

DAIHATSU

L500, L501

BRAKES

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BR

LBR00001-00000

CHECKS AND ADJUSTMENTS

CHECK AND ADJUSTMENT OF BRAKE PEDAL

1. Pedal height adjustment

- (1) Remove the push rod clevis pin.
- (2) Disconnect the connector from the stop lamp switch. Loosen the nut ①. Adjust the pedal height by turning the switch. Lock the nut ①.
- (3) Loosen the nut ②. Turn the push rod ③ until the clevis pin hole is aligned. Install the pin.
- (4) Adjust the pedal free travel and lock the nut ②.

Lock Nut Tightening Torque:

11.8 - 17.7 N·m (1.2 - 1.8 kgf-m, 8.7 - 13.0 ft-lb)

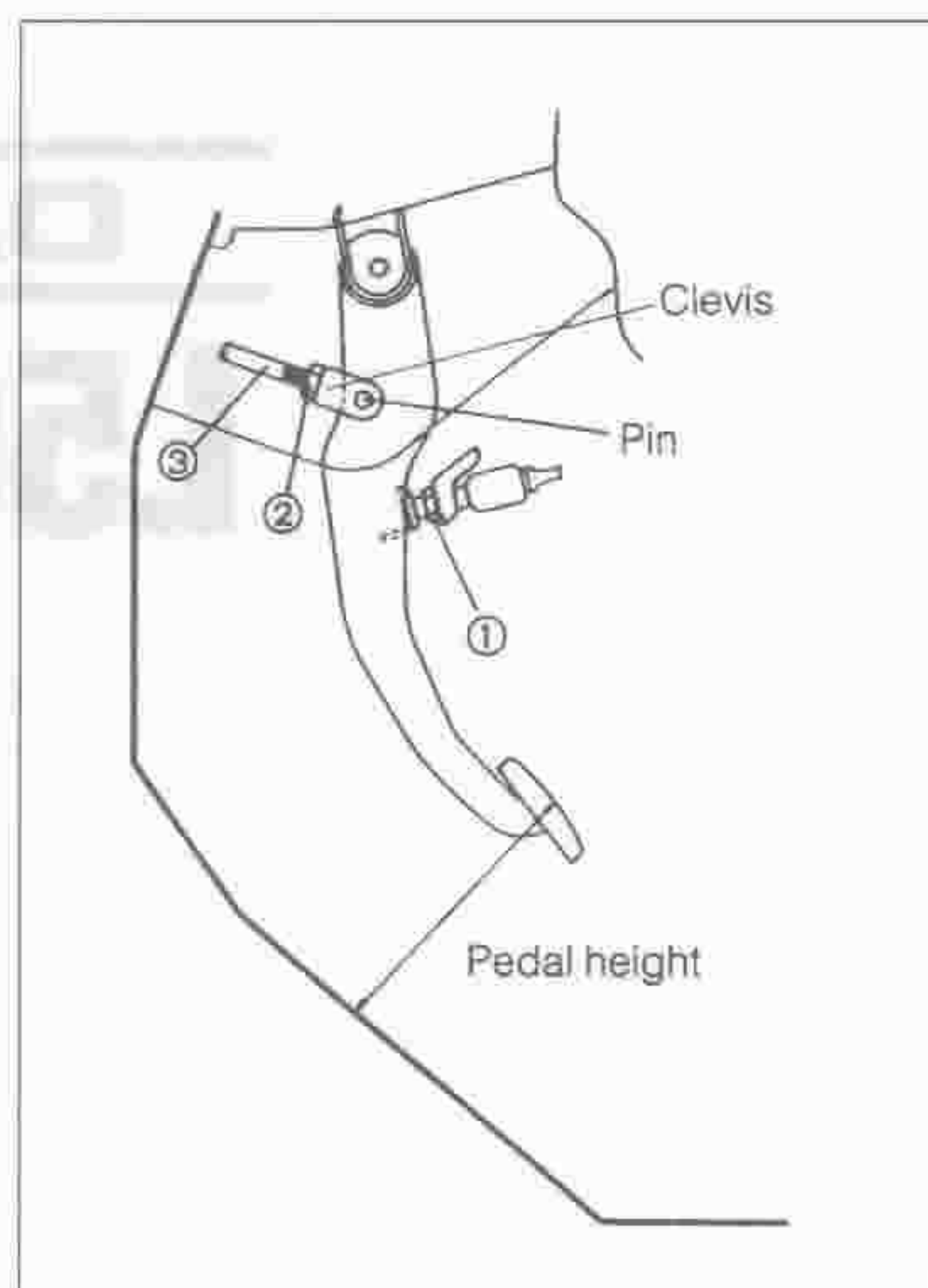
- (5) After completion of the adjustment, ensure that the stop lamp functions properly.

Specified Pedal Height:

(R.H.D.) MT: 145.9 mm (5.75 inch)

AT: 150.8 mm (5.94 inch)

(L.H.D.): 156.5 mm (6.17 inch)



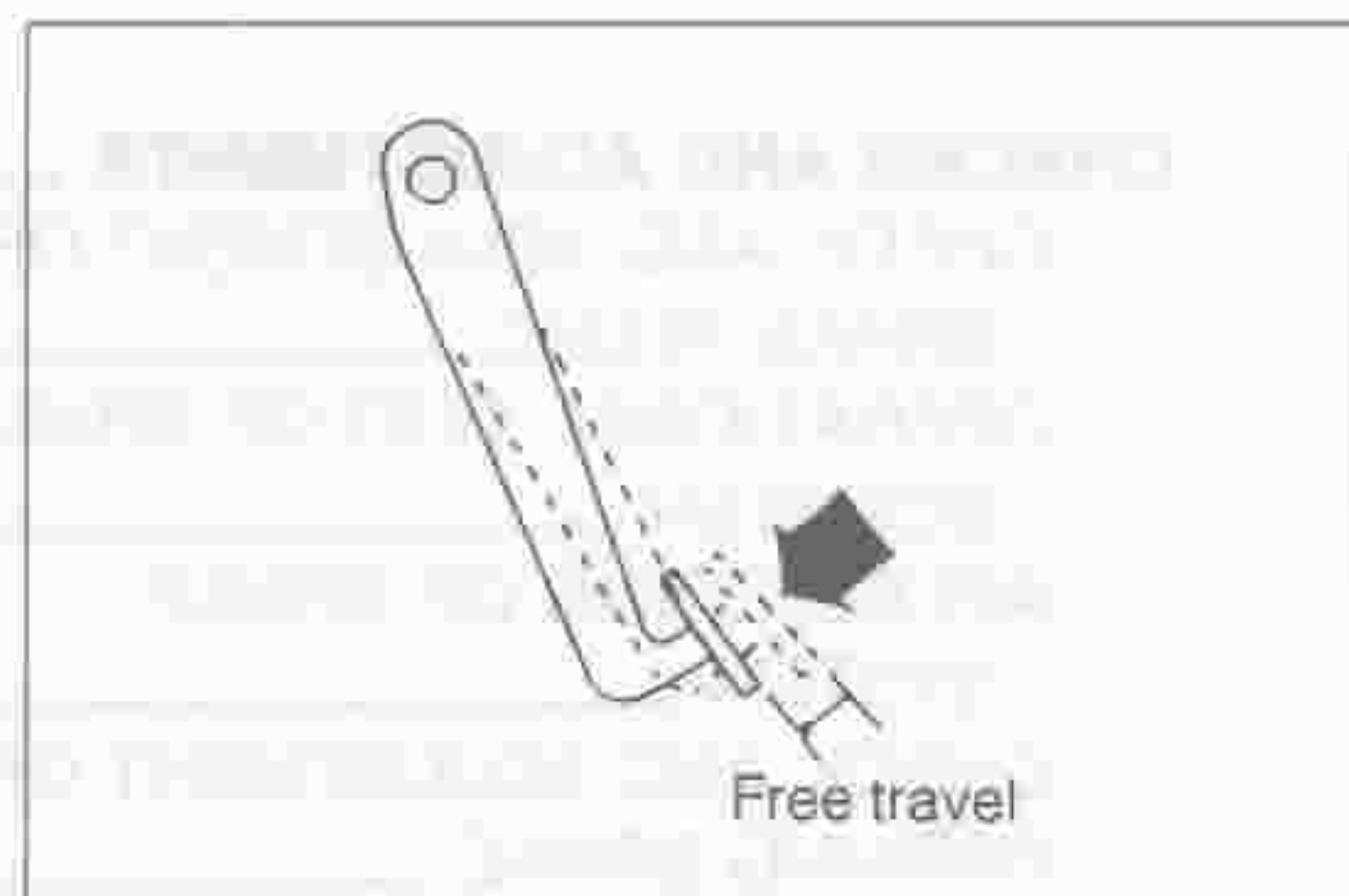
LBPR0002-00001

2. Pedal free travel check

After stopping the engine, depress the brake pedal firmly at least ten times so that no vacuum may remain in the brake booster. Measure the brake pedal free travel by pushing the pedal lightly with fingers.

Specified Pedal Free Travel:

0.5 - 3.0 mm (0.02 - 0.12 inch)



LBPR0003-00002

3. Pedal free travel adjustment

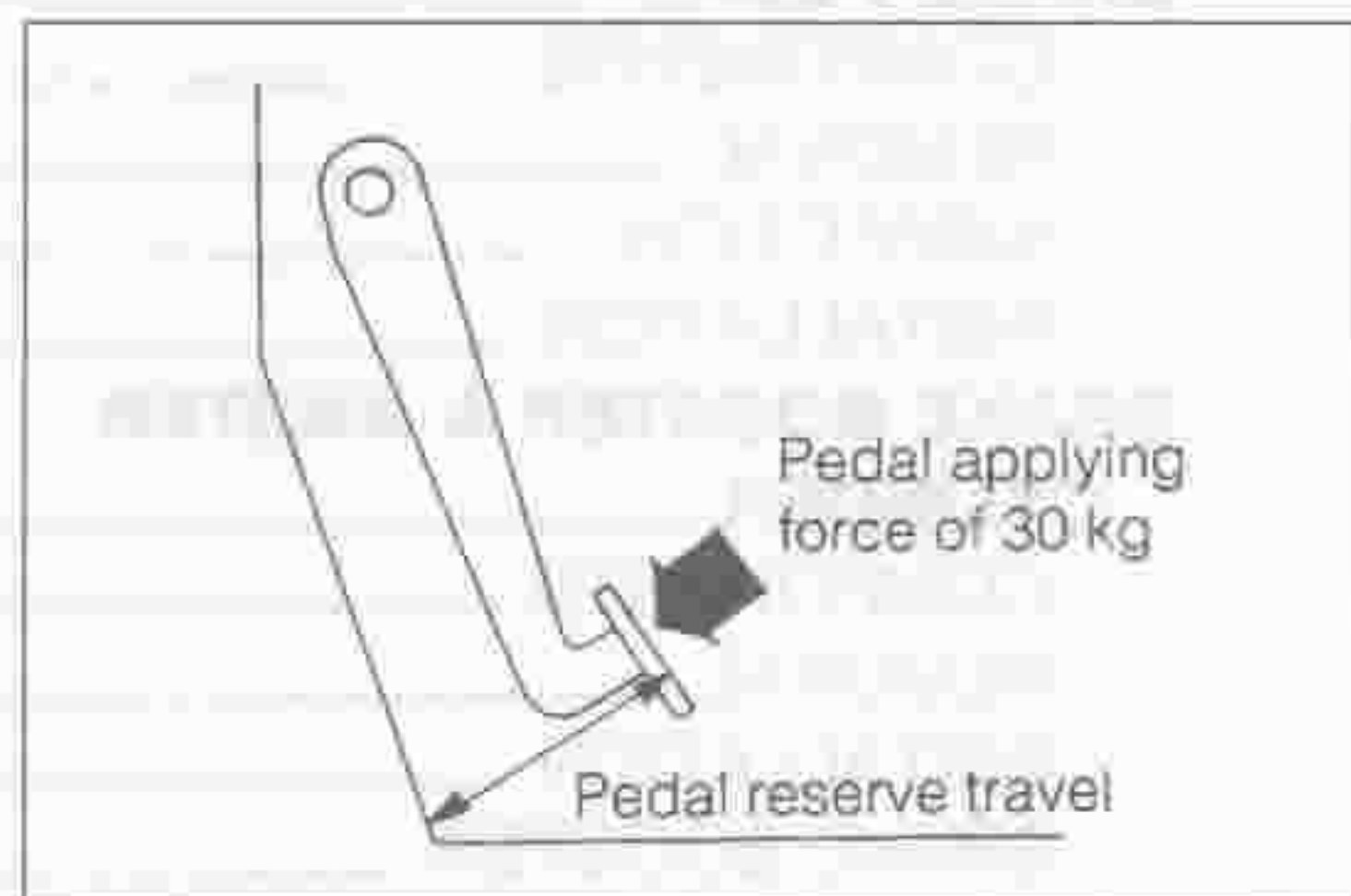
- (1) Loosen the nut ②. Turn the push rod ③ to adjust the pedal free travel.
- (2) After completion of the adjustment, ensure that the pedal height is proper and the stop lamp functions properly.

4. Pedal reserve travel check

With the engine running at the idle speed and with the parking brake lever released, depress the brake pedal with a pedal applying force of 294 N (30 kgf, 66 lb). Measure the gap between the point where the depressed pedal stops and the floor panel.

Specified Reserve Travel:

80 mm (3.15 inch) or more



LBPR0004-00003

OPERATIONAL TEST OF BRAKE BOOSTER

1. SIMPLE CHECK

(1) Booster air-tight performance check

Start the engine. After running the engine for one to two minutes, stop the engine. Depress the brake pedal several times, applying a force used during normal brake applications. If the position of the brake pedal rises progressively at the second and third applications, it indicates the brake booster is functioning properly.

NOTE:

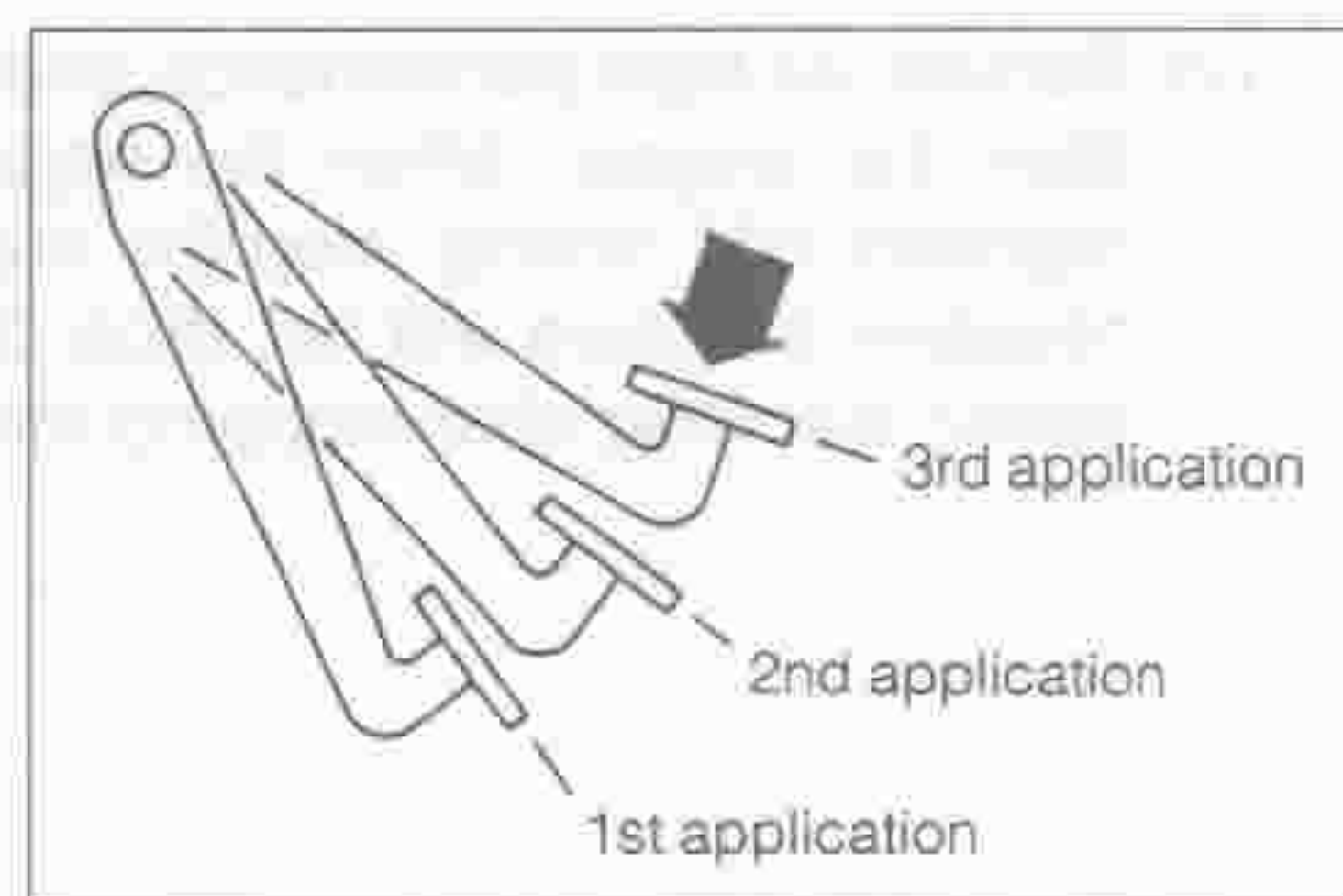
- Intervals between the first and second applications as well as between the second and third applications should be at least five seconds.

(2) Booster operation check

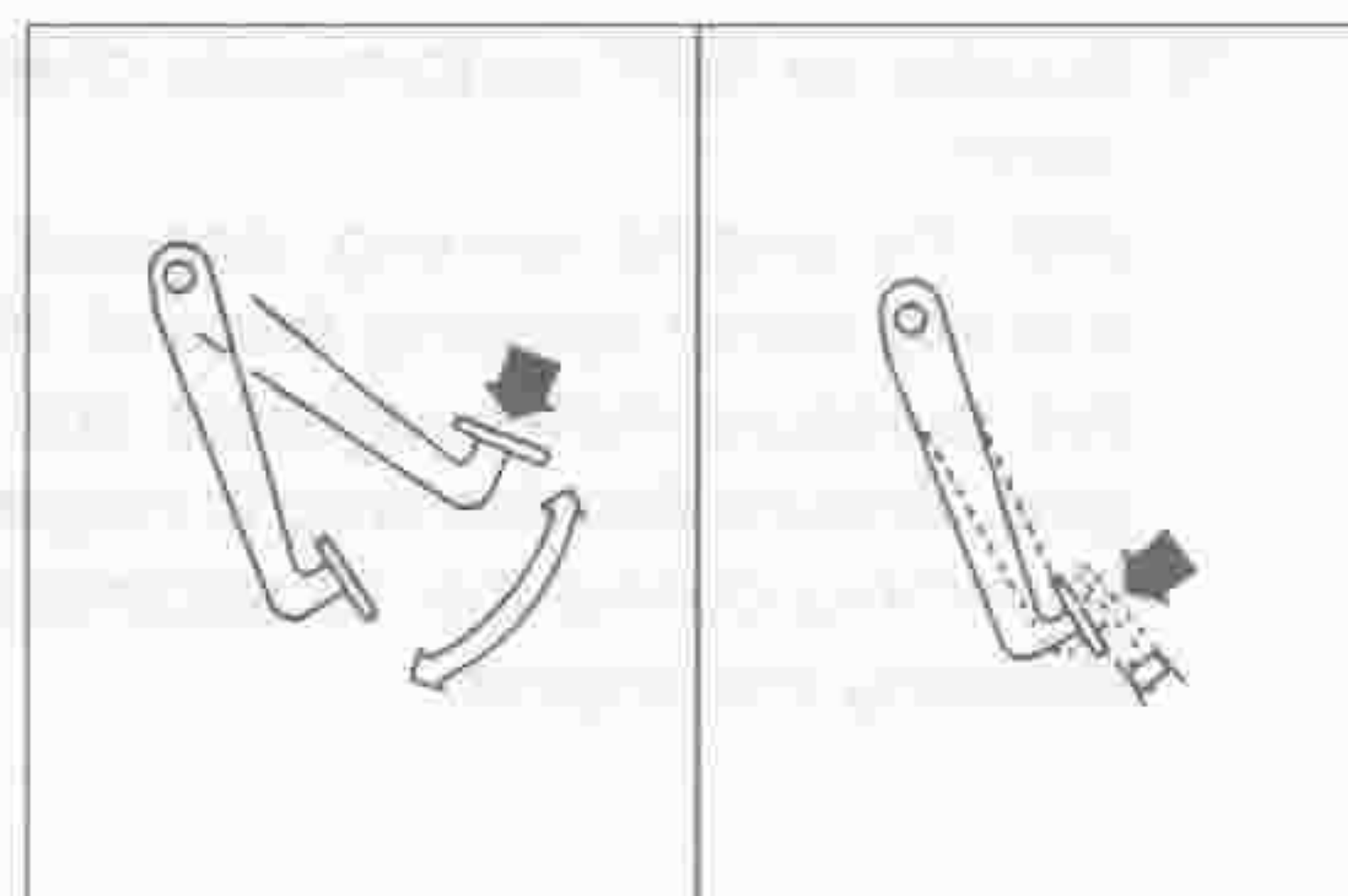
With the engine stopped, depress the brake pedal several times, applying the same force at each application. Ensure that the brake pedal height will not vary at each application. Then, start the engine while depressing the brake pedal. If the brake pedal moves in slightly, it indicates the brake booster is functioning properly.

(3) Booster air-tight performance check under loaded condition

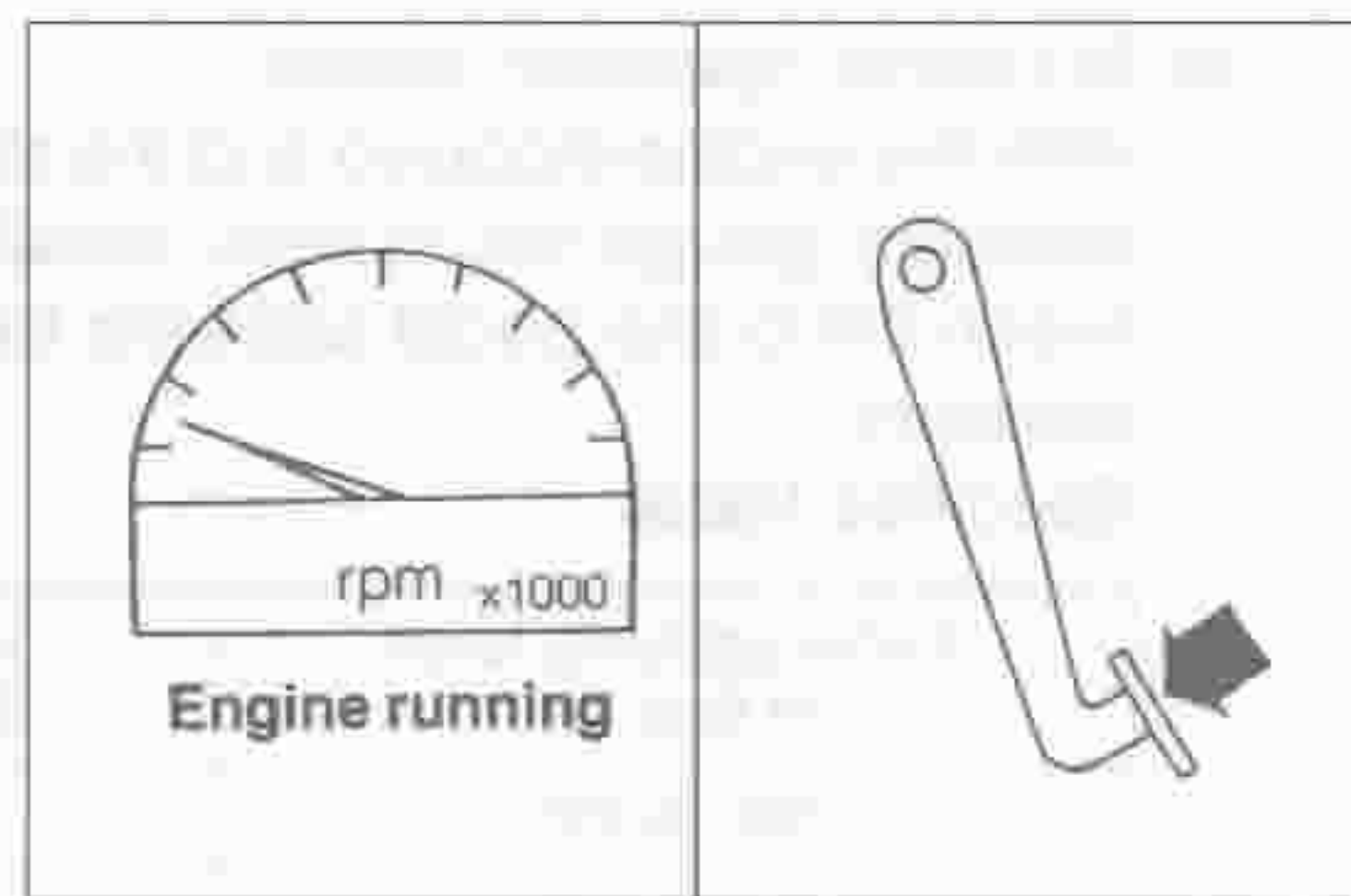
With the engine running, depress the brake pedal. While maintaining this condition, stop the engine. If the brake pedal height remains at the same level at least 30 seconds, it indicates the brake booster is functioning properly.



LBR00005-00004



LBR00006-00005

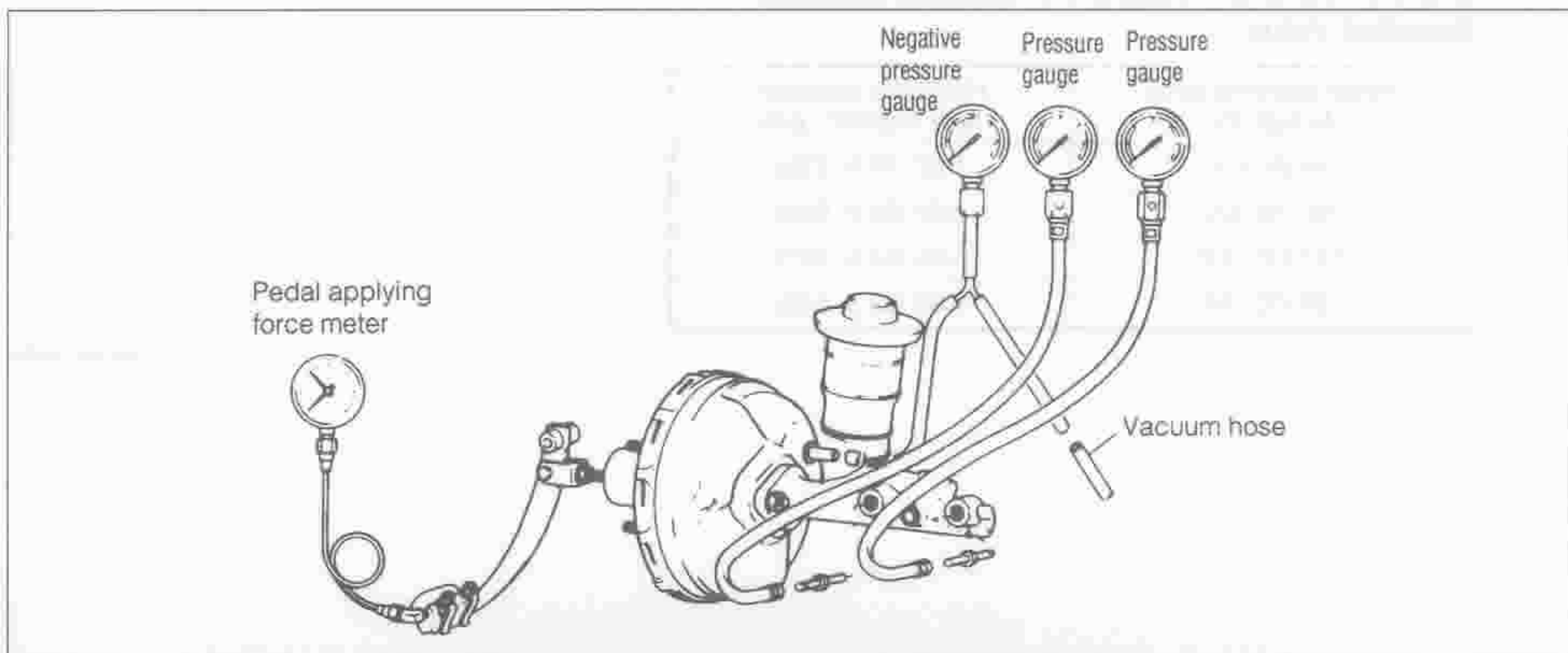


LBR00007-00006

2. CHECK EMPLOYING PORTABLE BRAKE BOOSTER TESTER

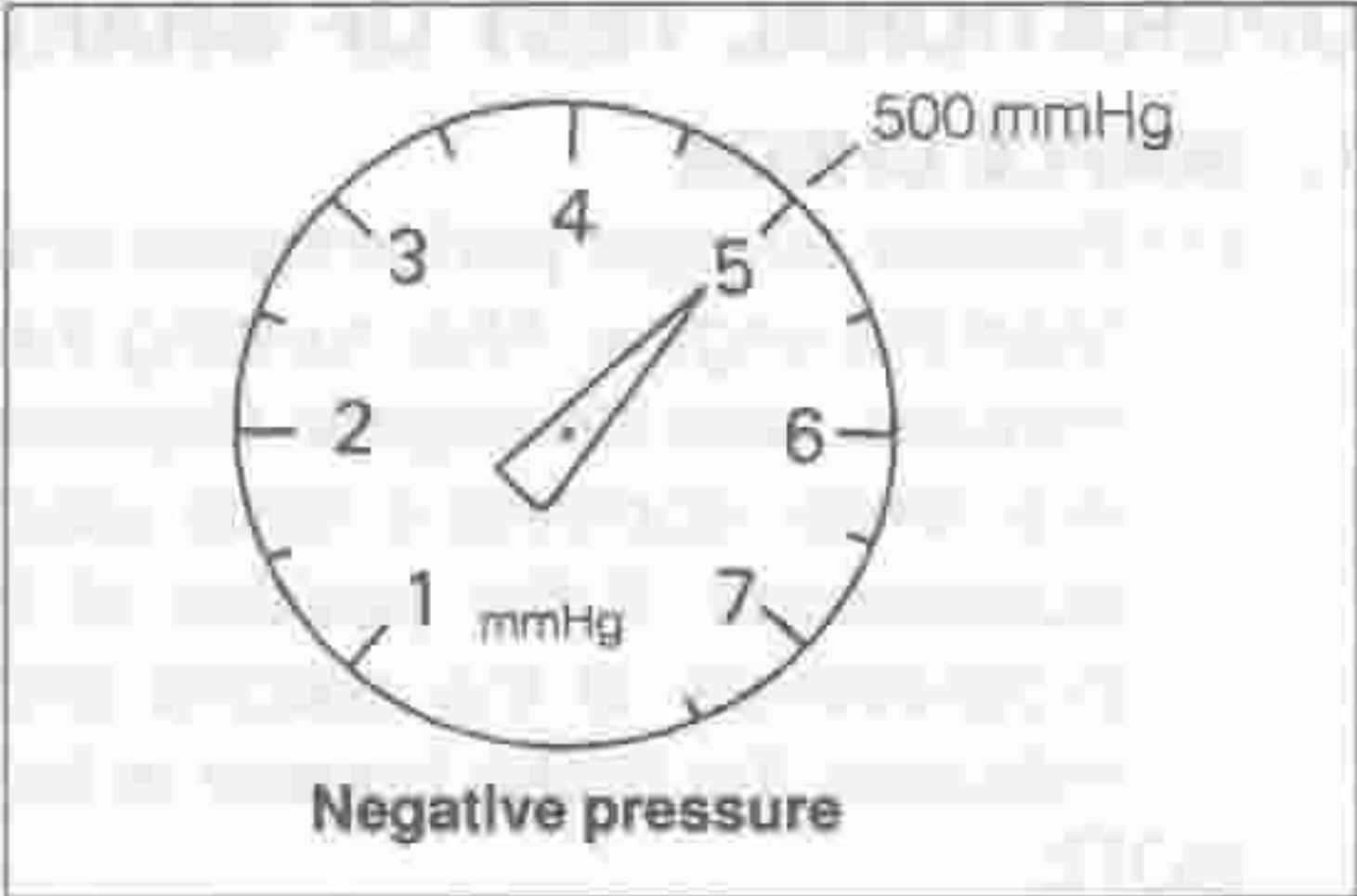
(1) Connection of portable brake booster tester

Connect a brake booster tester as indicated in the figure. After performing air bleeding, carry out each test.



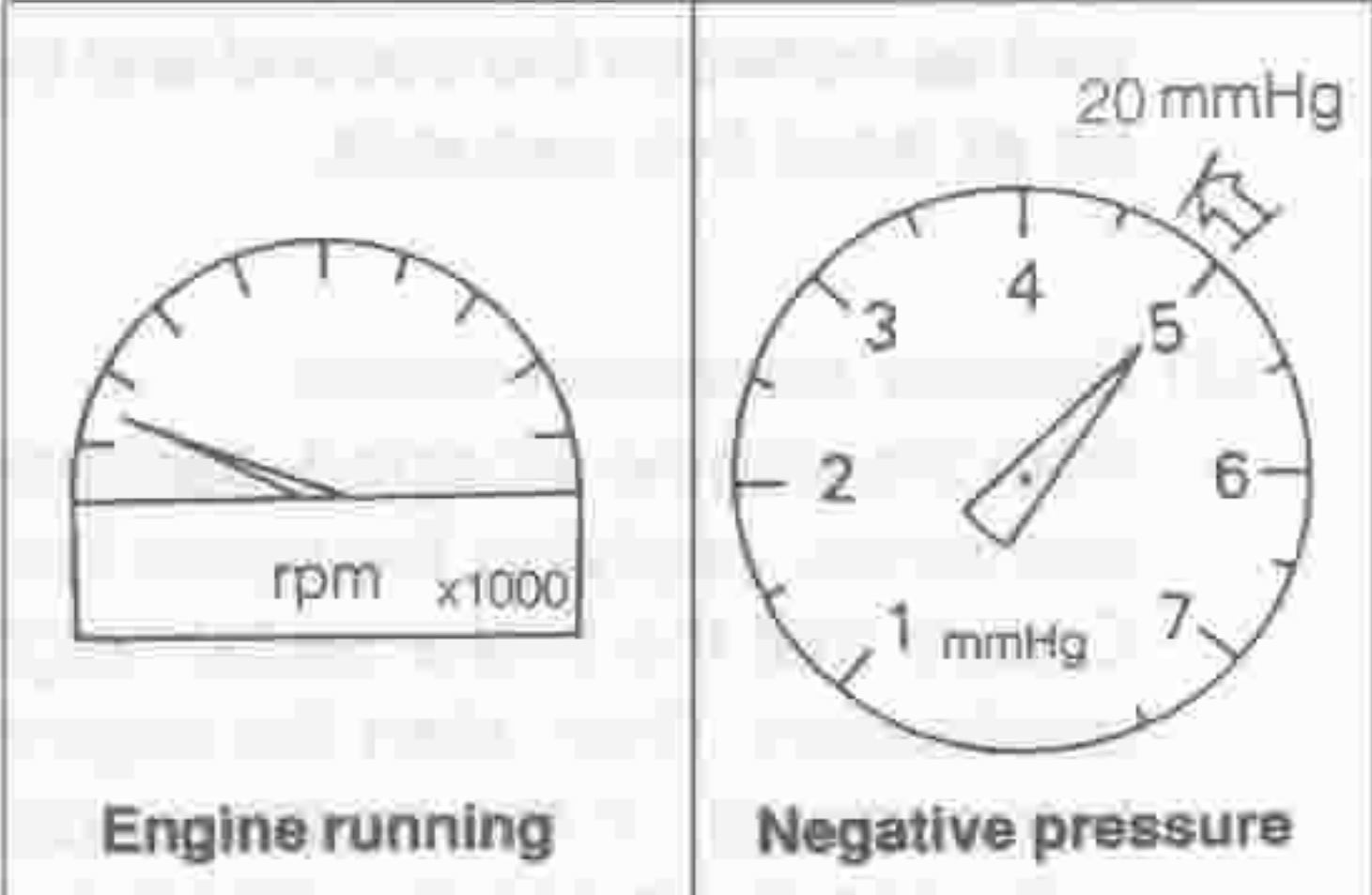
LBR00008-00007

- (2) **Booster air-tight performance check**
Start the engine. When the negative pressure meter registers 500 mmHg, stop the engine. Ensure that the negative pressure will not drop during the 15 second period following after stopping the engine.



LBR00009-00008

- (3) **Booster air-tight performance check under loaded condition**
With the engine running, depress the brake pedal with a brake pedal applying force of 20 kg. When the negative pressure meter registers 500 mmHg, stop the engine. Ensure that the drop in negative pressure is within 20 mmHg during the 20 second period following after stopping the engine.



LBR00010-00009

- (4) **No-boost operation check**
With the engine stopped and the reading of the negative pressure gauge set to zero, check the relationship between the brake pedal applying force and the hydraulic pressure.

Specified Value

Pedal applying force N (kgf, lb)	Hydraulic pressure MPa (kgf/cm ² , psi)
98 (10, 22)	0.38 (3.9, 55.5)
294 (30, 66)	2.66 (27.1, 385)

- (5) **Booster operation check**
Start the engine. When the negative pressure meter registers 450 mmHg, stop the engine. Depress the brake pedal and measure the hydraulic pressure.

Specified Value

Pedal applying force N (kgf, lb)	Hydraulic pressure MPa (kgf/cm ² , psi)
49 (5, 11)	1.62 (16.5, 235)
98 (10, 22)	3.62 (36.9, 525)
147 (15, 33)	5.25 (53.5, 761)
196 (20, 44)	5.82 (59.3, 843)

LBR00011-00000

AIR BLEEDING OF BRAKE SYSTEM

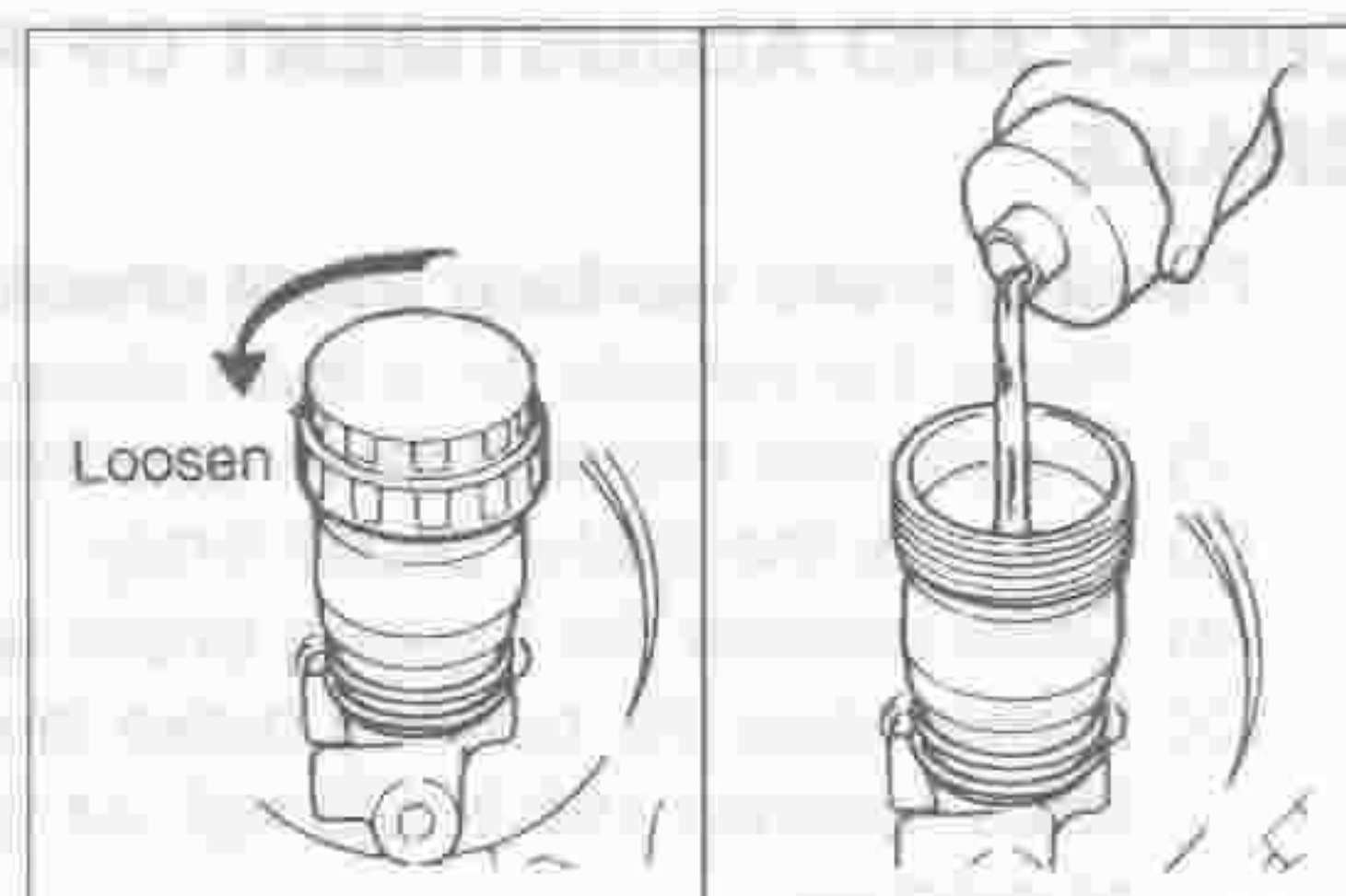
1. Filling brake fluid

Fill the brake master cylinder reservoir with the brake fluid.

NOTE:

- If the brake fluid is spilled inadvertently over the paint-finish surface of the vehicle, quickly wipe off the brake fluid.

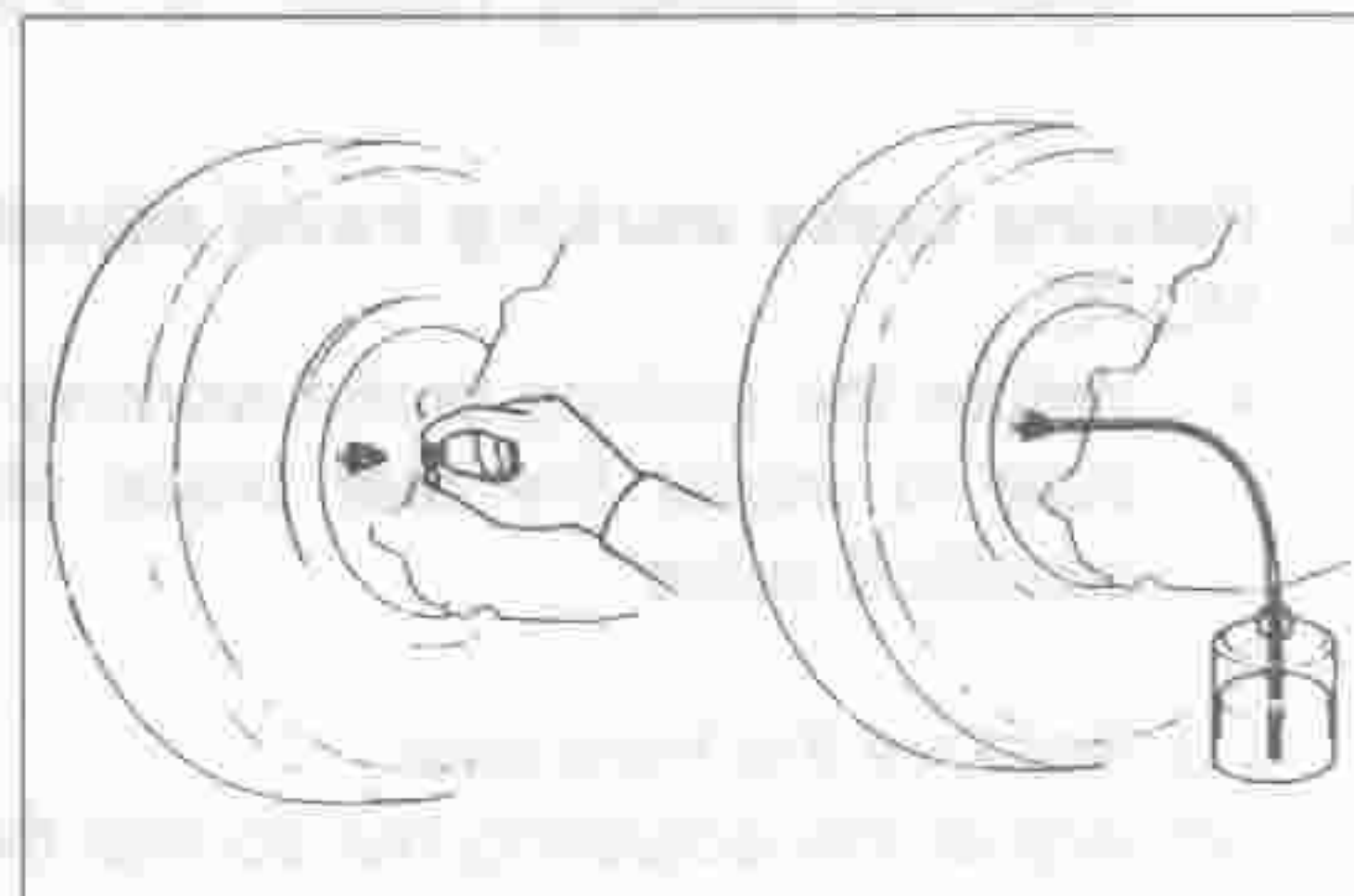
Specified Brake Fluid: DOT3 or SAE J1703



LBR00012-00010

2. Connection of vinyl hose to bleeder plug of wheel cylinder

- Submerge one end of a vinyl hose in a container filled with the brake fluid. Connect the other end of the vinyl hose to the wheel cylinder bleeder plug of the vehicle.
- Start this air bleeding operation at the wheel cylinder which is located at the farthest point from the master cylinder.

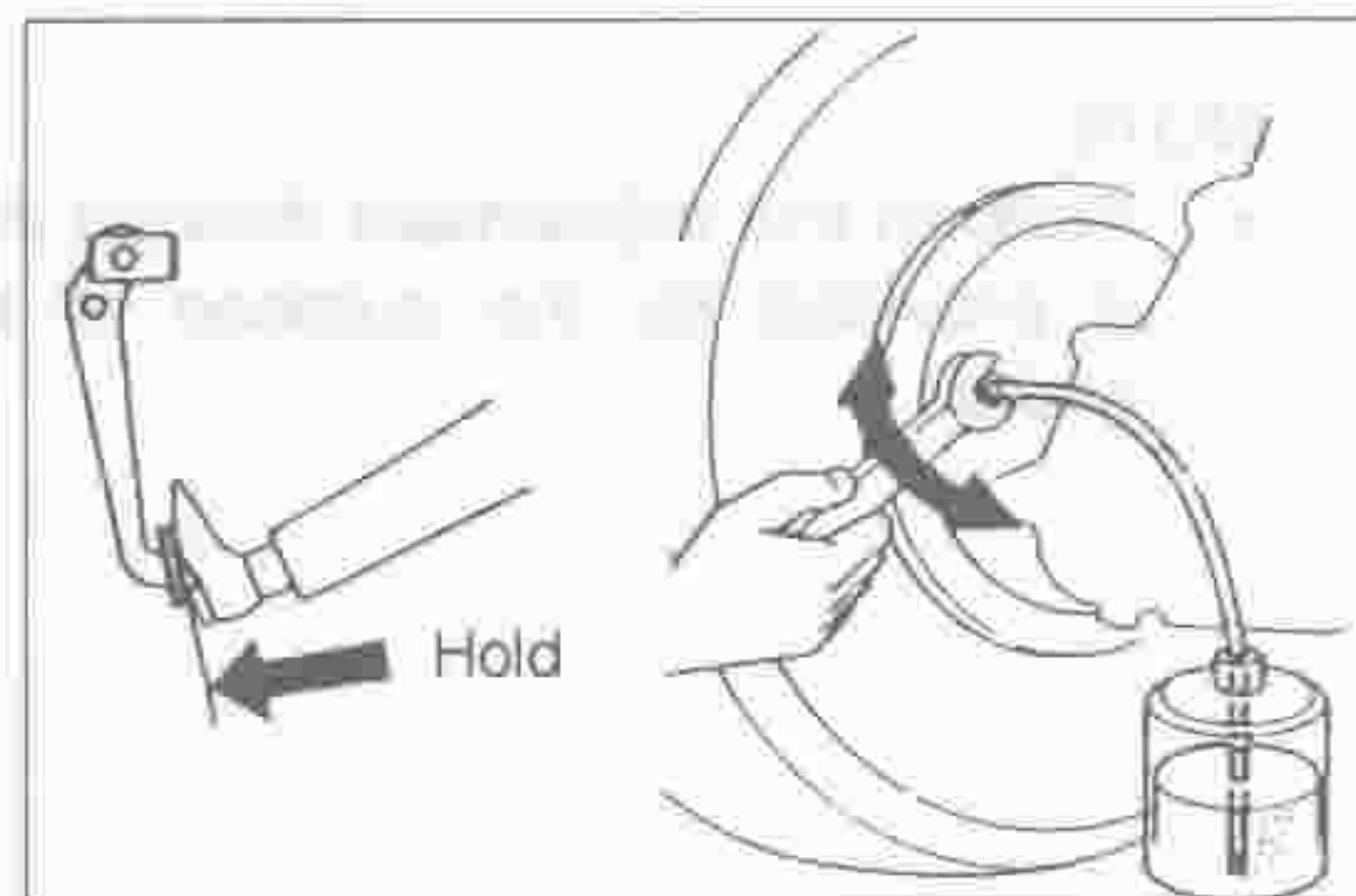


LBR00013-00011

3. Air bleeding

- Perform the operation by two persons. One person should depress the brake pedal slowly and hold it in a depressed state.
- The other person slackens the bleeder plug 1/3 through 1/2 turn at a time. Be sure to tighten the bleeder plug before the hydraulic pressure ceases to exist in the cylinder.
- Repeat the steps (1) and (2) above, until you no longer observe bubbles in the fluid.
- Tighten the bleeder plug.

Tightening Torque: 6.9 - 9.8 N·m
(0.7 - 1.0 kgf-m, 5.1 - 7.2 ft-lb)



LBR00014-00012

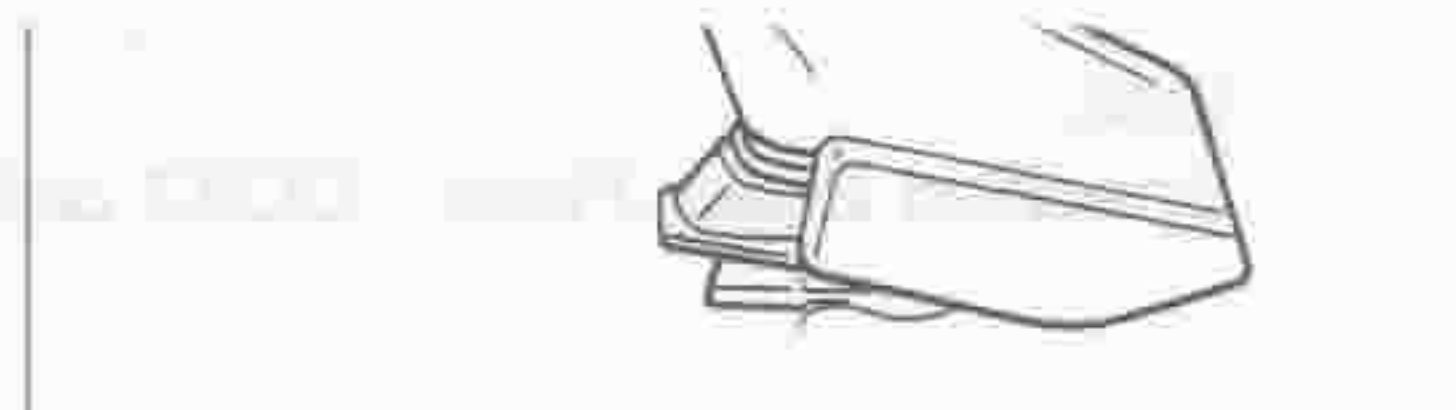
4. Check of brake fluid leakage

Depress the brake pedal for 30 seconds with a pedal applying force of 245 N (25 kgf, 55 lb). Ensure that the brake line exhibits no fluid leakage.

LBR00015-00000

- (3) Depress the brake pedal firmly.
- (4) Once release the parking brake lever.
- (5) Slowly raise the parking brake lever until the operating force reaches 196 N (20 kgf, 44 lb). Count the number of notches.

Specified Working Travel: 4 - 7 Notches



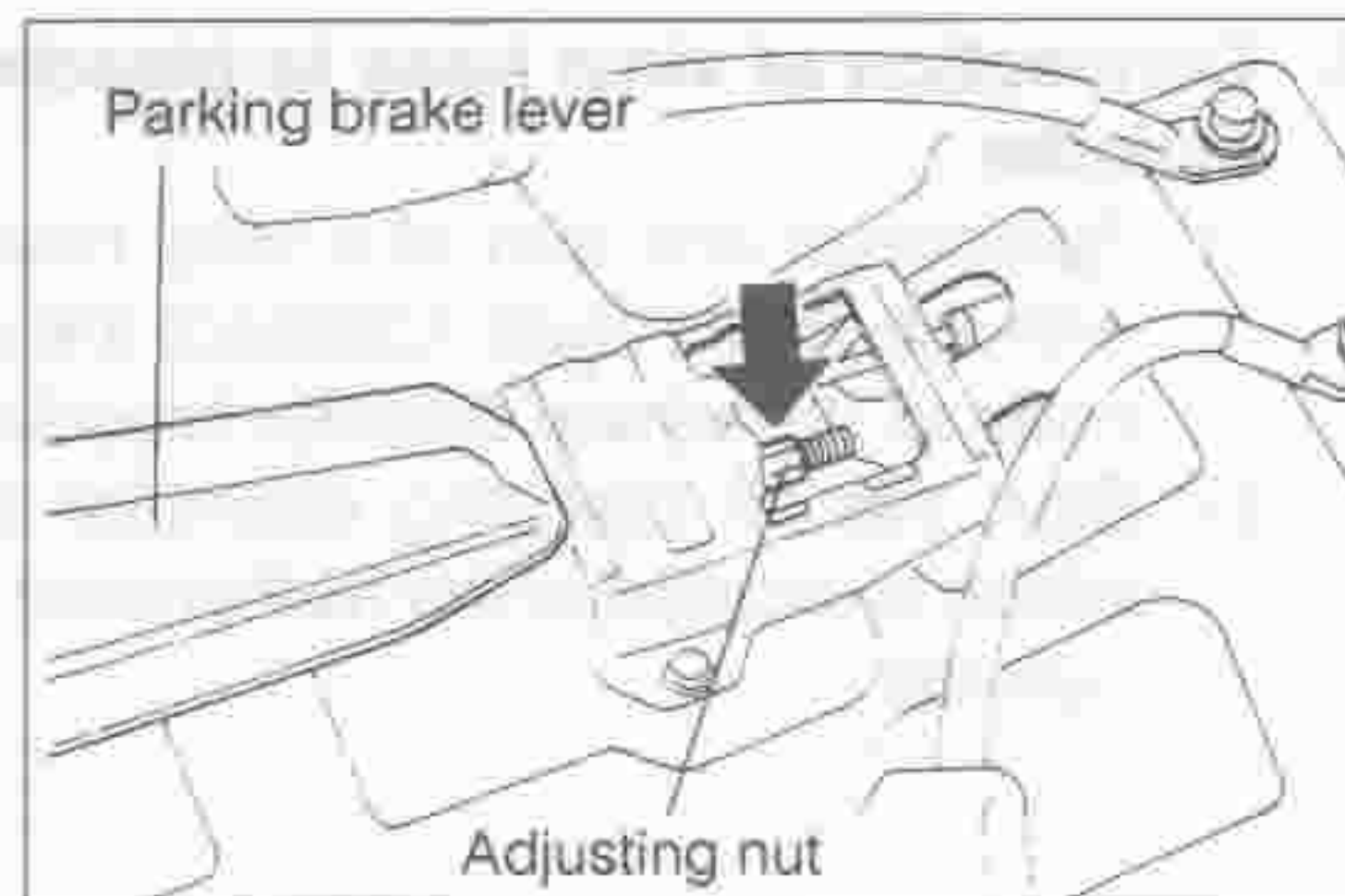
LBR00016-00013

2. Parking brake working travel adjustment

NOTE:

- Before the parking brake working travel is adjusted, be sure to adjust the rear brake shoe clearance to the specified value.

- (1) Remove the front seat.
- (2) Adjust the adjusting nut so that the working travel may conform to the specification.

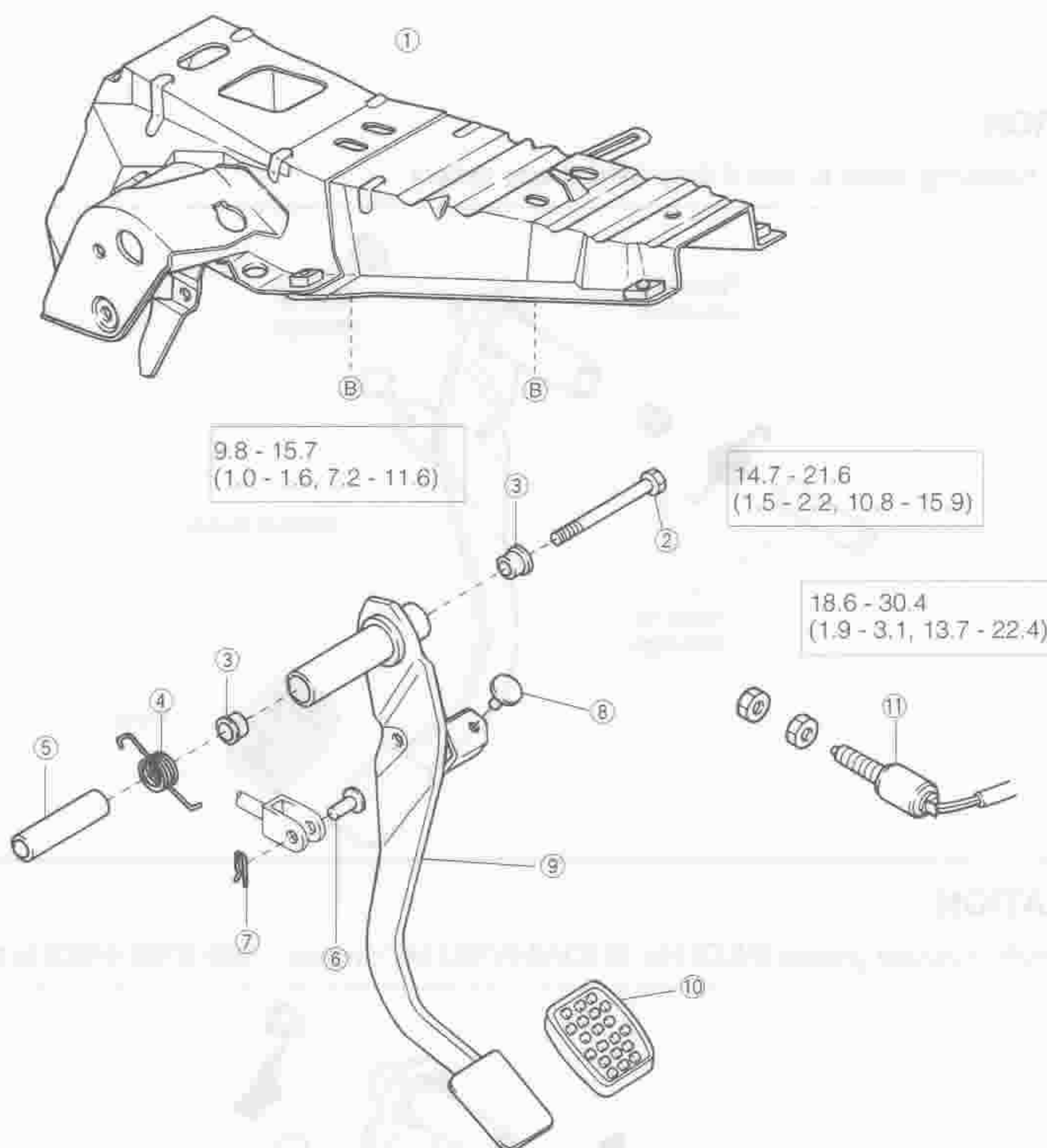


LBR00017-00014

NOTE:

- Perform this adjustment through the floor carpet slit that is provided for the purpose of adjusting the parking brake.

BRAKE PEDAL COMPONENTS



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

- ① Brake pedal bracket
- ② Bolt
- ③ Bush
- ④ Torsion spring
- ⑤ Spacer
- ⑥ Pin w/hole

- ⑦ Clip
- ⑧ Cushion
- ⑨ Brake pedal
- ⑩ Brake pedal pad
- ⑪ Stop lamp switch assembly

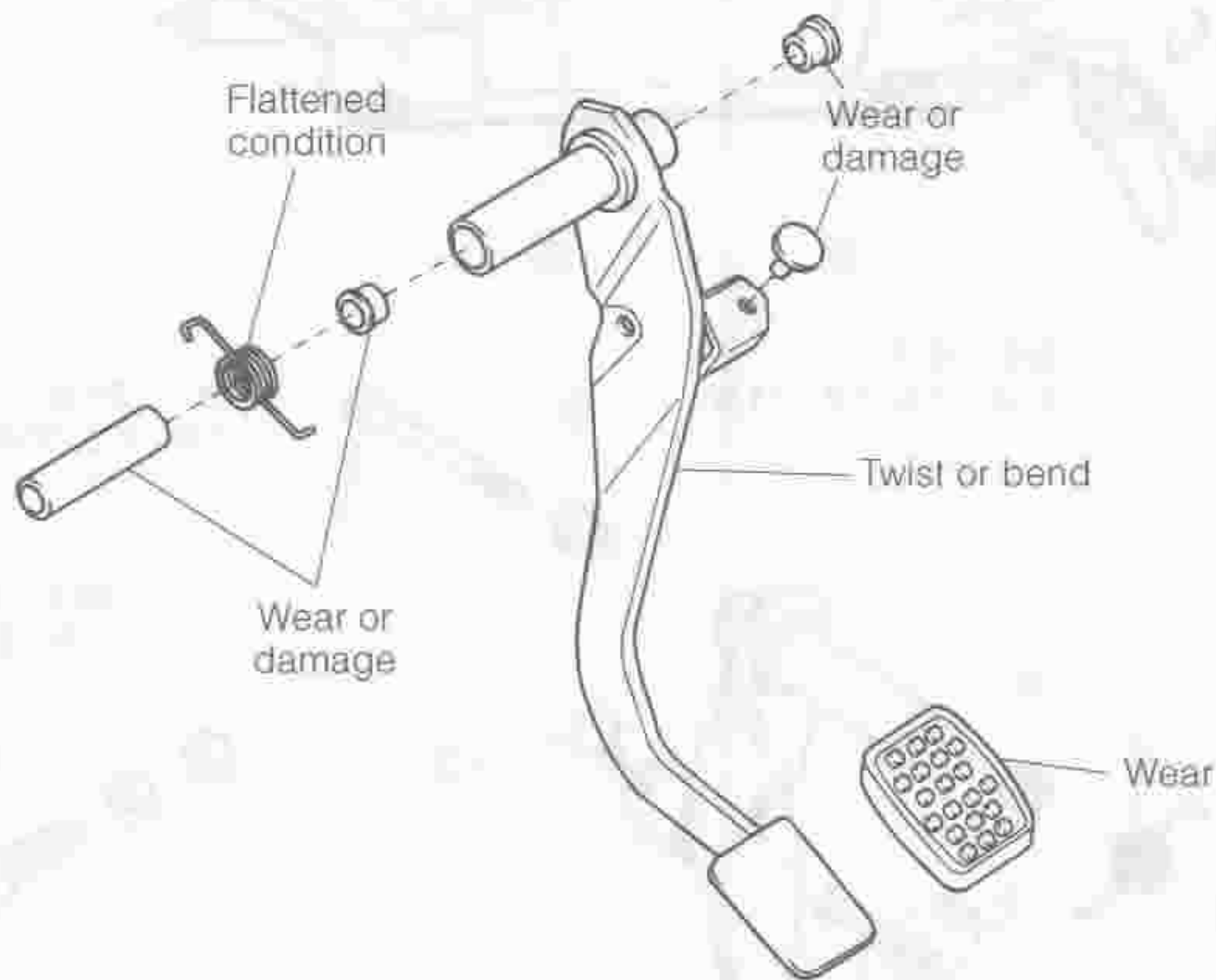
REMOVAL

1. Remove the clip and the pin with hole. Disconnect the clevis from the brake pedal.
2. Remove the nut and bolt. Take out the brake pedal, spacer bushes and torsion spring from the brake pedal bracket.

LBR00019-00000

INSPECTION

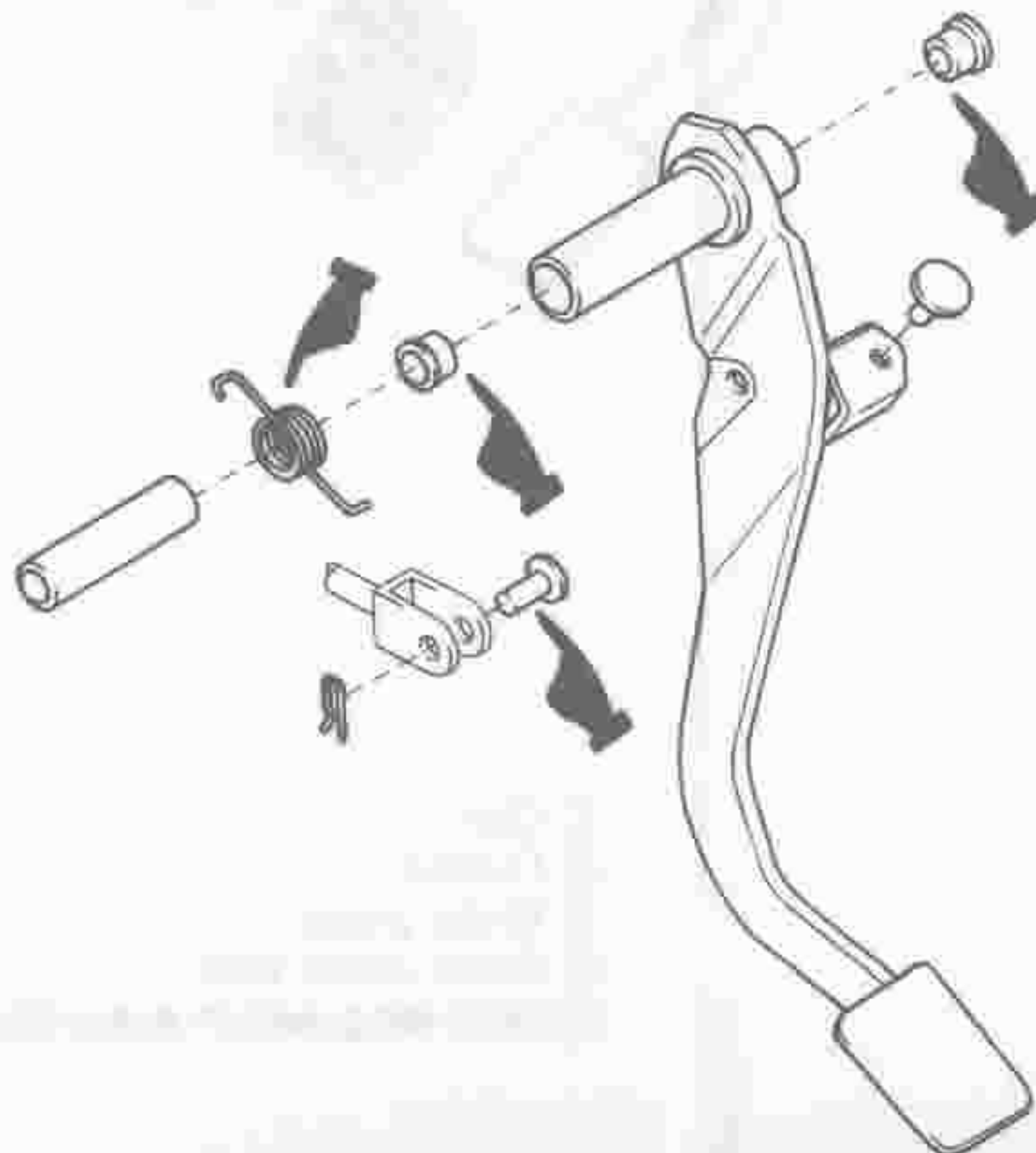
Inspect the following parts to see if they exhibit any defect.



LBR00020-00016

INSTALLATION

1. Apply multi-purpose grease (NLGI No. 2) [DAIHATSU MP grease: 999-2102-9483] to the following parts.



LBR00021-00017

2. Assemble the spacer, bushes and torsion spring on the brake pedal. Secure them to the brake pedal bracket by means of the bolt and nut.

Tightening Torque: 14.7 - 21.6 N·m (1.5 - 2.2 kgf-m, 10.8 - 15.9 ft-lb)

NOTE:

- Ensure that the brake pedal moves smoothly.

3. Adjust the brake pedal height.
4. Connect the brake pedal to the clevis by means of the clip and the pin with hole.
5. Adjust the brake pedal free travel. Also, ensure that the pedal reserve travel is proper.

LBPR00022-00000

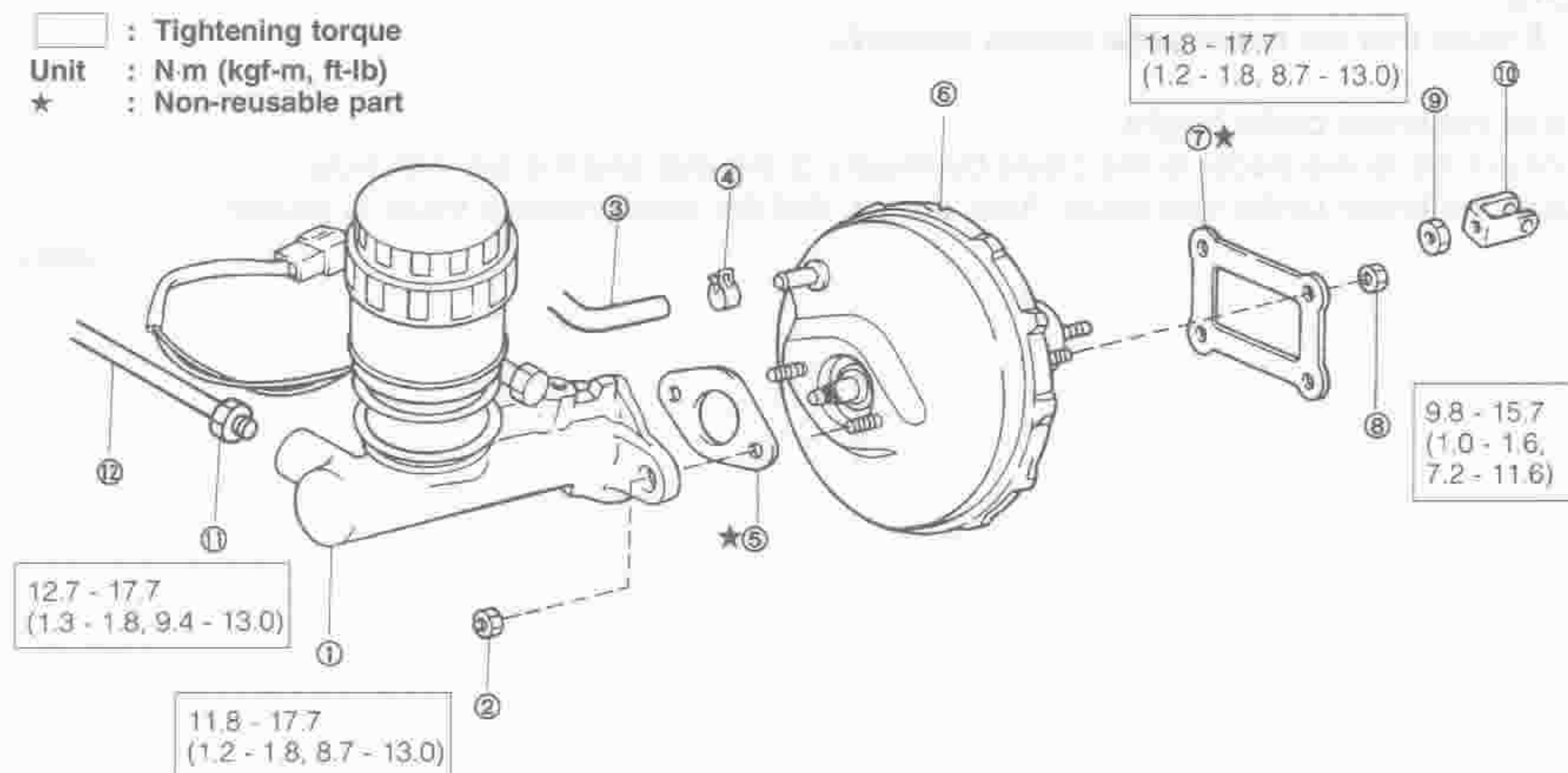


BRAKE BOOSTER & MASTER CYLINDER COMPONENTS

☐ : Tightening torque

Unit : N·m (kgf-m, ft-lb)

★ : Non-reusable part



- ① Brake master cylinder assembly
- ② Nut (2)
- ③ Booster vacuum hose
- ④ Clip
- ⑤ Brake master cylinder gasket
- ⑥ Brake booster assembly

- ⑦ Brake booster bracket gasket
- ⑧ Nut (4)
- ⑨ Lock nut
- ⑩ Clevis
- ⑪ Flare nut (3)
- ⑫ Brake tube (3)

LBR00023-00018

REMOVAL

1. Drain the brake fluid.
2. Disconnect the connector from the brake fluid level switch.
3. Disconnect the brake tubes from the master cylinder.
4. Remove the master cylinder from the brake booster.

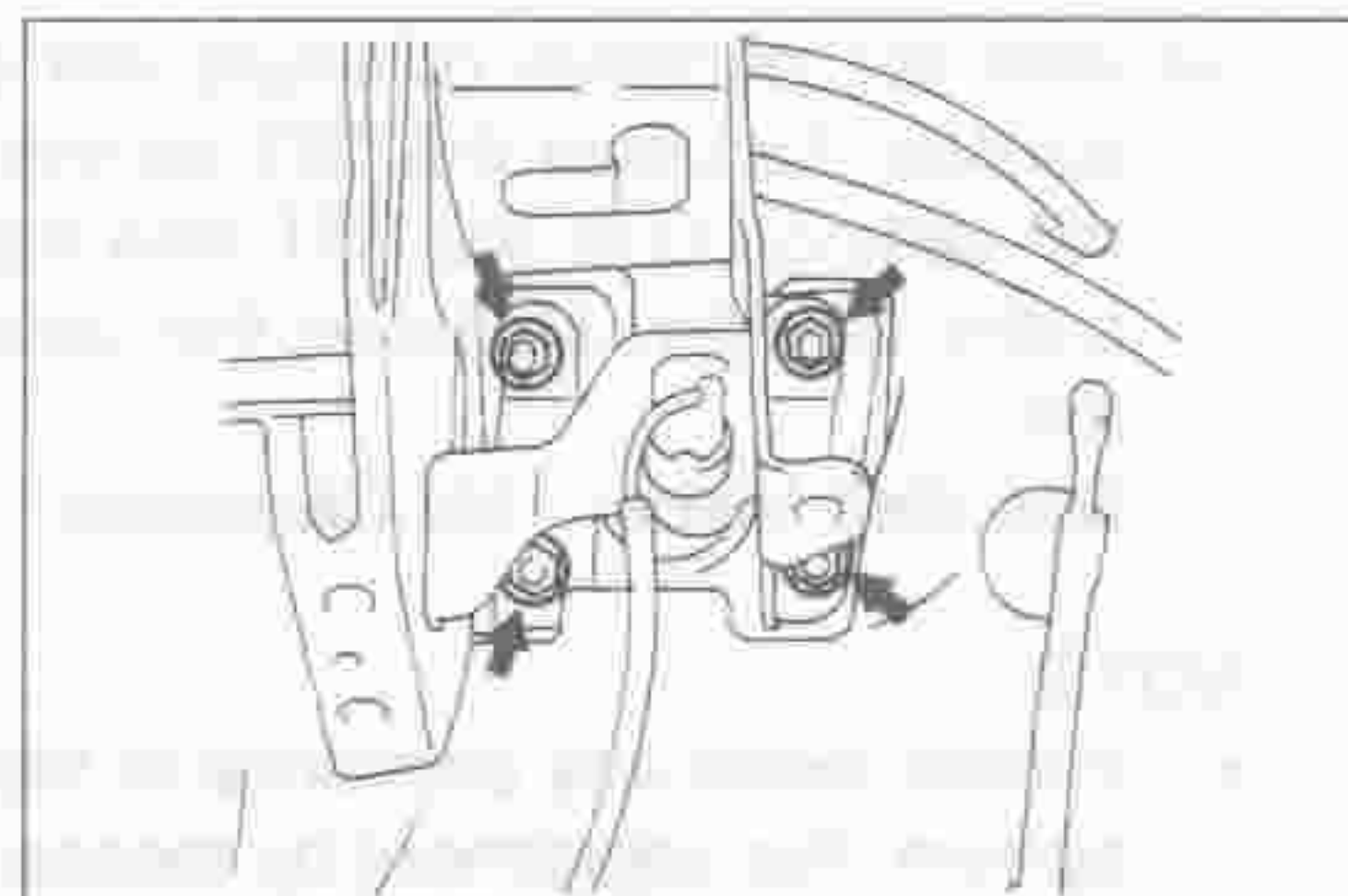


LBR00024-00019



LBR00025-00020

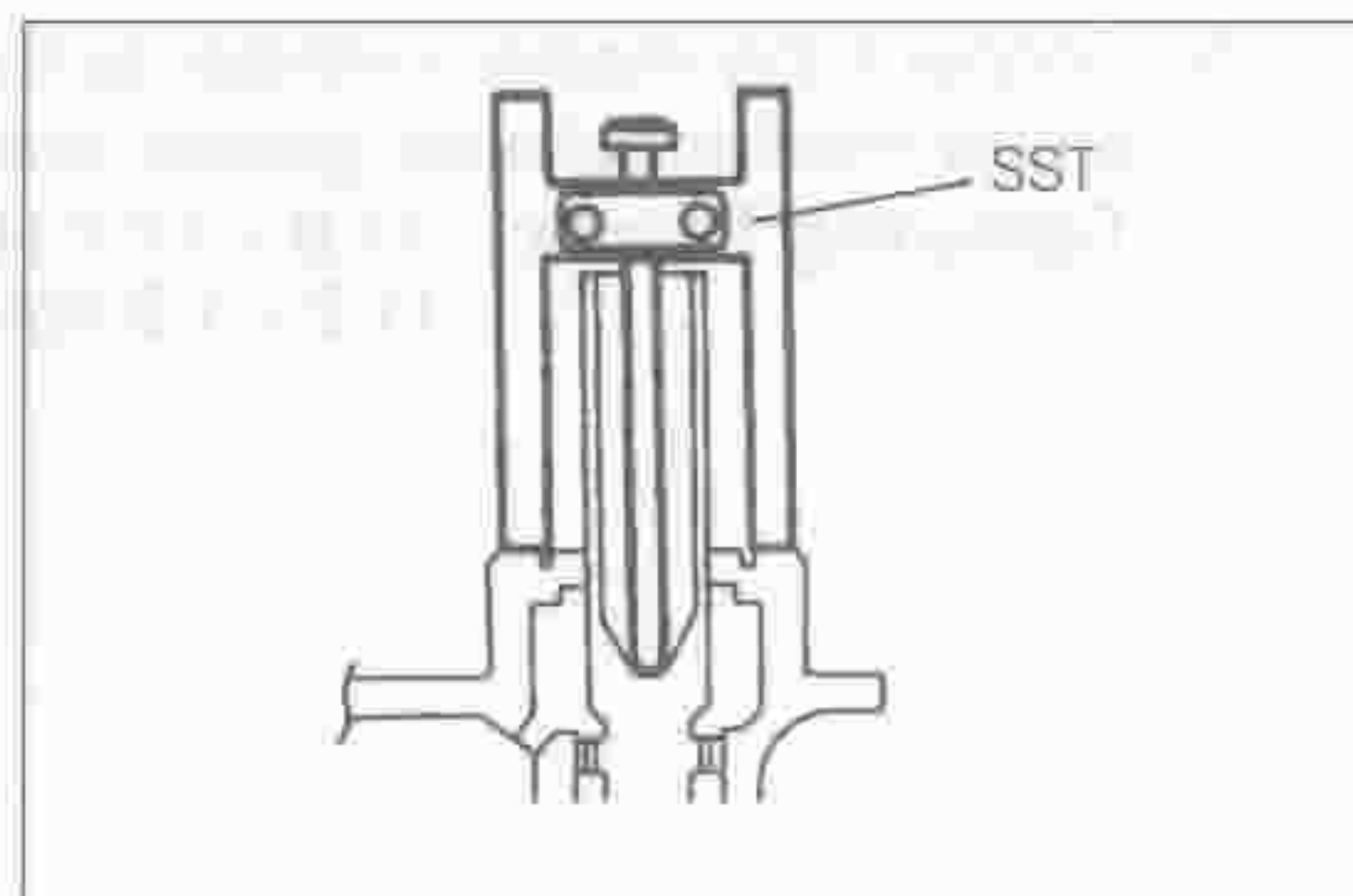
5. Disconnect the vacuum hose from the brake booster.
6. Remove the clip and the pin with hole.
Disconnect the clevis from the brake pedal.
7. Remove the brake booster retaining nuts, working from the vehicle interior.
8. Take the brake booster out from the engine compartment.



LBR00025-00021

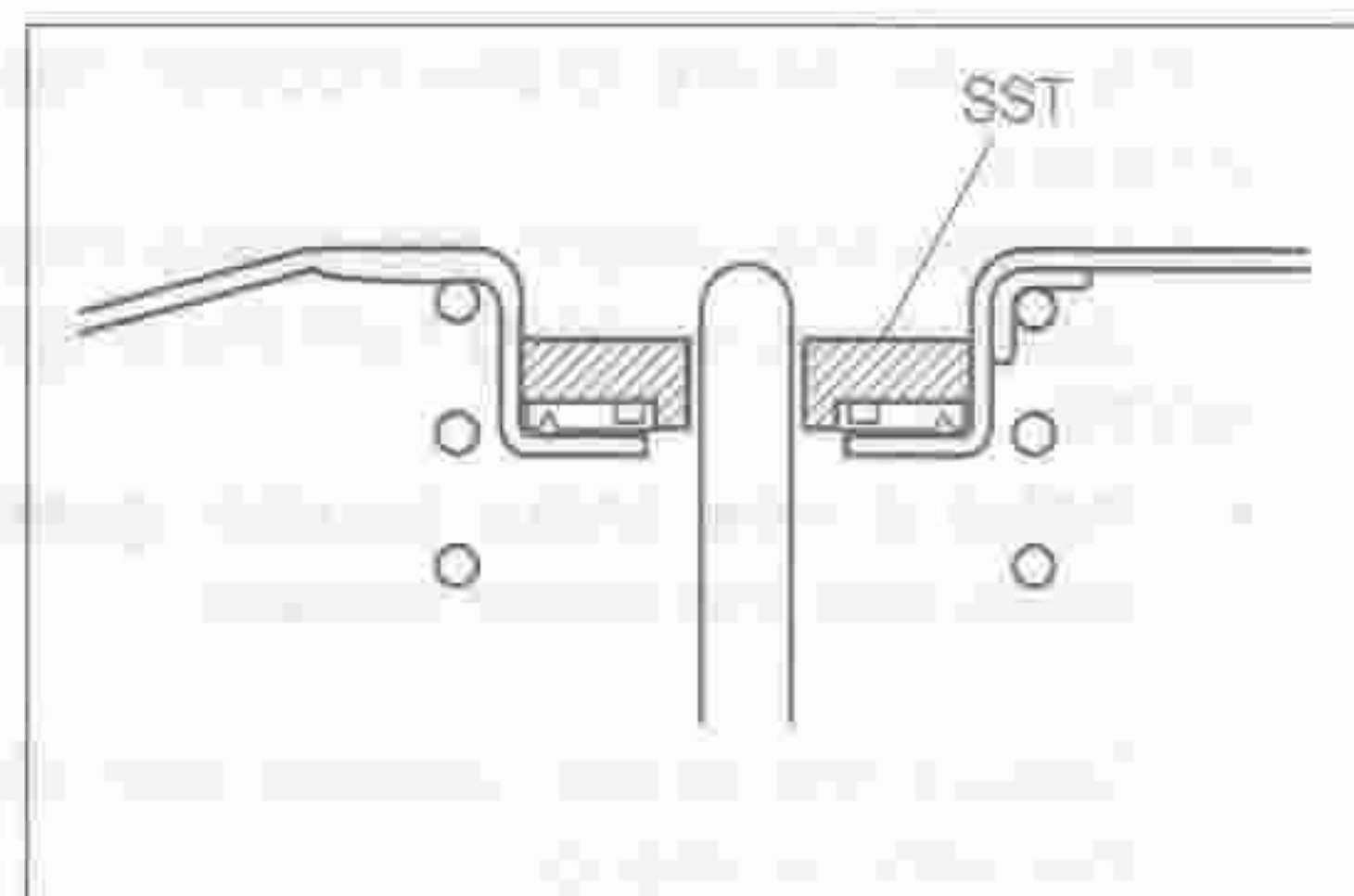
INSTALLATION

1. Connection of brake booster with master cylinder
 - (1) Set the following SST in such a way that the SST rod makes a light contact with the piston of the master cylinder.
SST: 09737-87003-000



LBR00026-00022

- (2) Set the following SST to the brake booster.
SST: 09737-87601-000

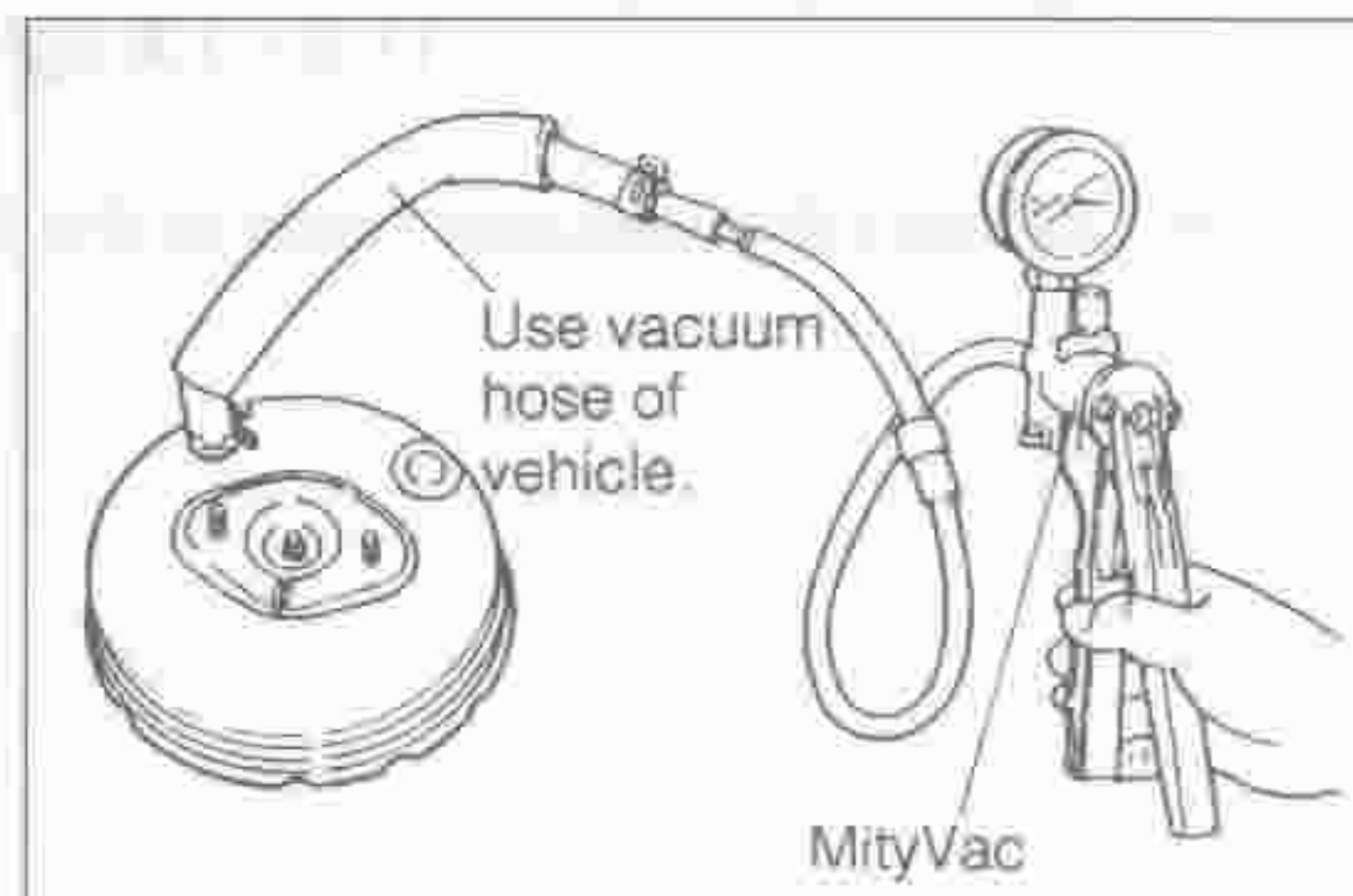


LBR00027-00023

- (3) Connect a MityVac to the brake booster and apply a negative pressure of 500 mmHg.

NOTE:

If the brake booster has not been removed from the vehicle, run the engine at the idle speed so that the negative pressure of the intake manifold may be applied to the brake booster.



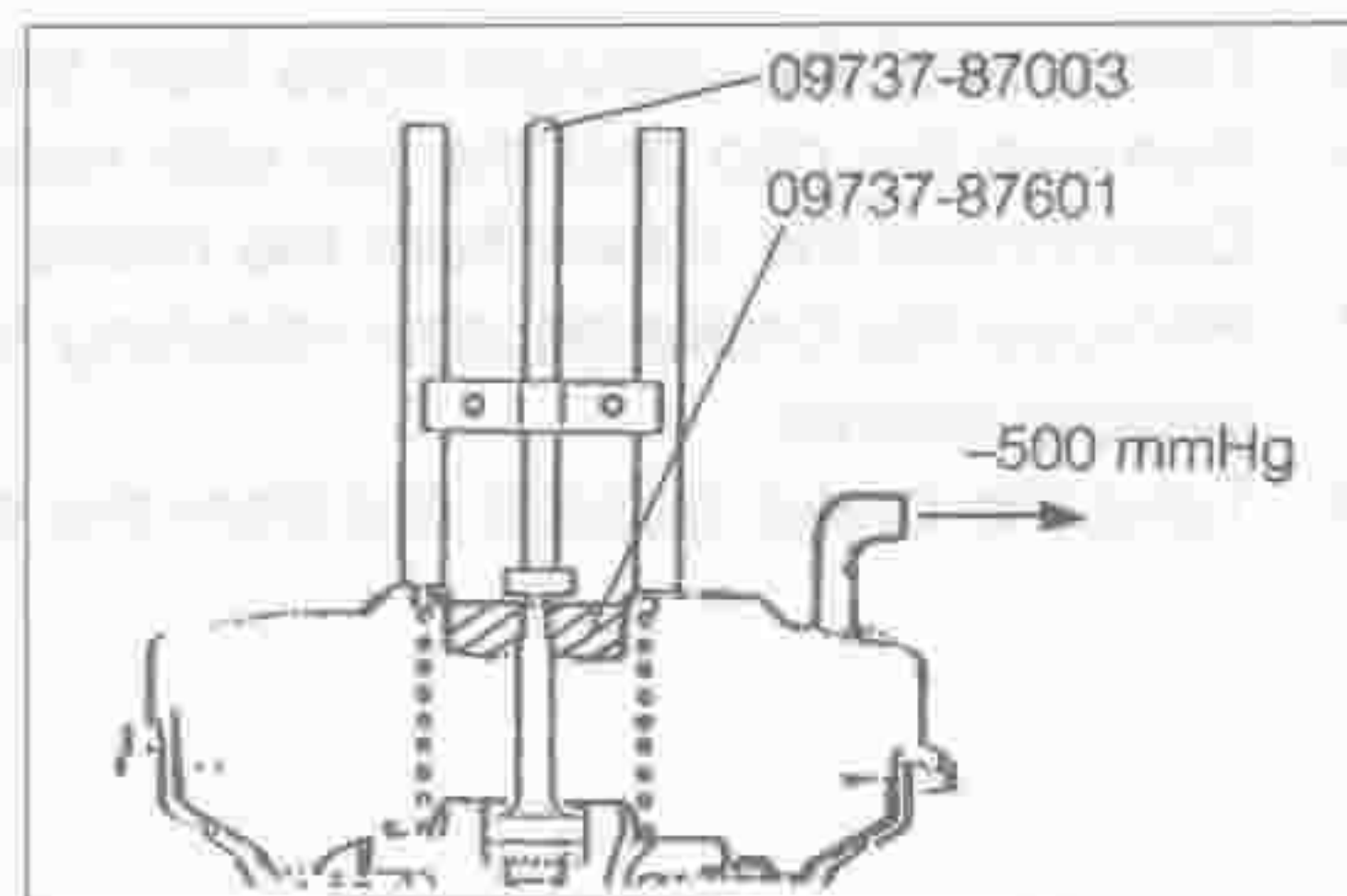
LBR00028-00023

- (4) With the negative pressure still applied to the brake booster, turn over the SST so that the opposite side of the setting (1) of the SST now makes contact with the brake booster. Measure the clearance with the push rod.

Specified Value: No Clearance

NOTE:

- If there exists any clearance or the push rod is too high, perform the adjustment by means of the adjusting nut.



LBAR00029-00024

- (5) Connect the master cylinder to the brake booster with a new master cylinder gasket interposed.

Tightening Torque: 11.8 - 17.7 N·m
(1.2 - 1.8 kgf-m, 8.7 - 13.0 ft-lb)

2. (Only Case where brake booster has been removed from vehicle)

- (1) Temporarily attach the brake booster assembly to the dash panel, working from the engine compartment side.

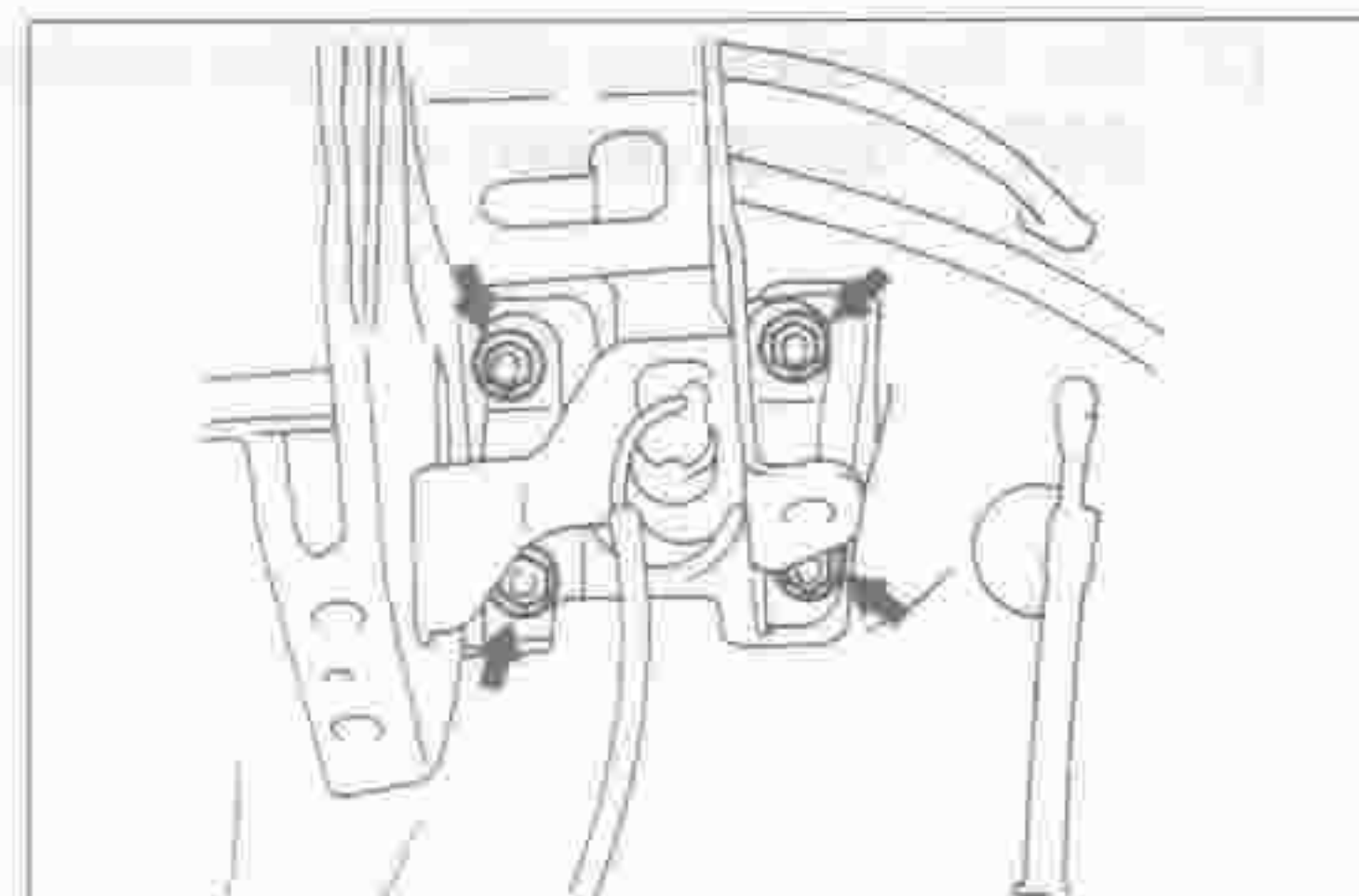
NOTE:

- Install a new brake booster gasket between the dash panel and the brake booster.

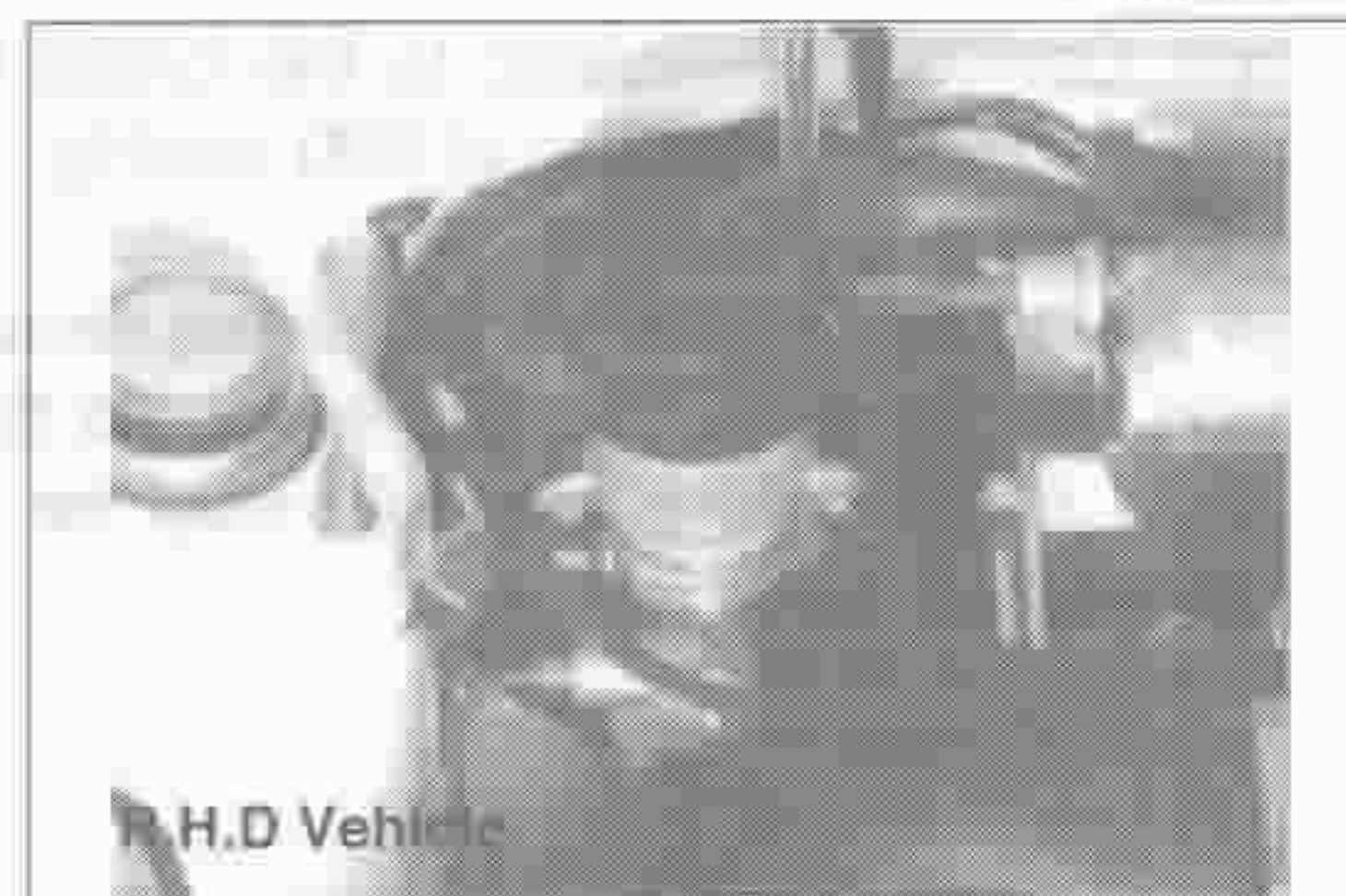
- (2) Secure the brake booster with the nuts, working from the vehicle interior.

Tightening Torque: 9.8 - 15.7 N·m
(1.0 - 1.6 kgf-m, 7.2 - 11.6 ft-lb)

- (3) Connect the vacuum hose to the brake booster.



LBAR00030-00025



LBAR00031-00026

3. Connect the brake tubes to the master cylinder.

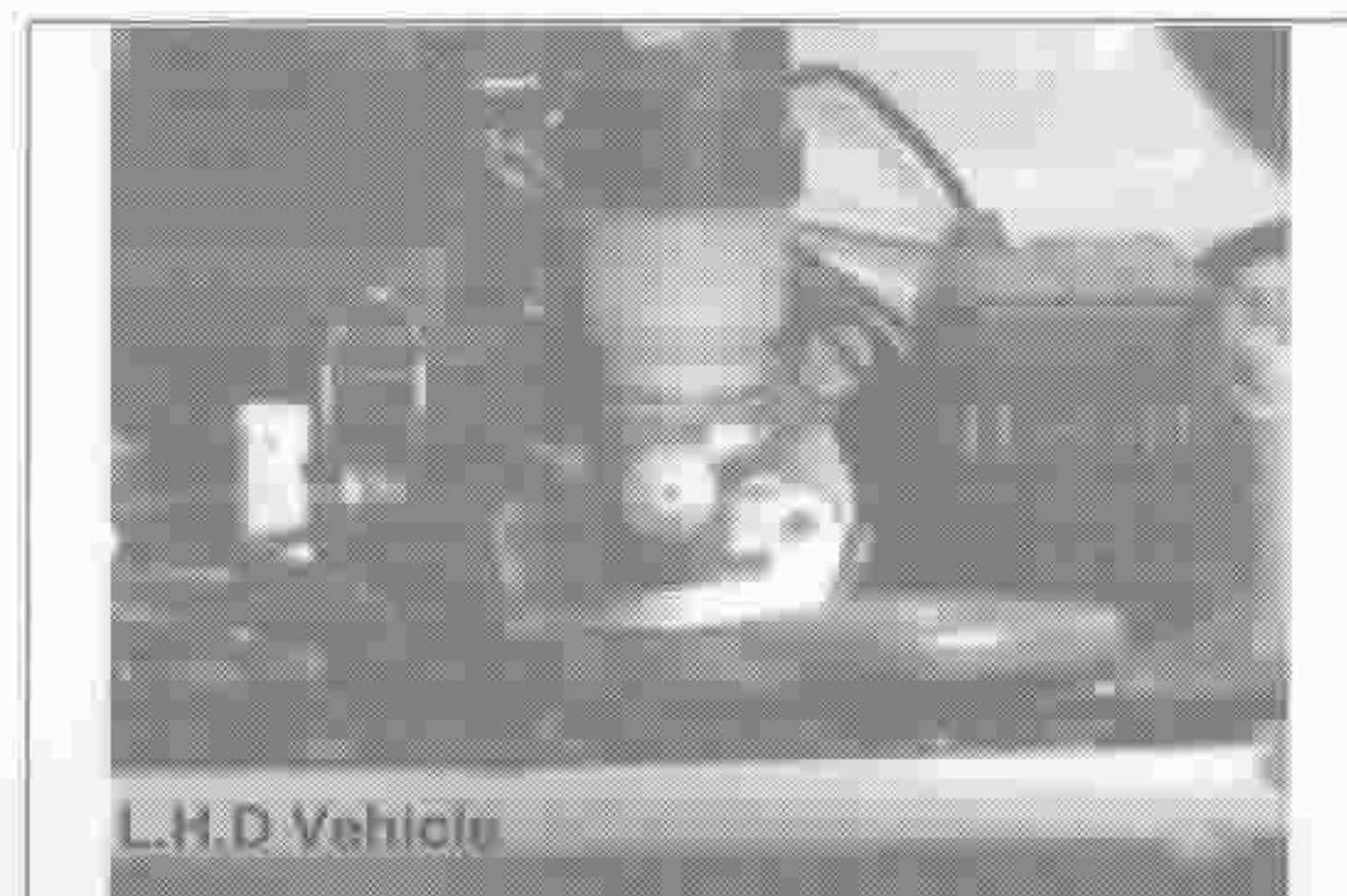
Tightening Torque: 12.7 - 17.7 N·m
(1.3 - 1.8 kgf-m, 9.4 - 13.0 ft-lb)

4. Connect the connector of the brake fluid level switch.

CAUTION:

- Make sure that the brake warning lamp functions properly.

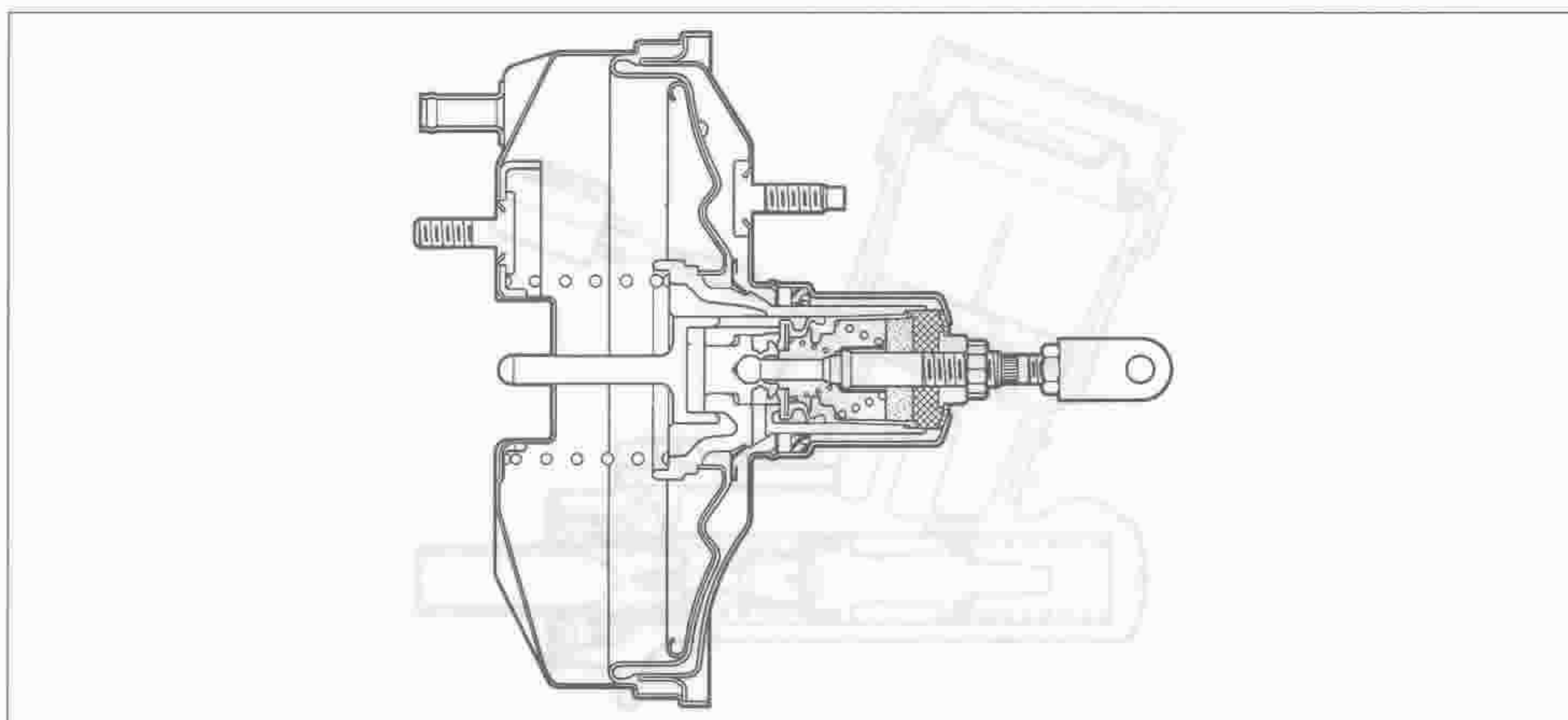
5. Perform air bleeding for the brake system.



LBAR00032-00027

BRAKE BOOSTER SECTIONAL VIEW

RIGHT-LEFT POSITION
VIEW JANUARY 2011



LB000033-00028

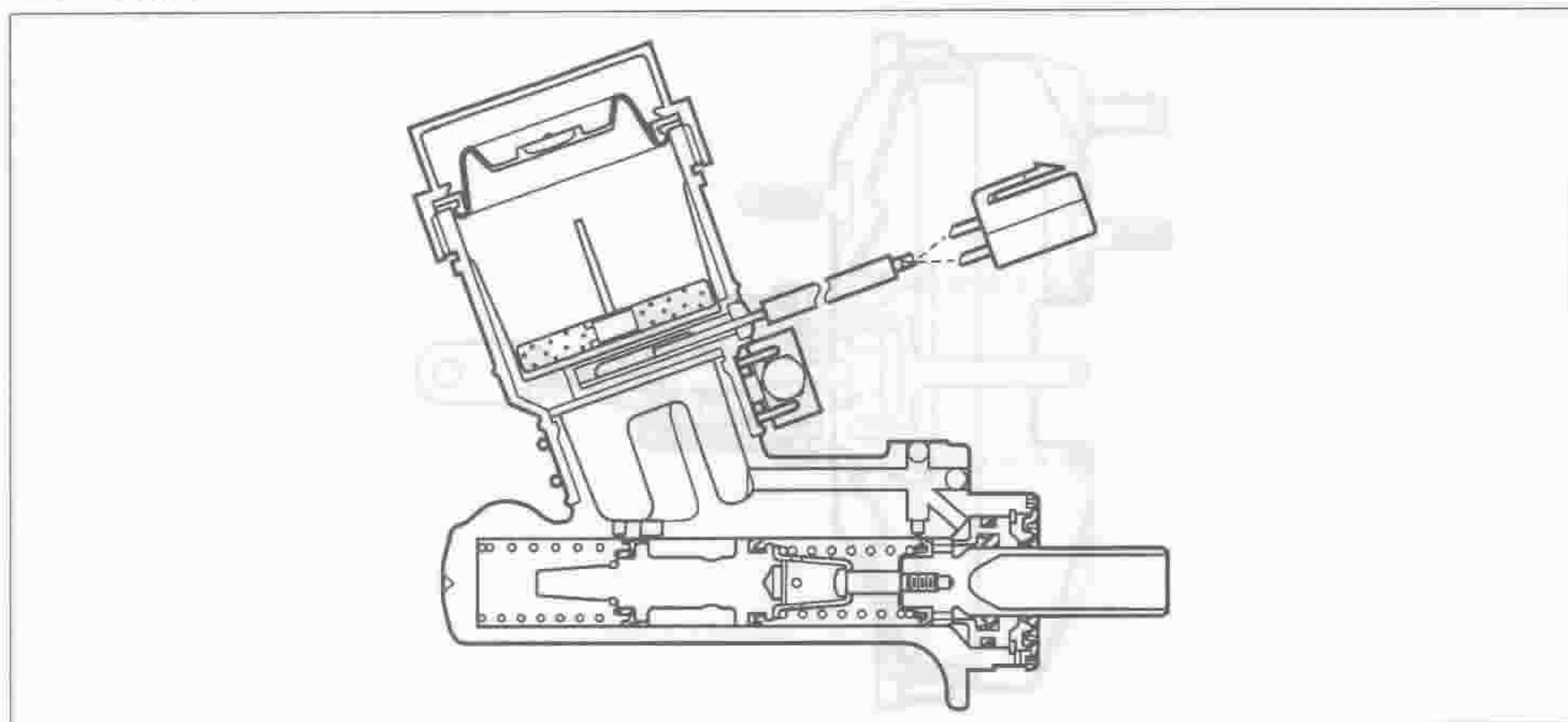
STANDARD-1800-1

NOTE:

- The brake booster is of a non-disassembling type. Never attempt to disassembly the brake booster.

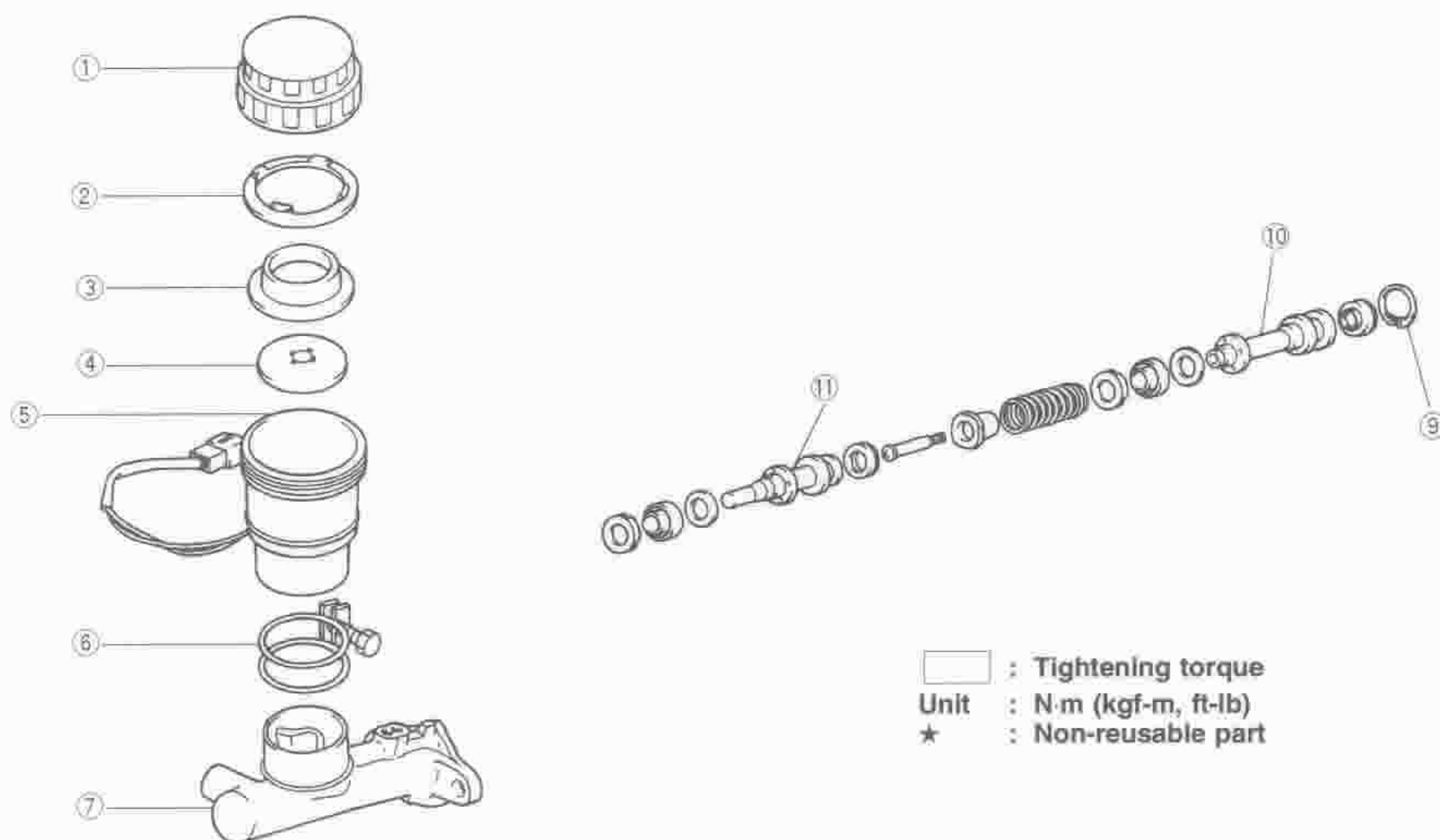
LB000034-00000

MASTER CYLINDER SECTIONAL VIEW



LBR00035-00029

COMPONENTS



□ : Tightening torque
Unit : N·m (kgf-m, ft-lb)
★ : Non-reusable part

- ① Reservoir filler cap
- ② Reservoir cap spacer
- ③ Reservoir diaphragm
- ④ Master cylinder reservoir float
- ⑤ Master cylinder reservoir subassembly
- ⑥ Clamp

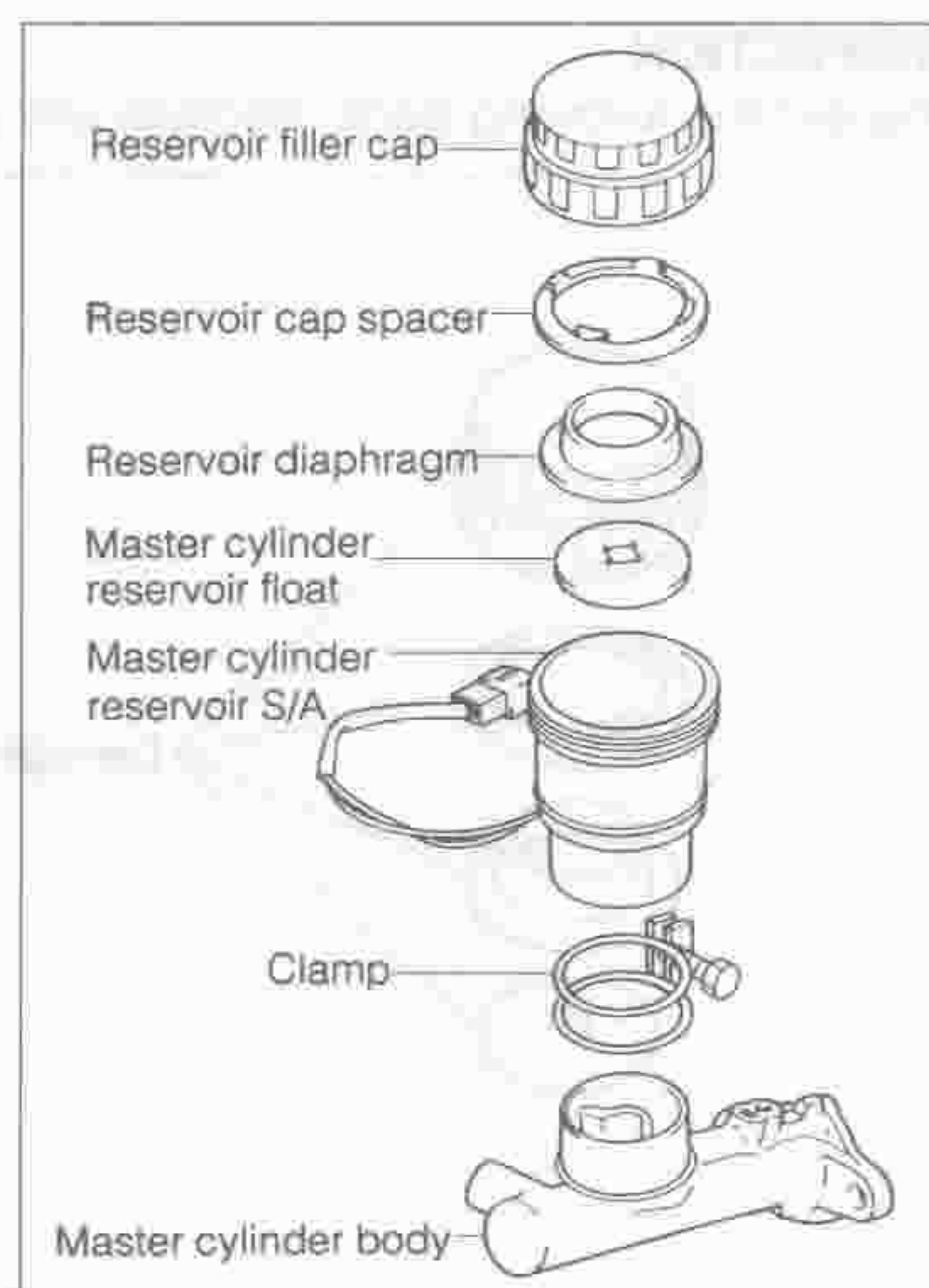
- ⑦ Master cylinder body
- ⑧ Tandem master cylinder repair kit
- ⑨ Hole snap ring
- ⑩ Piston No. 1 assembly
- ⑪ Piston No. 2 assembly

LBR00036-00030

DISASSEMBLY

1. Remove the following parts from the master cylinder body.

- (1) Reservoir filler cap
- (2) Reservoir cap spacer
- (3) Reservoir diaphragm
- (4) Master cylinder reservoir float
- (5) Master cylinder reservoir subassembly
- (6) Clamp



LBR00037-00031

2. Clamp flange section of the master cylinder in a vise, with jaw plates or the like interposed.

LBR00038-00000

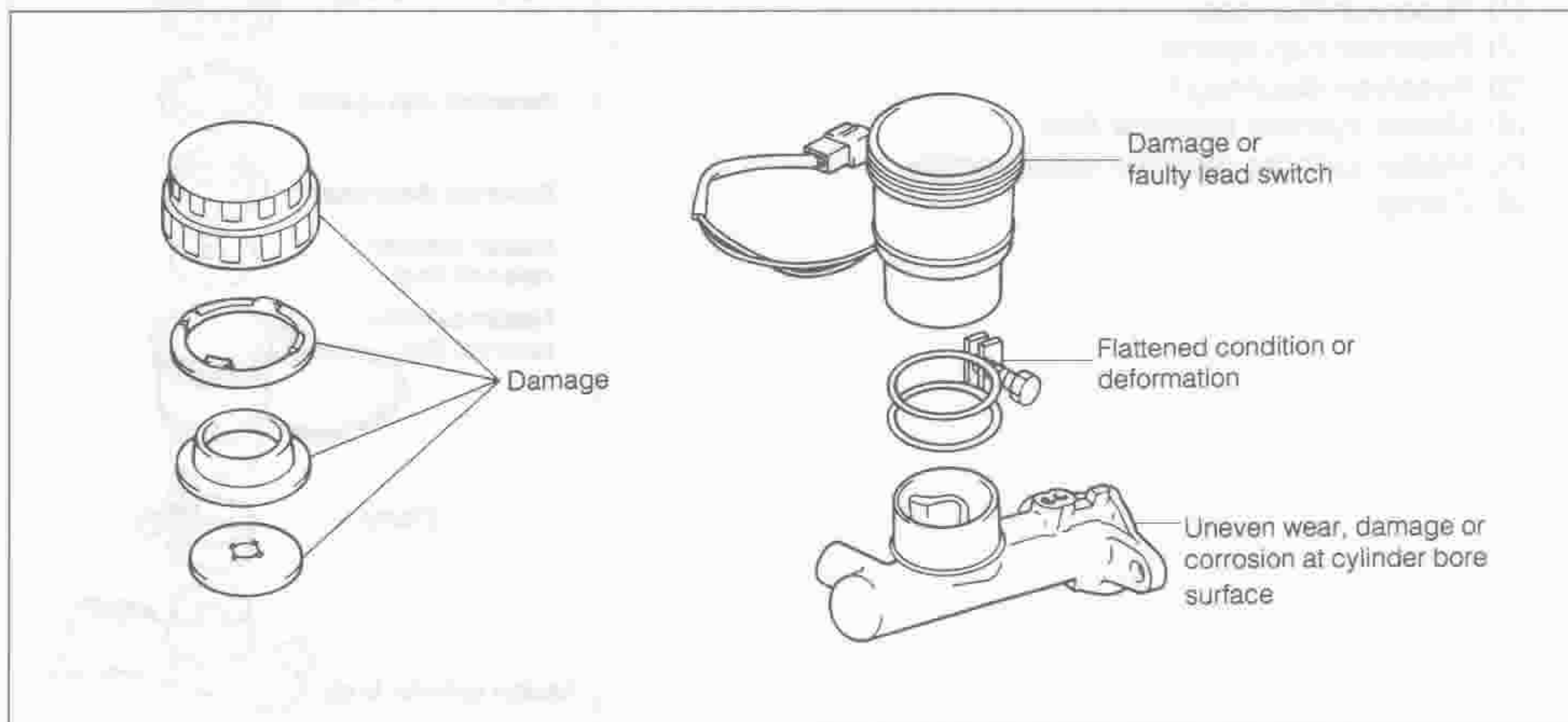
3. Detach the snap ring while the pistons are being pushed by means of a cross point screwdriver or the like.
4. Remove the piston No. 1 and No. 2 assemblies from the master cylinder body.



LBR00039-00032

INSPECTION

Inspect the following parts. Replace any parts which exhibit defects.



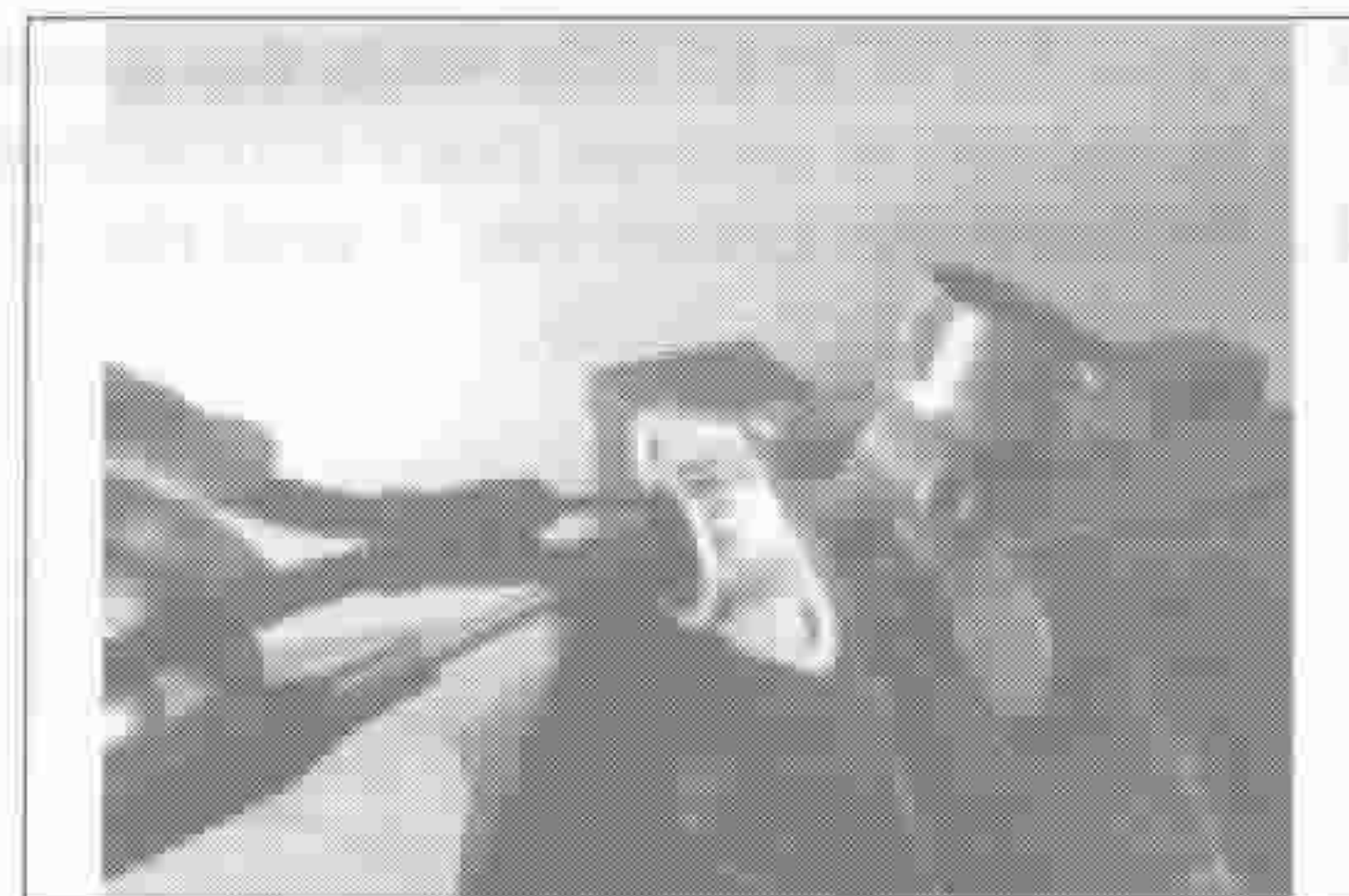
LBR00040-00033

ASSEMBLY

1. Prior to the assembly, apply lithium soap base glycol grease [DAIHATSU rubber grease; 999-2504-8483-00] to those points of new pistons as indicated in the figure below.

LBR00041-00000

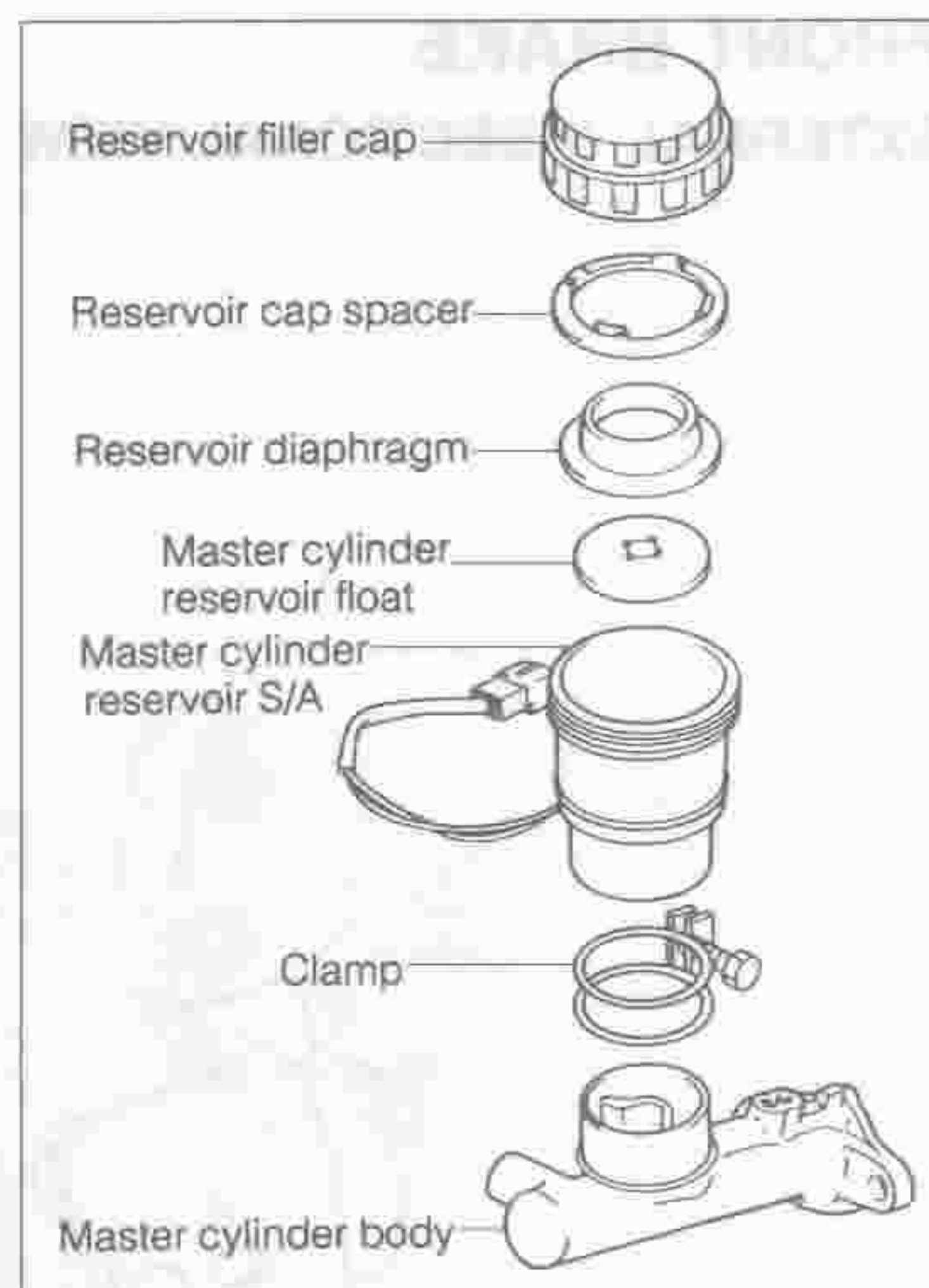
2. Insert new pistons No. 1 and No. 2 into the master cylinder body.
3. Install the snap ring while the pistons are being pushed by means of a cross point screwdriver or the like.
4. Remove the master cylinder body from the vise.



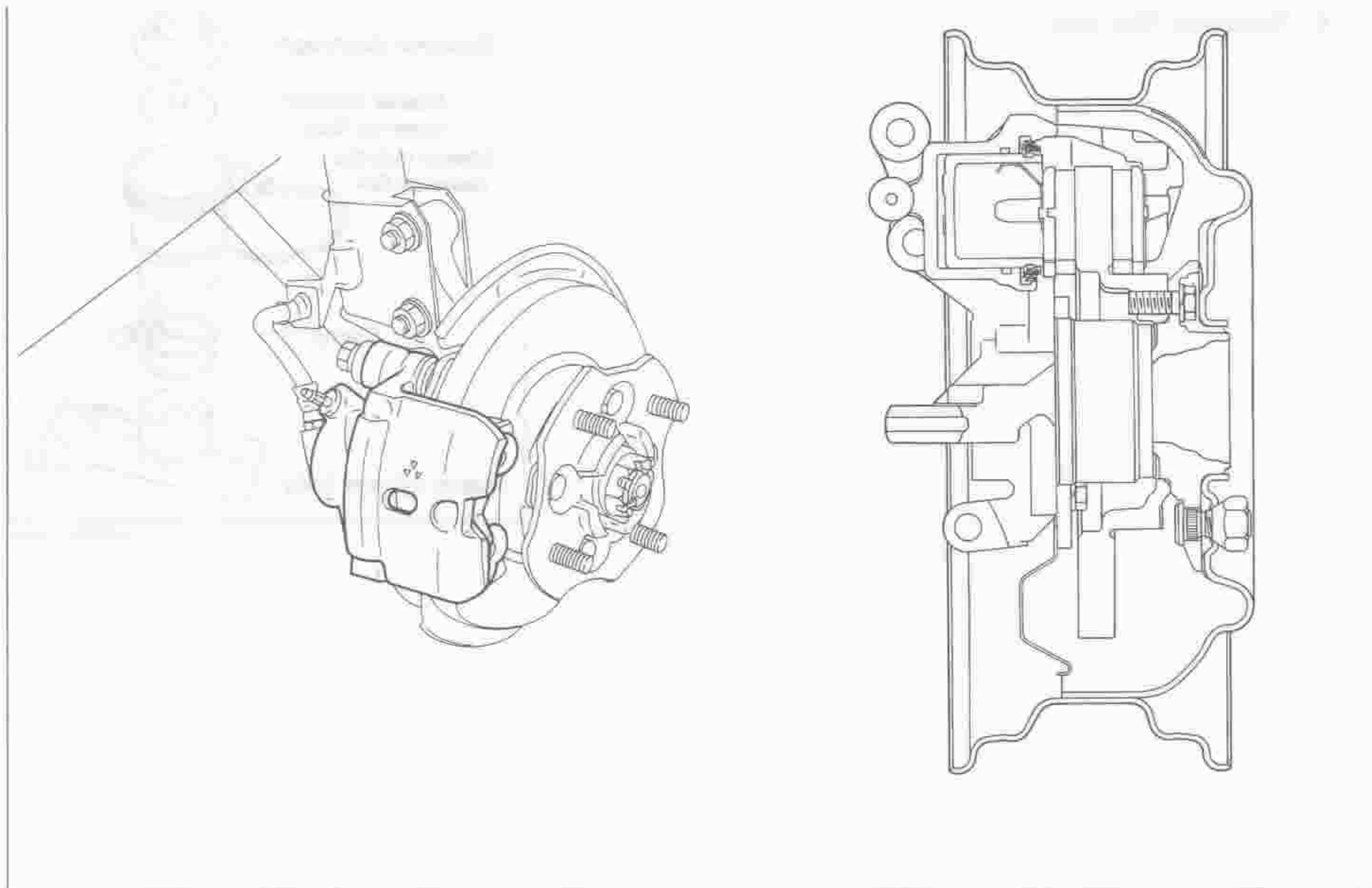
LBR00042-00004

6. Install the following parts in the master cylinder body.

- (1) Clamp
- (2) Master cylinder reservoir subassembly
- (3) Master cylinder reservoir float
- (4) Reservoir diaphragm
- (5) Reservoir cap spacer
- (6) Reservoir filler cap



LBR00043-00035



LBR00044-00036

REMOVAL

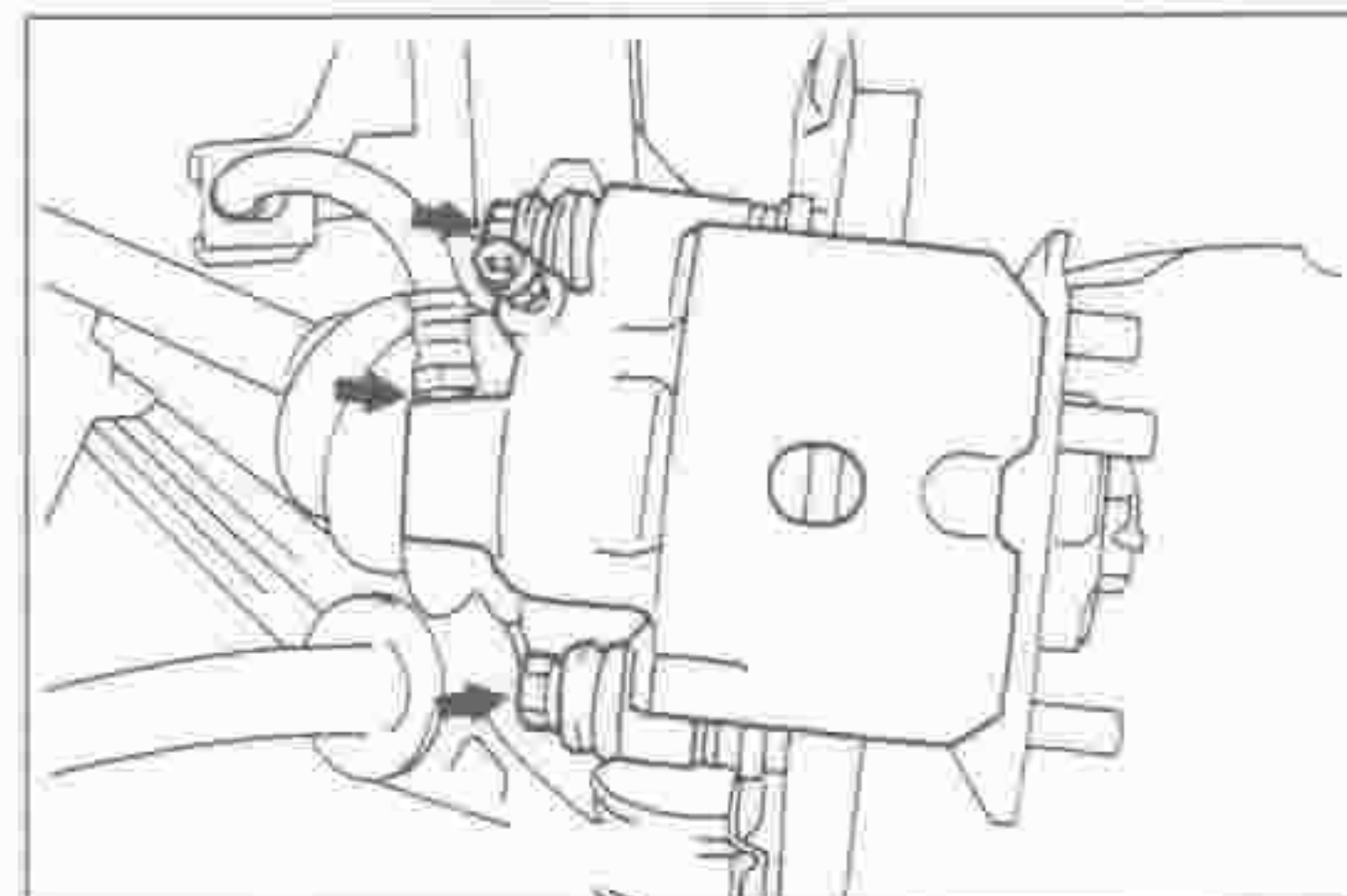
1. Jack up the vehicle.
(See the GI Section.)
2. Remove the front wheel from the vehicle.
3. Remove the disc brake caliper.

CAUTION:

- Special caution must be paid as to the brake fluid flowing out.

NOTE:

- For the replacement of the disc brake pad only, it is unnecessary to disconnect the brake hose.
- However, care must be exercised to ensure that no undue force is applied to the brake hose.



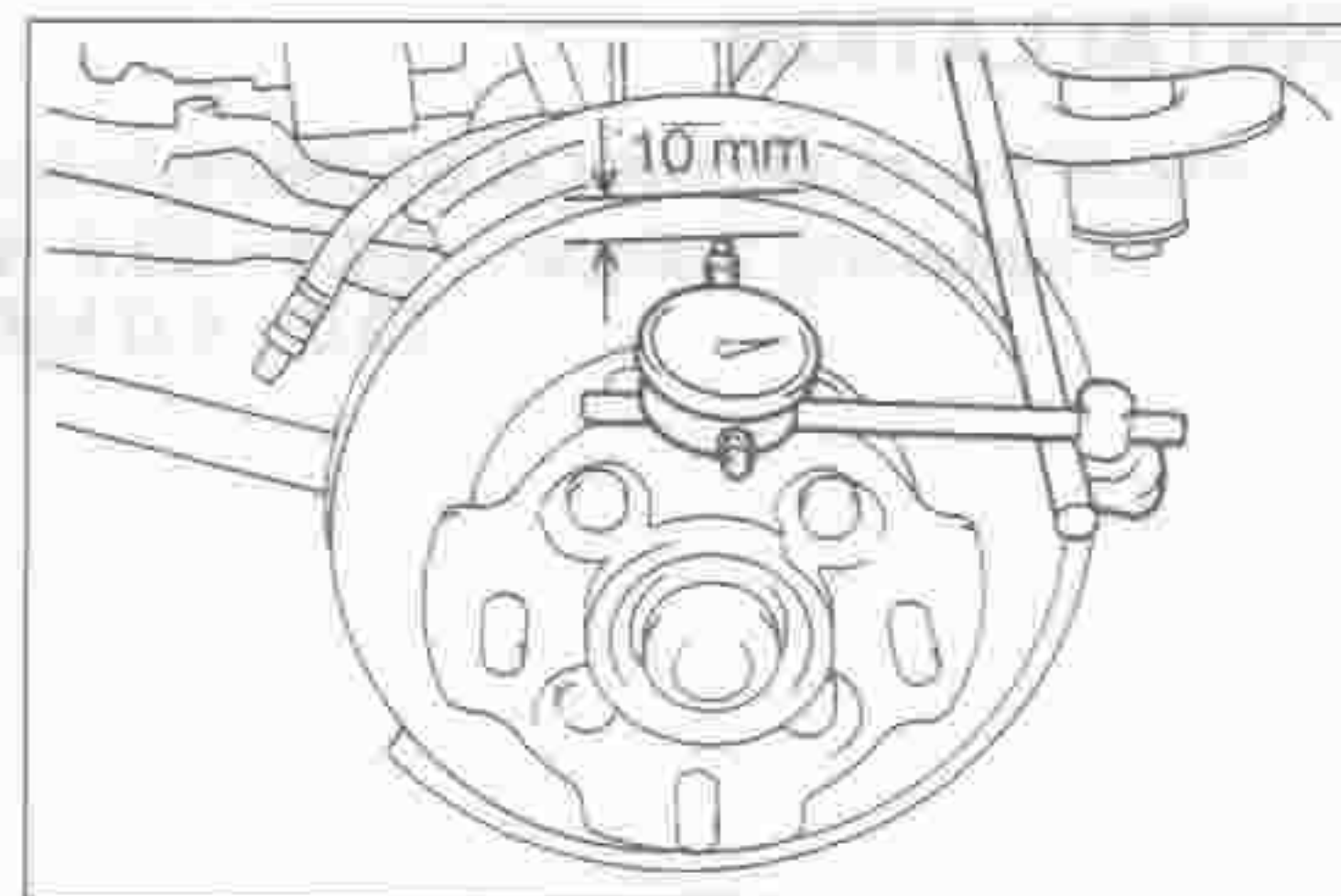
LBR00045-00037

4. Check the disc rotor for runout.

Allowable Runout Limit: 0.15 mm (0.0059 inch)
[Measured at a point 10 mm (0.39 inch) from outer
periphery of rotor]

NOTE:

1. Prior to the runout check, make sure that the front wheel bearings exhibit no looseness.
2. If the runout exceeds the allowable limit, replace the disc rotor.



LBRO0046-00038

5. Check the disc rotor thickness.

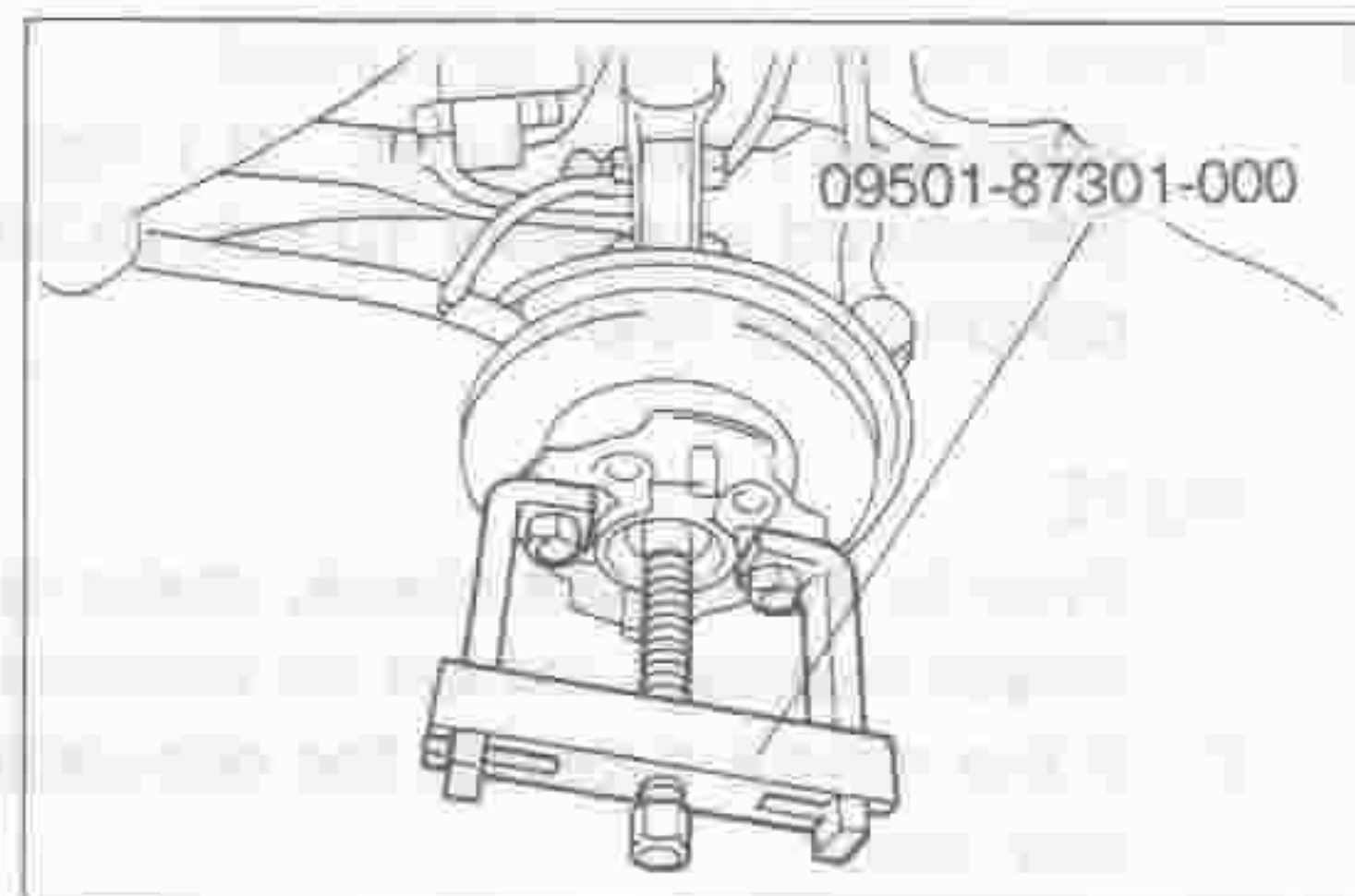
Specified Value: 10 mm (0.39 inch)
Allowable Limit: 9 mm (0.355 inch)

NOTE:

- If the thickness of the disc rotor is below the allowable limit, replace the disc rotor.

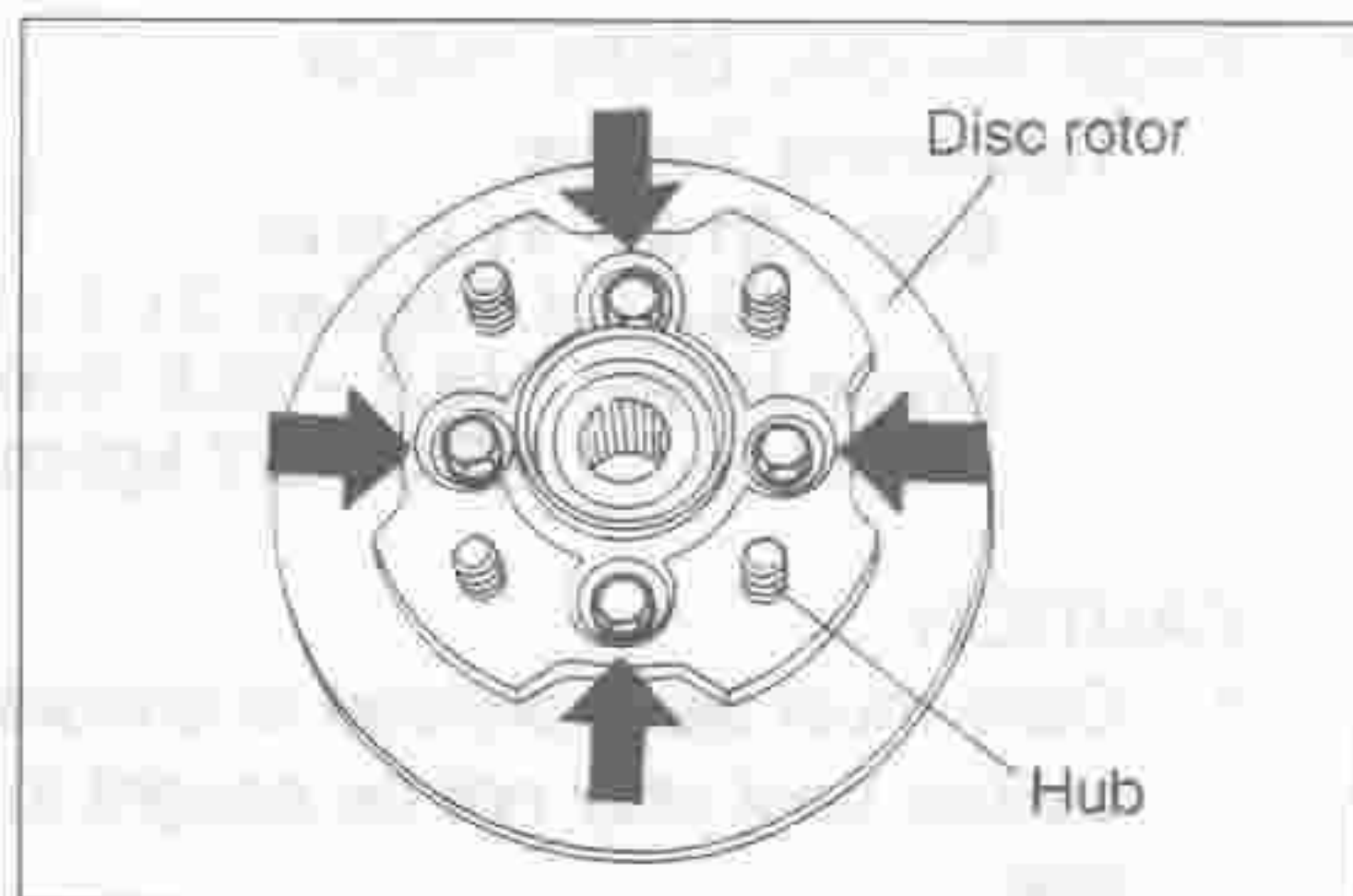
LBRO0047-00000

6. Remove the cotter pin, castle nut and plate washer from the drive shaft.
(See the FS Section.)
7. Remove the hub & disc rotor from the drive shaft, using the following SST given below.
SST: 09510-87301-000



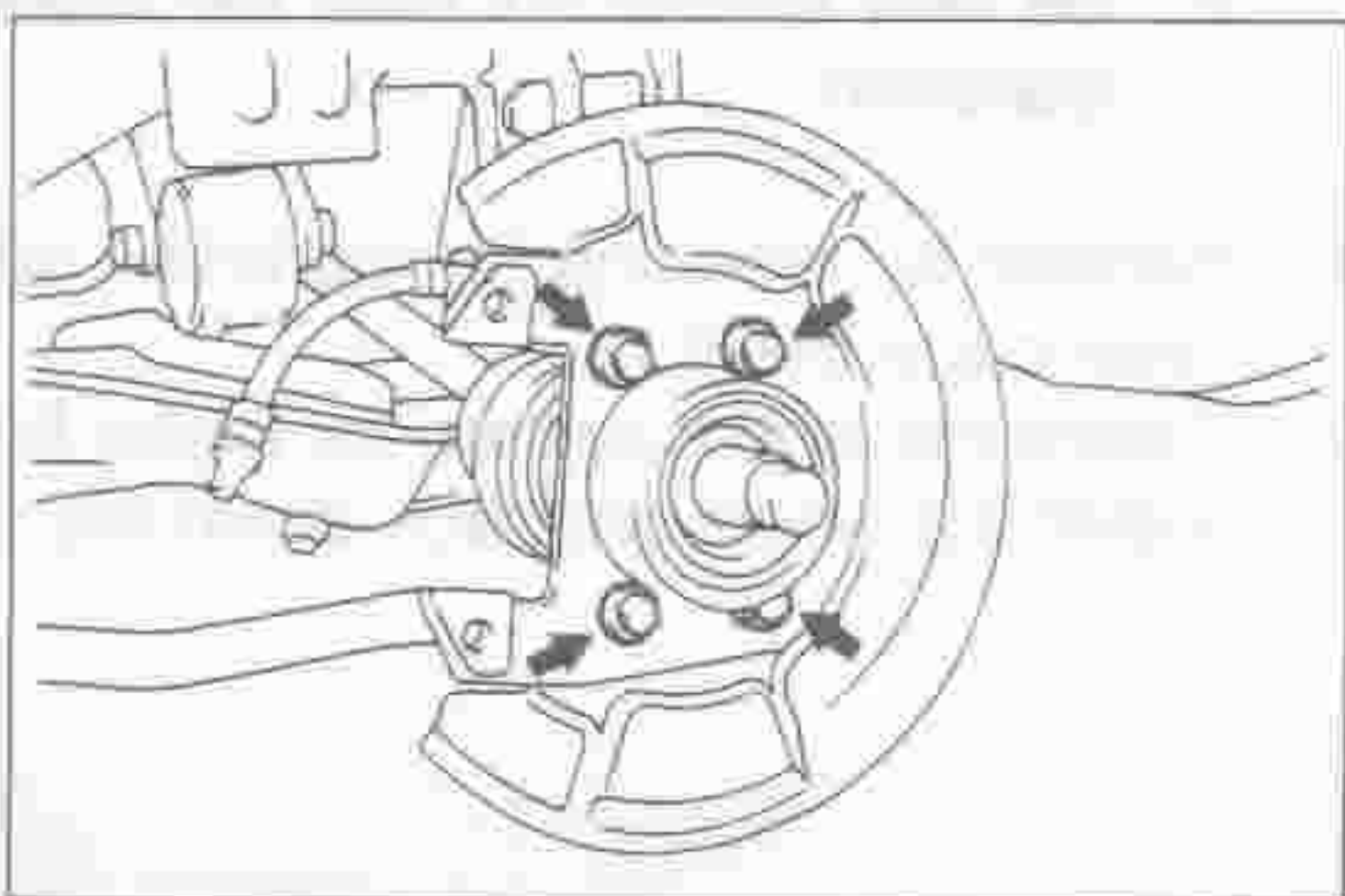
LBRO0048-00039

8. Remove the hub from the disc rotor.



LBRO0049-00040

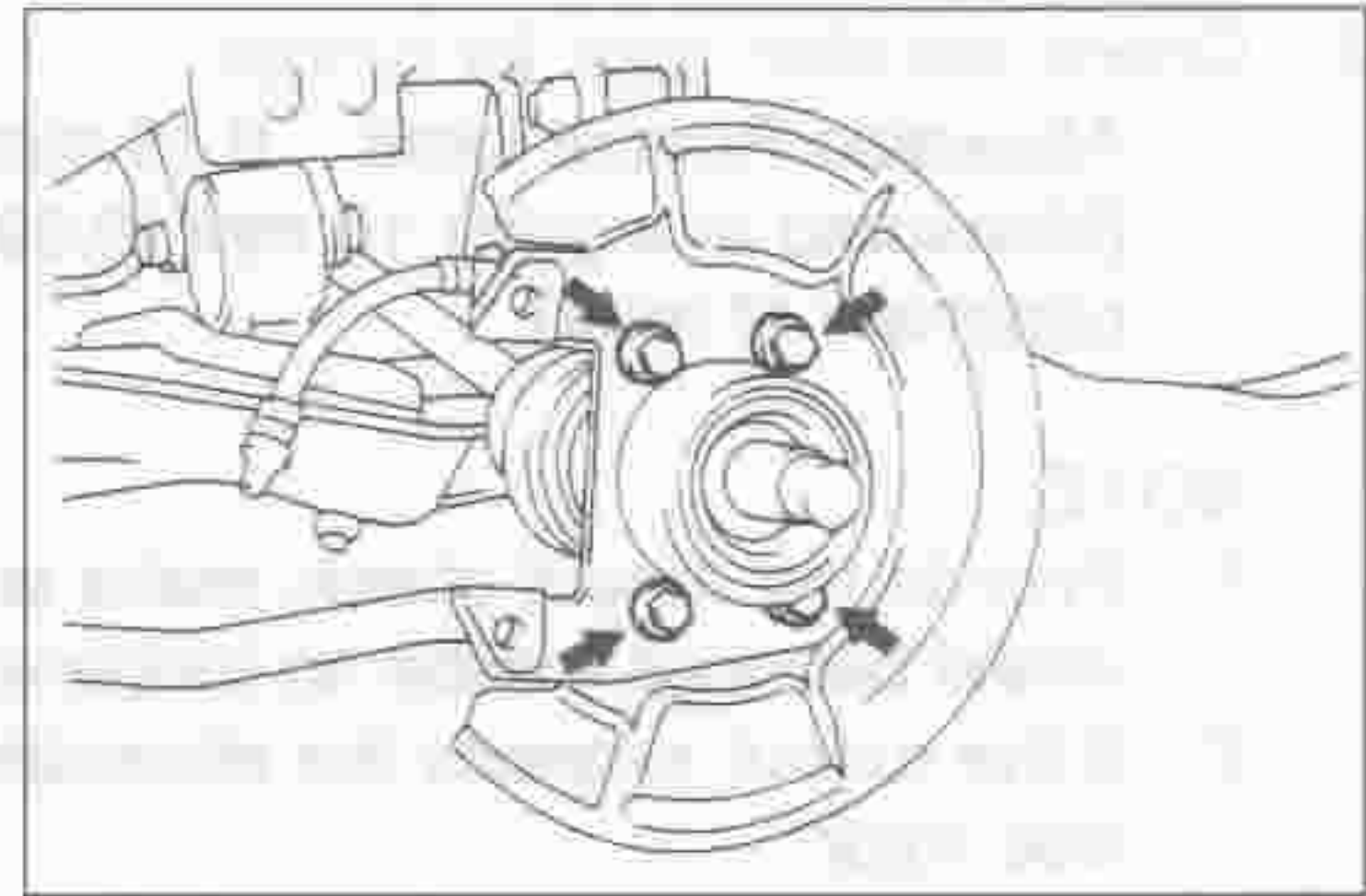
9. Remove the dust cover subassembly from the steering knuckle.



LBRO0050-00041

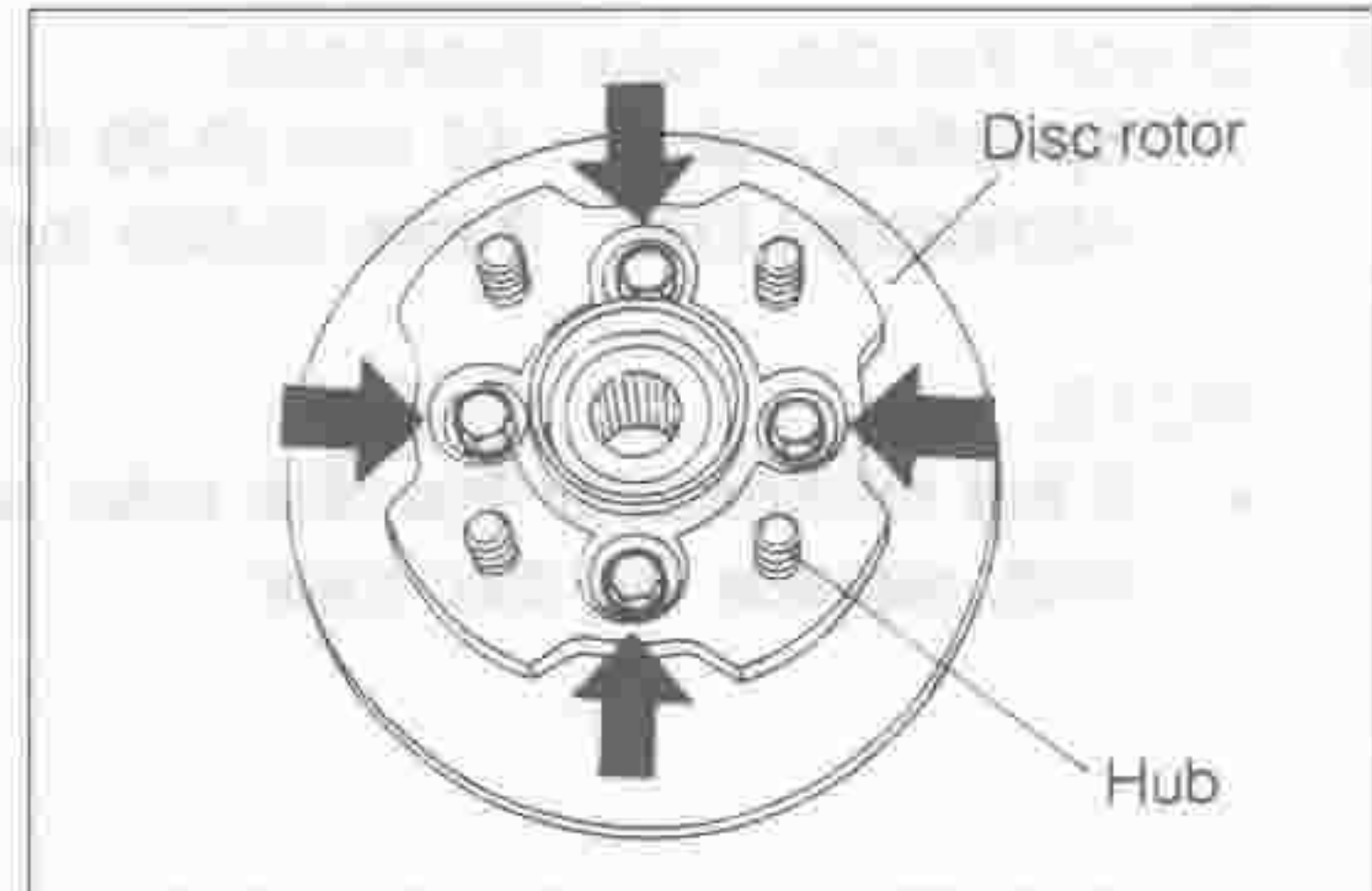
INSTALLATION

1. Install the dust cover subassembly on the steering knuckle.
Tightening Torque: 29.4 - 39.2 N·m
(3.0 - 4.0 kgf-m, 21.7 - 28.9 ft-lb)



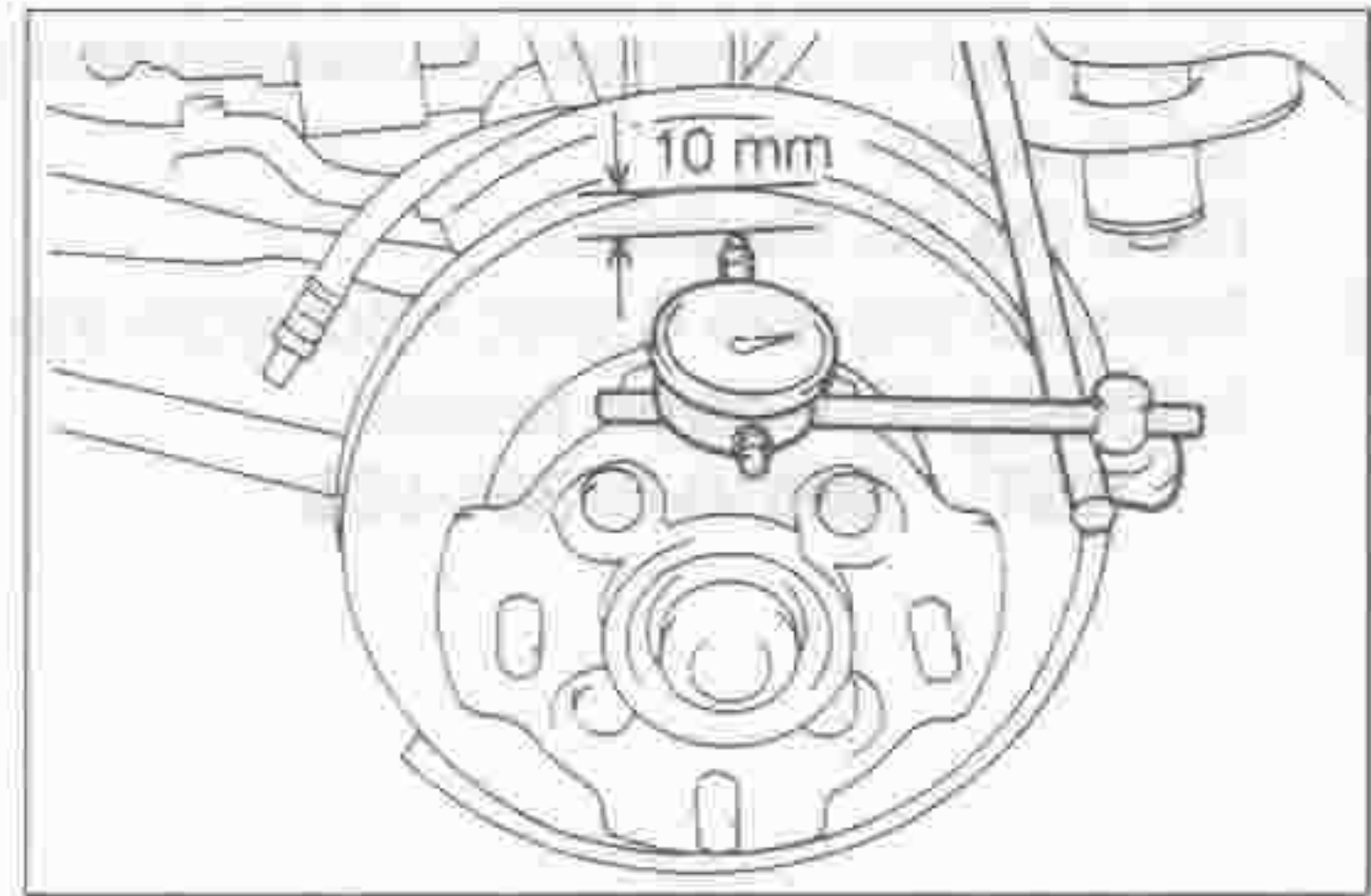
LBR00051-00042

2. Install the hub on the disc rotor.
Tightening Torque: 39.2 - 53.9 N·m
(4.0 - 5.5 kgf-m, 28.9 - 39.8 ft-lb)



LBR00052-00043

3. Install the hub & disc rotor to the drive shaft.
Secure the disc rotor to the drive shaft by means of the plate washer, castle nut and cotter pin.
Tightening Torque:
177 - 196 N·m (18.0 - 20.0 kgf-m, 130 - 145 ft-lb)



LBR00053-00044

4. Check the disc rotor for runout.
Allowable Runout Limit: 0.1 mm (0.0039 inch)
[Measured at a point 10 mm (0.39 inch) from outer periphery of rotor]

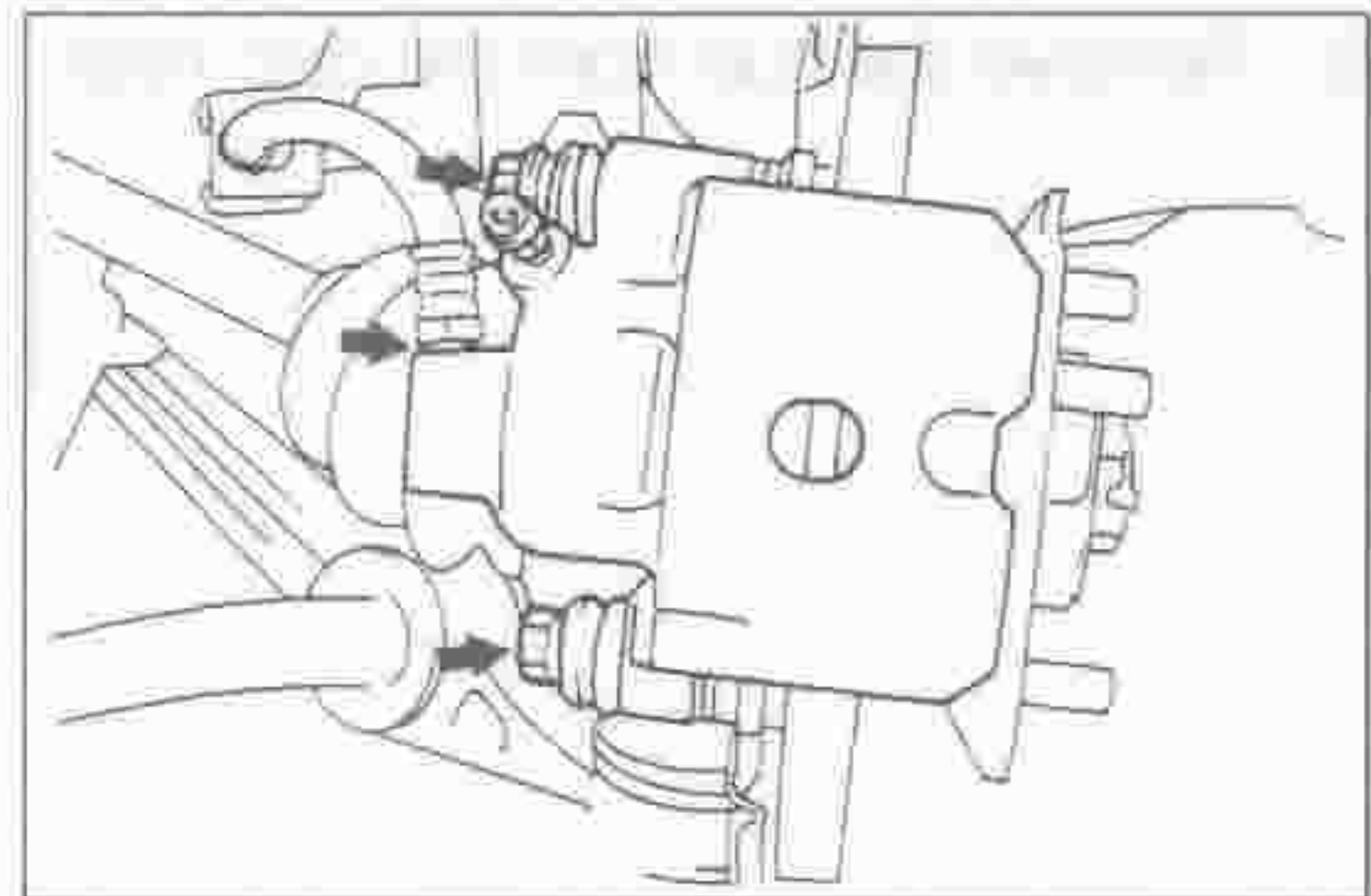
NOTE:

1. Prior to the runout check, make sure that the front wheel bearings exhibit no looseness.
2. If the runout exceeds the allowable limit, replace the disc rotor.

5. Install the disc brake caliper.
Tightening Torque:
Bolt: 31.4 - 41.2 N·m
(3.2 - 4.2 kgf-m, 21.3 - 30.4 ft-lb)
Brake Hose: 19.6 - 26.5 N·m
(2.0 - 2.7 kgf-m, 14.5 - 19.5 ft-lb)

CAUTION:

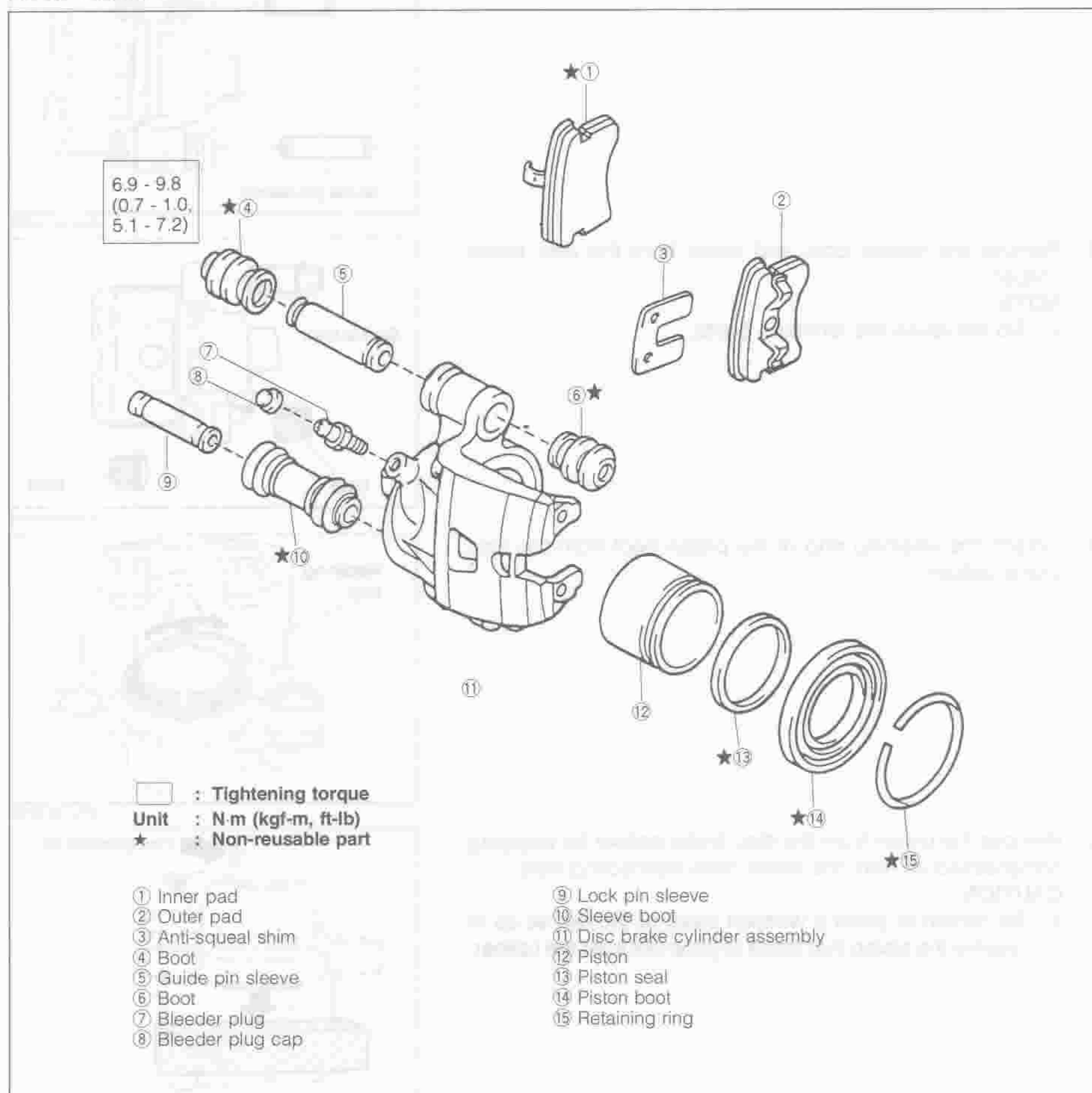
1. Care must be exercised to ensure that the disc brake caliper boot may not be caught in during the installation.
2. Be very careful not twist the brake hose during the installation.



LBR00054-00045

6. Perform air bleeding for the brake system.
(See page BR-9.)
7. Check the brake system for brake fluid leakage.
8. Install the wheel and jack down the vehicle.

DISC BRAKE CALIPER COMPONENTS



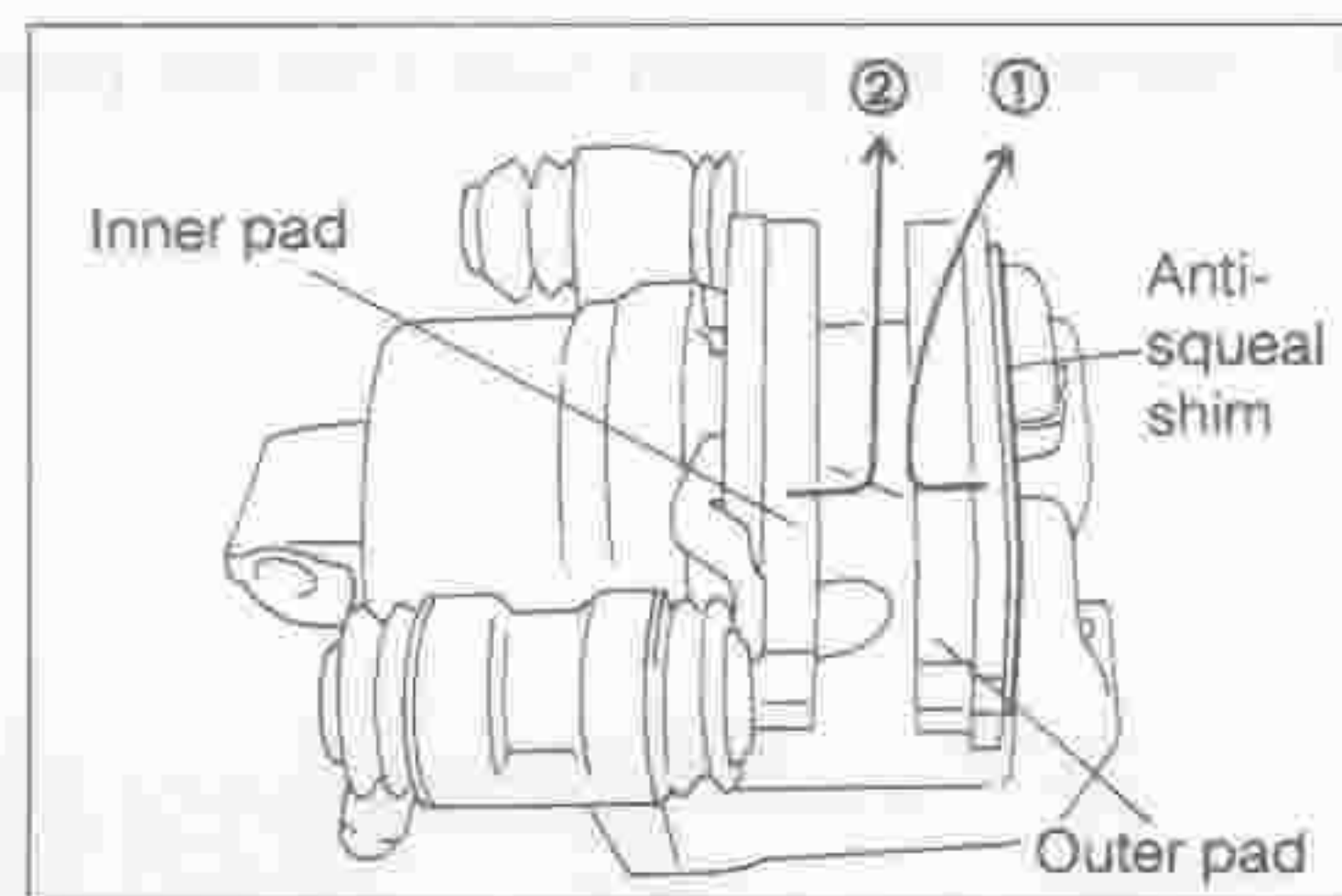
LBR00055-00041

DISASSEMBLY

1. Remove the pads and anti-squeal shim from the disc brake caliper.

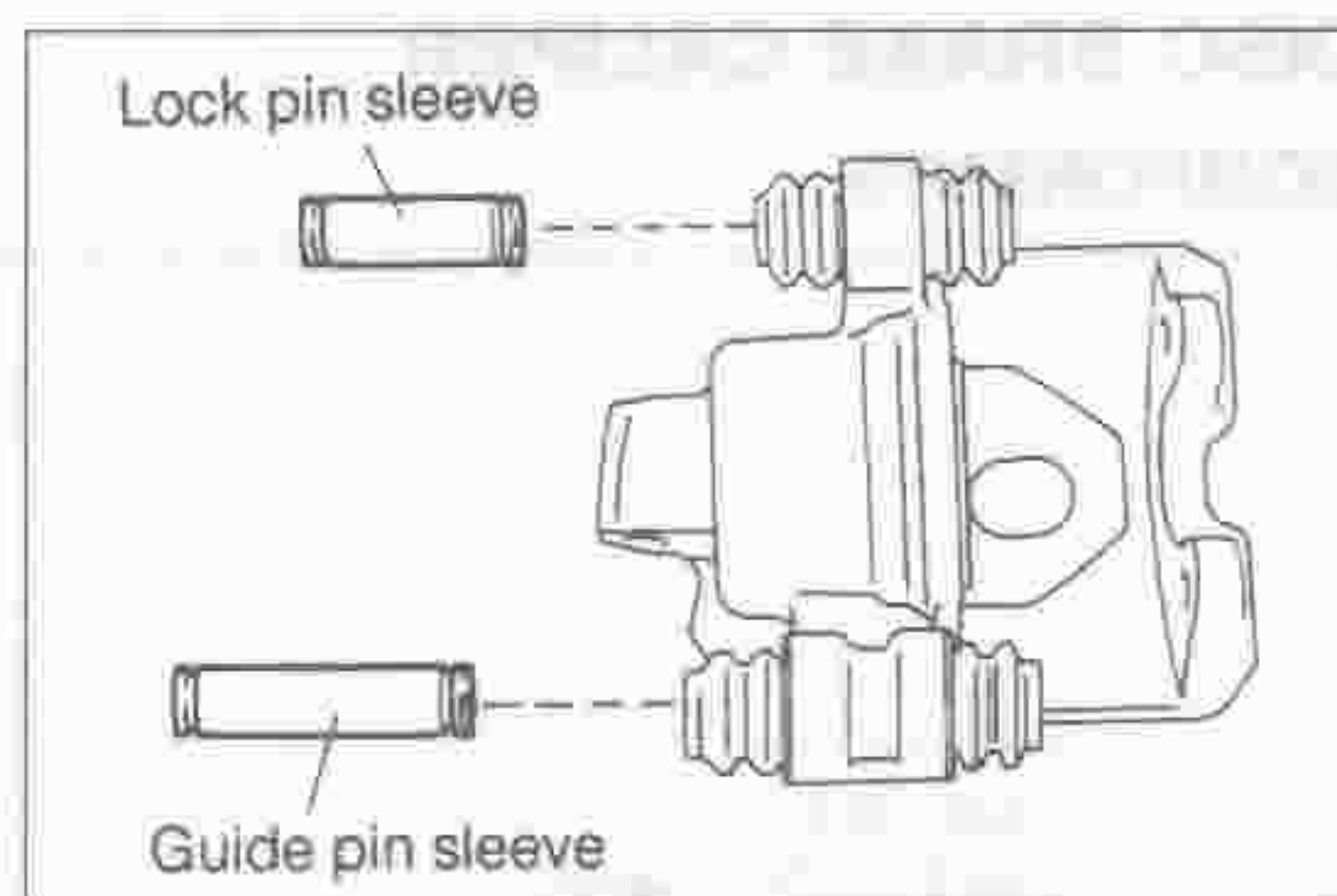
NOTE:

- As regards the removal sequence, first remove the outer pad. Then, proceed to remove the inner pad.



LBR00056-00047

2. Remove the guide pin sleeve and lock pin sleeve from the disc brake caliper.

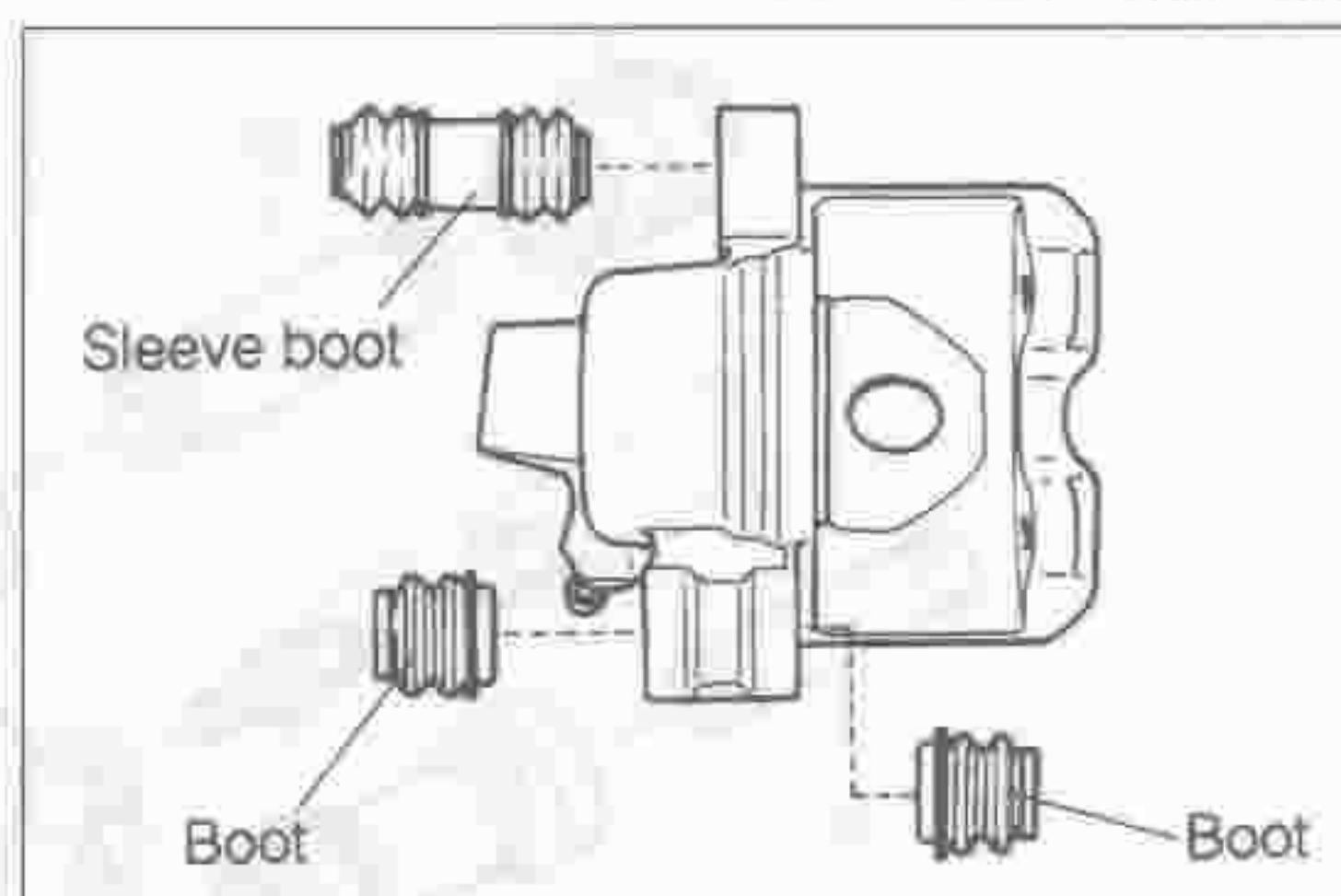


LBR00057-00048

3. Remove the sleeve boot and boots from the disc brake caliper.

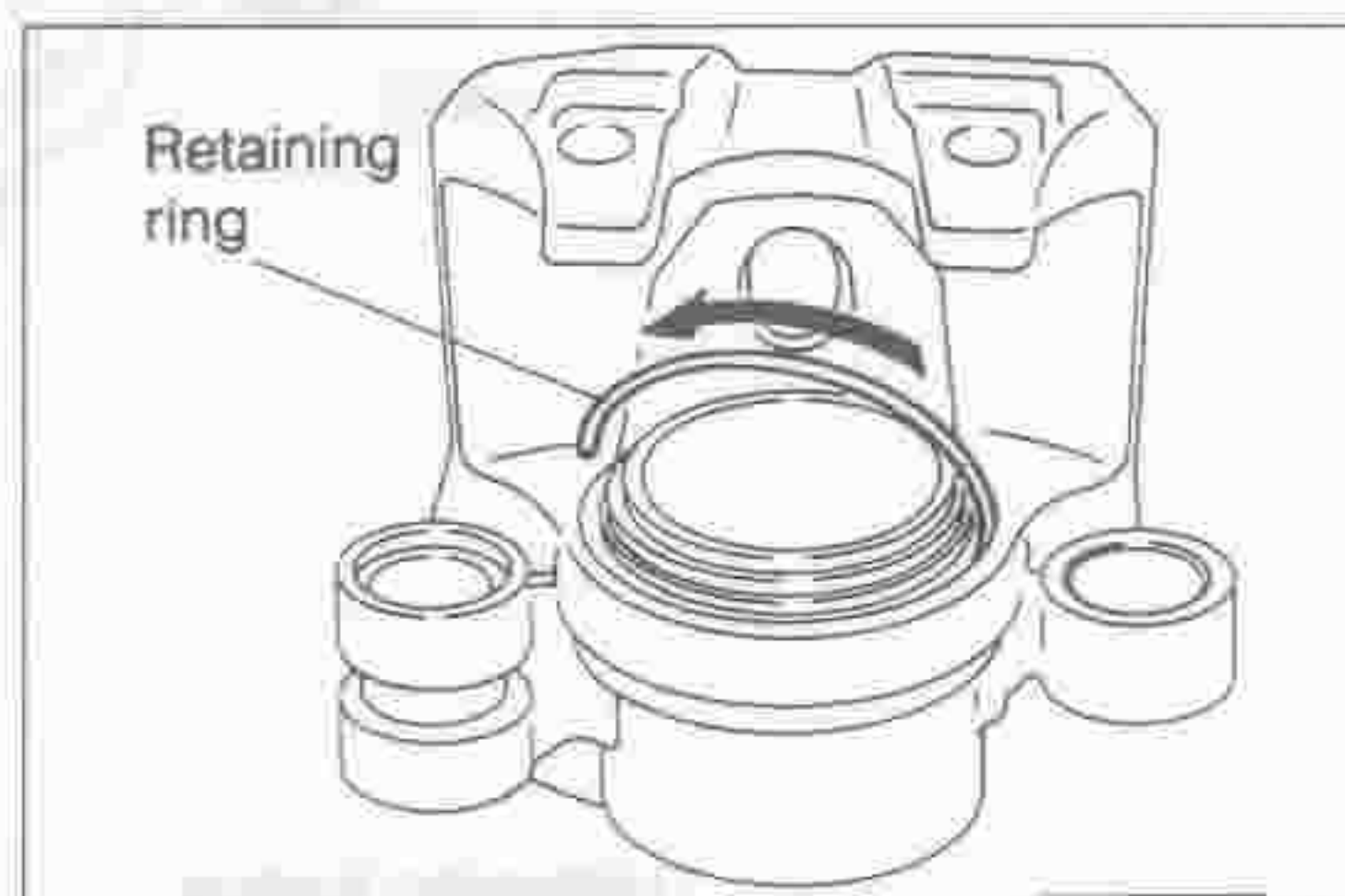
NOTE:

- Do not reuse the removed boots.



LBR00058-00049

4. Detach the retaining ring of the piston boot from the disc brake caliper.

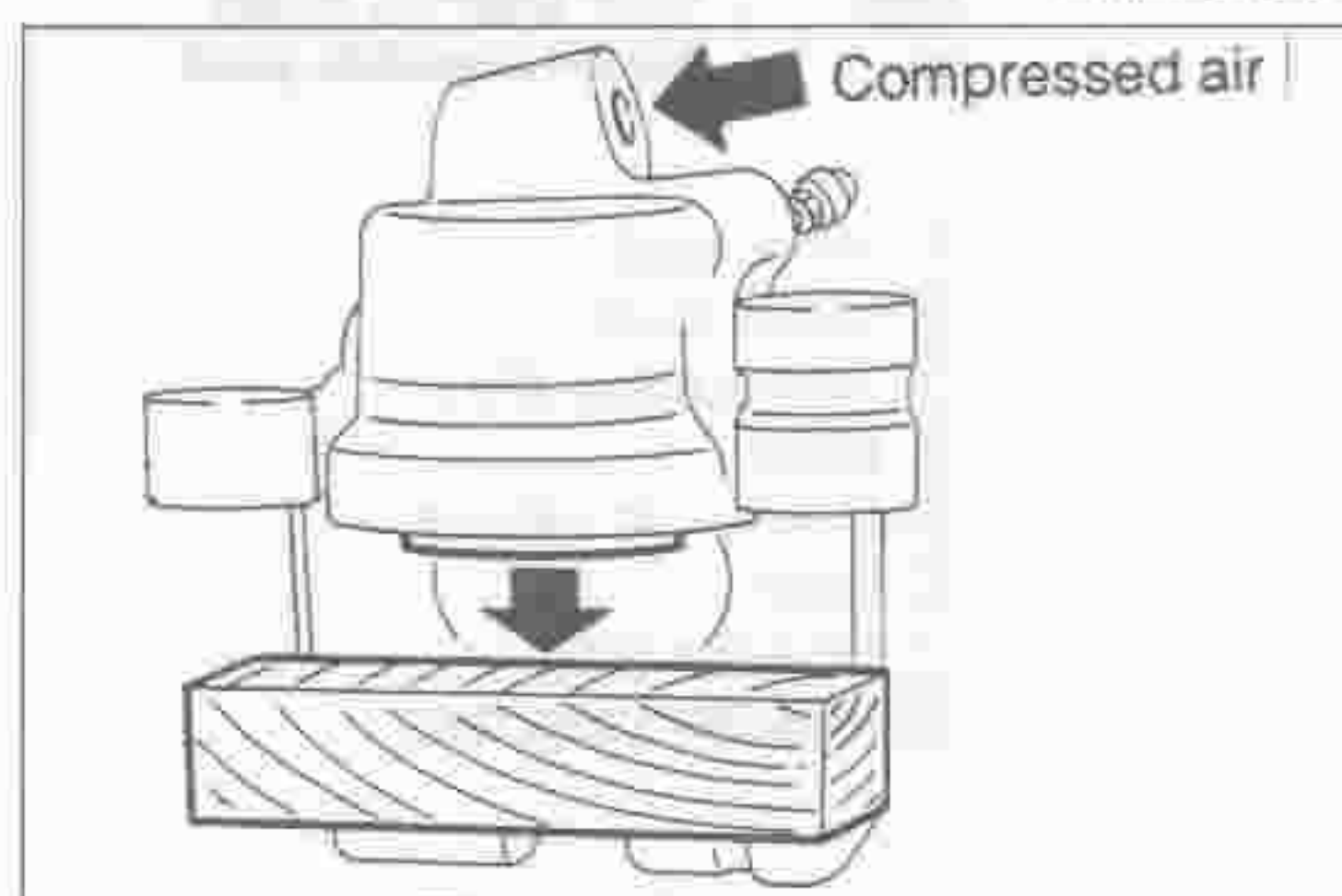


LBR00059-00050

5. Remove the piston from the disc brake caliper by applying compressed air from the brake hose connecting hole.

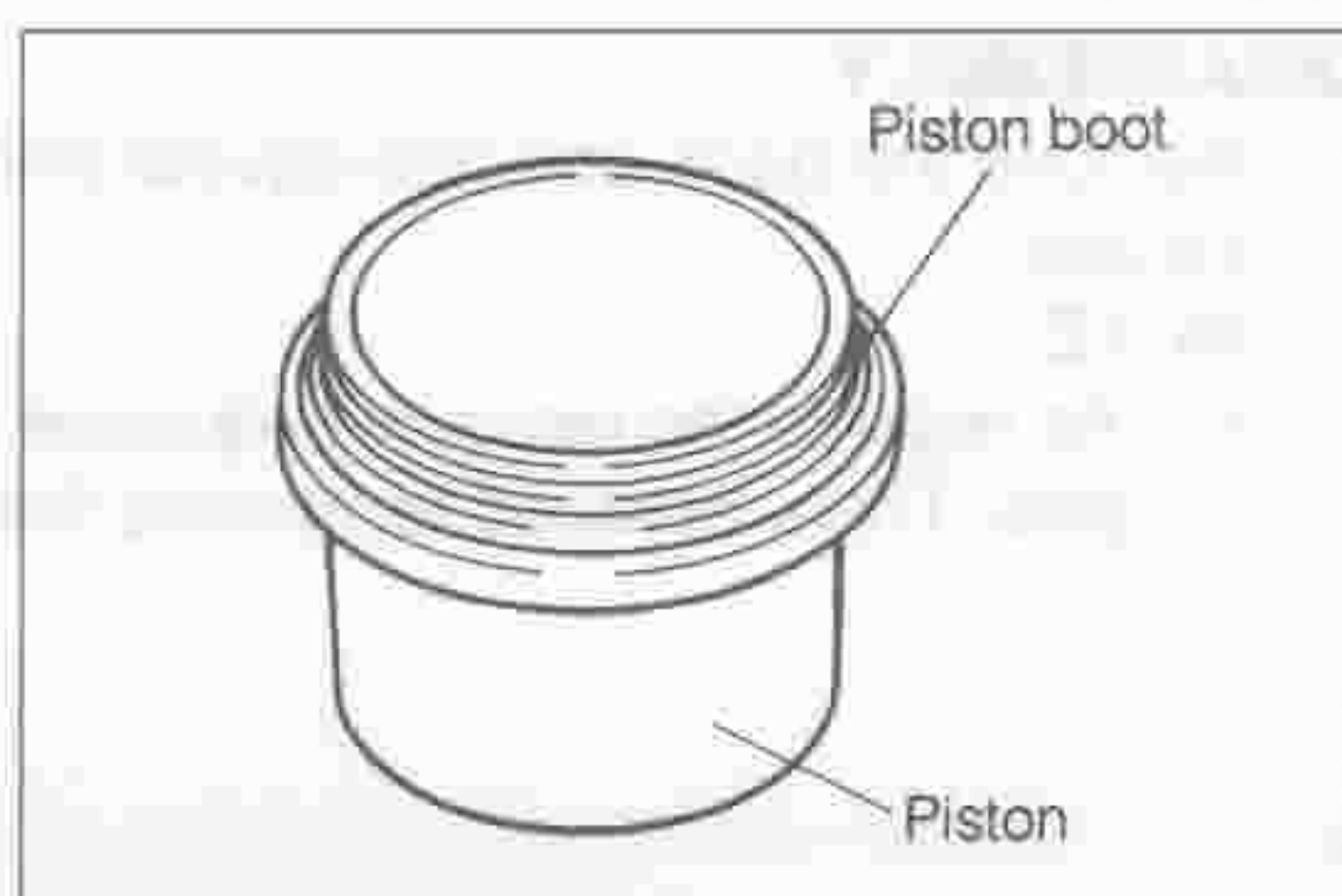
CAUTION:

- Be certain to place a wooden piece or the like so as to receive the piston that tends to jump out from the caliper.



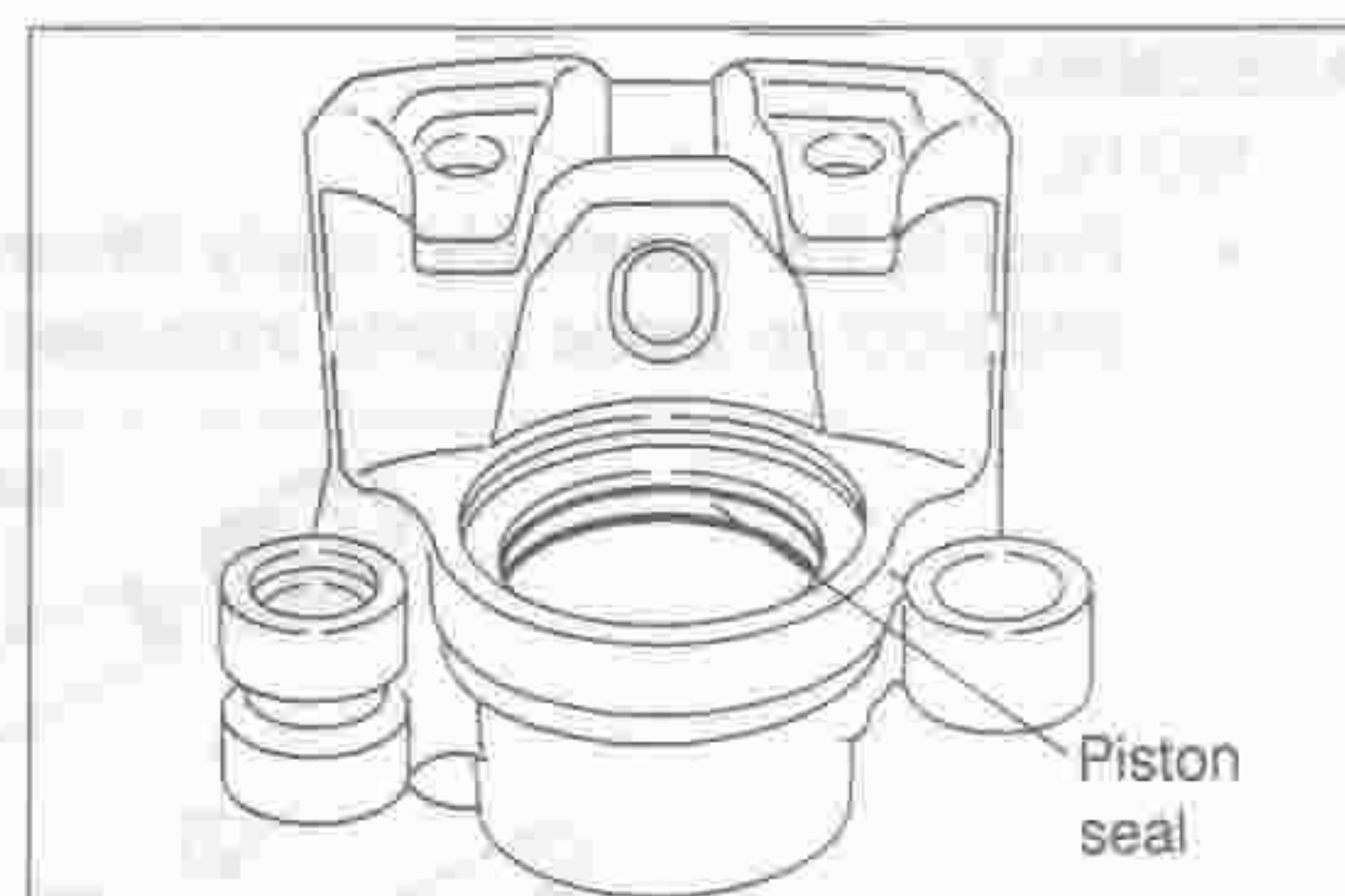
LBR00060-00051

6. Remove the piston boot from the piston.



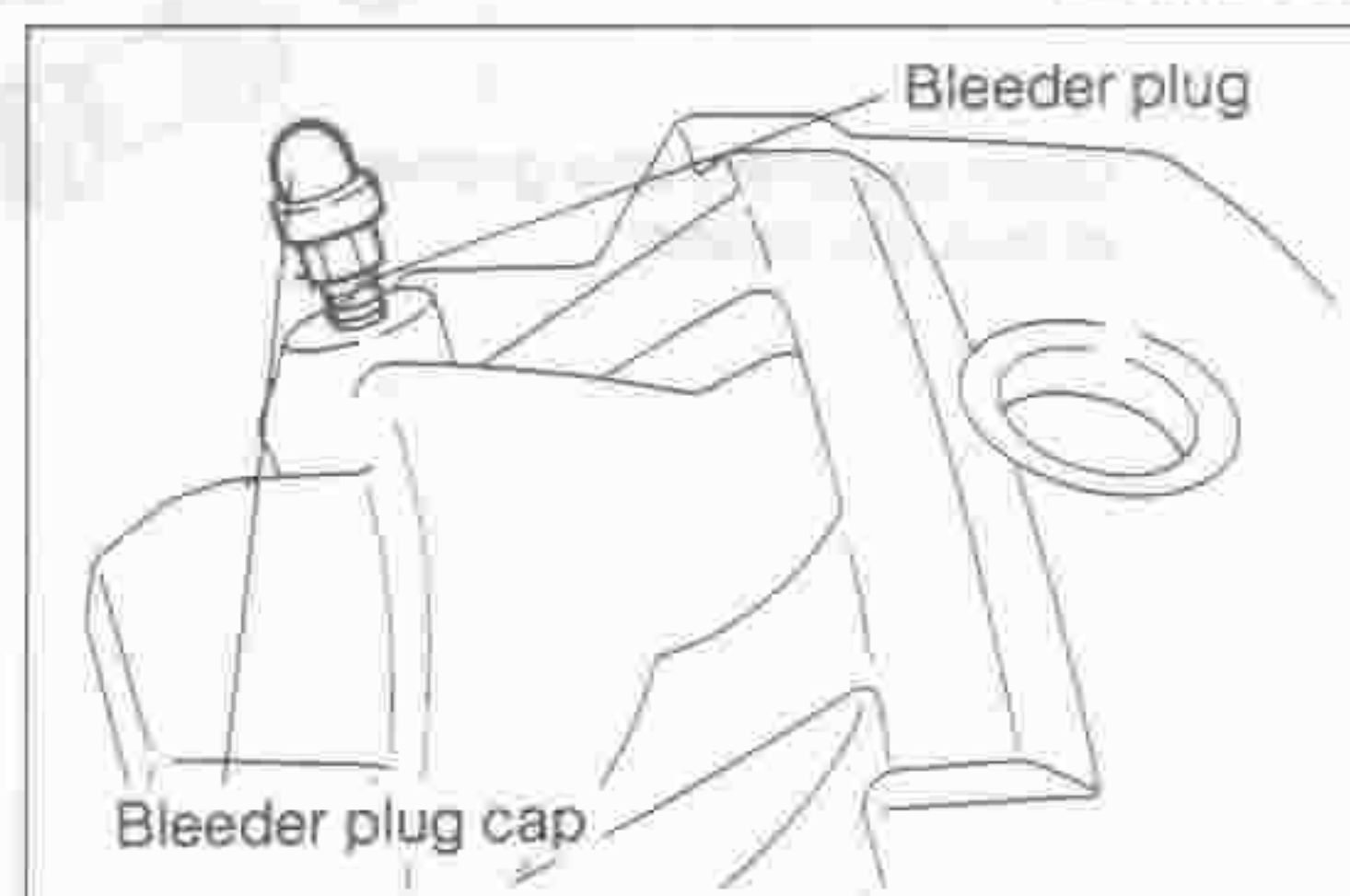
LBR00061-00052

7. Remove the piston seal from the disc brake caliper.



LBR00062-00053

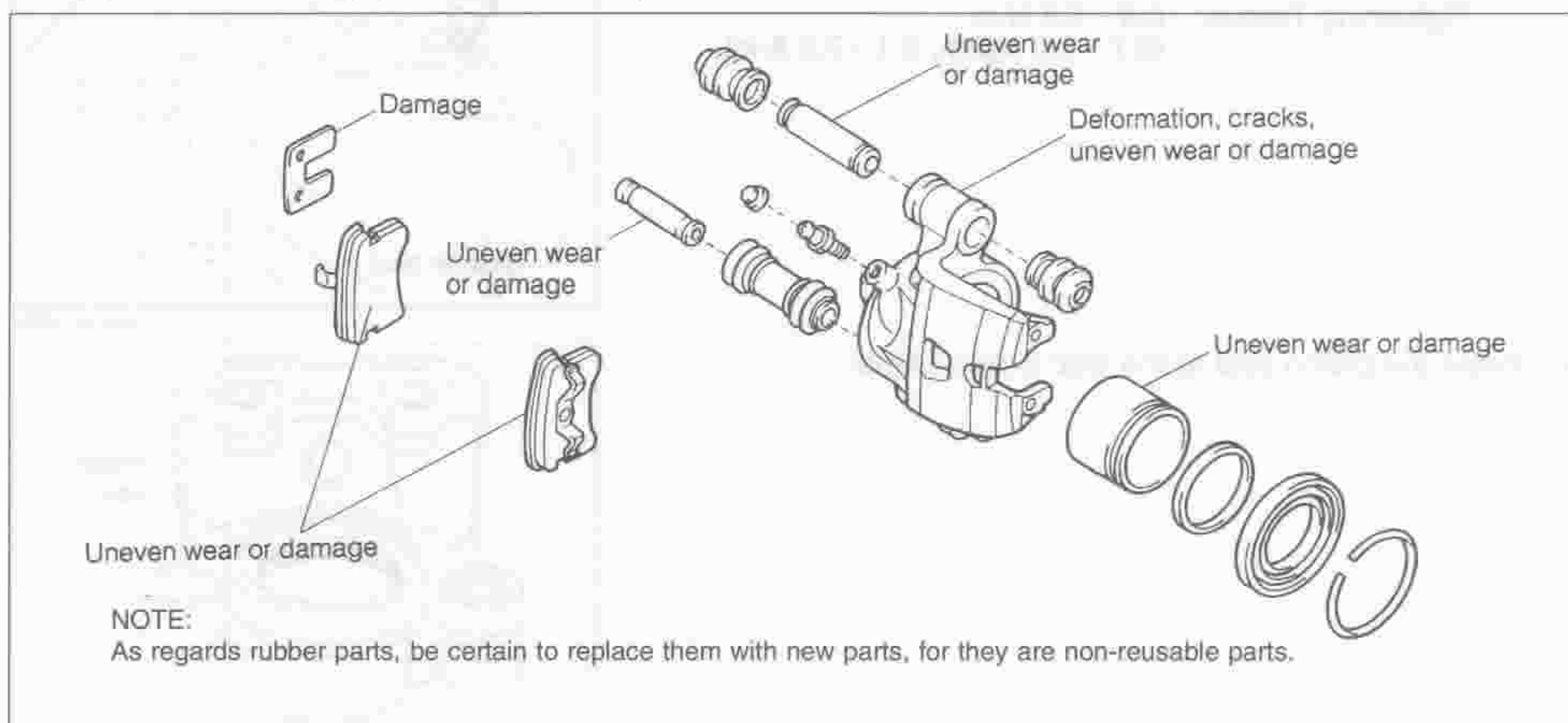
8. Remove the bleeder plug cap and bleeder plug from the disc brake caliper.



LBR00063-00054

INSPECTION

1. Inspect the following parts. Replace any parts which exhibit defects.



LBR00064-00055

2. Check the thickness of the pad lining.
 Specified Value: 9 mm (0.35 inch)
 Allowable Limit: 1 mm (0.039 inch)

NOTE:

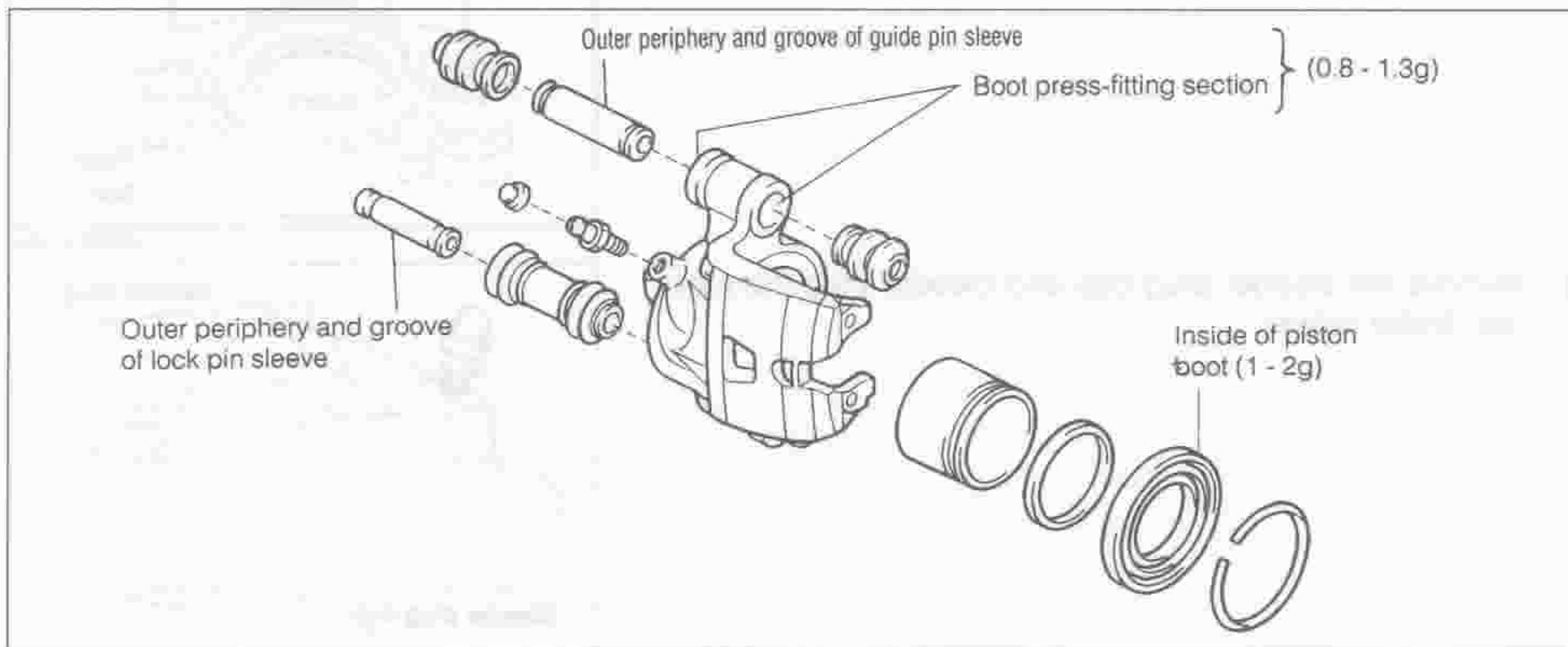
- If the thickness of the pad lining is below the allowable limit, replace the pad.

LBR00065-00000

ASSEMBLY

NOTE:

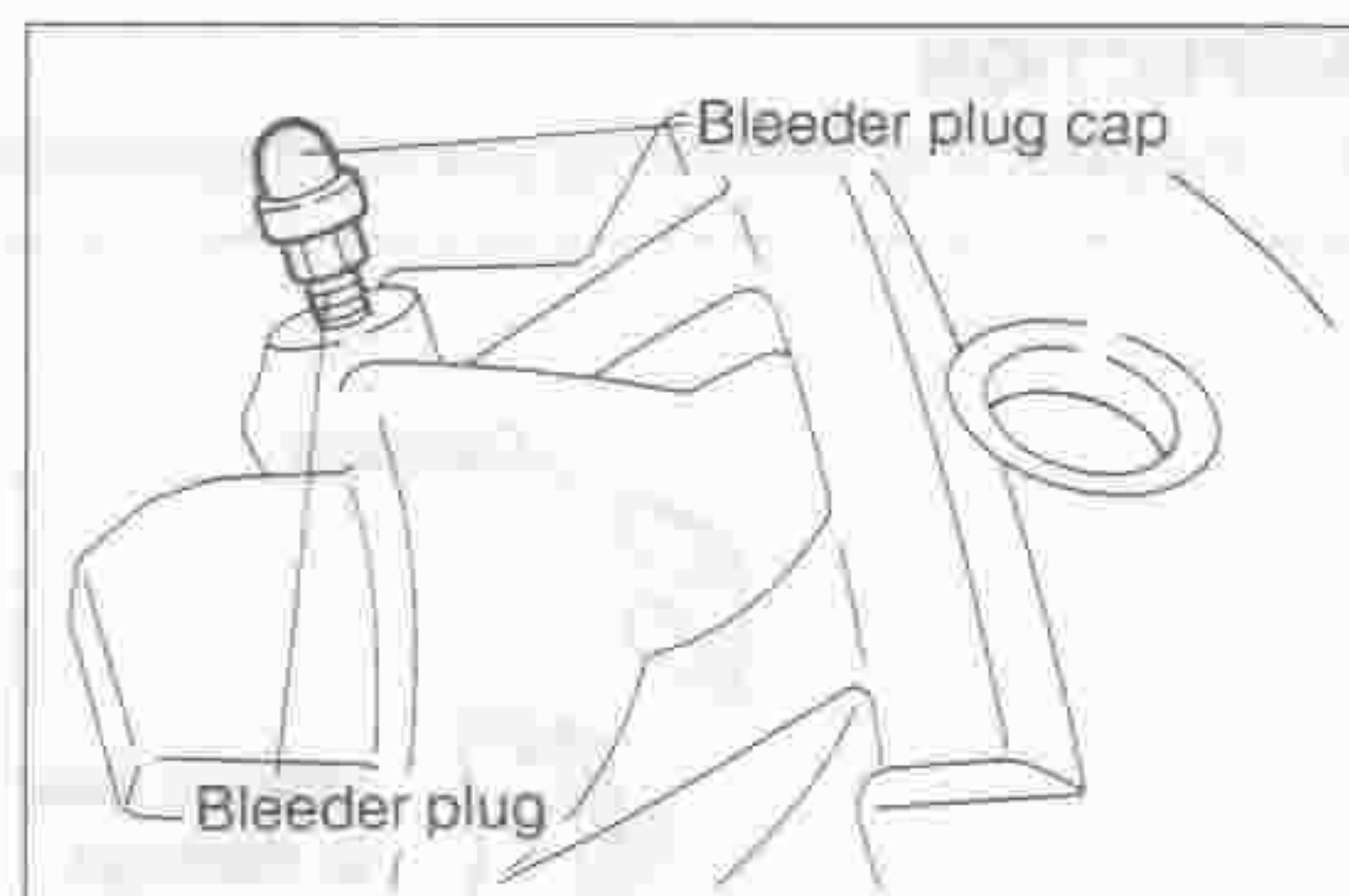
- Prior to the assembly, apply lithium soap base glycol grease [DAIHATSU rubber grease: 999-2504-8483-00] to those points indicated in the figure below.



LBR00066-00056

1. Install the bleeder plug and bleeder plug cap to the disc brake caliper.

Tightening Torque: 6.9 - 9.8 N·m
(0.7 - 1.0 kgf-m, 5.1 - 7.2 ft-lb)



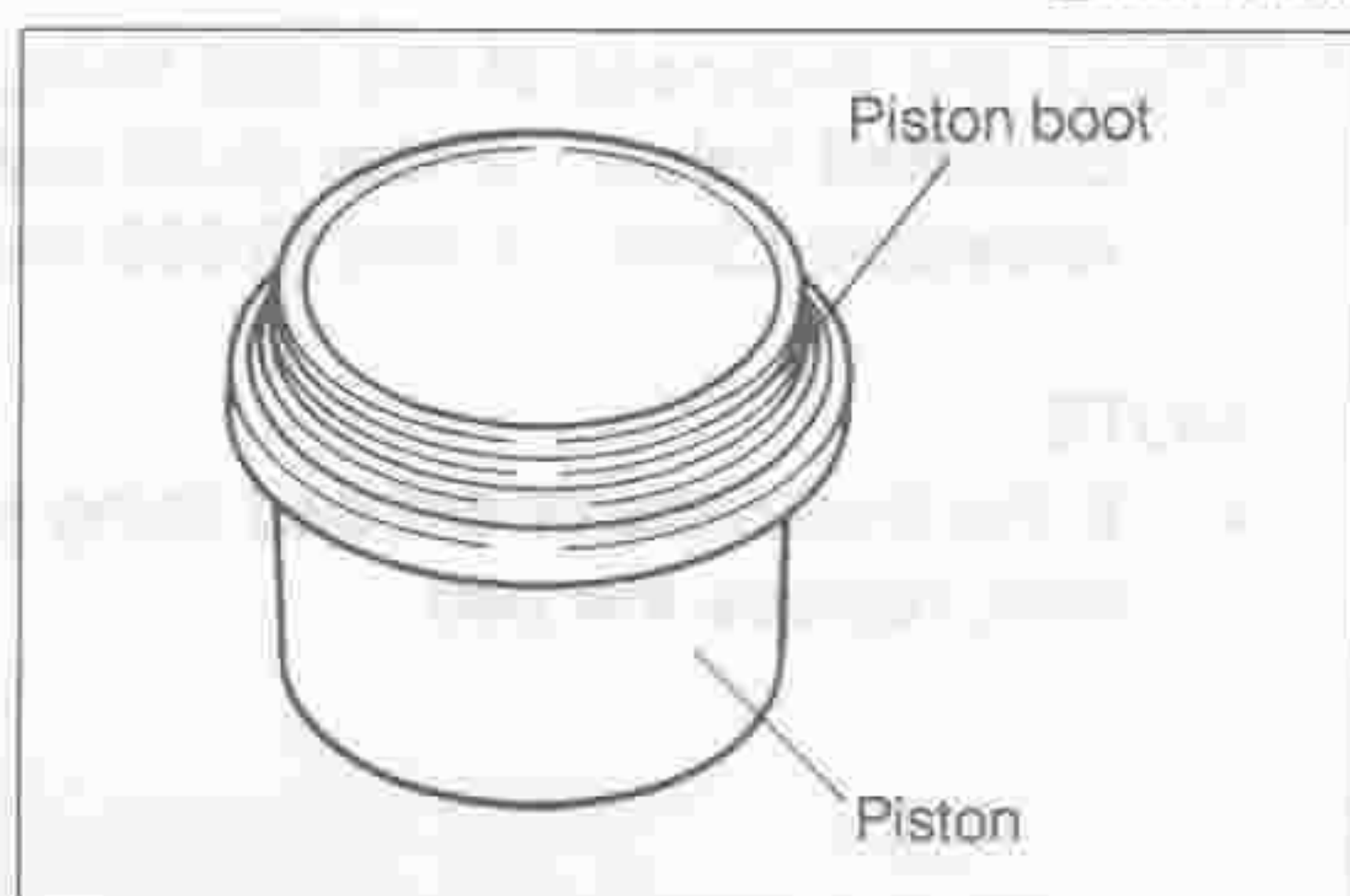
LBR00067-00057

2. Install the piston seal to the disc brake caliper.



LBR00068-00058

3. Install the piston boot to the piston.

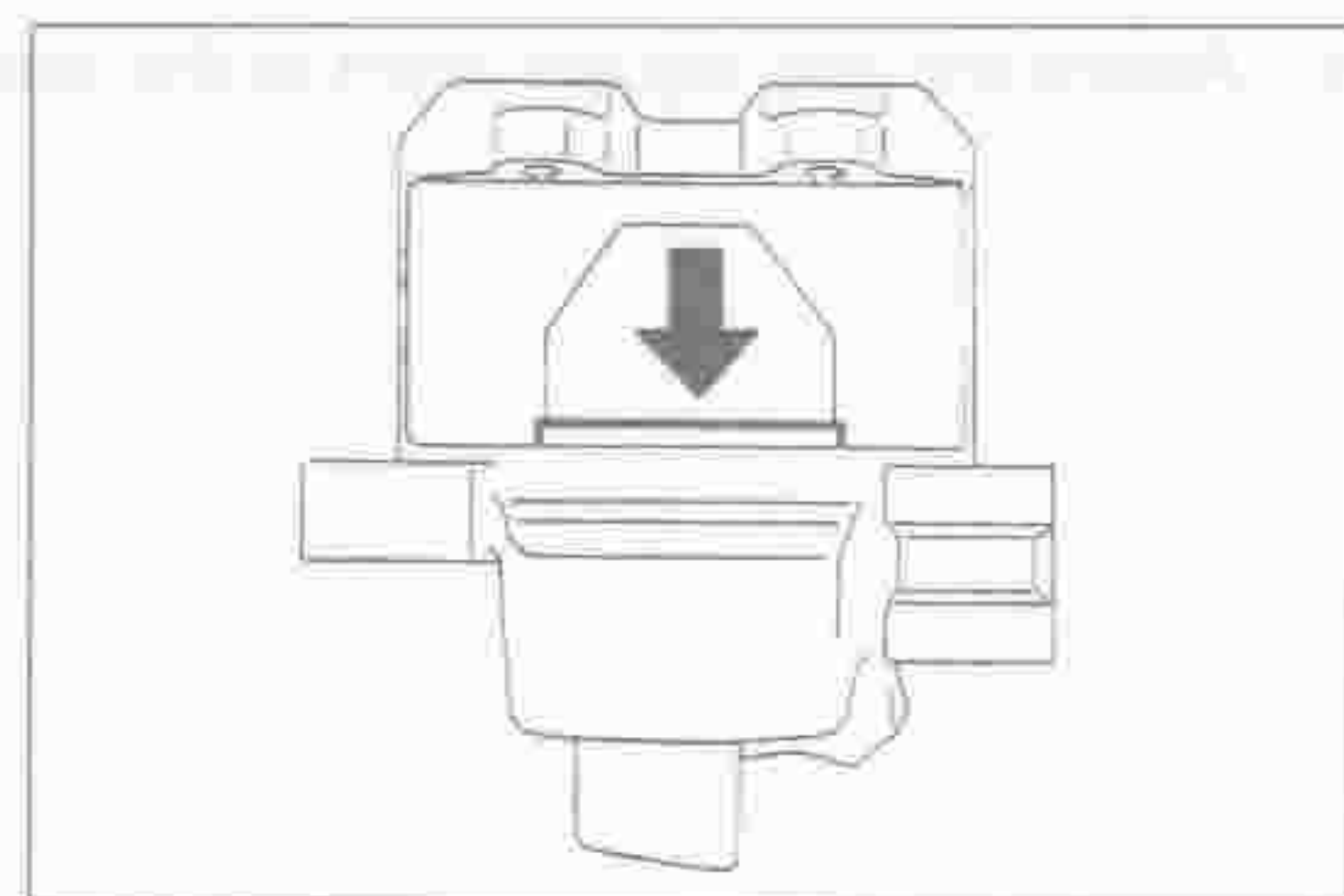


LBR00069-00059

4. Drive the piston into the disc brake caliper.

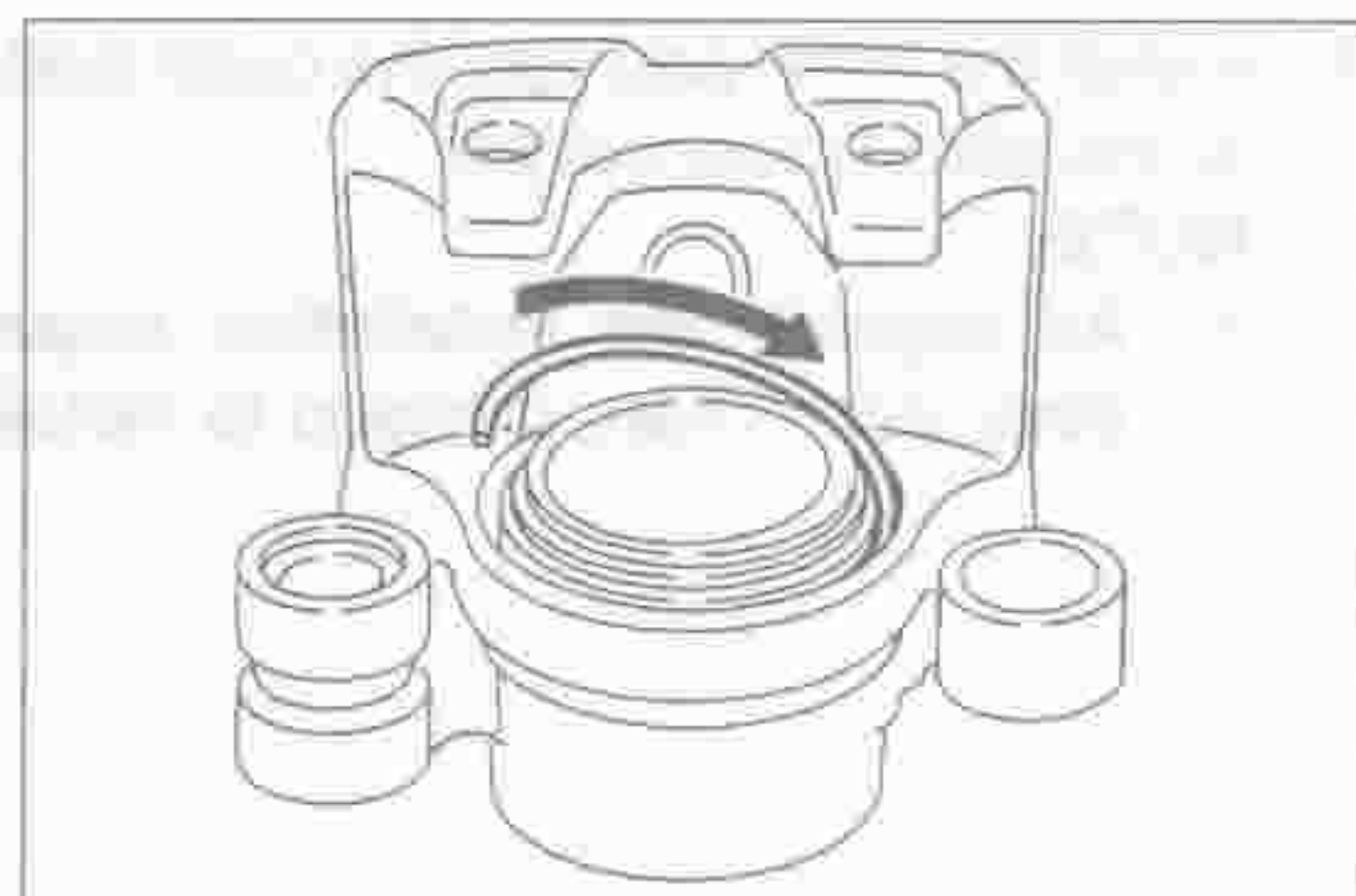
NOTE:

- Make sure that the piston is driven deeply as far as it will go.



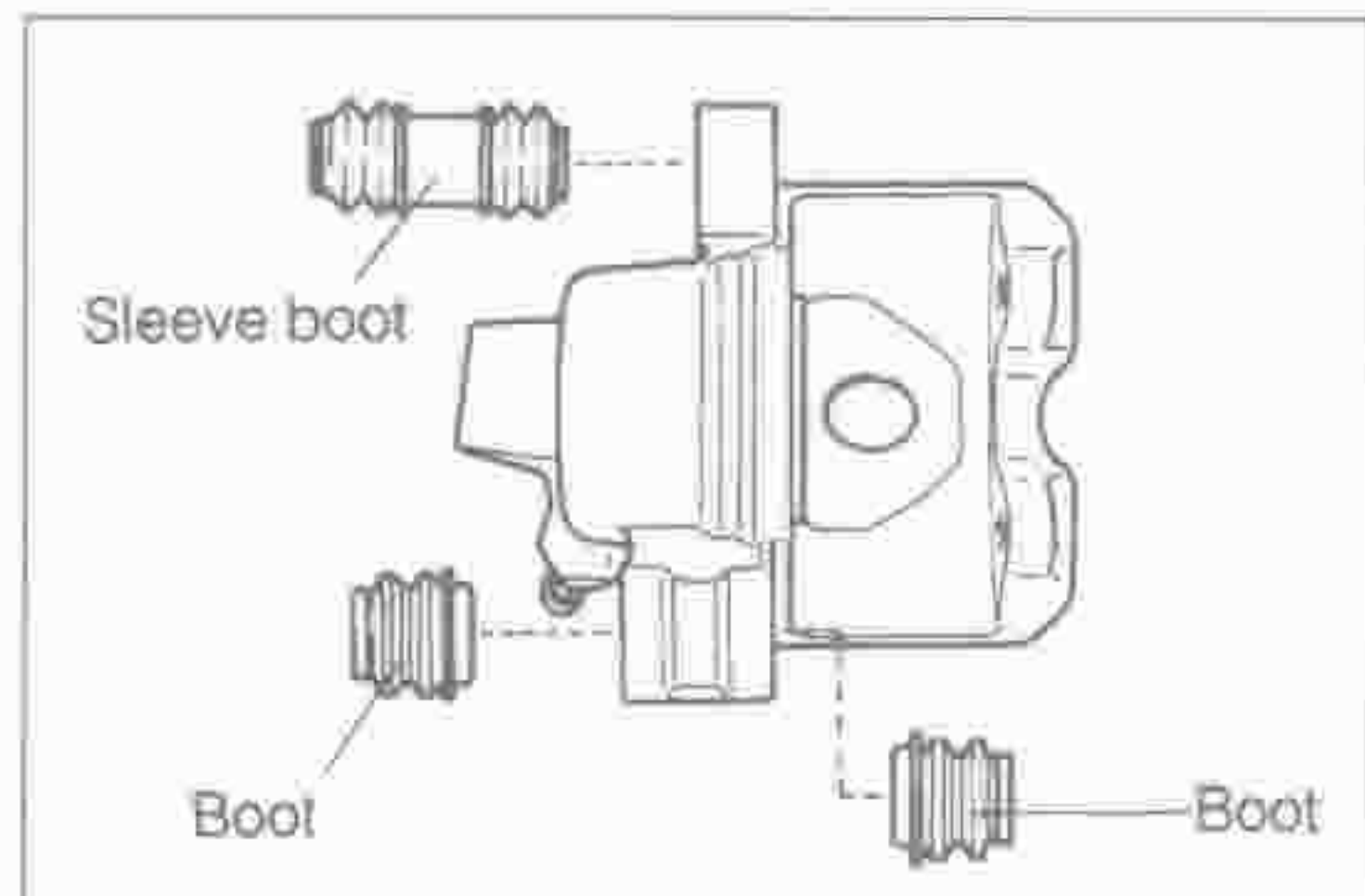
LBR00070-00060

5. Attach the retaining ring of the piston boot to the disc brake caliper.



LBR00071-00061

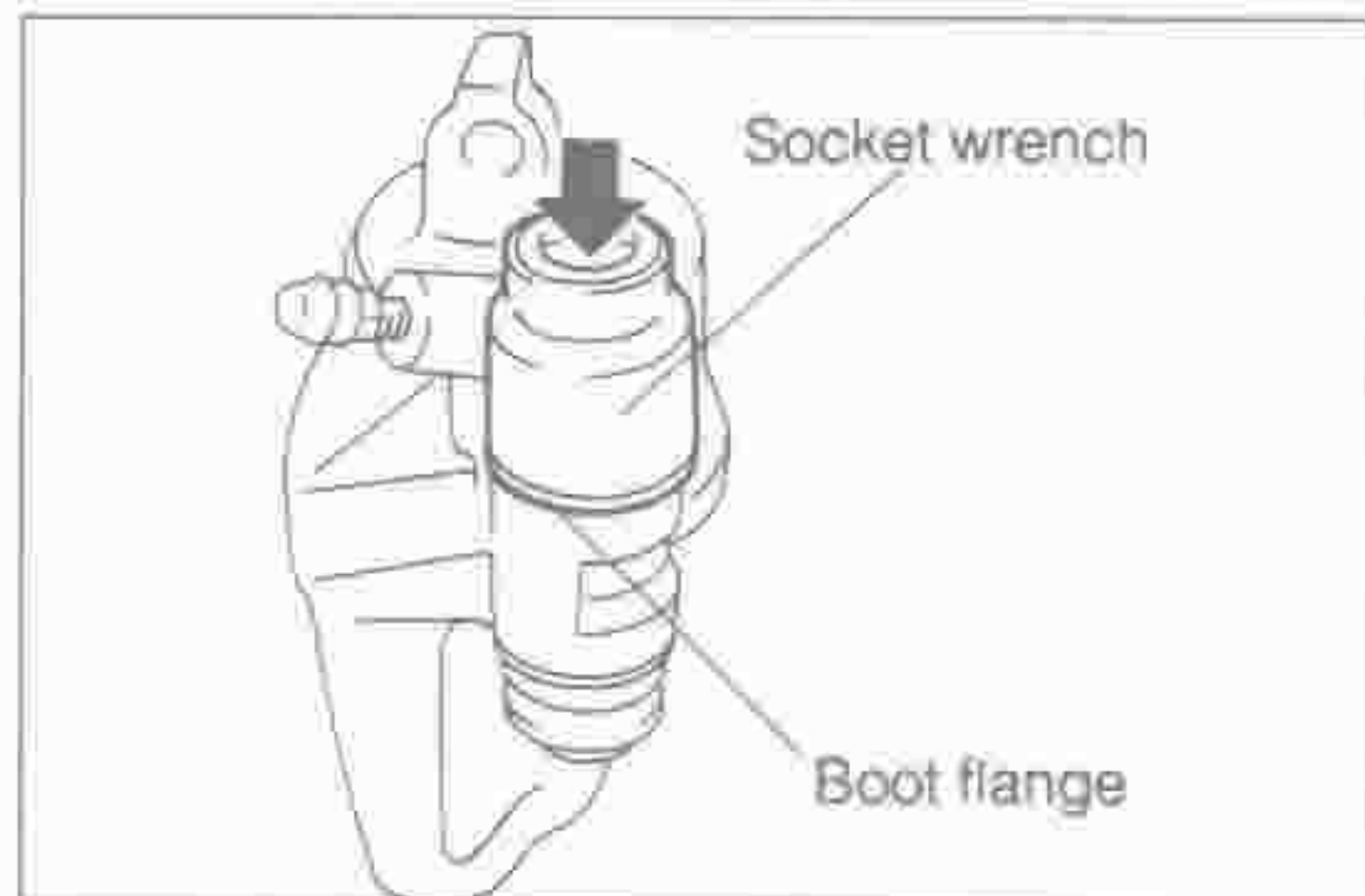
6. Attach the sleeve boot and boots to the disc brake caliper.



LBR00072-00062

NOTE:

- As regards the boot installation, its flange section should be pressed into position by means of a suitable socket of socket wrench. Be very careful not pinch the rubber section during the installation.

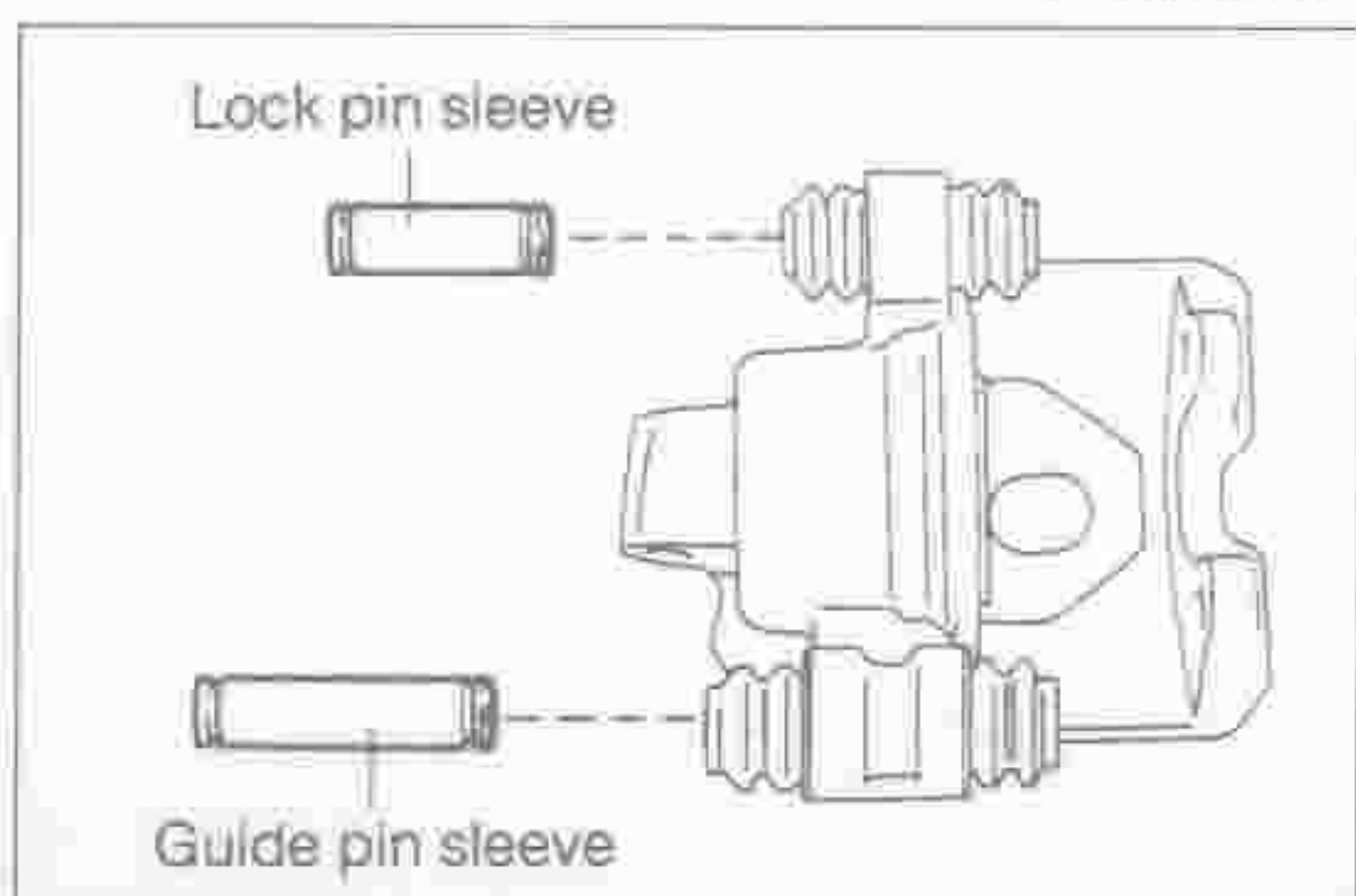


LBR00073-00063

7. Insert the guide pin sleeve and lock pin sleeve into the disc brake caliper.

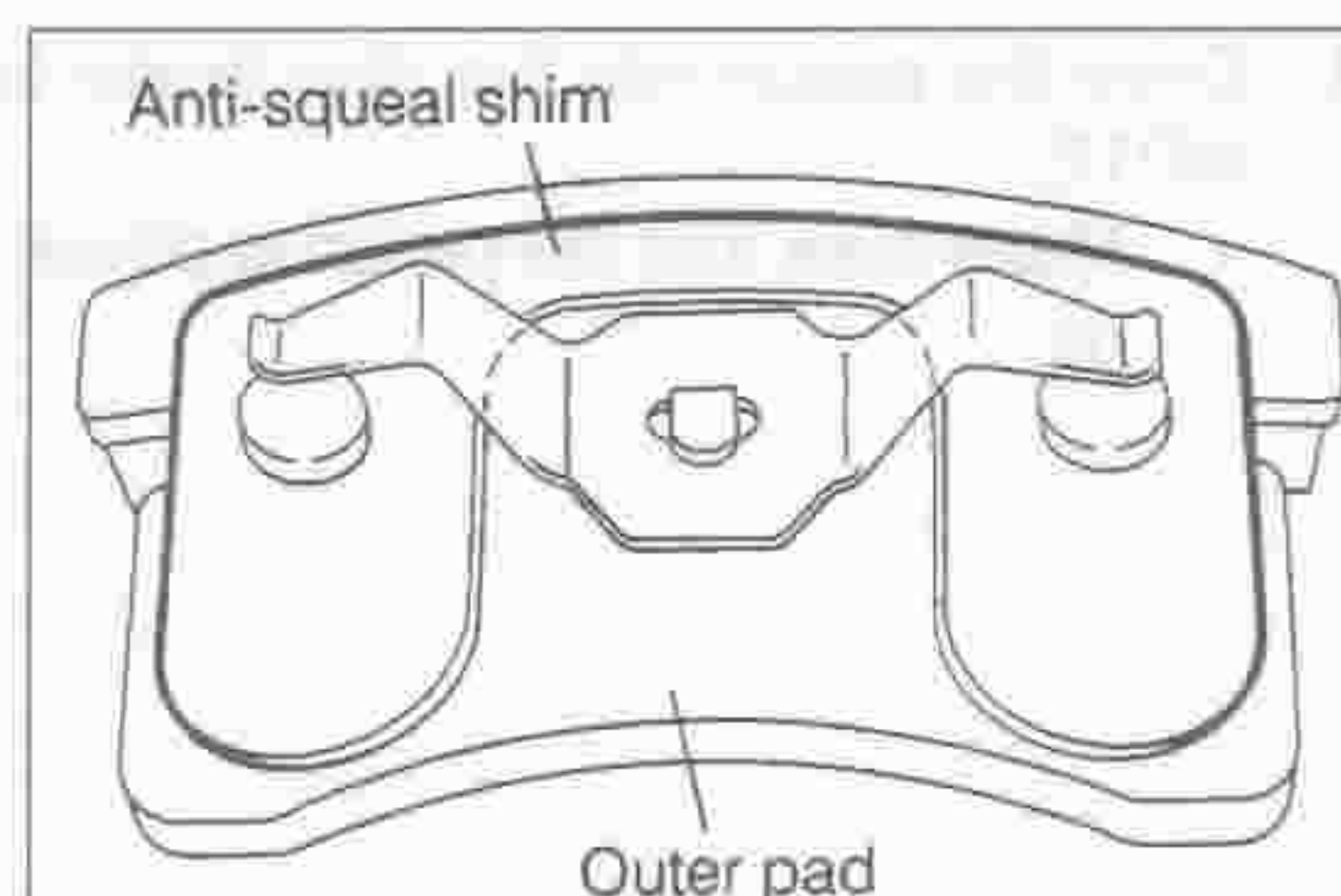
NOTE:

- Make sure that the edge of each boot is fitted securely in the groove section of the sleeve.



LBR00074-00064

8. Attach the anti-squeal shim to the outer pad.

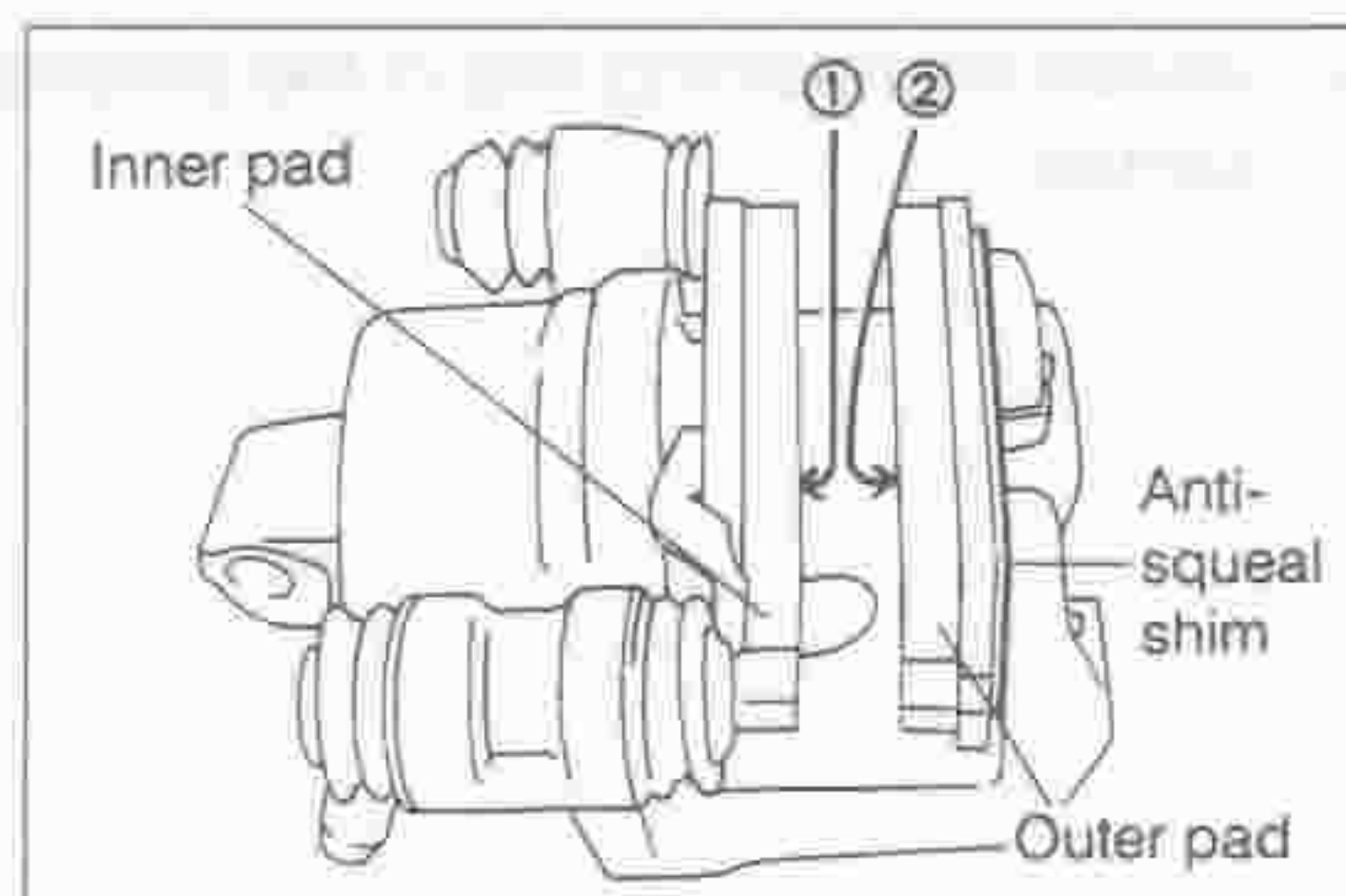


LBPR00075-00065

9. Install the inner pad and the outer pad with anti-squeal shim to the disc brake caliper.

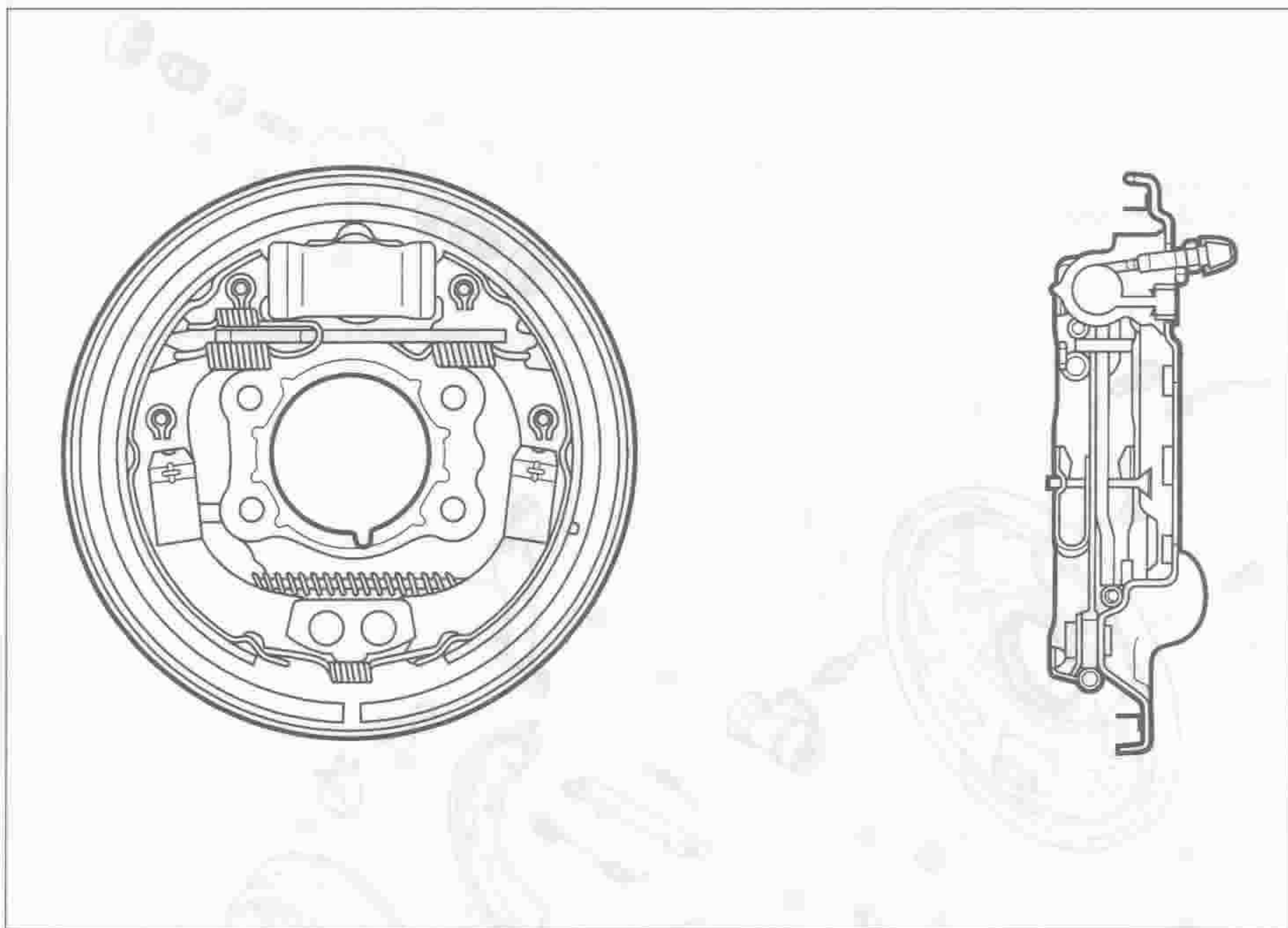
NOTE:

- As regards the installation sequence, first install the inner pad. Then, proceed to install the outer pad.



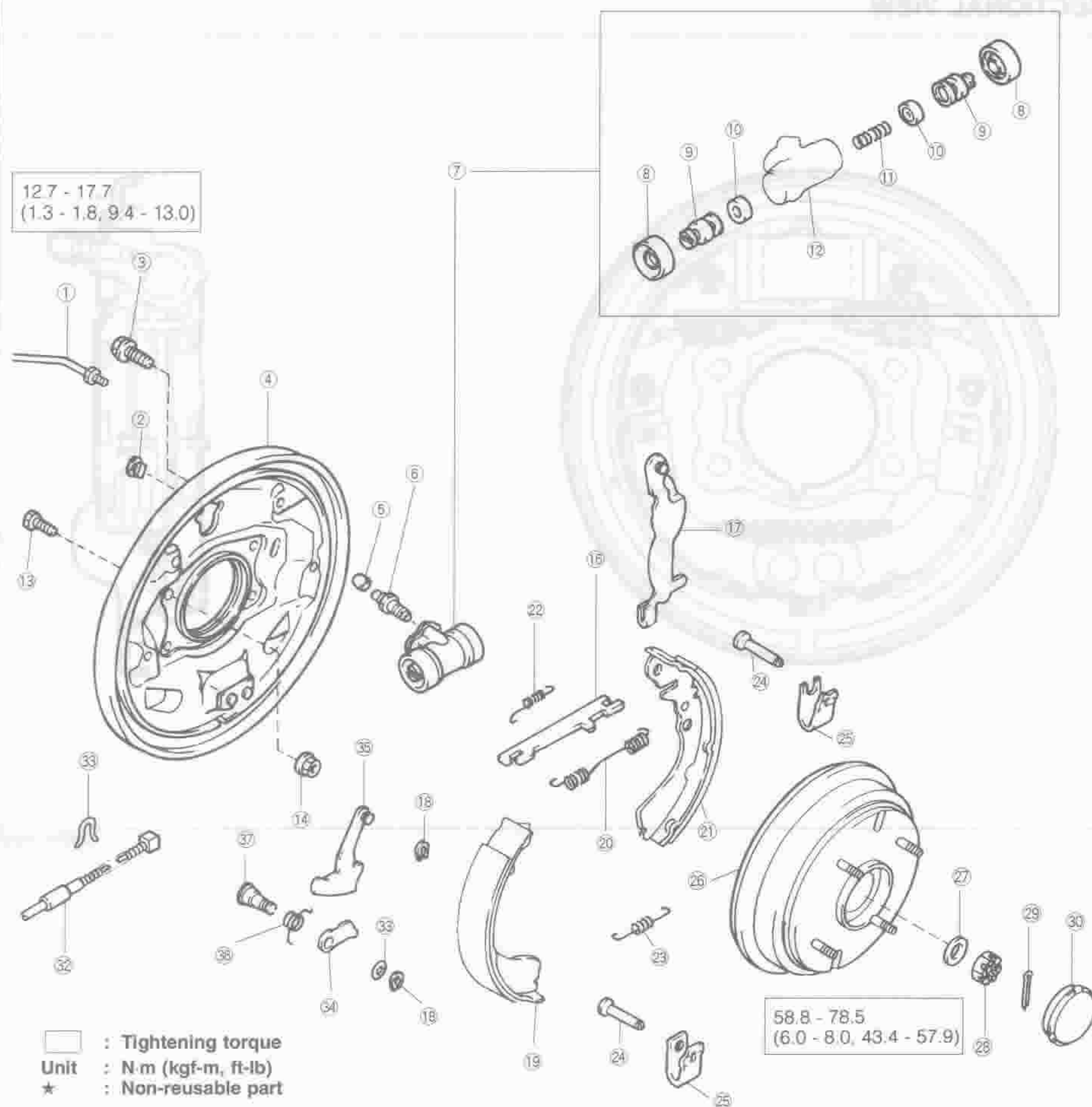
LBPR00076-00066

REAR BRAKE SECTIONAL VIEW



LBR00077-00067

COMPONENTS



- | | | |
|--|--|--------------------------|
| ① Brake tube | ⑬ Backing plate set bolt (4 pieces) | ⑳ Brake drum |
| ② Hole plug | ⑭ Nut (4 pieces) | ㉑ Plate washer |
| ③ Bolt (2 pieces) | ⑮ Quadrant spring | ㉒ Castle nut |
| ④ Rear brake backing plate subassembly | ⑯ Parking brake shoe strut | ㉓ Cotter pin |
| ⑤ Bleeder plug cap | ⑰ Parking brake shoe lever subassembly | ㉔ Grease retainer cap |
| ⑥ Bleeder plug | ⑱ E-ring | ㉕ Clip |
| ⑦ Rear wheel cylinder assembly | ⑲ Brake shoe assembly | ㉖ Parking brake cable |
| ⑧ Wheel cylinder boot (2 pieces) | ㉑ Tension spring | ㉗ Washer |
| ⑨ Wheel brake cylinder piston (2 pieces) | ㉒ Brake shoe assembly | ㉘ Automatic adjust latch |
| ⑩ Cylinder cup (2 pieces) | ㉓ Tension spring No. 2 | ㉙ Automatic adjust lever |
| ⑪ Compression spring | ㉔ Tension spring No. 4 | ㉚ Tension spring No. 3 |
| ⑫ Wheel brake cylinder body | ㉕ Shoe hold-down spring pin | ㉛ Automatic adjust pin |
| | ㉖ Shoe hold-down spring | |

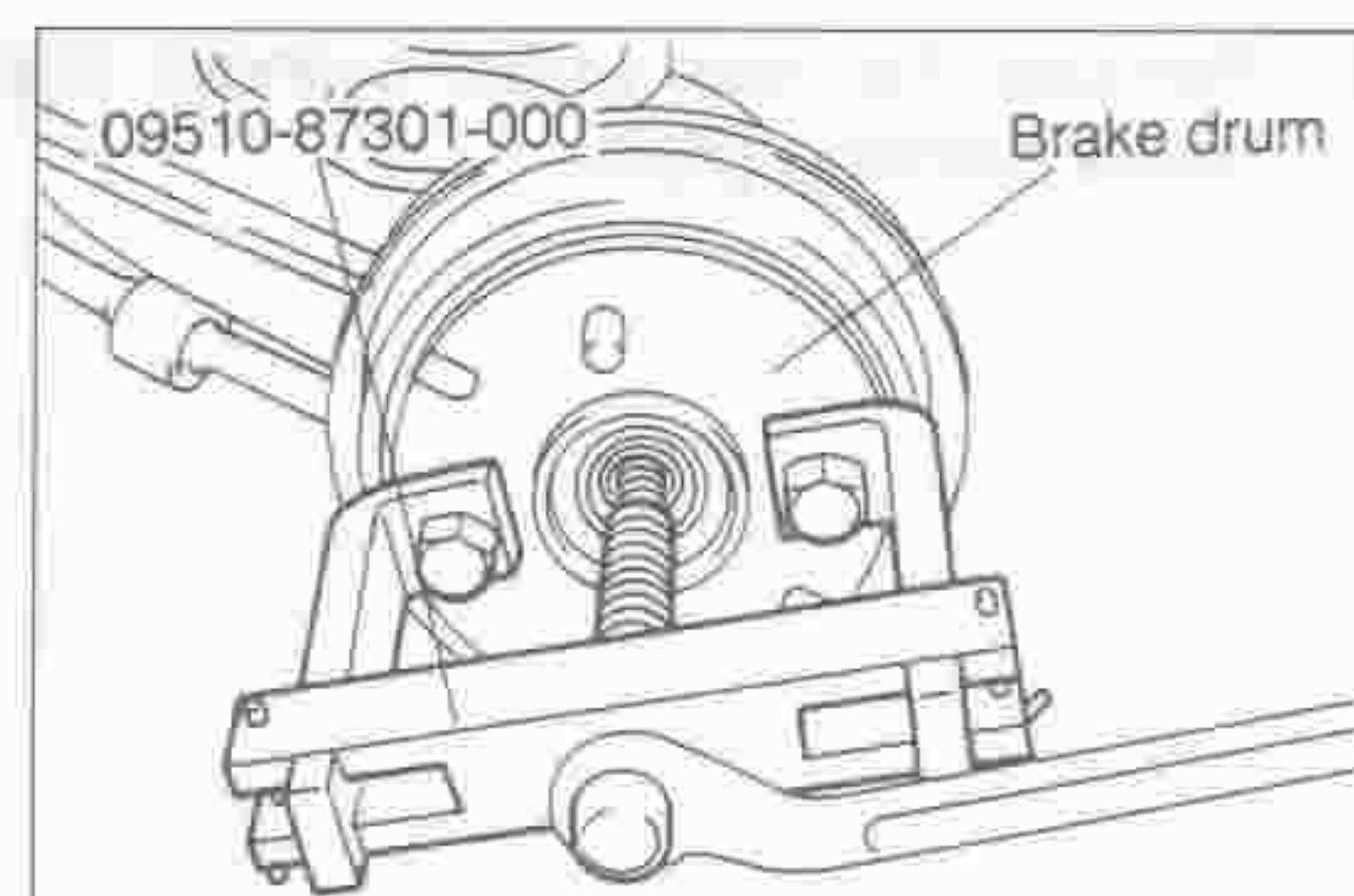
REMOVAL

1. Jack up the vehicle. (See the GI Section.)
2. Remove the rear wheel from the vehicle.
3. Remove the grease retainer cap, cotter pin, castle nut and plate washer from the rear axle. (See the RS Section.)

LBR00079-00000

4. Remove the brake drum, using the following SST given below.

SST: 09510-87301-000



LBR00060-00069

5. Remove the tension spring, tension spring No. 4 and tension spring No. 2 from the rear brake assembly.
6. Remove the shoe hold-down springs and shoe hold-down spring pins from the rear brake assembly.
7. Remove the brake shoe assembly, the brake shoe with parking brake shoe lever and the parking brake shoe strut from the rear brake assembly.

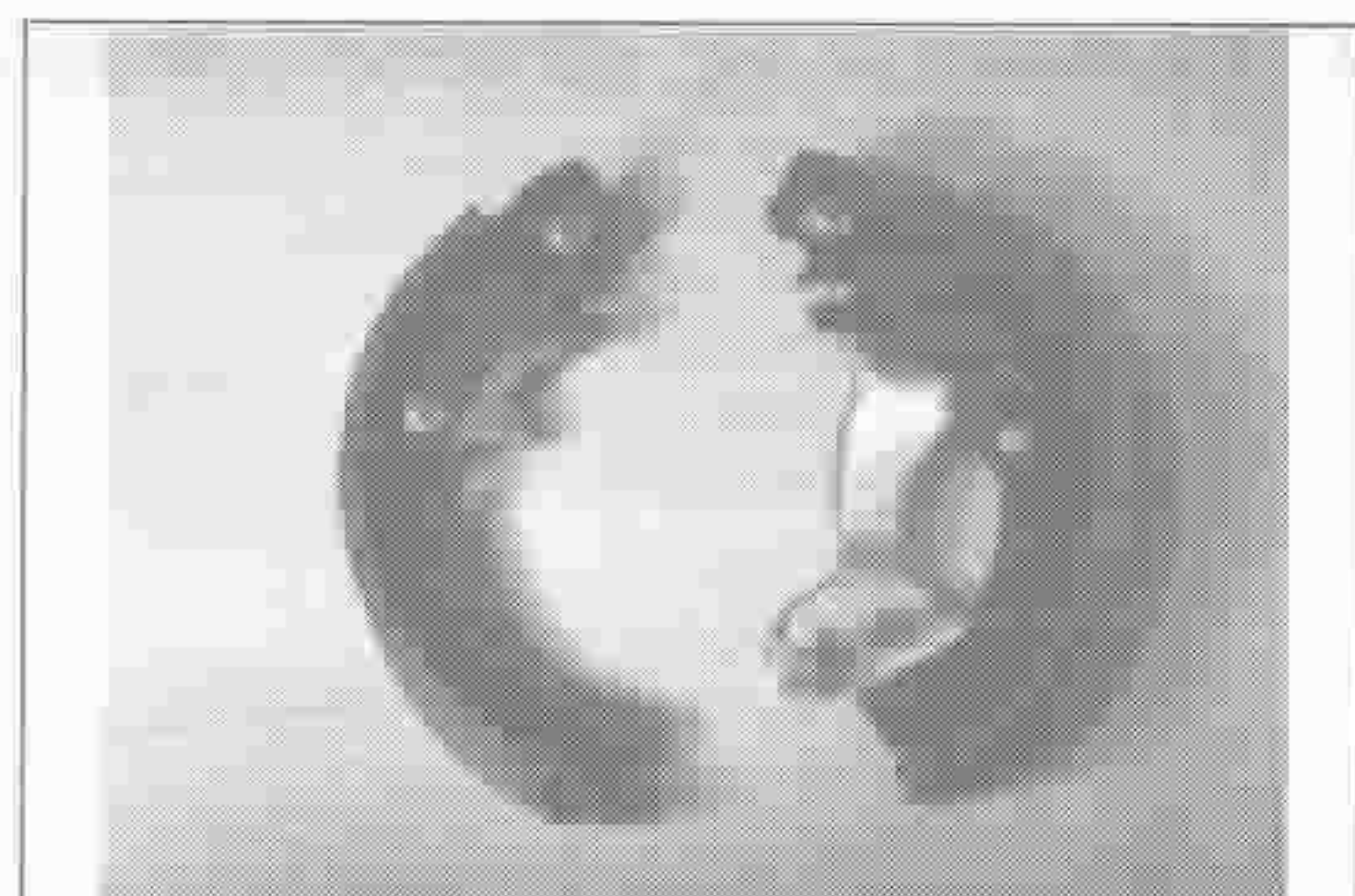
NOTE:

- Separate the parking brake cable from the parking brake shoe lever.



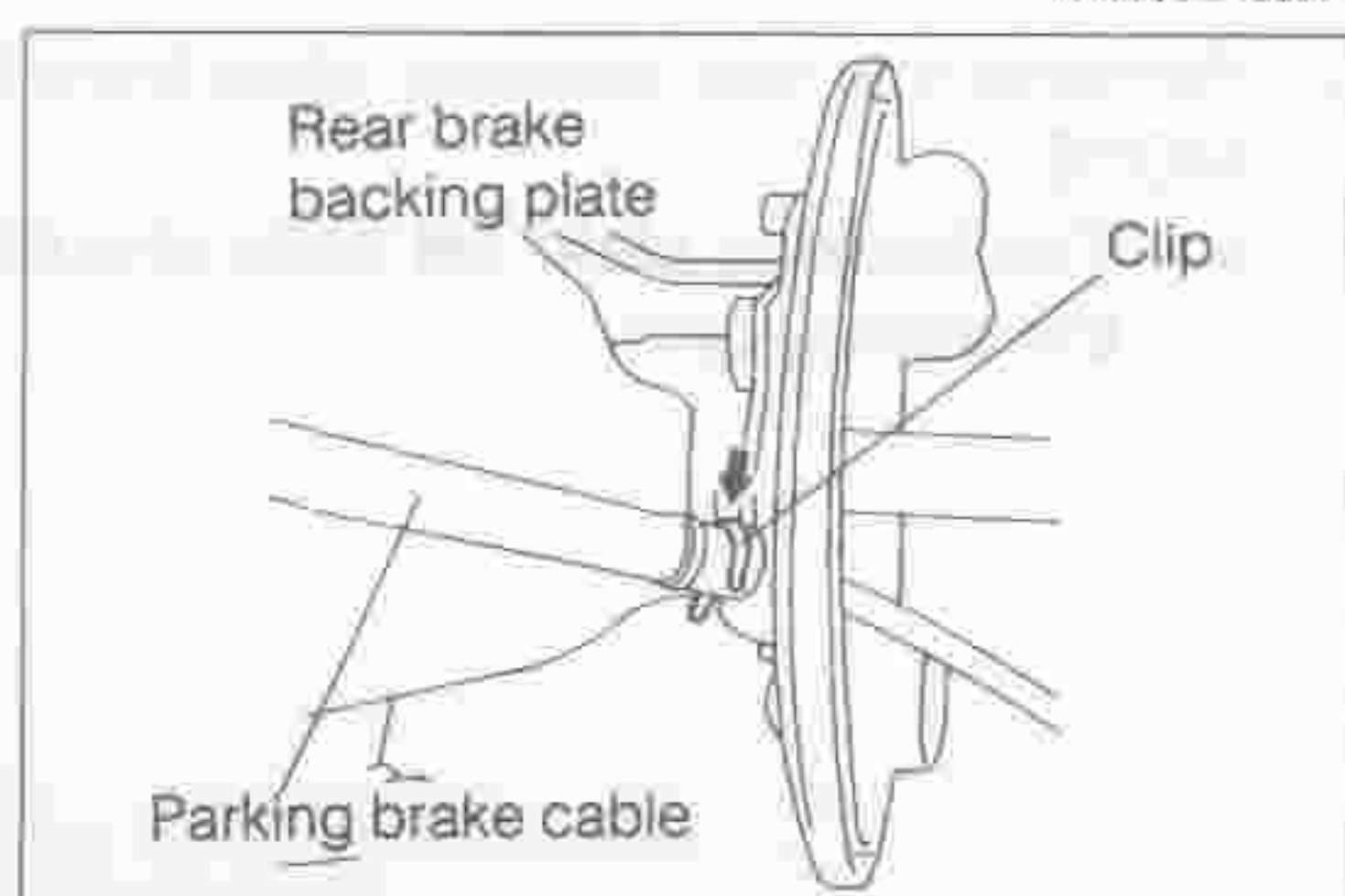
LBR00061-00070

8. Detach the E-ring. Remove the parking brake shoe lever from the brake shoe assembly.
9. Detach the E-ring. Remove the automatic adjust lever, latch. Pin and tension spring No. 3 from the brake shoe assembly.



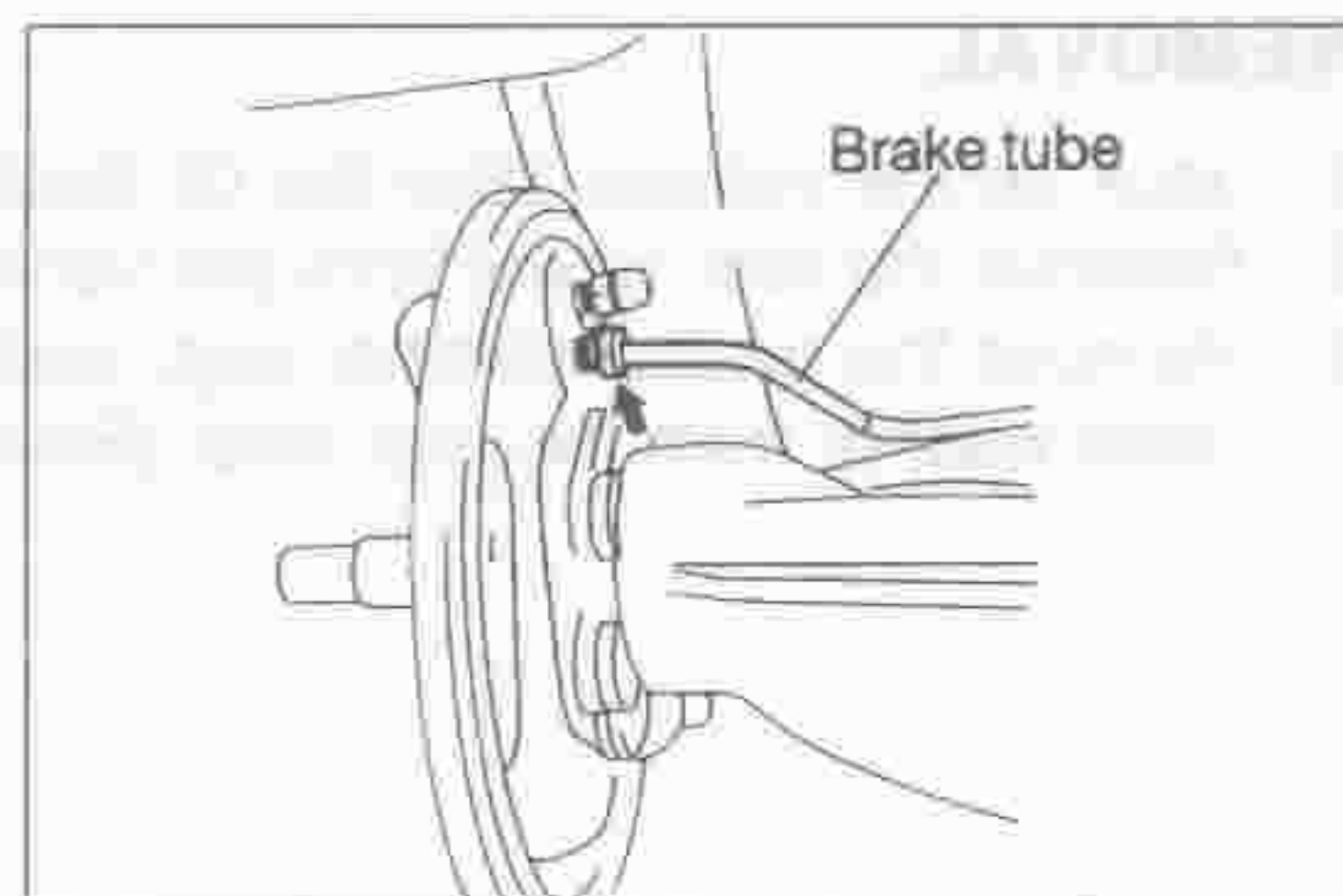
LBR00062-00071

10. Detach the clip from the back side of the rear brake backing plate. Pull out the parking brake cable from the backing plate.



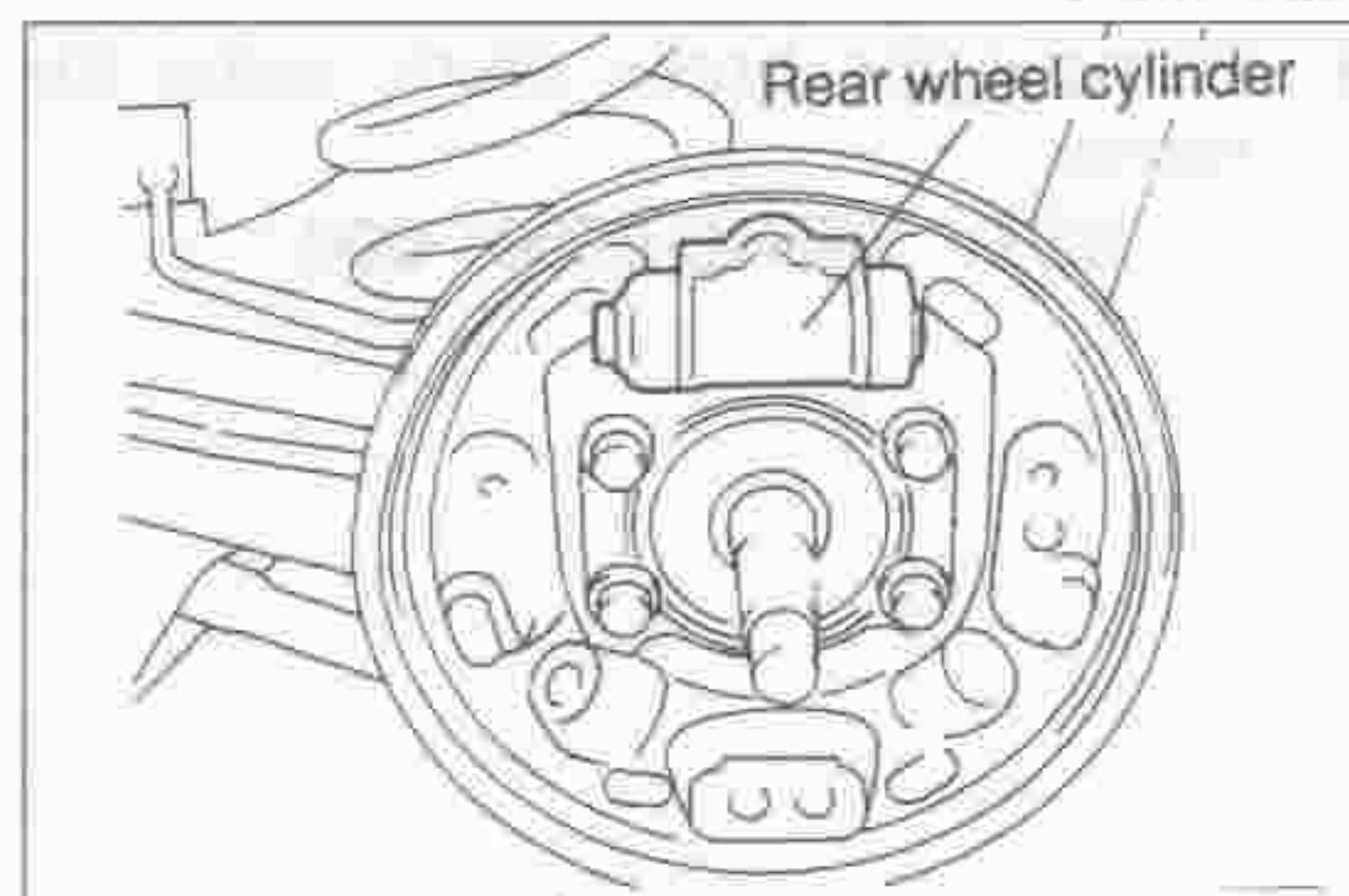
LBR00063-00072

11. Separate the brake tube from the rear wheel cylinder.



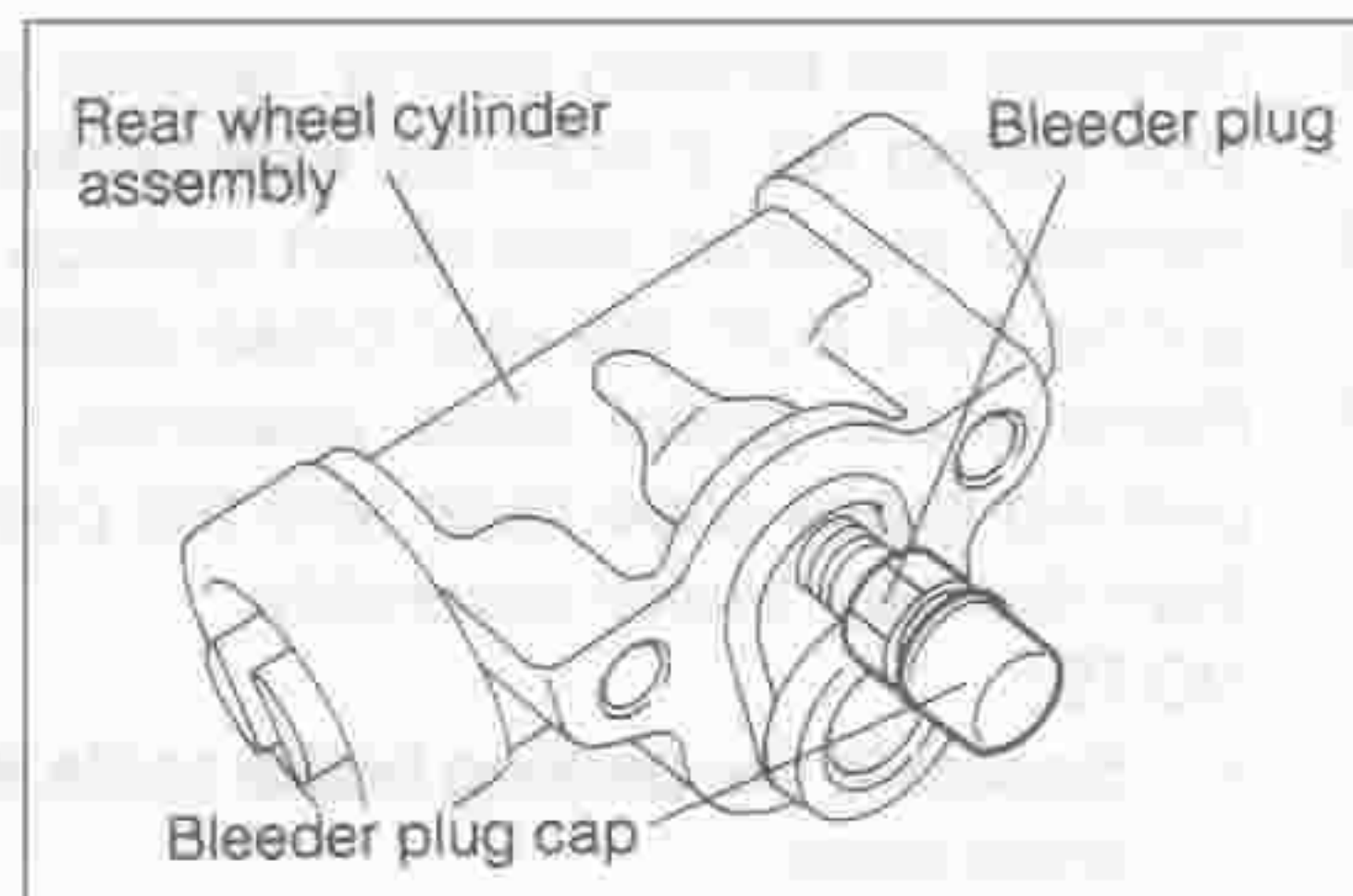
LBR00084-00073

12. Remove the rear wheel cylinder assembly from the rear brake backing plate.



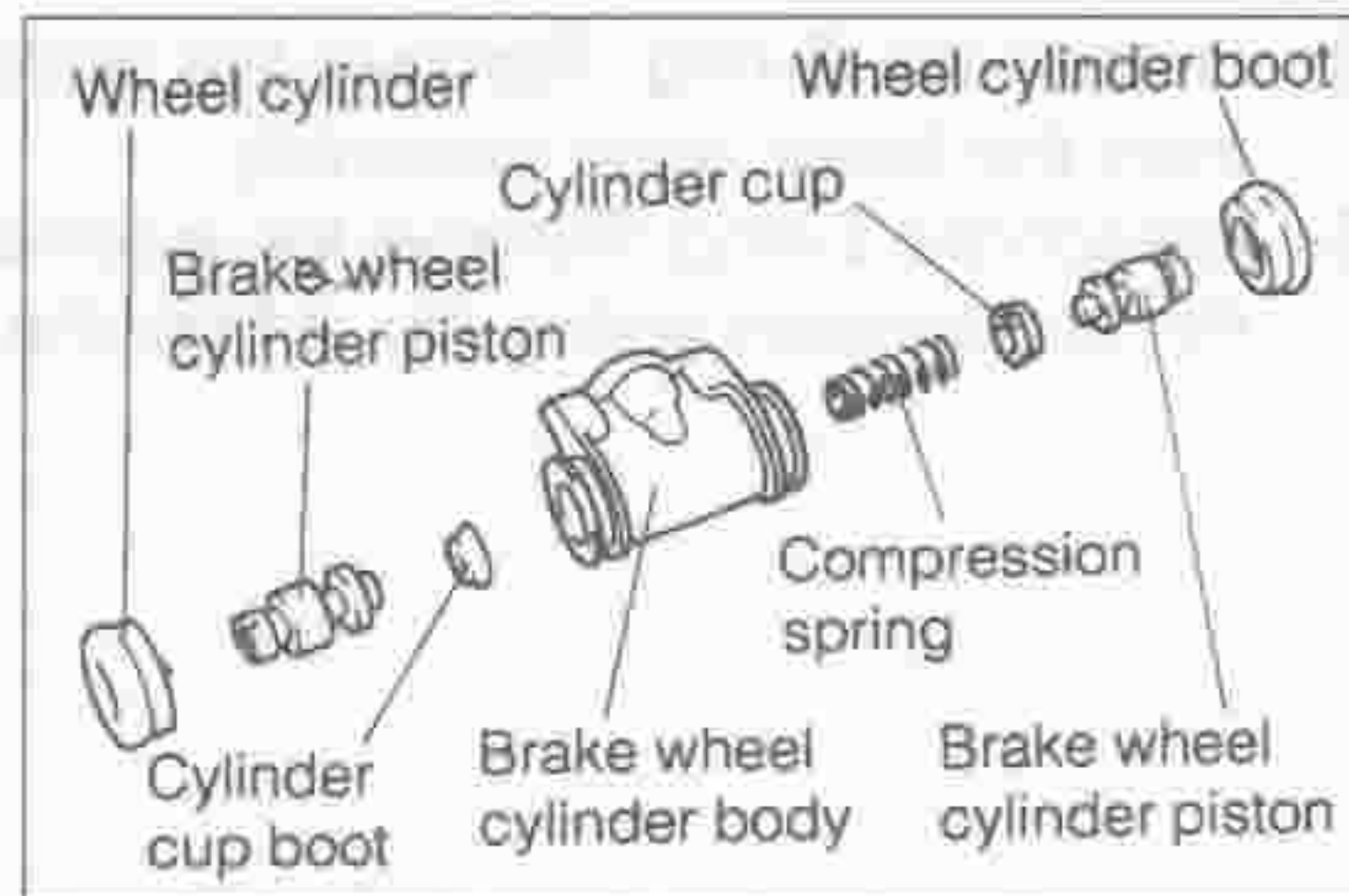
LBR00085-00074

13. Remove the bleeder plug cap and bleeder plug from the rear wheel cylinder assembly.



LBR00086-00075

14. Disassemble the rear wheel cylinder assembly.

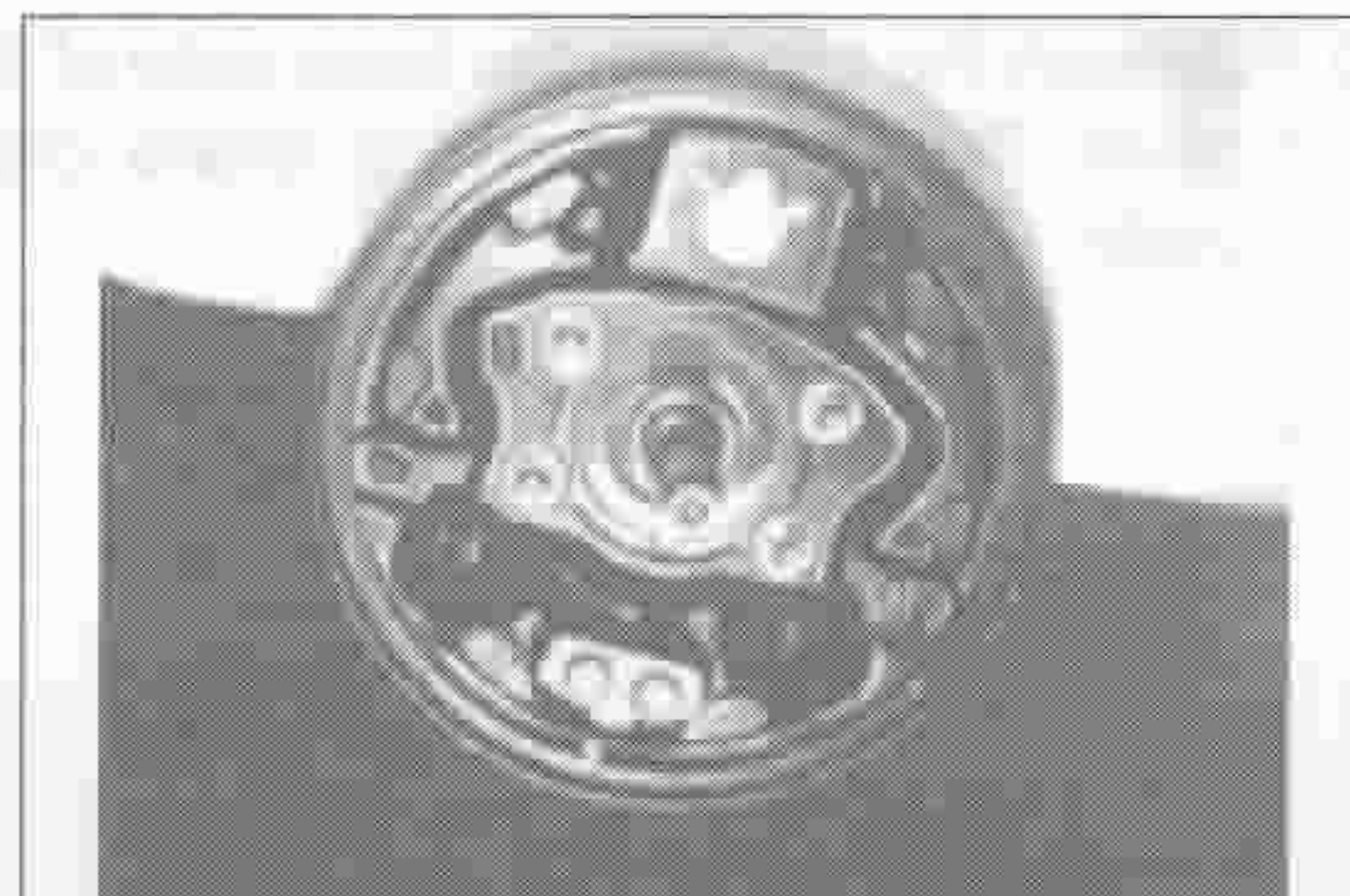


LBR00087-00076

15. Remove the rear backing plate from the rear trailing arm.

NOTE:

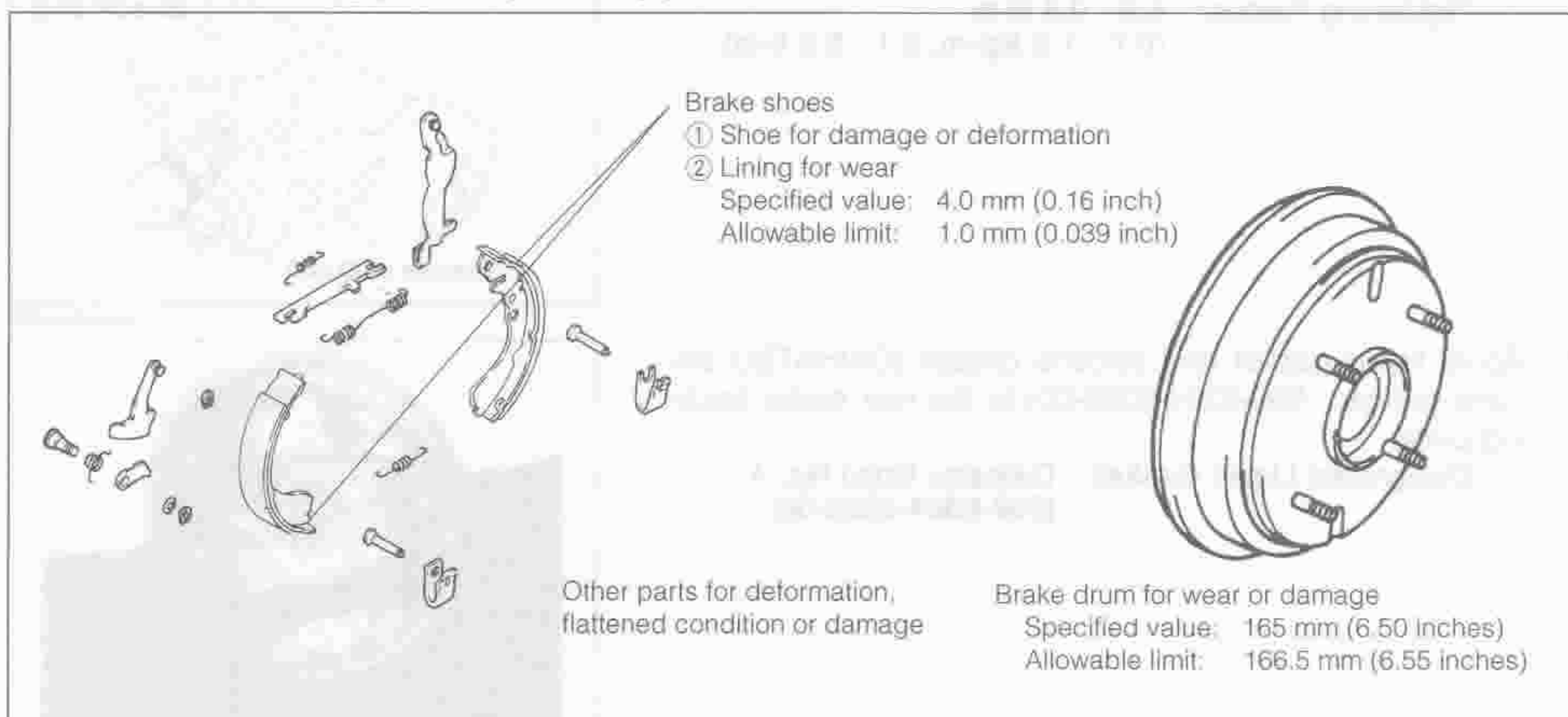
- The backing plate set bolts should be pulled out toward the trailing arm.



LBR00088-00077

INSPECTION

1. Inspect the following parts. Replace any parts which exhibit defects.



LBR00089-00078

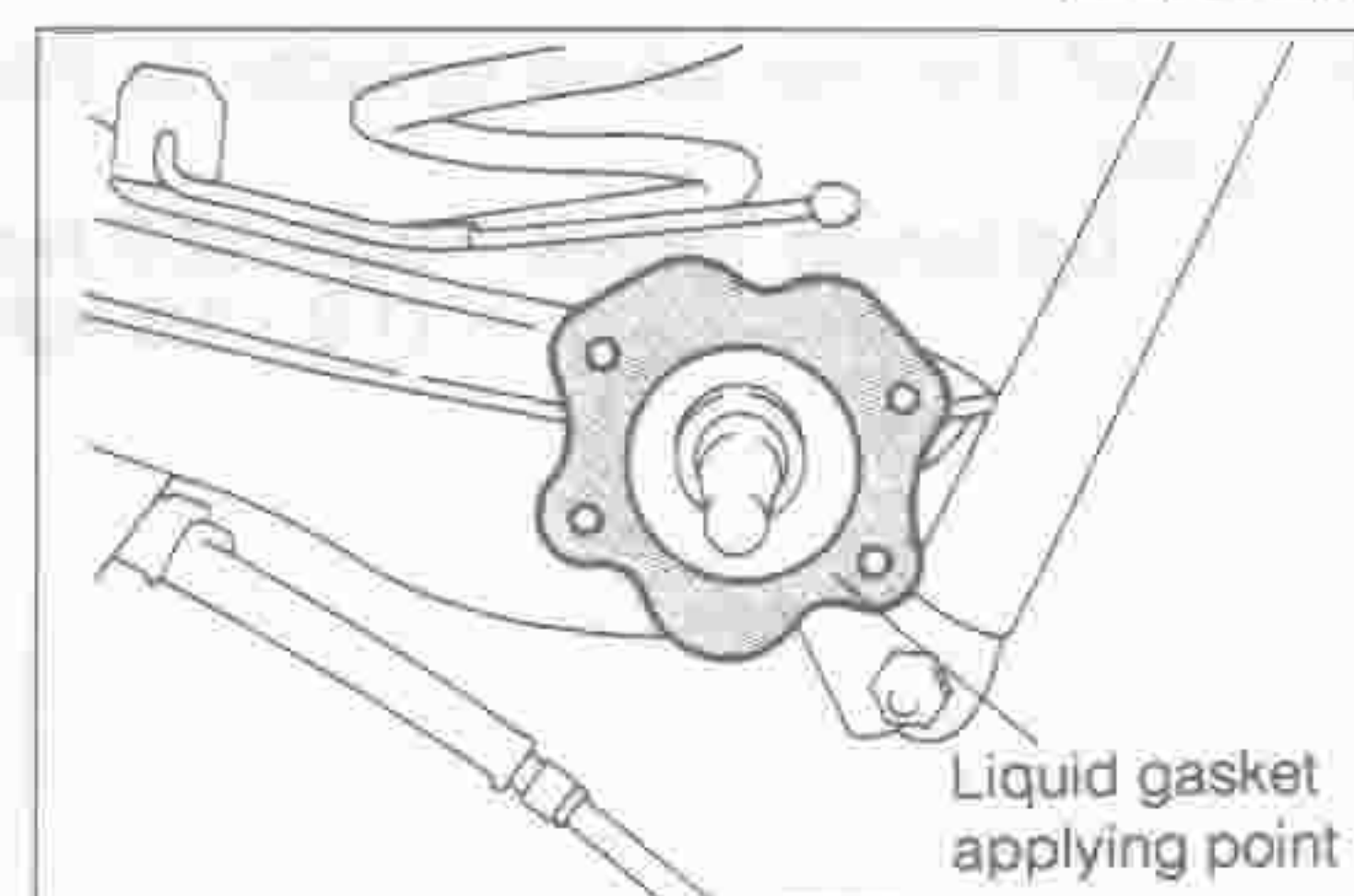
INSTALLATION

1. Apply liquid gasket to the attaching surface of the rear trailing arm with the rear brake backing plate.

Designated Liquid Gasket: Daihatsu Bond No. 4
[999-6304-6323-00]

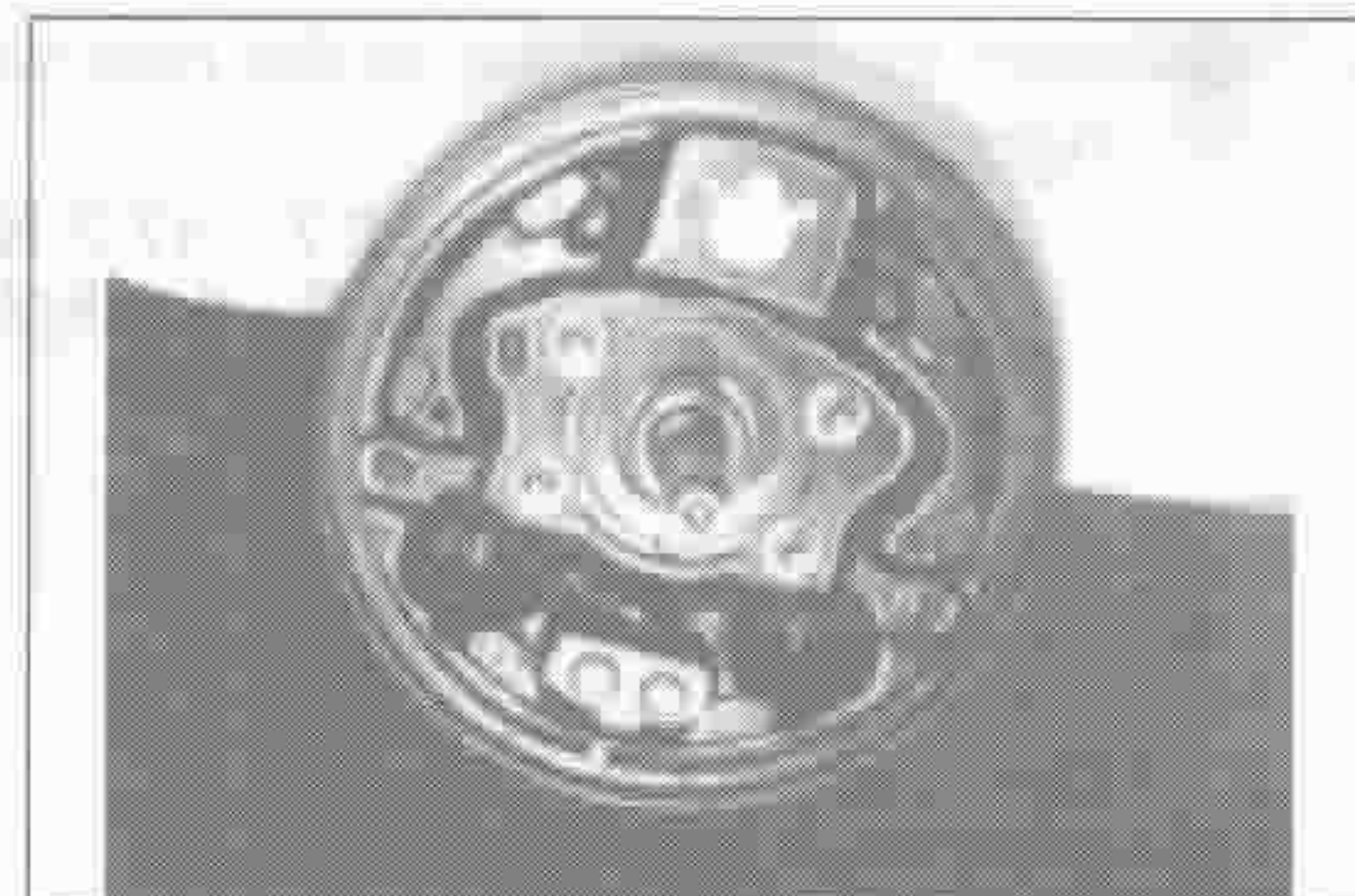
NOTE:

- Prior to the application of new liquid gasket, remove the old liquid gasket completely.



LBR00089-00079

2. Install the rear brake backing plate to the rear trailing arm.
Tightening Torque: 34.3 - 42.2 N·m
(3.5 - 4.3 kgf-m, 25.3 - 31.1 ft-lb)

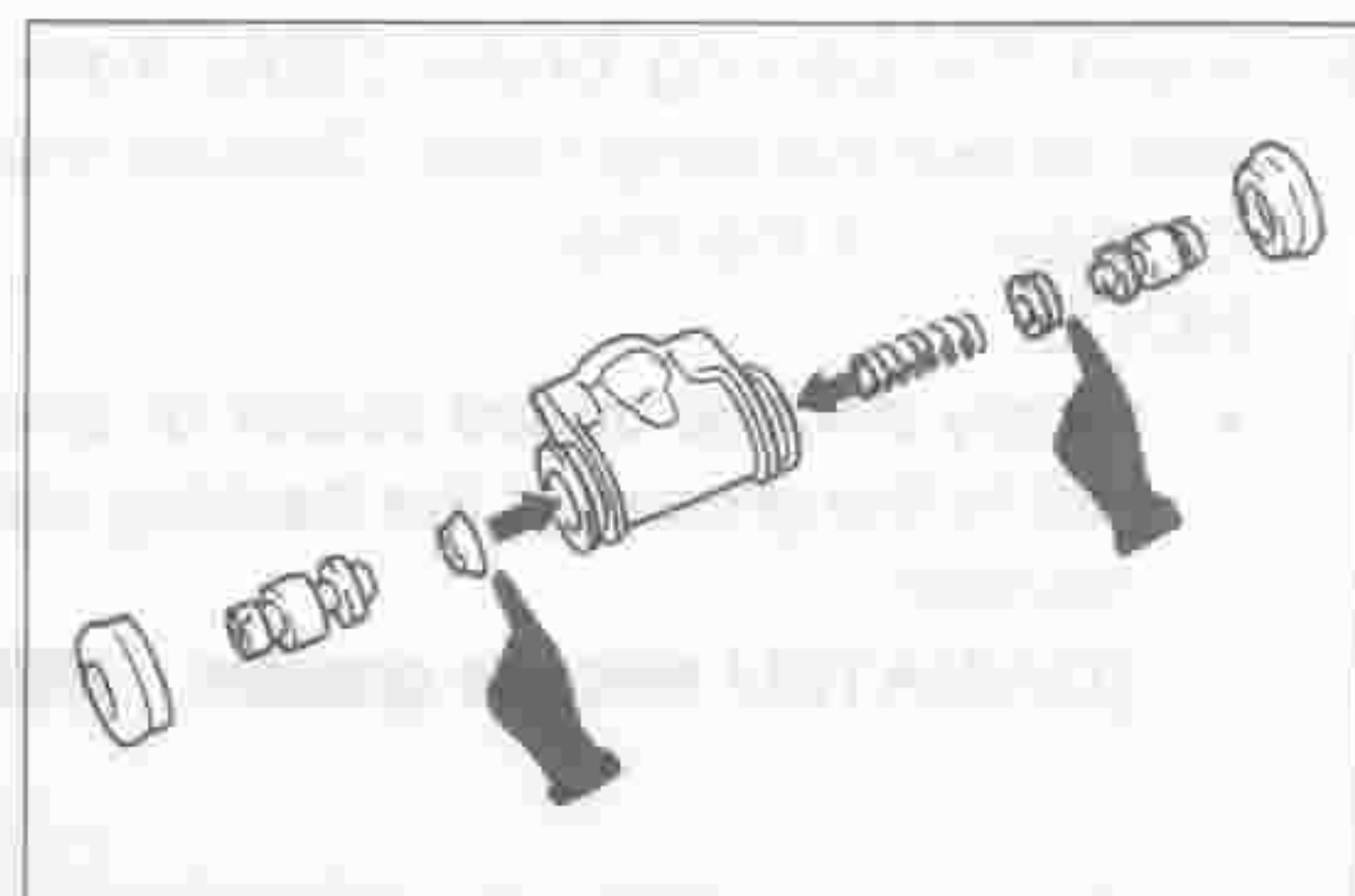


LBR00091-00080

3. Assemble the rear wheel cylinder.

NOTE:

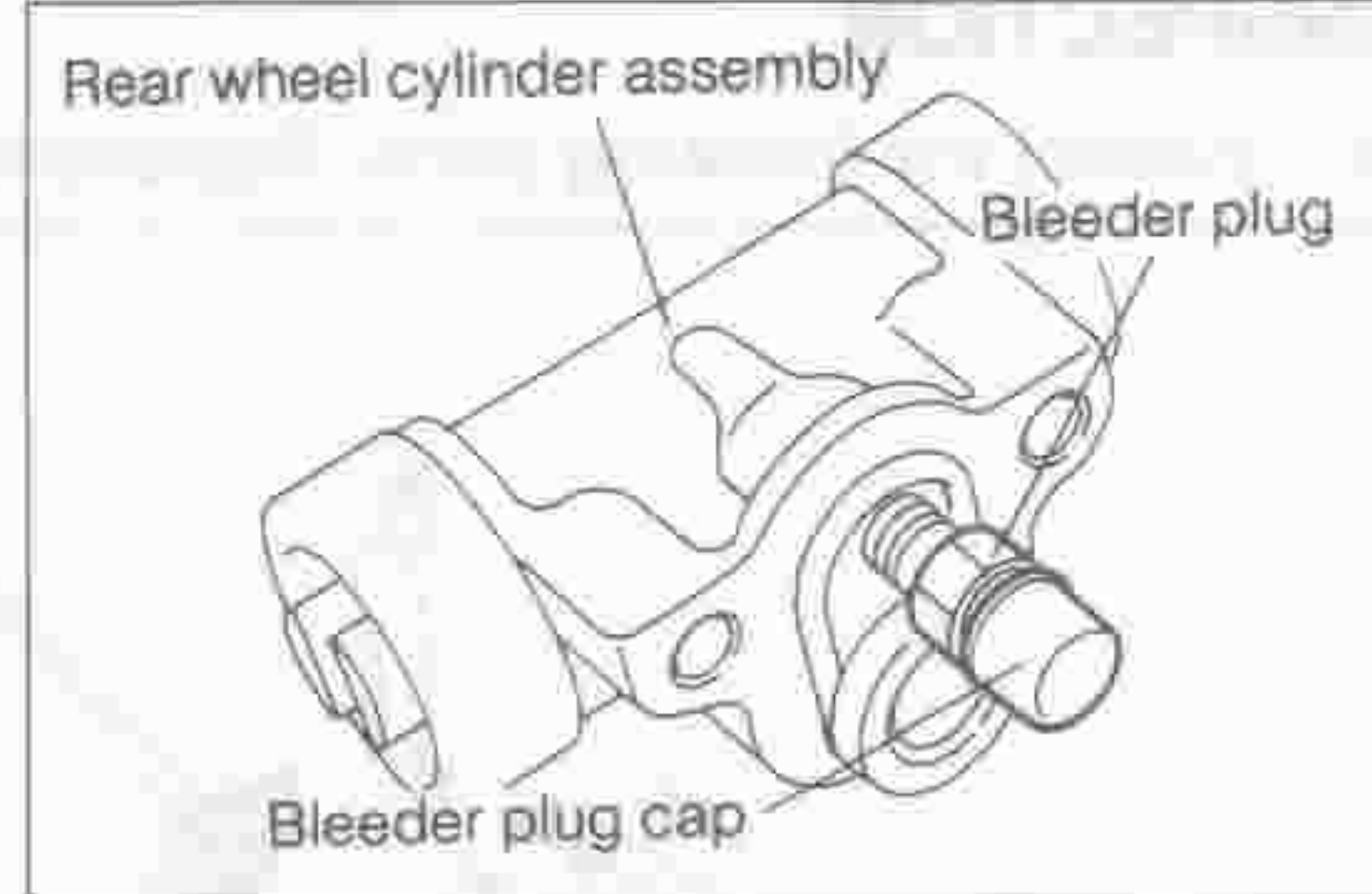
- Apply lithium soap base glycol grease [DAIHATSU rubber grease: 999-2504-8483-00] to the outer periphery of each cylinder cup.



LBR00092-00081

4. Install the bleeder plug and bleeder plug cap to the rear wheel cylinder assembly.

Tightening Torque: 6.9 - 9.8 N·m
(0.7 - 1.0 kgf-m, 5.1 - 8.0 ft-lb)



LBR00083-00082

5. Apply liquid gasket and silicone grease [DAIHATSU silicone grease: 999-6304-6323-00] to the rear brake backing plate.

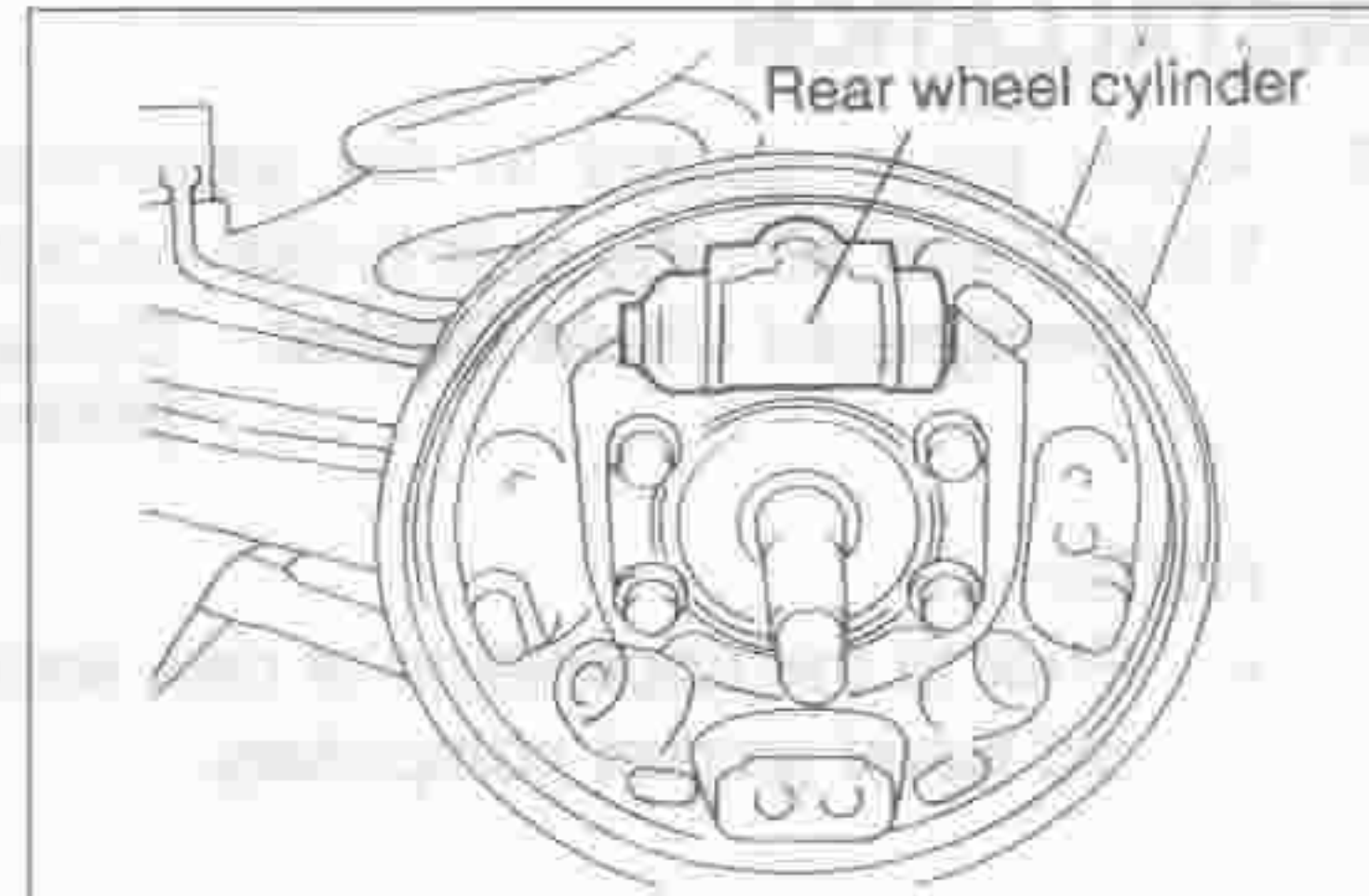
Designated Liquid Gasket: Daihatsu Bond No. 4
[999-6304-6323-00]



LBR00084-00083

6. Install the rear wheel cylinder to the rear brake backing plate.

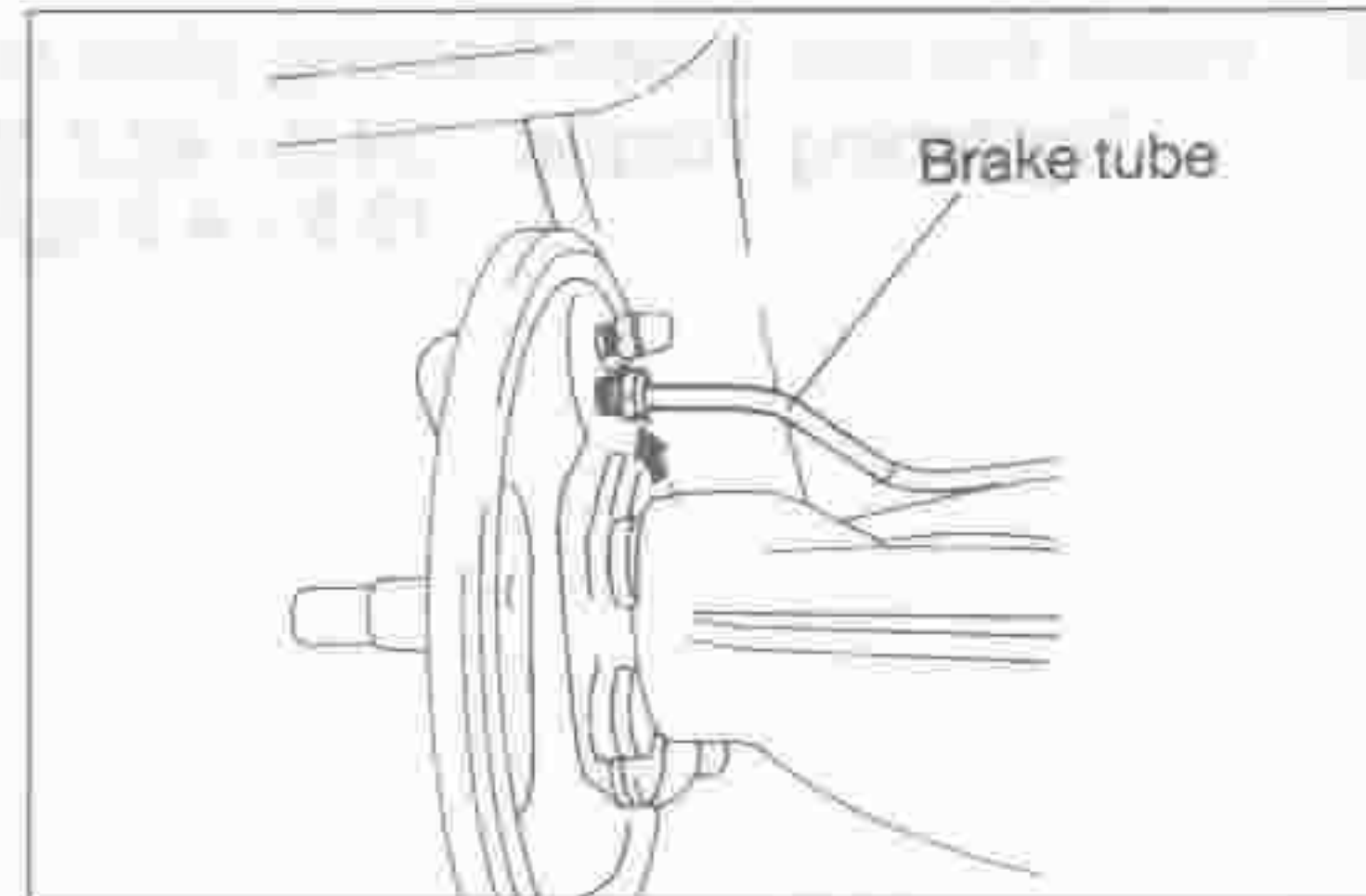
Tightening Torque: 9.8 - 12.7 N·m
(1.0 - 1.3 kgf-m, 7.2 - 9.4 ft-lb)



LBR00085-00084

7. Connect the brake tube to the rear wheel cylinder.

Tightening Torque: 12.7 - 17.7 N·m
(1.3 - 1.8 kgf-m, 9.4 - 13.0 ft-lb)



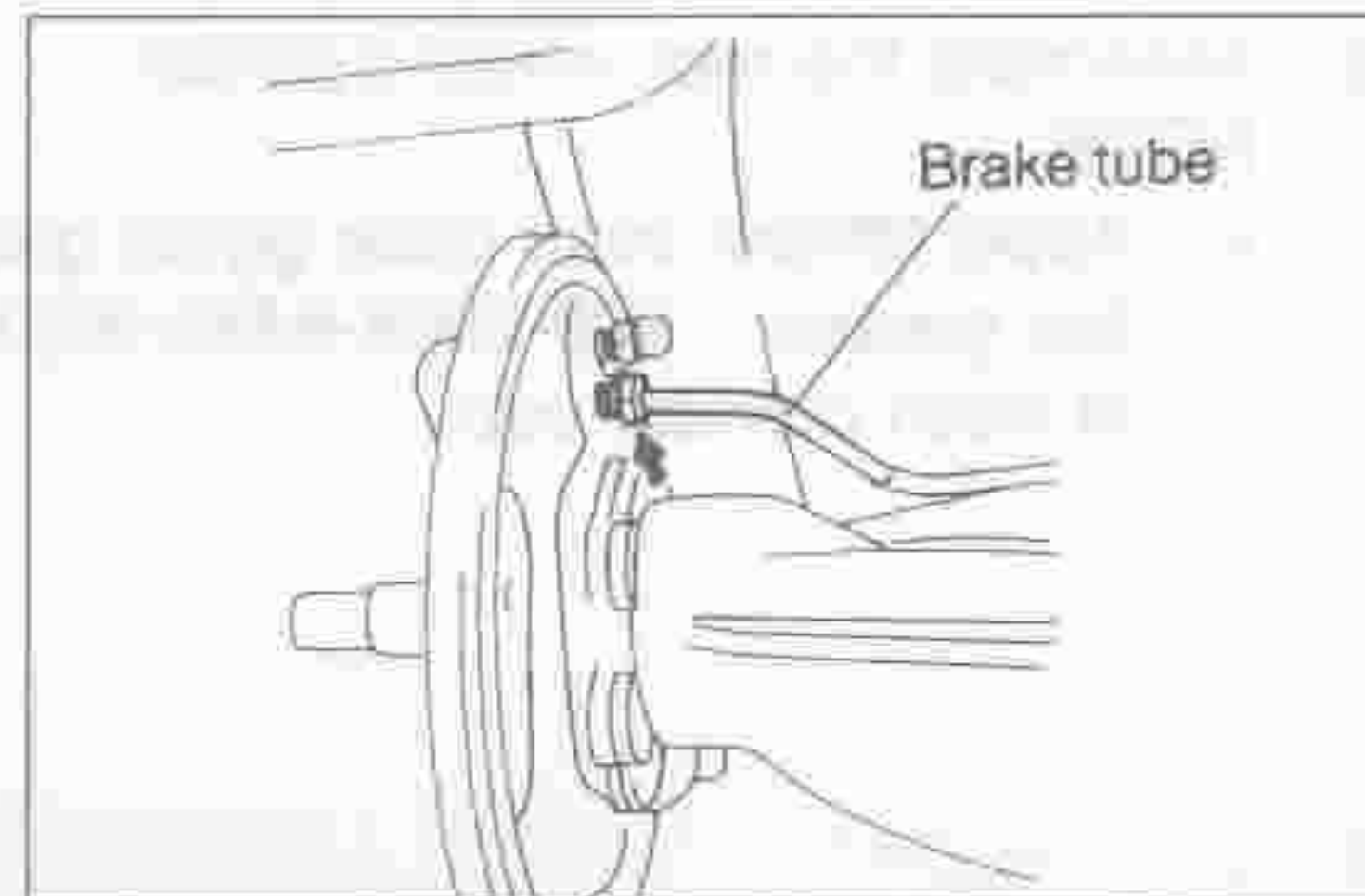
LBR00086-00085

8. Insert the parking brake cable from the back side of the rear brake backing plate. Secure the parking brake cable by means of the clip.

NOTE:

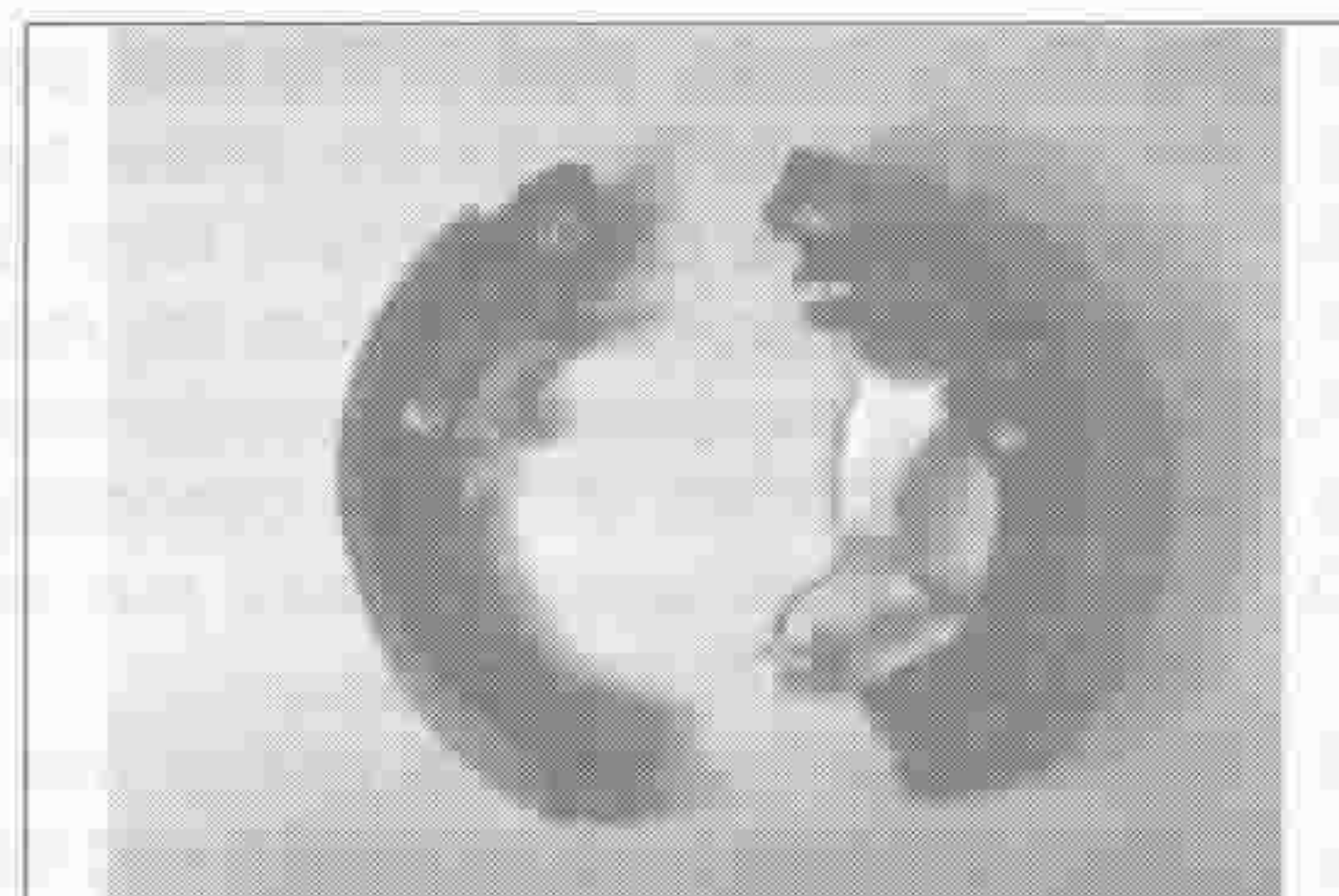
- Apply silicone based sealer or silicone based liquid gasket to the groove of the backing plate at the cable routing section.

[DAIHATSU silicone grease: 999-04808-U9-00]



LBR00087-00086

9. Install the automatic adjust lever, latch, pin and tension spring No. 3 to the brake shoe assembly. Secure them with the E-ring.
10. Install the parking brake shoe lever to the brake shoe assembly. Secure them with the E-ring.



LBR00096-00087

11. Install the brake shoe assembly, the brake shoe assembly with parking brake shoe lever and the parking brake shoe strut to the rear brake assembly.

NOTE:

- The parking brake cable should be connected to the parking brake shoe lever.

12. Secure the brake shoe assemblies by means of the shoe hold-down springs and shoe hold-down spring pins.
13. Install the tension spring, tension spring No. 4 and tension spring No. 2 to the rear brake assembly.

NOTE:

- Both ends of the parking brake shoe strut should be attached securely to the installing section of the brake shoe assembly.



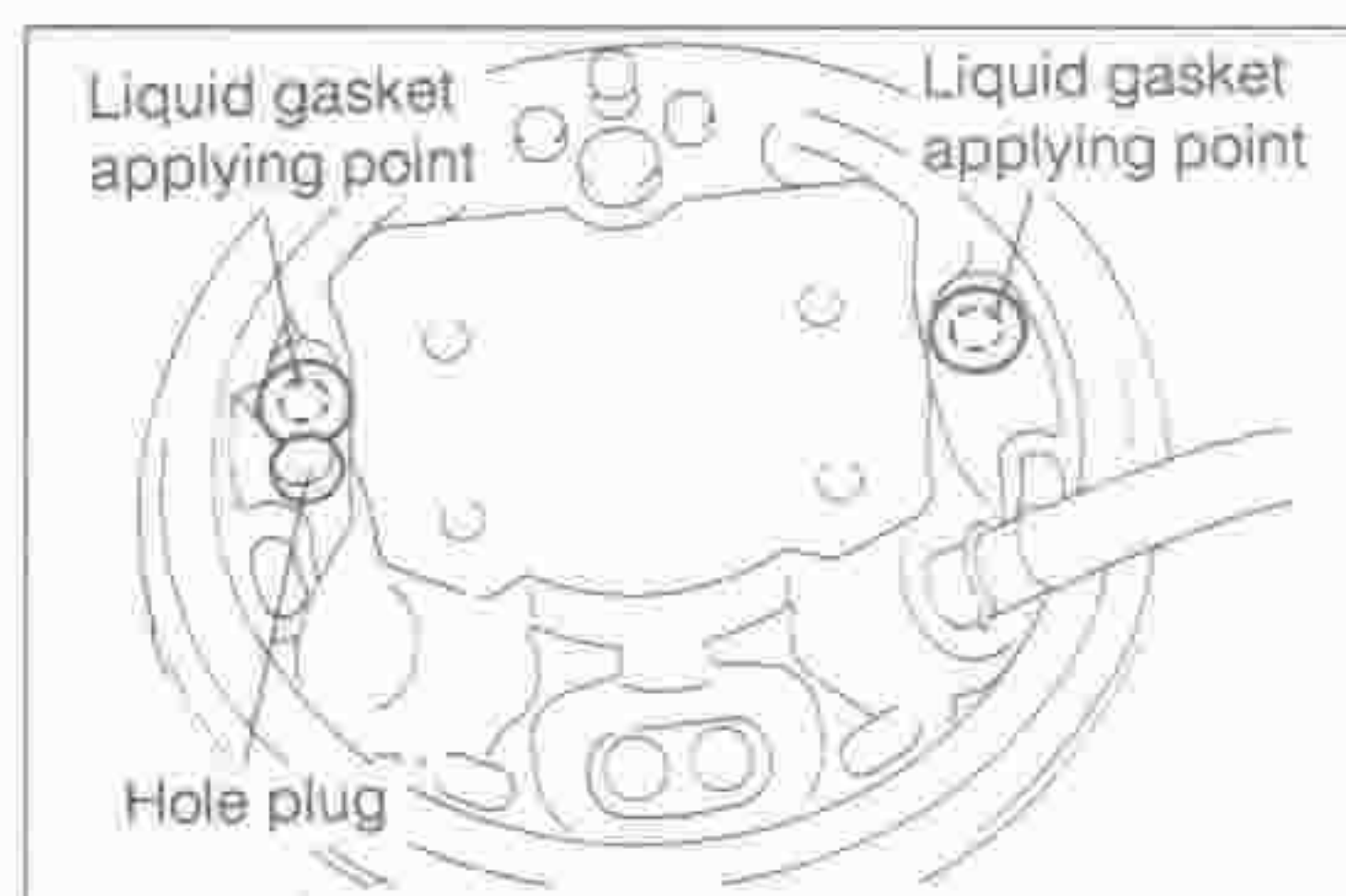
LBR00096-00088

NOTE:

1. Apply liquid gasket to around the attaching sections of the shoe hold-down spring pins, working from the back side of the rear brake backing plate.

Designated Liquid Gasket: Daihatsu Bond No. 4
[999-6304-6323-00]

2. Install the hole plug to the backing plate.



LBR00100-00089

14. Attach the brake drum to the rear axle temporarily.
15. Perform air bleeding for the brake system.
16. Ensure that the parking brake lever is released.
17. Remove the brake drum from the rear axle again.
18. Ensure that the automatic adjuster mechanism is functioning properly when the brake pedal is depressed.
19. Retract the brake shoes by cancelling the automatic adjuster. Attach the brake drum to the rear axle.
20. Install the plate washer, castle nut, cotter pin and grease retainer to the rear axle.
(Refer to the RS Section.)
21. Depress the brake pedal four or five times so as to adjust the brake shoe clearance.
22. Check the brake pedal height and free travel.
23. Adjust the working travel of the parking brake lever.



LIBR00101-00000

1. The brake drum is attached to the rear axle temporarily.

2. The brake drum is removed from the rear axle again.

3. The automatic adjuster mechanism is functioning properly when the brake pedal is depressed.

4. The brake shoes are retracted by cancelling the automatic adjuster.

5. The brake drum is attached to the rear axle.

6. The plate washer, castle nut, cotter pin and grease retainer are installed to the rear axle.

7. The brake pedal is depressed four or five times to adjust the brake shoe clearance.

8. The brake pedal height and free travel are checked.

9. The working travel of the parking brake lever is adjusted.



10. The brake drum is attached to the rear axle temporarily.

11. The brake drum is removed from the rear axle again.

12. The automatic adjuster mechanism is functioning properly when the brake pedal is depressed.

13. The brake shoes are retracted by cancelling the automatic adjuster.

14. The brake drum is attached to the rear axle.

15. The plate washer, castle nut, cotter pin and grease retainer are installed to the rear axle.

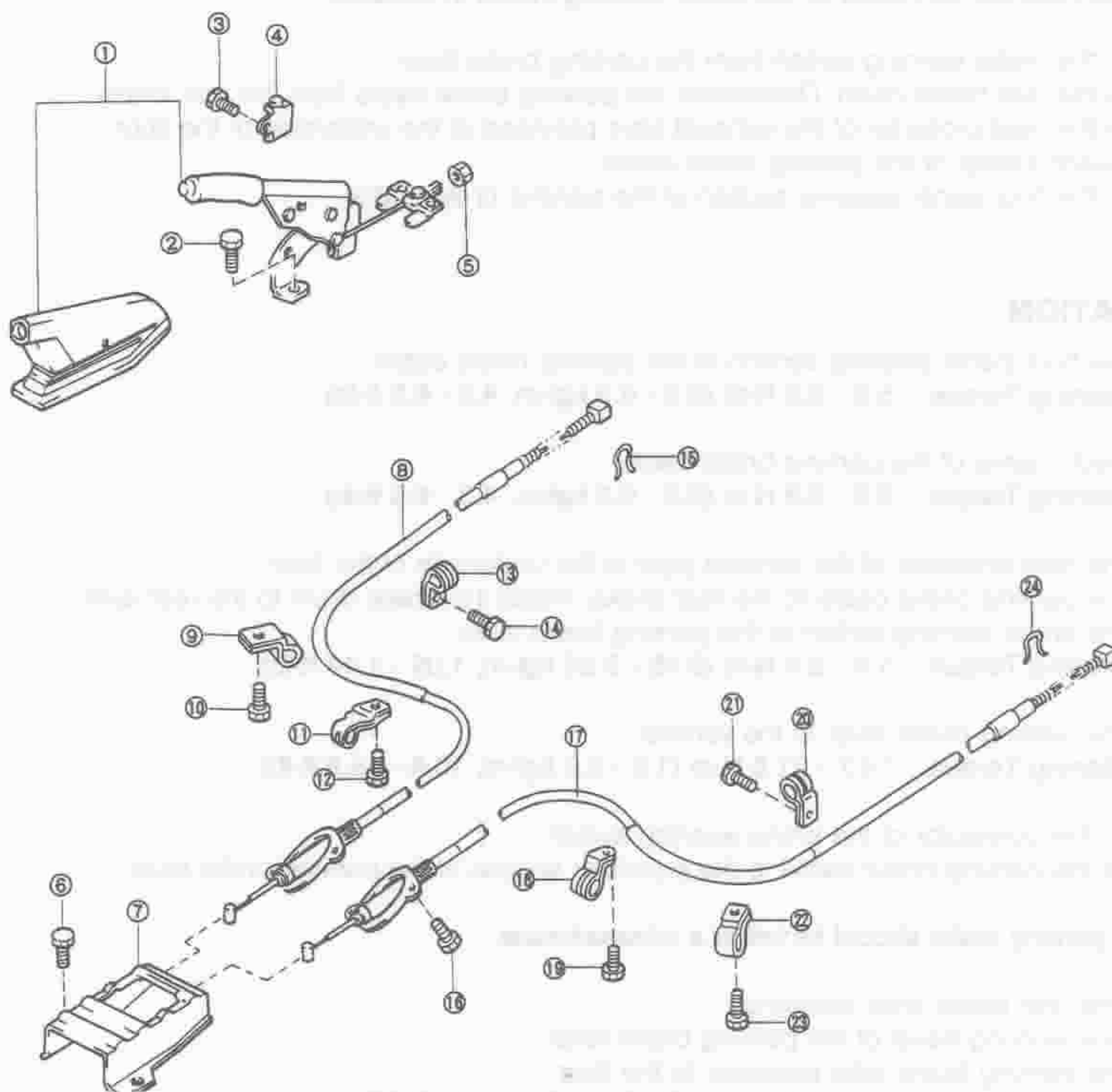
16. The brake pedal is depressed four or five times to adjust the brake shoe clearance.

17. The brake pedal height and free travel are checked.

18. The working travel of the parking brake lever is adjusted.

PARKING BRAKE COMPONENTS

Tightening torque (Parking brake lever assembly attaching bolt): 14.7 - 21.6 N·m (1.5 - 2.2 kgf-m, 10.8 - 15.9 ft-lb)
 (Other bolts): 5.9 - 8.8 N·m (0.6 - 0.9 kgf-m, 4.3 - 6.5 ft-lb)
 (Screws): 1.5 - 2.0 N·m (0.15 - 0.20 kgf-m, 1.09 - 1.44 ft-lb)



- ① Parking brake lever assembly
- ② Bolt (2 pieces)
- ③ Screw
- ④ Brake warning switch assembly
- ⑤ Nut
- ⑥ Bolt (2 pieces)
- ⑦ Parking brake tube protector
- ⑧ Parking brake cable RH
- ⑨ Clamp
- ⑩ Bolt
- ⑪ Clamp
- ⑫ Bolt

- ⑬ Clamp
- ⑭ Bolt
- ⑮ Clip
- ⑯ Bolt (4 pieces)
- ⑰ Parking brake cable LH
- ⑱ Clamp
- ⑲ Bolt
- ⑳ Clamp
- ㉑ Bolt
- ㉒ Clamp
- ㉓ Bolt
- ㉔ Clip

REMOVAL

1. Remove the front seat. Turn over the floor carpet at those section related to the operation. (Refer to the BO Section.)
2. Remove the parking brake tube protector from the floor.
3. Release the parking brake lever. Disconnect the parking brake cable from the equalizer section of the parking brake lever.
4. Remove the parking brake lever from the vehicle.

NOTE:

- Disconnect the connector of the brake warning switch in advance.

5. Remove the brake warning switch from the parking brake lever.
6. Remove the rear brake drum. Disconnect the parking brake cable from the rear brake.
7. Remove the heat protector of the exhaust pipe provided at the underside of the floor.
8. Detach each clamp of the parking brake cable.
9. Remove the floor panel passing section of the parking brake cable.

LBRC0103-00000

INSTALLATION

1. Install the floor panel passing section of the parking brake cable.
Tightening Torque: 5.9 - 8.8 N·m (0.6 - 0.9 kgf-m, 4.3 - 6.5 ft-lb)
2. Install each clamp of the parking brake cable.
Tightening Torque: 5.9 - 8.8 N·m (0.6 - 0.9 kgf-m, 4.3 - 6.5 ft-lb)
3. Install the heat protector of the exhaust pipe at the underside of the floor.
4. Install the parking brake cable to the rear brake. Install the brake drum to the rear axle.
5. Install the brake warning switch to the parking brake lever.
Tightening Torque: 1.5 - 2.0 N·m (0.15 - 0.20 kgf-m, 1.09 - 1.44 ft-lb)
6. Install the parking brake lever to the vehicle.
Tightening Torque: 14.7 - 21.6 N·m (1.5 - 2.2 kgf-m, 10.8 - 15.9 ft-lb)
7. Connect the connector of the brake warning switch.
8. Connect the parking brake cable to the equalizer section of the parking brake lever.
NOTE:
 - The parking brake should be left in a released state.
9. Adjust the rear brake shoe clearance.
10. Adjust the working travel of the parking brake lever.
11. Install the parking brake tube protector to the floor.
Tightening Torque: 5.9 - 8.8 N·m (0.6 - 0.9 kgf-m, 4.3 - 6.5 ft-lb)
12. Return the floor carpet to the original position. Install the front seat. (Refer to the BO Section.)

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SSTs

Shape	Part Number	Part Name
	09510-87301-000	Front hub & drum puller
	09737-87003-000	Brake booster push rod gauge

LBR00105-00091

SERVICE SPECIFICATIONS

Item				Specified value	Allowable limit	Remarks
Brake pedal Unit: mm (inch)	Height	R.H.D.	MT	143 - 149 (5.63 - 5.87)	—	
			AT	148 - 154 (5.82 - 6.06)	—	
		L.H.D.		154 - 160 (6.06 - 6.30)	—	
	Stroke			123 (4.84)	—	
	Free travel	When engine is running at idle speed:		0.5 - 3.0 (0.02 - 0.12)	—	
	Reserve travel			—	85 (3.35)	Pedal applying force 294N (30 kgf, 66lb)
Hydraulic pressure Pedal applying force unit : N (kgf, lb) Hydraulic pressure unit: MPa (kgf/cm ² , psi)	During no-boosting operation	Pedal applying force: 98 (10,22)		0.49 (5, 71)	—	
		Pedal applying force: 294 (30, 66)		2.94 (30, 427)	—	
	During boosting operation	Pedal applying force: 49 (5, 11)		0.59 (6, 85)	—	Booster negative pressure 450 mmHg (60 kPa)
		Pedal applying force: 98 (10, 22)		2.45 (25, 356)	—	
		Pedal applying force: 147 (15, 33)		4.12 (42, 597)	—	
		Pedal applying force: 196 (20, 44)		5.00 (51, 725)	—	
	Parking brake lever working travel				4 - 7 notches	—
Clearance between brake booster push rod and master cylinder piston [Booster inner negative pressure 500 mmHg (66.6 kPa)]				0 - 0.4 mm (0 - 0.0157 inch)	—	Clearance should be zero when SST for clearance adjustment use is employed.
Front disc brake Unit: mm (inch)	Pad lining thickness			9 (0.35)	1 (0.039)	—
	Disc thickness			10 (0.39)	9 (0.355)	—
	Disc rotor runout			—	0.10 (0.0039)	Measured at a point 10 mm (0.39 inch) from outer periphery of rotor
Rear drum brake Unit: mm (inch)	Brake drum inner diameter			165 (6.50)	166.5 (6.55)	
	Brake shoe lining thickness			4.0 (0.16)	1.0 (0.039)	

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TIGHTENING TORQUES

Tightening components	Tightening Torque		
	N·m	kgf·m	ft·lb
Brake pedal bracket × Brake pedal	14.7 - 21.6	1.5 - 2.2	10.8 - 15.9
Brake pedal bracket × Body	9.8 - 15.7	1.0 - 1.6	7.2 - 11.6
Stop lamp switch assembly × Brake pedal bracket	18.6 - 30.4	1.9 - 3.1	13.7 - 22.4
Push rod lock nut	11.8 - 17.7	1.2 - 1.8	8.7 - 13.0
Brake booster × Dash panel	9.8 - 15.7	1.0 - 1.6	7.2 - 11.6
Master cylinder × Brake booster	11.8 - 17.7	1.2 - 1.8	8.7 - 13.0
Brake tube × Master cylinder	12.7 - 17.7	1.3 - 1.8	9.4 - 13.0
Master cylinder set bolt	6.9 - 10.8	0.7 - 1.1	5.1 - 8.0
Dust cover subassembly × Steering knuckle	29.4 - 39.2	3.0 - 4.0	21.7 - 28.9
Disc rotor × hub	39.2 - 53.9	4.0 - 5.5	28.9 - 39.8
Hub & disc rotor × Drive shaft	177 - 196	18.0 - 20.0	130 - 145
Disc brake caliper × Knuckle	31.4 - 41.2	3.2 - 4.2	21.3 - 30.4
Disc brake caliper × Brake hose	19.6 - 26.5	2.0 - 2.7	14.5 - 19.5
Disc brake caliper × Bleeder plug	6.9 - 9.8	0.7 - 1.0	5.1 - 7.2
Rear wheel cylinder × Brake tube	12.7 - 17.7	1.3 - 1.8	9.4 - 13.0
Rear wheel cylinder × Rear brake backing plate	9.8 - 12.7	1.0 - 1.3	7.2 - 9.4
Rear wheel cylinder × Bleeder plug	6.9 - 9.8	0.7 - 1.0	5.1 - 7.2
Backing plate set bolt × Nut	34.3 - 42.2	3.5 - 4.3	25.3 - 31.1
Rear brake drum × Trailing arm	58.8 - 78.5	6.0 - 8.0	43.4 - 57.9
Parking brake lever assembly × Body	14.7 - 21.6	1.5 - 2.2	10.8 - 15.9
Parking brake lever assembly × Brake warning switch	1.5 - 2.0	0.15 - 0.20	1.09 - 1.44
Parking brake cable clamp × Body	5.9 - 8.8	0.6 - 0.9	4.3 - 6.5
Parking brake tube protector × Body	5.9 - 8.8	0.6 - 0.9	4.3 - 6.5
Proportioning valve × Body	5.9 - 8.8	0.6 - 0.9	4.3 - 6.5

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