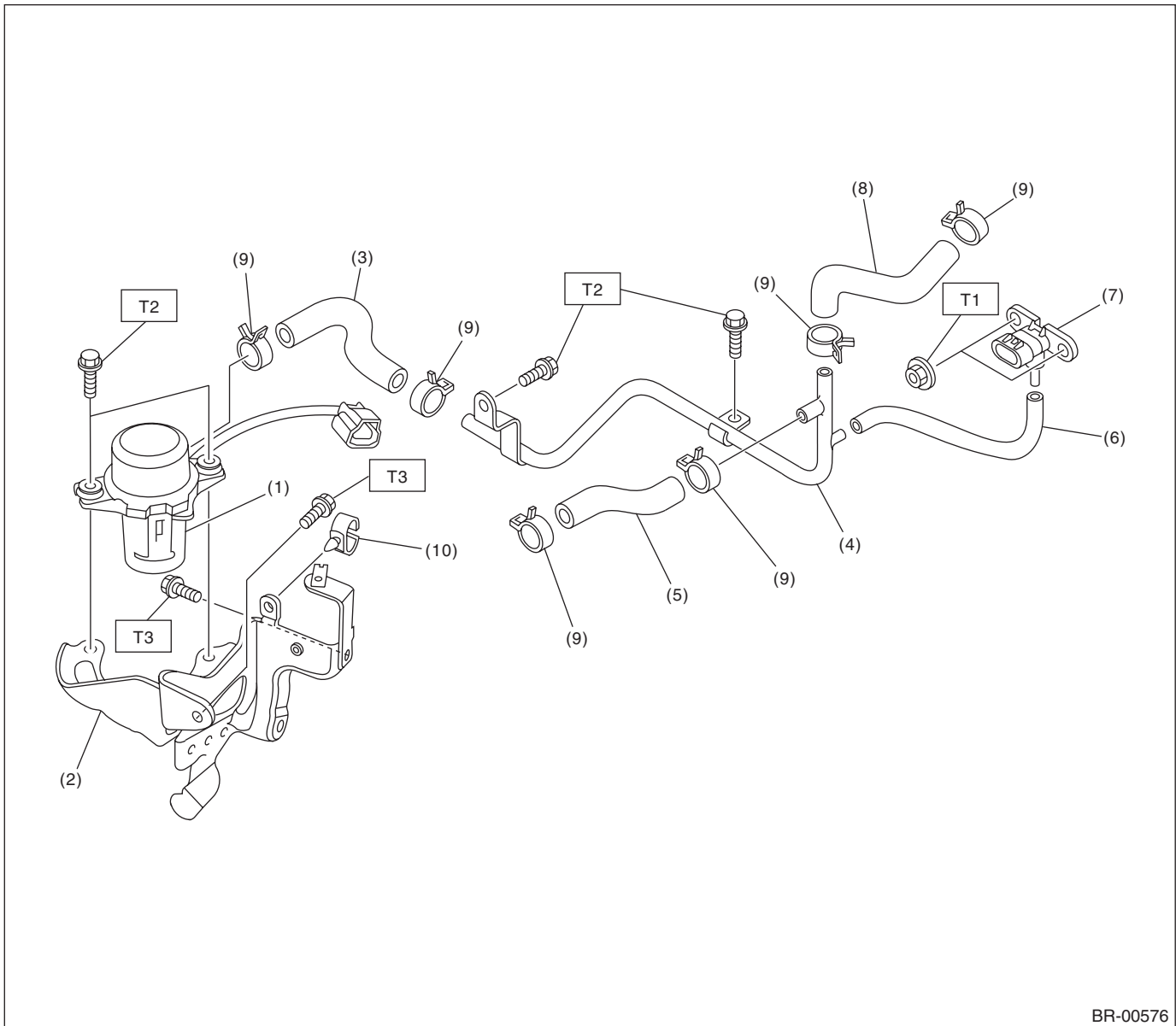
T1: 8 (0.8, 5.8)

T2: 18 (1.8, 13.0)

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8. BRAKE VACUUM PUMP



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|-------------------------------|---------------------------------|
| (1) Vacuum pump | (6) Vacuum hose (Vacuum sensor) |
| (2) Vacuum pump bracket | (7) Vacuum sensor |
| (3) Vacuum hose (Vacuum pump) | (8) Vacuum hose (Brake booster) |
| (4) Vacuum pipe | (9) Hose clamp |
| (5) Vacuum hose (Engine) | (10) Clip |

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

T1: 5 (0.5, 3.7)

T2: 7.5 (0.76, 5.5)

T3: 25 (2.5, 18.4)

C: CAUTION

Please clearly understand and adhere to the following general precautions. They must be strictly followed to avoid any injury to the person doing the work or people in the area.

1. OPERATION

- 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.

D: PREPARATION TOOL**1. GENERAL TOOL**

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

2. OIL

When handling oil, follow the rules below to prevent unexpected accidents.

- Prepare container and waste cloths when performing work which oil could possibly spill. If oil spills, wipe it off immediately to prevent from penetrating into floor or flowing outside, for environmental protection.
- Follow all government and local regulations concerning waste disposal.

3. BRAKE FLUID

If brake fluid gets in your eyes or on your skin, do the following:

- Wash eyes and seek immediate medical attention.
- Wash your skin with soap and then rinse thoroughly with water.

Follow all government and local regulations concerning waste disposal.