

DAIHATSU

CHARADE

Chassis

SECTION 8 BRAKES

BRAKE PEDAL CHECKS AND			
ADJUSTMENT	8- 2	(7-inch Booster)	
BRAKE BOOSTER OPERATION CHECK	8- 3	COMPONENTS	8-21
AIR BLEEDING OF BRAKE SYSTEM	8- 5	DISASSEMBLY	8-22
SCHEMATIC VIEW	8- 6	INSPECTION	8-23
BRAKE PEDAL	8- 7	ASSEMBLY	8-23
COMPONENTS	8- 7	INSTALLATION	8-26
REMOVAL	8- 7	FRONT BRAKE	8-28
INSPECTION	8- 8	SECTIONAL VIEW	8-28
INSTALLATION	8- 8	COMPONENTS	8-29
BRAKE MASTER CYLINDER AND		DISC BRAKE PAD	8-30
BRAKE BOOSTER	8-10	DISC BRAKE FRONT CALIPER	8-31
SECTIONAL VIEW	8-10	REAR DRUM BRAKE	8-37
MASTER CYLINDER	8-11	SECTIONAL VIEW	8-37
COMPONENTS	8-11	COMPONENTS	8-37
REMOVAL	8-12	REMOVAL	8-38
DISASSEMBLY	8-12	INSPECTION	8-40
INSPECTION	8-13	INSTALLATION	8-41
ASSEMBLY	8-13	REAR DISC BRAKE	8-45
INSTALLATION	8-14	SECTIONAL VIEW	8-45
BRAKE BOOSTER	8-15	COMPONENTS	8-46
(6-inch Booster)		DISC BRAKE PAD	8-47
COMPONENTS	8-15	DISC BRAKE REAR CYLINDER	8-49
REMOVAL	8-16	PARKING BRAKE	8-56
DISASSEMBLY	8-16	PARKING BRAKE LEVER	8-56
INSPECTION	8-17	PARKING BRAKE CABLE	8-58
ASSEMBLY	8-18		

BRAKES

BRAKE PEDAL CHECKS AND ADJUSTMENTS

1. Pedal height check

Measure the brake pedal height (the dimension from the center of the pedal applying surface to the dash panel).

Specified Value: 176 - 181 mm (6.93 - 7.13 inch)

2. Pedal height adjustment

- (1) Disconnect the connector from the stop lamp switch. Slacken the nut ① and turn the switch, until the pedal has a free travel.
- (2) Slacken the nut ②. Turn the push rod ③ so as to adjust the pedal height. Lock the nut ②.
- (3) Turn the switch, until the pedal cushion comes in contact with the edge of the threaded portion of the stop lamp switch. Lock the nut ①.
- (4) Connect the connector of the stop lamp switch.
- (5) Upon completion of the pedal height adjustment, ensure that the pedal free travel is proper and the stop lamp functions properly.

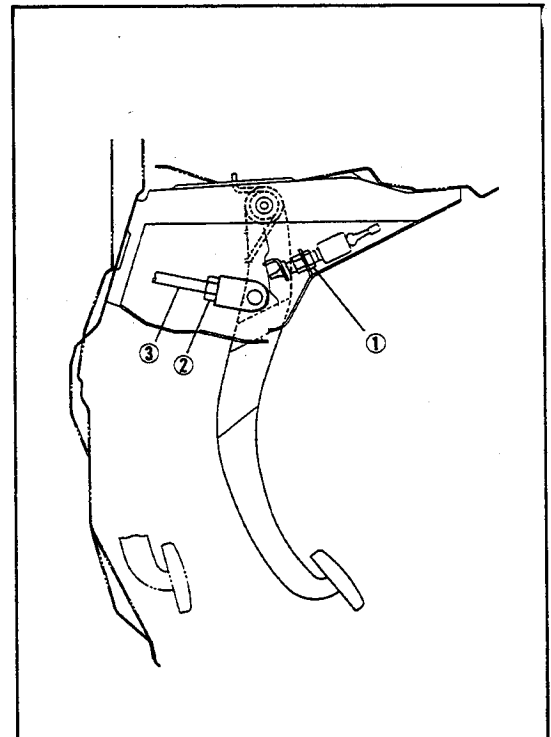


Fig. 8-1

WR-08002

3. Pedal free travel check

After stopping the engine, depress the brake pedal strongly several times so that no vacuum may remain the brake booster. Measure the brake pedal free travel by pushing the brake pedal lightly by fingers. Here, the pedal free travel means the distance from a point where the brake pedal is free to a point where you begin to feel a resistance.

Specified Value:

6-inch Booster 3 - 7 mm (0.12 - 0.28 inch)

7-inch Booster 0.5 - 2 mm (0.02 - 0.08 inch)

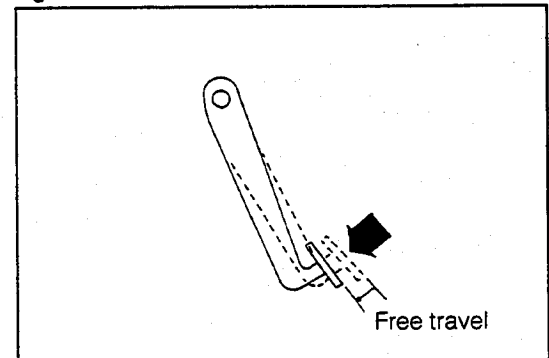


Fig. 8-2

WR-08003

4. Pedal free travel adjustment

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

5. Pedal reserve travel check

With the engine running at the idling speed and with the parking brake lever in its returned state, depress the brake pedal with a pedal applying force of 30 kg (66 lb). Measure the gap between the position where the depressed pedal stops and the floor panel.

Specified Value: 102 mm (4.0 inches) or more

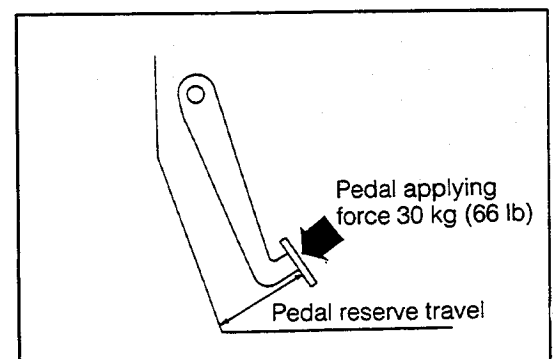


Fig. 8-3

WR-08004

BRAKE BOOSTER OPERATION CHECK

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 which will be used during normal brake applications. If the position of the brake pedal rises progressively at the second and third applications and so on, 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 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 that the booster is functioning properly.

(3) Booster operation check

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

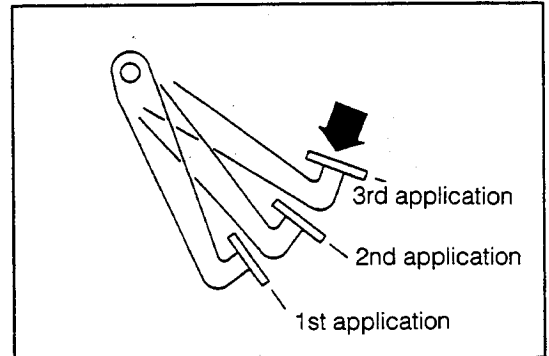


Fig. 8-4

WR-08005

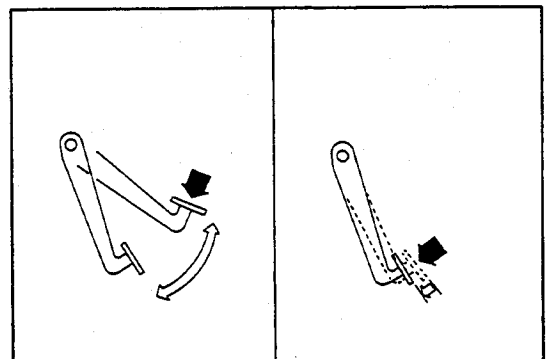


Fig. 8-5

WR-08006

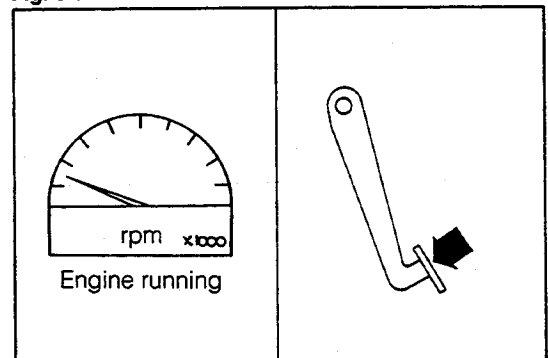


Fig. 8-6

WR-08007

2. CHECK EMPLOYING PORTABLE BRAKE BOOSTER TESTER

(1) Connection of portable brake booster tester

Connect the portable booster tester. Carry out air bleeding for the booster tester.

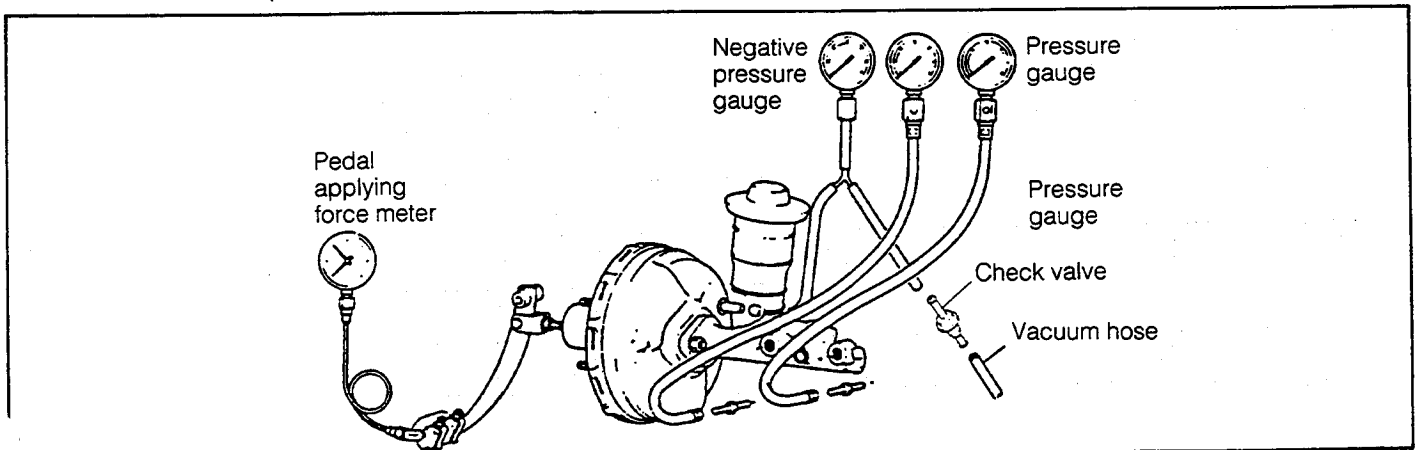


Fig. 8-7

WR-08008

BRAKES

(2) Booster air-tight performance check

Start the engine. When the negative pressure exceeds 500 mmHg, stop the engine. Proceed to measure the negative pressure. Ensure that the negative pressure will not drop for a period of 15 seconds following the stoppage of the engine.

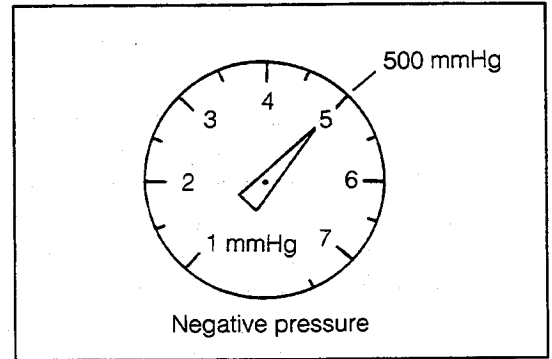


Fig. 8-8

WR-08009

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

With the engine running, depress the brake pedal with a pedal applying force of 20 kg (44 lb). Stop the engine when the negative pressure exceeds 500 mmHg, stop the engine. Proceed to measure the negative pressure. Ensure that the negative pressure will not drop more than 25 mmHg for a period of 15 seconds following the stoppage of the engine.

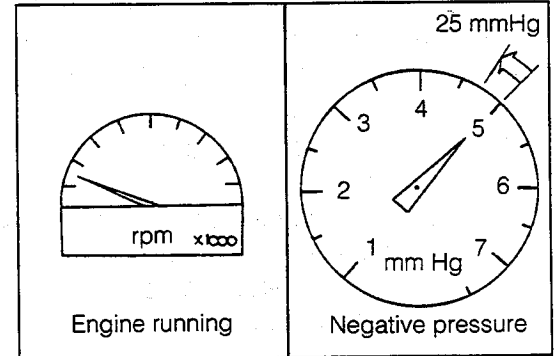


Fig. 8-9

WR-08010

(4) No-boosting operation check

With the engine stopped, set the reading of the negative pressure gauge to zero. Under this condition, check the relationship between the pedal applying force and the hydraulic pressure.

Specified Value:

Pedal applying force kg (lb)	Hydraulic pressure	
	6-inch	7-inch
10 (22)	6.5 (92)	5.6 (80)
30 (66)	37.8 (538)	32.4 (461)

WR-08011

(5) Boosting operation check

With the engine running, set the reading of the negative pressure gauge to 500 mmHg. After stopping the engine, depress the brake pedal. Check the relationship between the pedal applying force and the hydraulic pressure.

Specified Value:

Pedal applying force kg (lb)	Hydraulic pressure	
	6-inch	7-inch
5 (11)	18.4 (262)	13.6 (193)
10 (22)	46.4 (660)	34.2 (487)
15 (33)	56.0 (797)	54.8 (779)
20 (44)	63.9 (909)	67.2 (955)

WR-08012

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.

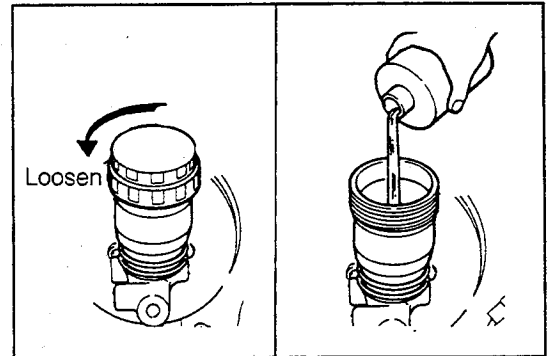


Fig. 8-10

WR-08013

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

- (1) 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.
- (2) Start this air bleeding operation at the wheel cylinder which is located at the farthest point from the master cylinder.

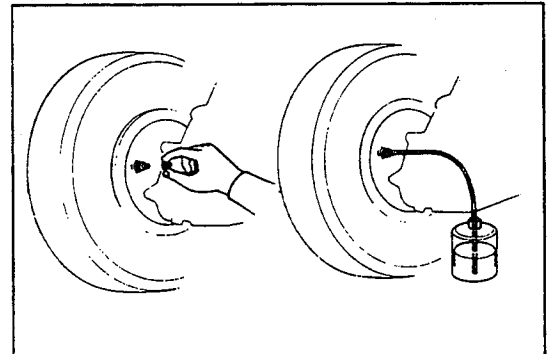


Fig. 8-11

WR-08014

3. Air bleeding

- (1) Perform the operation by two persons. One person should depress the brake pedal slowly and hold it in a depressed state.
- (2) 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.
- (3) Repeat the steps (1) and (2) above, until you no longer observe bubbles in the fluid.

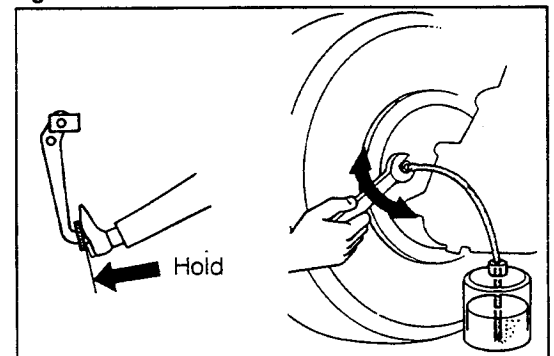


Fig. 8-12

WR-08015

4. Checking of brake fluid leakage

Depress the brake pedal and ensure that each section of the pipe line exhibits no fluid leakage.

WR-08016

BRAKES

SCHEMATIC VIEW

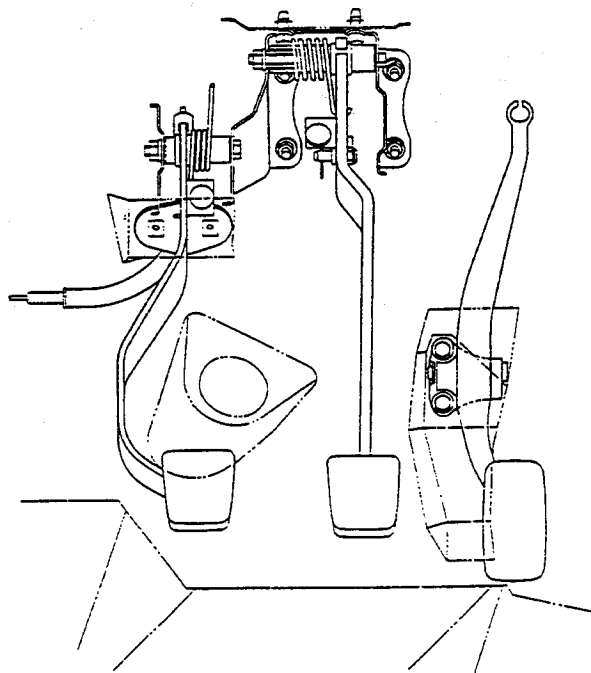
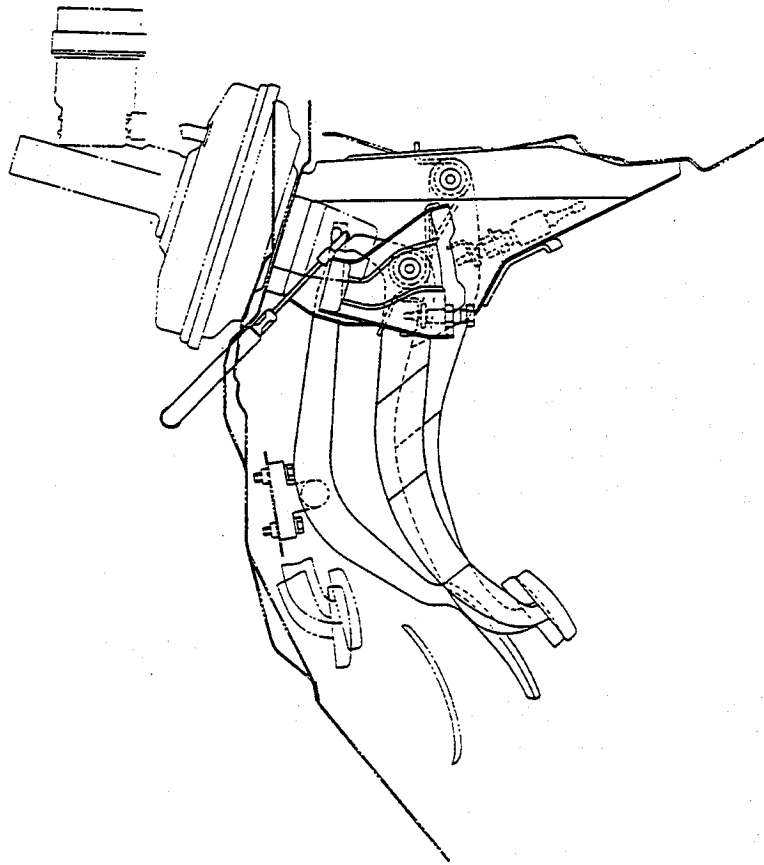
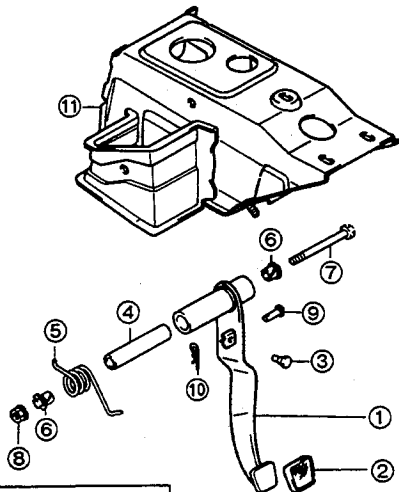


Fig. 8-13

WR-08017

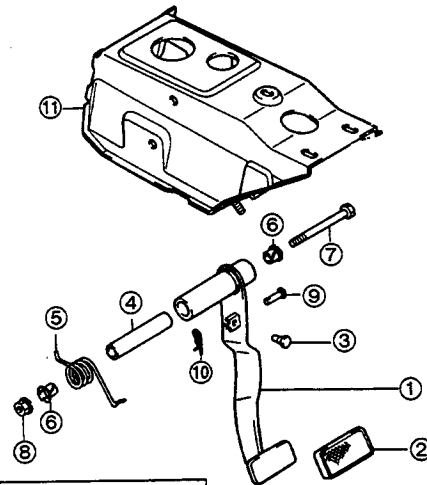
BRAKE PEDAL COMPONENTS

Manual Transmission



RHD: T : 1.5 - 2.2 (11 - 16)
LHD: T : 1.5 - 2.0 (11 - 15)

Automatic Transmission



RHD: T : 1.5 - 2.2 (11 - 16)
LHD: T : 1.5 - 2.0 (11 - 15)

T : Tightening torque
Unit: kg-m (ft-lb)

- ① Brake pedal
- ② Brake pedal pad
- ③ Cushion
- ④ Spacer
- ⑤ Spring
- ⑥ Bush

- ⑦ Bolt
- ⑧ Nut
- ⑨ With-hole pin
- ⑩ Clip
- ⑪ Brake pedal bracket

Fig. 8-14

WR-08018

REMOVAL

1. Detach the clamp of the stop lamp switch wiring.
2. Remove the clip and the with-hole pin from the connecting section of the master cylinder push rod with the brake pedal.

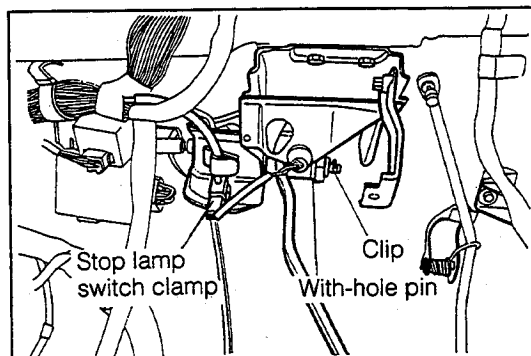


Fig. 8-15

WR-08019

BRAKES

- Remove the brake pedal attaching bolt and nut.
- Remove the brake pedal from the brake pedal bracket.

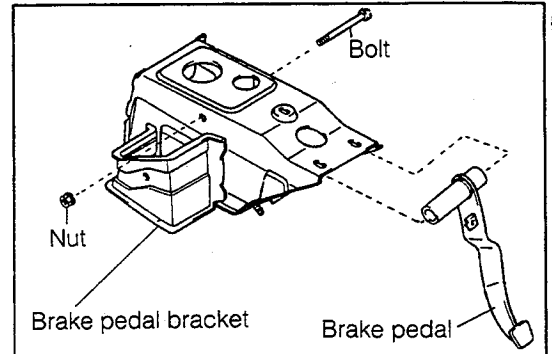


Fig. 8-16

WR-08020

- Remove the spring, bush, spacer, brake pedal pad and cushion from the brake pedal.

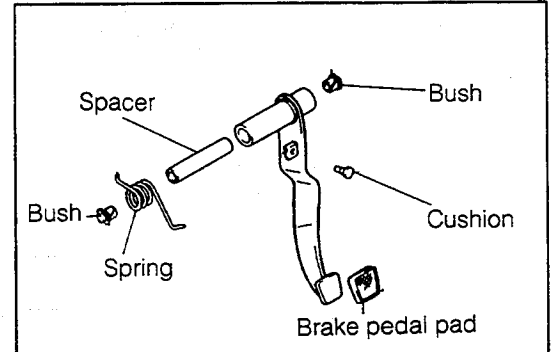


Fig. 8-17

WR-08021

INSPECTION

Inspect the following parts.

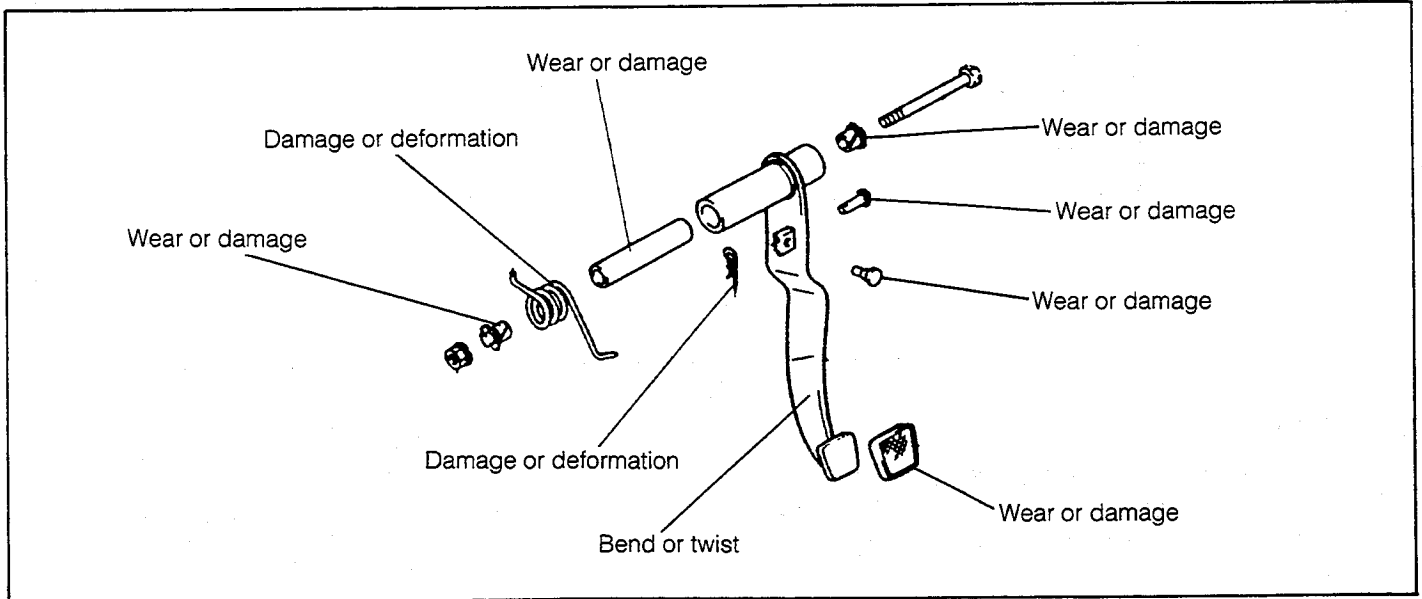


Fig. 8-18

WR-08022

INSTALLATION

- Install the cushion, brake pedal pad, spacer, bush and spring on the brake pedal.

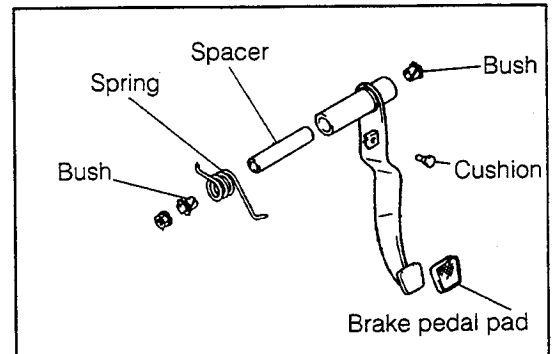
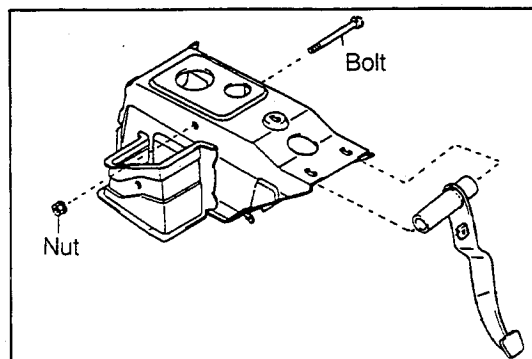


Fig. 8-19

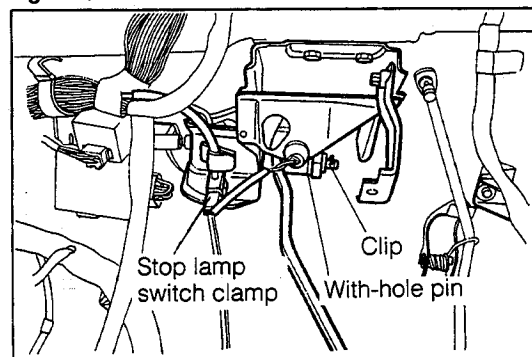
WR-08023

2. Install the brake pedal on the brake pad brake.
3. Install the brake pedal attaching bolt and nut.

**Fig. 8-20**

WR-08024

4. Install the with-hole pin and the clip on the connecting section of the master cylinder push rod with the brake pedal.
5. Attach the clamp of the stop lamp switch wiring.
6. Perform the check and adjustment of the brake pedal.
(See page 8-2.)

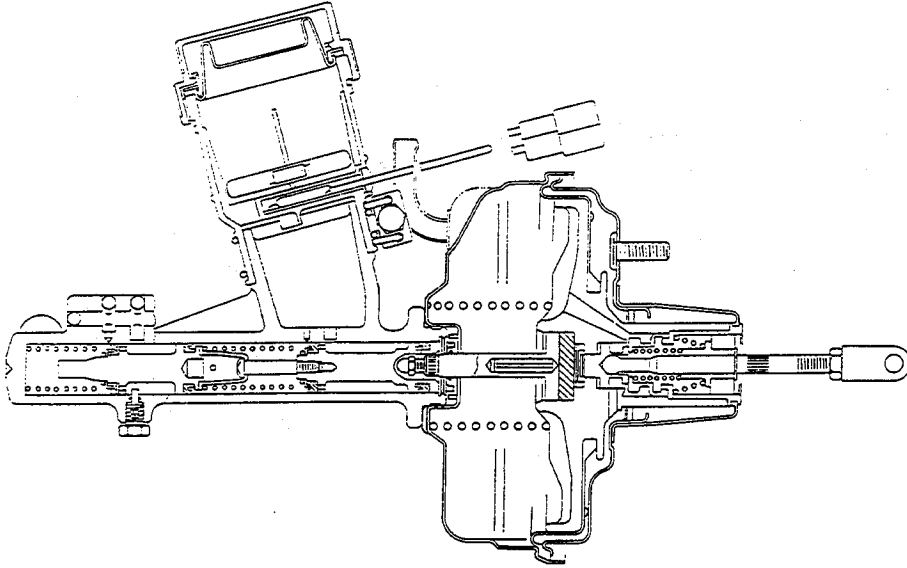
**Fig. 8-21**

WR-08025

BRAKES

BRAKE MASTER CYLINDER AND BRAKE BOOSTER SECTIONAL VIEW

6-inch



7-inch

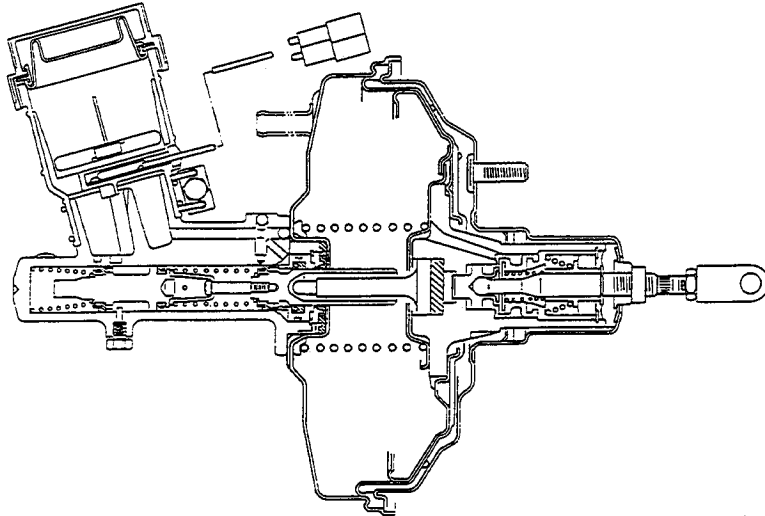
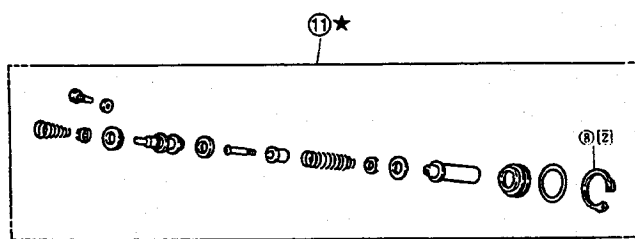
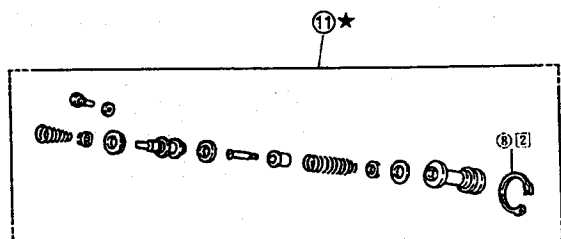
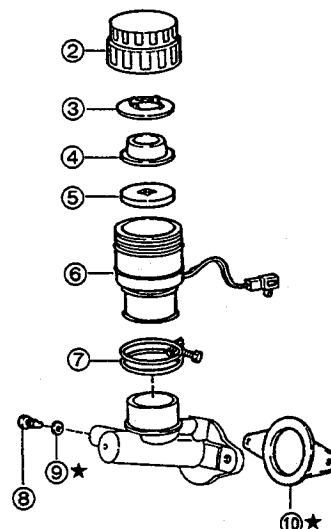
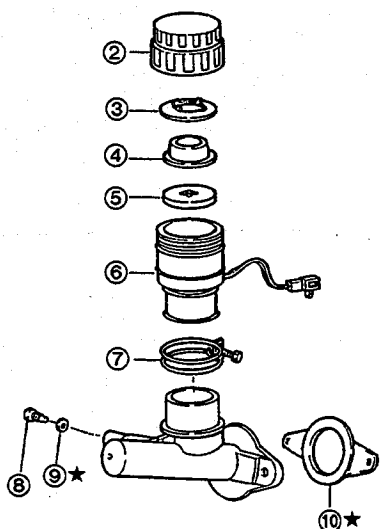
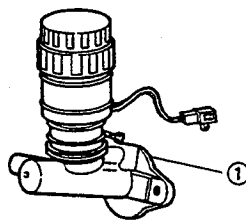
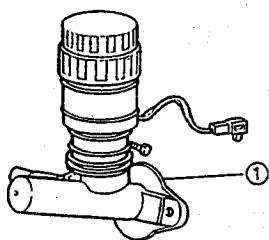


Fig. 8-22

WR-08026

MASTER CYLINDER COMPONENTS

6 inch



T : Tightening torque
 Unit: kg-m (ft-lb)
 ★ : Non-reusable parts

- ① Brake master cylinder Ay
- ② Reservoir filler cap
- ③ Reservoir cap spacer
- ④ Reservoir diaphragm
- ⑤ Master cylinder reservoir float

- ⑥ Master cylinder reservoir Ay
- ⑦ Clamp
- ⑧ Set bolt
- ⑨ Gasket
- ⑩ Gasket
- ⑪ Tandem master cylinder repair kit

Fig. 8-23

WR-08027

BRAKES

REMOVAL

1. Remove the level switch connector.
2. Drain the brake fluid.
3. Disconnect the three brake tubes, using the following SST.
SST: 09751-36011-000

NOTE:

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

4. Remove the two attaching nuts of the master cylinder. Remove the master cylinder and gasket from the brake booster.

DISASSEMBLY

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

NOTE:

Be sure not to clamp the cylinder portion of the master cylinder in a vise. Failure to observe this caution will cause cylinder distortion.

2. Remove the reservoir filler cap, reservoir diaphragm, reservoir cap spacer, master cylinder reservoir float, clamp and master cylinder reservoir assembly from the master cylinder.

3. Remove the set bolt and gasket while the pistons are being pushed fully by means of a cross point screwdriver.

NOTE:

During the removal, be sure to push the piston slowly so as to prevent the brake fluid from splashing.

4. Detach the snap ring. Using a snap ring, detach the snap ring while the pistons are being pushed by means of a screwdriver.
5. Remove the pistons No.1 and No.2 from the master cylinder.

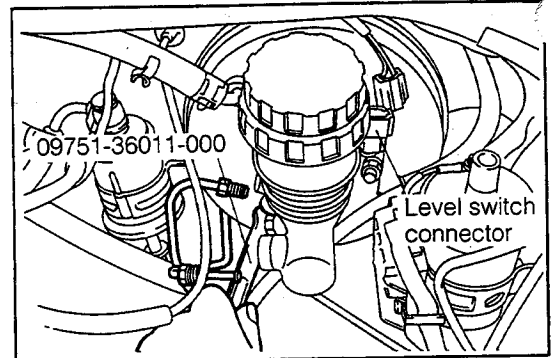


Fig. 8-24

WR-08028

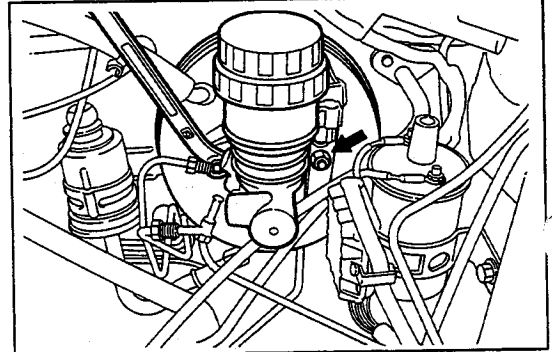


Fig. 8-25

WR-08029

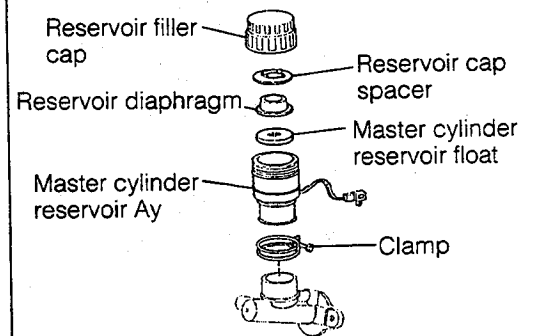


Fig. 8-26

WR-08030

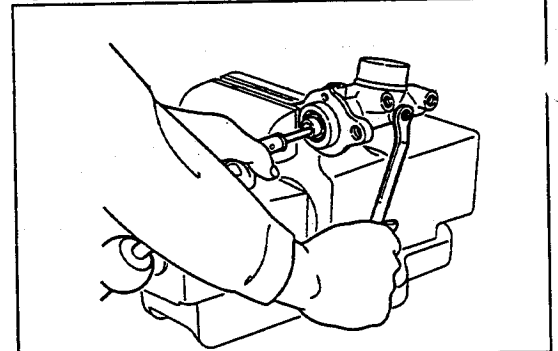


Fig. 8-27

WR-08031

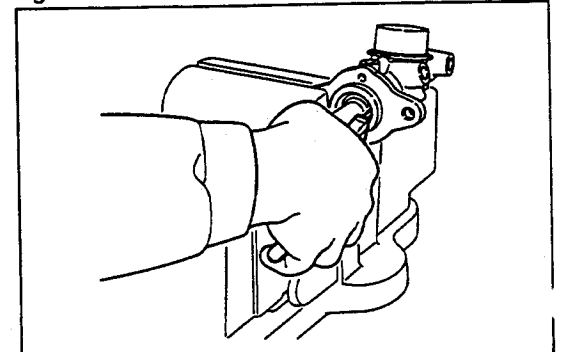


Fig. 8-28

WR-08032

INSPECTION

Inspect the following parts.

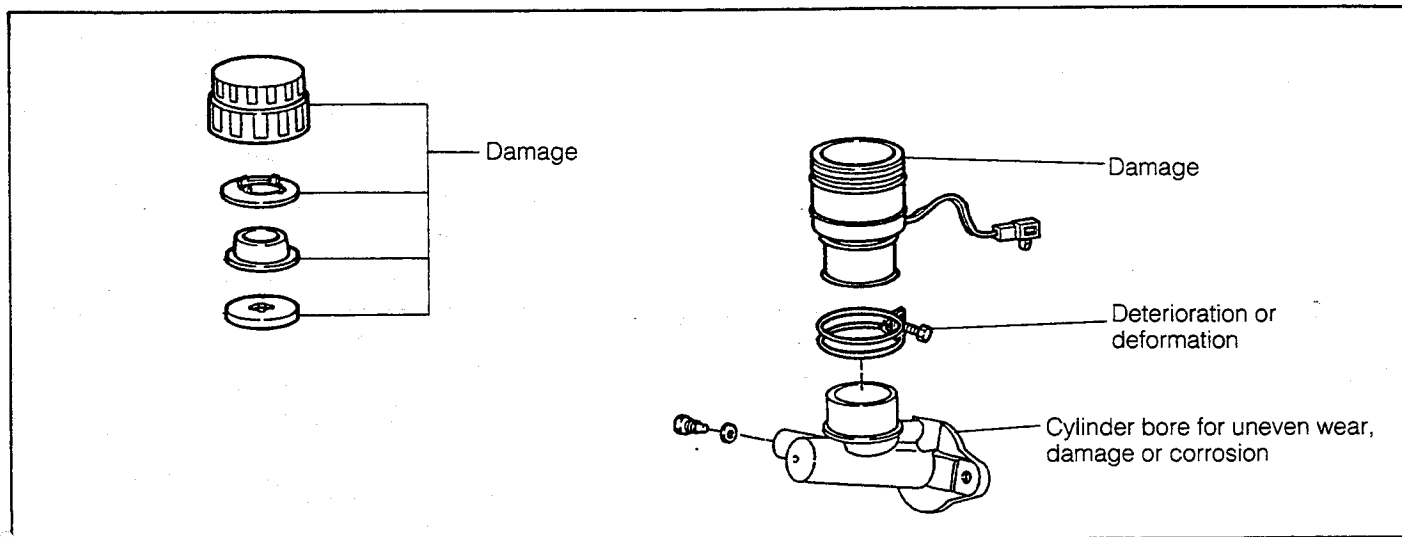


Fig. 8-29

WR-08033

ASSEMBLY

1. Assemble a new tandem master cylinder repair kit (comprising the pistons No.1 and No.2) in the master cylinder.

NOTE:

Apply rubber grease to those points indicated by arrow heads in the figure below.

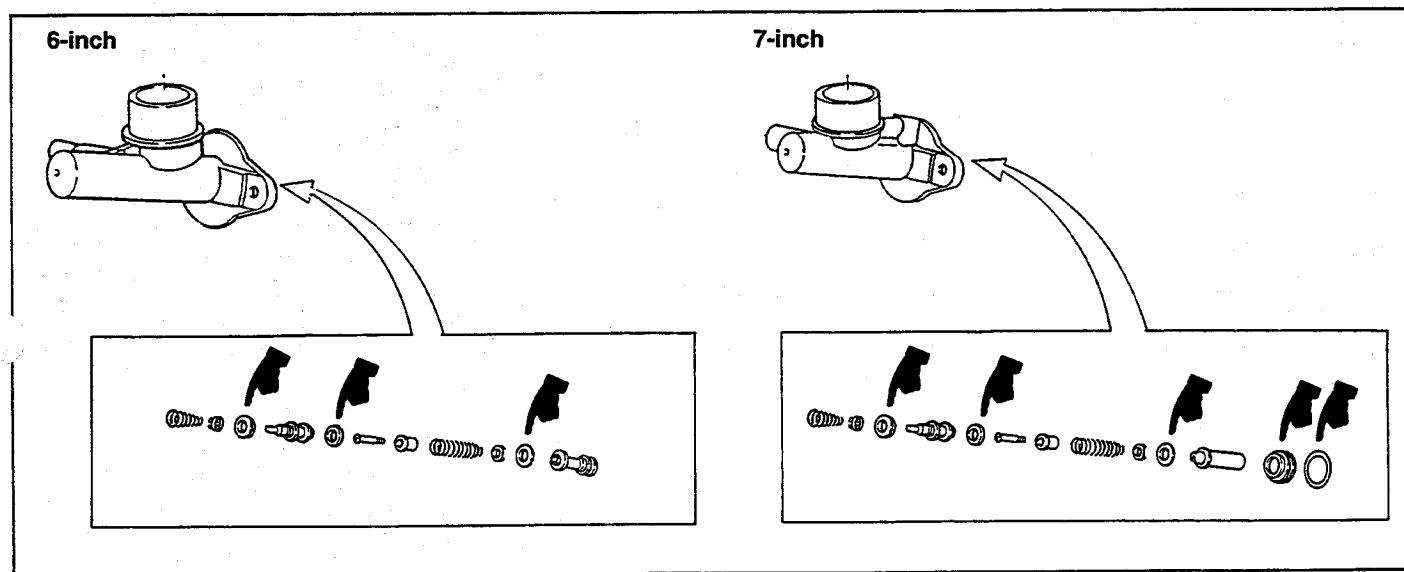


Fig. 8-30

WR-08034

2. Install the snap ring.
With the pistons in their fully pushed-in state, install a new snap ring.

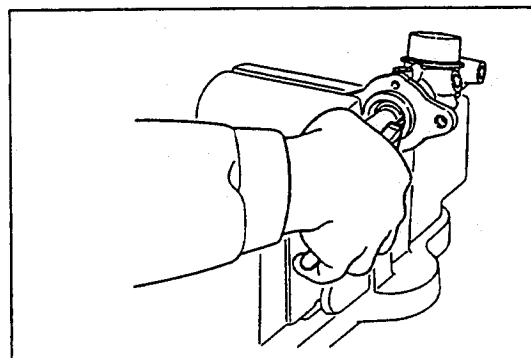


Fig. 8-31

WR-08035

BRAKES

3. While pushing the pistons fully by means of a cross point screwdriver, assemble the set bolt with a new gasket interposed.

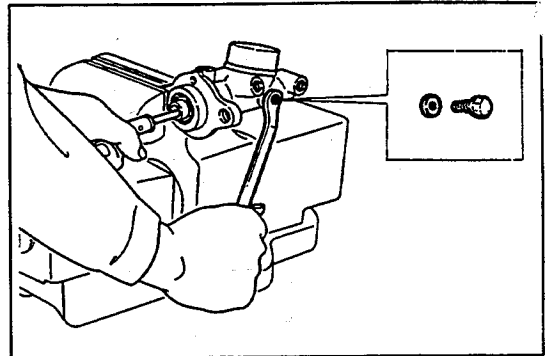


Fig. 8-32

WR-08036

4. Install the clamp, master cylinder reservoir assembly, master cylinder reservoir float, reservoir cap spacer, reservoir diaphragm and reservoir filler cap.

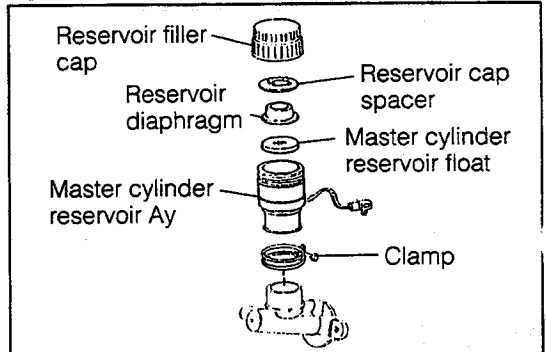


Fig. 8-33

WR-08037

INSTALLATION

1. Adjust the clearance of the brake booster push rod.
6-inch Booster: See page 8-20.
7-inch Booster: See page 8-26.
2. With a new gasket interposed, install the master cylinder, using the two nuts.

NOTE:

The master cylinder's attaching nut at the right side, as viewed toward the vehicle, should be used to tighten the bracket, too.

3. Connect the brake tubes.
 - (1) Temporarily connect the three brake tubes to the master cylinder by hands.
 - (2) Tighten the brake tube, using the following SST.
SST: 09751-36011-000

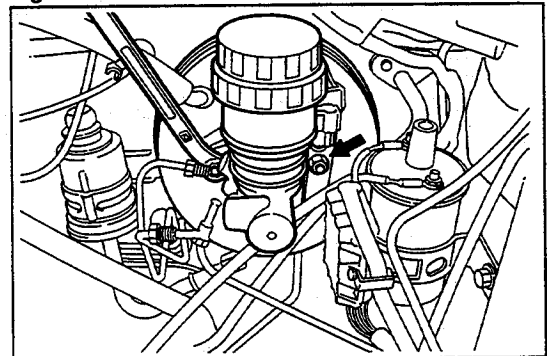


Fig. 8-34

WR-08038

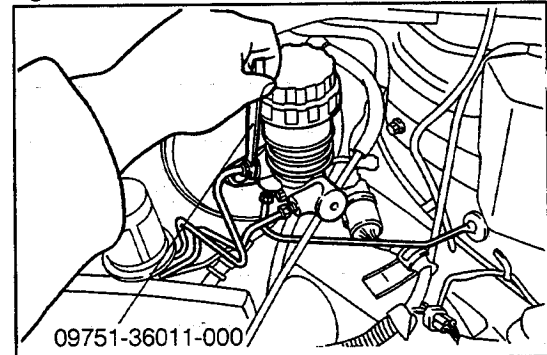


Fig. 8-35

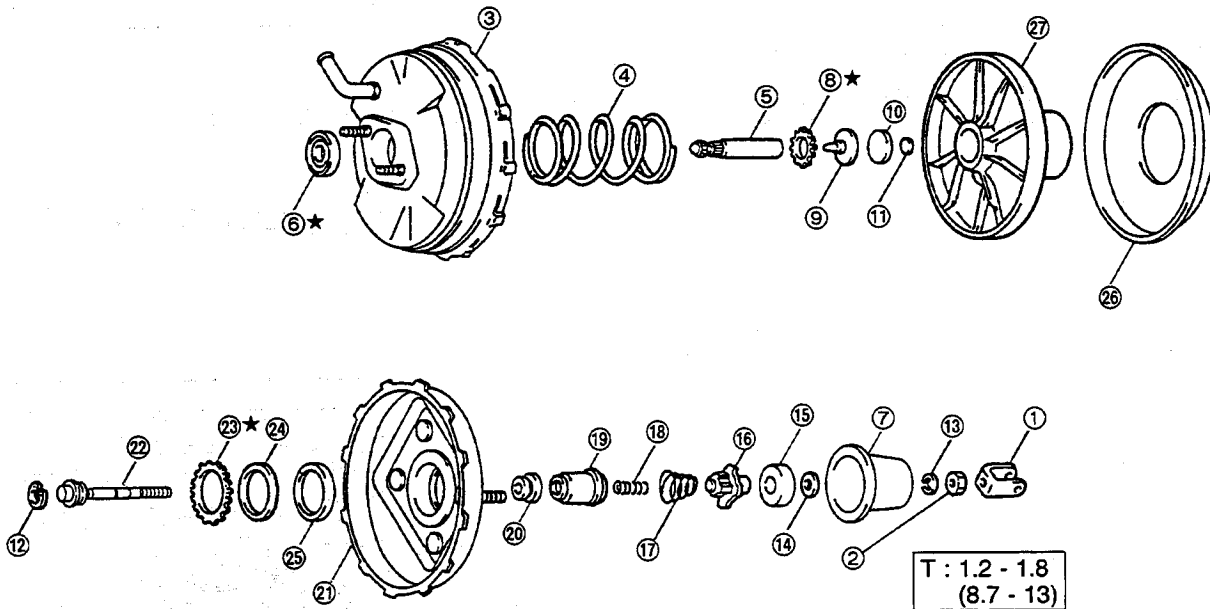
WR-08039

4. Connect the level switch connector.
5. Fill the brake fluid.
6. Perform air bleeding for the brake system.
(See page 8-5.)
7. Check the brake system for brake fluid leakage.
8. Perform the checks and adjustments for the brake pedal.
(See page 8-2.)

BRAKE BOOSTER

COMPONENTS

(6-inch Booster)



T : Tightening torque
 Unit: kg-m (ft-lb)
 ★ : Non-reusable parts

- | | |
|-----------------------------------|--------------------|
| ① Master cylinder push rod clevis | ⑮ Element |
| ② Nut | ⑯ Spring seat |
| ③ Booster body | ⑰ Valve spring |
| ④ Booster spring | ⑱ Poppet spring |
| ⑤ Output rod | ⑲ Valve stopper |
| ⑥ Rod seal | ⑳ Poppet valve |
| ⑦ Boot | ㉑ Booster housing |
| ⑧ Rod stopper | ㉒ Push rod W/valve |
| ⑨ Reaction ring | ㉓ Bush stopper |
| ⑩ Reaction rubber | ㉔ Bush |
| ⑪ Reaction plate | ㉕ Piston seal |
| ⑫ Snap ring | ㉖ Diaphragm |
| ⑬ "E" ring | ㉗ Booster piston |
| ⑭ Plate washer | |

Fig. 8-36

WR-08041

BRAKES

REMOVAL

1. Remove the master cylinder. (See page 8-12.)
2. Disconnect the vacuum hose.
3. Remove the front suspension upper brace subassembly. (RHD TURBO and GT_{ti} grades only)
4. Remove the clutch cable and ignition coil. (LHD TURBO and GT_{ti} grades only)
5. Working from the passenger room side, remove the clip and the with-hole pin. Separate the master cylinder push rod clevis and from the brake pedal. (See Fig. 8-15.)
6. Remove the brake booster assembly.
 - (1) Remove the four attaching nuts of the brake booster, using a long socket wrench (having a width across flat of 12 mm), as indicated in Fig. 8-38.
 - (2) Remove the brake booster assembly and gasket from the vehicle.

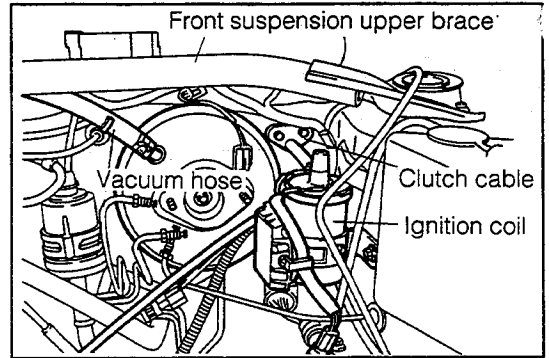


Fig. 8-37

WR-08042

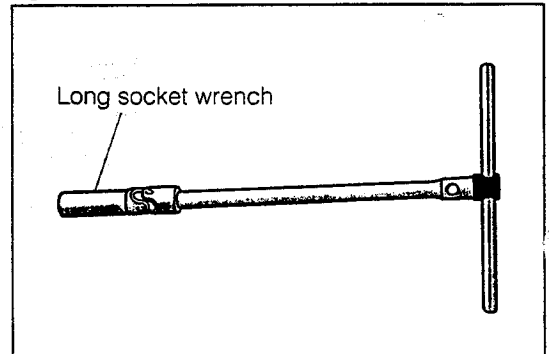


Fig. 8-38

WR-08043

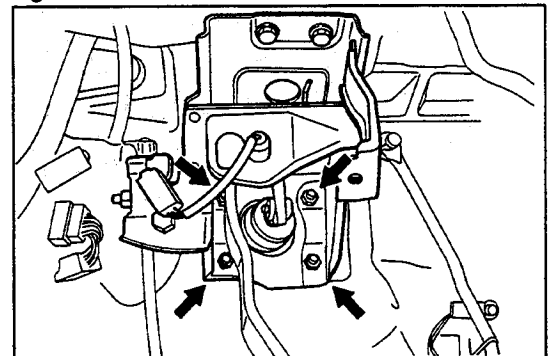


Fig. 8-39

WR-08044

(6-inch Booster) DISASSEMBLY

1. Remove the master cylinder pushrod clevis and lock nut.
2. Separate the booster housing from the booster body as follows:
 - (1) Put mate marks on the booster body and booster housing.

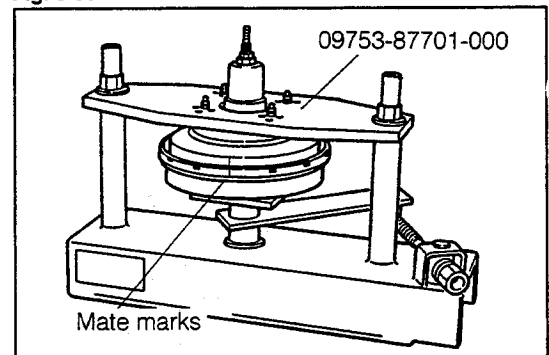


Fig. 8-40

WR-08045

- (2) Secure the brake booster on the following SST.

SST: 09753-87701-000

NOTE:

Be certain to evenly tighten the SST nuts at the right and left sides. Also, be very careful not to tighten the SST nuts excessively.

- (3) Turn the SST screw clockwise so as to disengage the booster housing from the booster body.
- (4) Detach the brake booster from the SST.

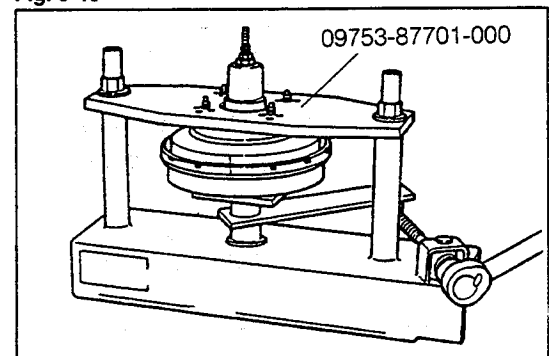


Fig. 8-41

WR-08046

(5) Disassemble the brake booster.

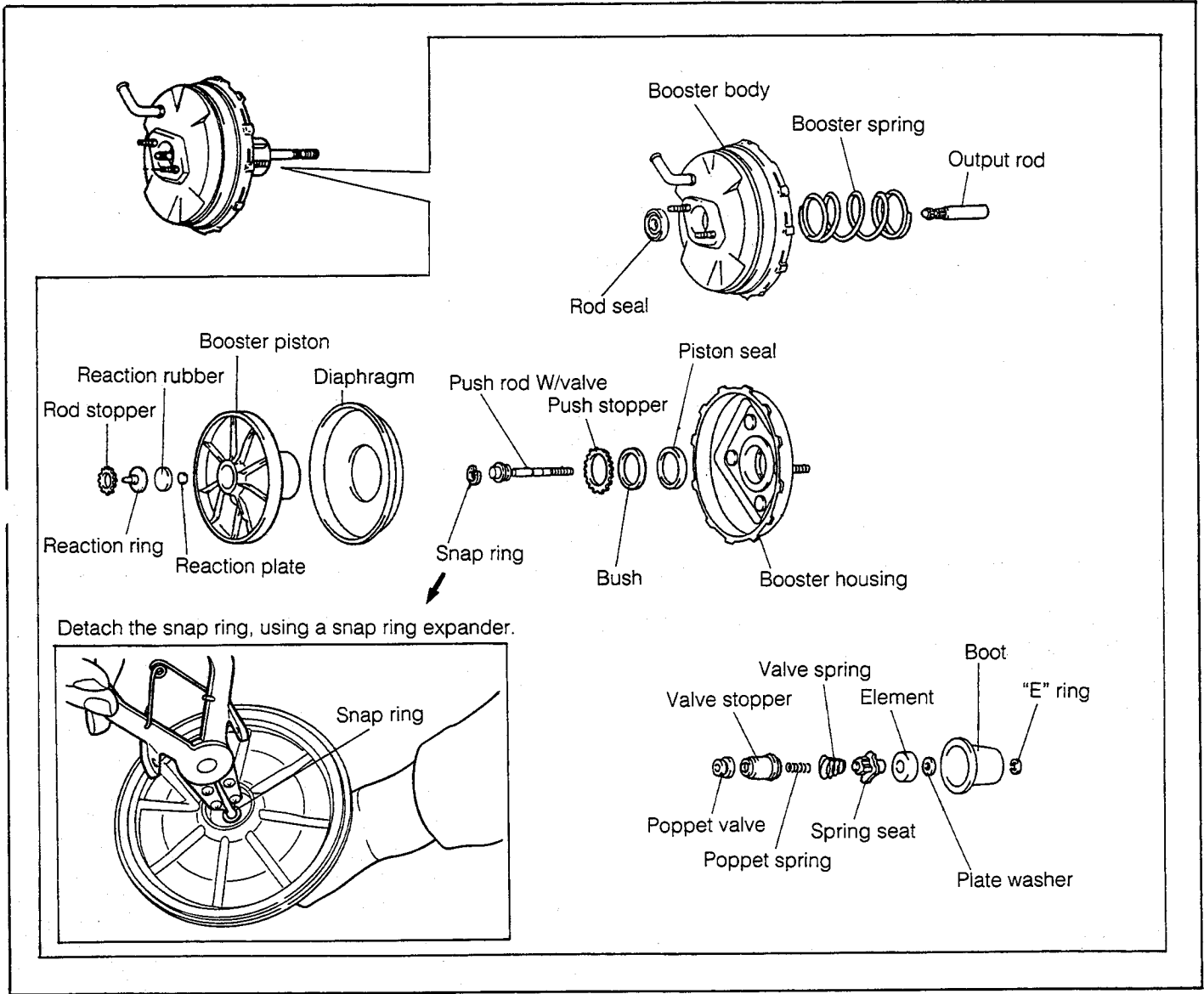


Fig. 8-42

WR-08047

INSPECTION

Inspect the following parts.

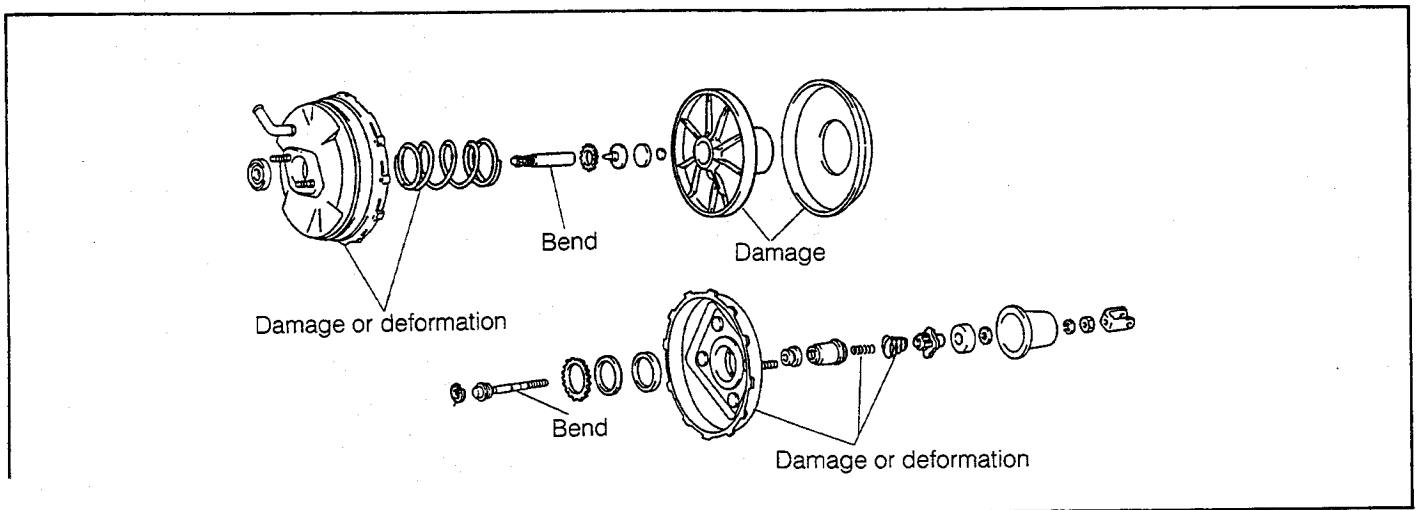


Fig. 8-43

WR-08048

BRAKES

ASSEMBLY

1. Application of silicon grease
Apply silicon grease to those points indicated by arrow heads in the figure below.

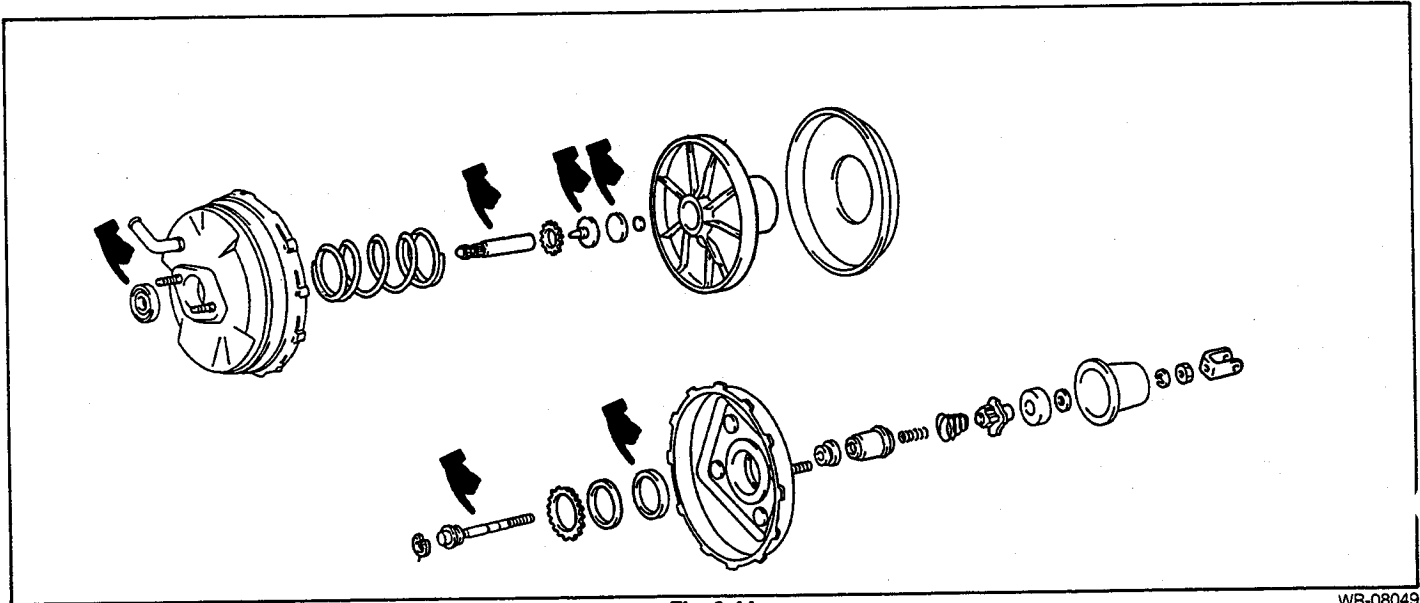


Fig. 8-44

WR-08049

2. Assemble the following parts in the booster piston.
 - (1) Install the diaphragm in position.
 - (2) Assemble the push rod with valve. Retain it with the snap ring.

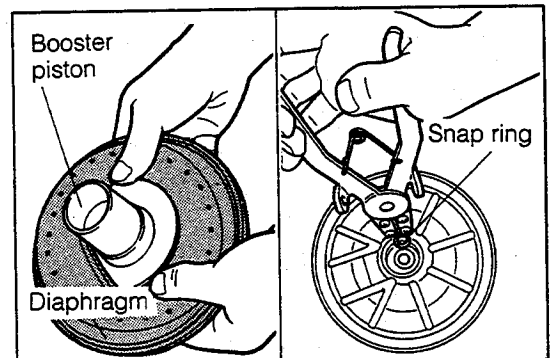


Fig. 8-45

WR-08050

- (3) Install the reaction plate, reaction rubber and reaction ring.
- (4) Install the rod stopper.

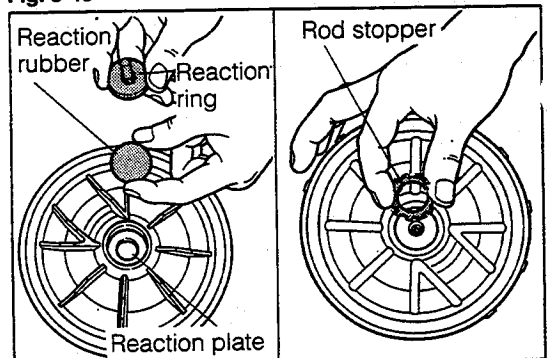


Fig. 8-46

WR-08051

3. Assemble the following parts in the booster housing.
 - (1) Install the piston seal, bush and bush stopper.
 - (2) Install the booster piston.

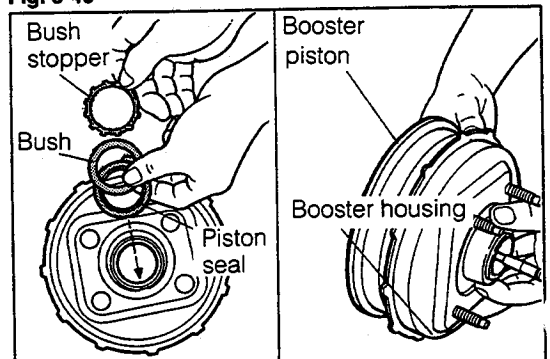


Fig. 8-47

WR-08052

- (3) Assemble the poppet valve to the valve stopper. Then, install them in the booster housing.
- (4) Install the poppet spring, valve spring and spring seat in place.

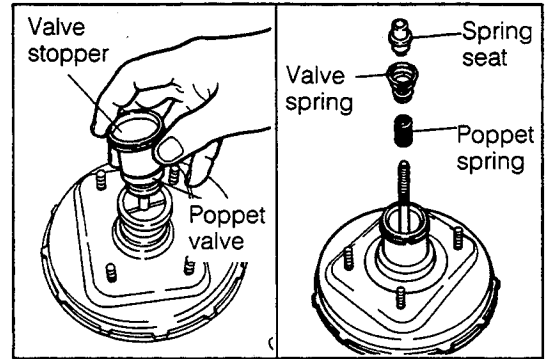


Fig. 8-48

WR-08053

- (5) Install the element, plate washer and "E" ring.
- (6) Install the boot.

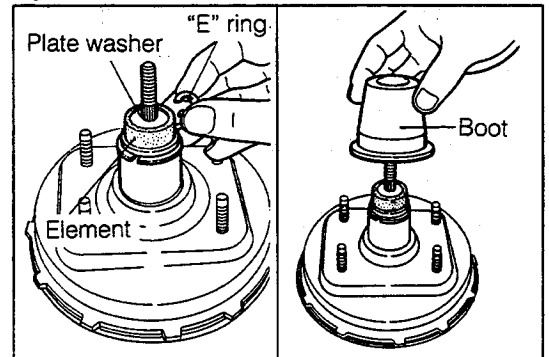


Fig. 8-49

WR-08054

- 4. Assemble the booster body and booster housing as follows:

- (1) Place the booster body and booster spring in the following SST.

SST: 09753-87701-000

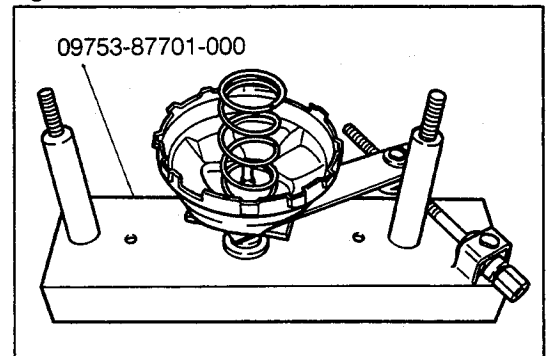


Fig. 8-50

WR-08055

- (2) Place the booster housing in the following SST.

SST: 09753-87701-000

NOTE:

Be certain to evenly tighten the SST nuts at the right and left sides. Also, be very careful not to tighten the SST nuts excessively.

Furthermore, care must be exercised to ensure that the diaphragm will not be pinched.

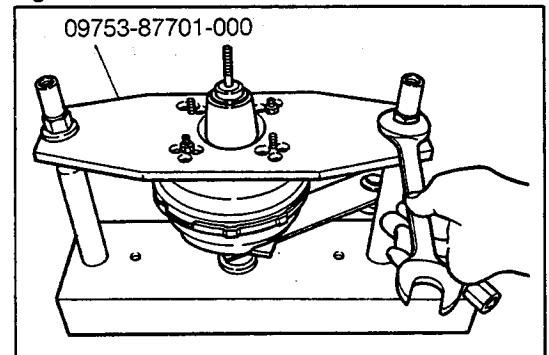


Fig. 8-51

WR-08056

- (3) Turn the SST screw counterclockwise so that the mating marks may be lined up.

If the force required for turning is great, apply a small amount of silicon grease to the portion where the booster body is making contact with the booster housing.

- (4) Remove the brake booster from the SST.

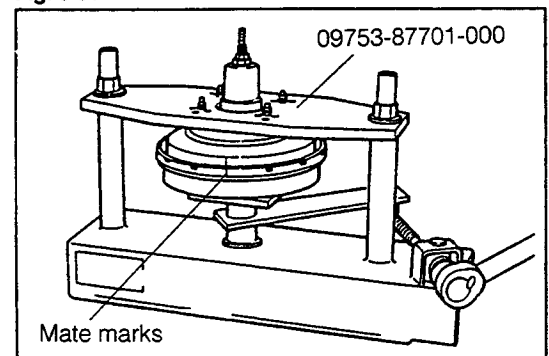


Fig. 8-52

WR-08057

BRAKES

5. Install the output rod and rod seal in the brake booster.
6. Temporarily install the master cylinder push rod clevis and nut.

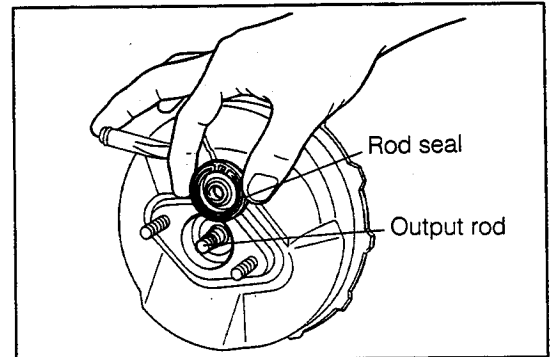


Fig. 8-53

WR-08058

7. Adjust the brake booster push rod clearance as follows:
 - (1) Set the SST in such a way that the SST rod makes a light contact with the piston of the master cylinder, as indicated in Fig. 8-54.

SST: 09737-22011-000

NOTE:

Be sure to carry out this adjustment with the gasket attached in position.

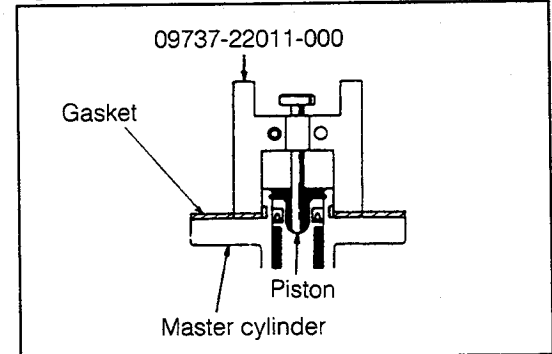


Fig. 8-54

WR-08059

- (2) Connect a MityVac to the union of the brake booster. Apply a negative pressure of 500 mmHg.
 - (3) Set the SST as indicated in Fig. 8-55. Adjust the push rod so that the push rod clearance may become zero.

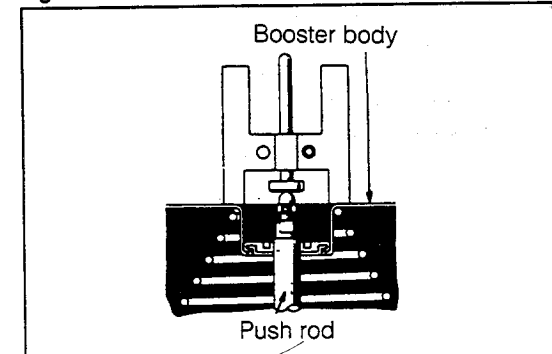


Fig. 8-55

WR-08060

- (4) Perform the adjustment of the push rod clearance by turning the nut provided at the tip end of the push rod.

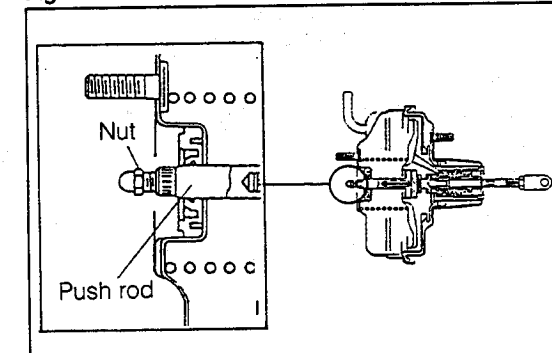
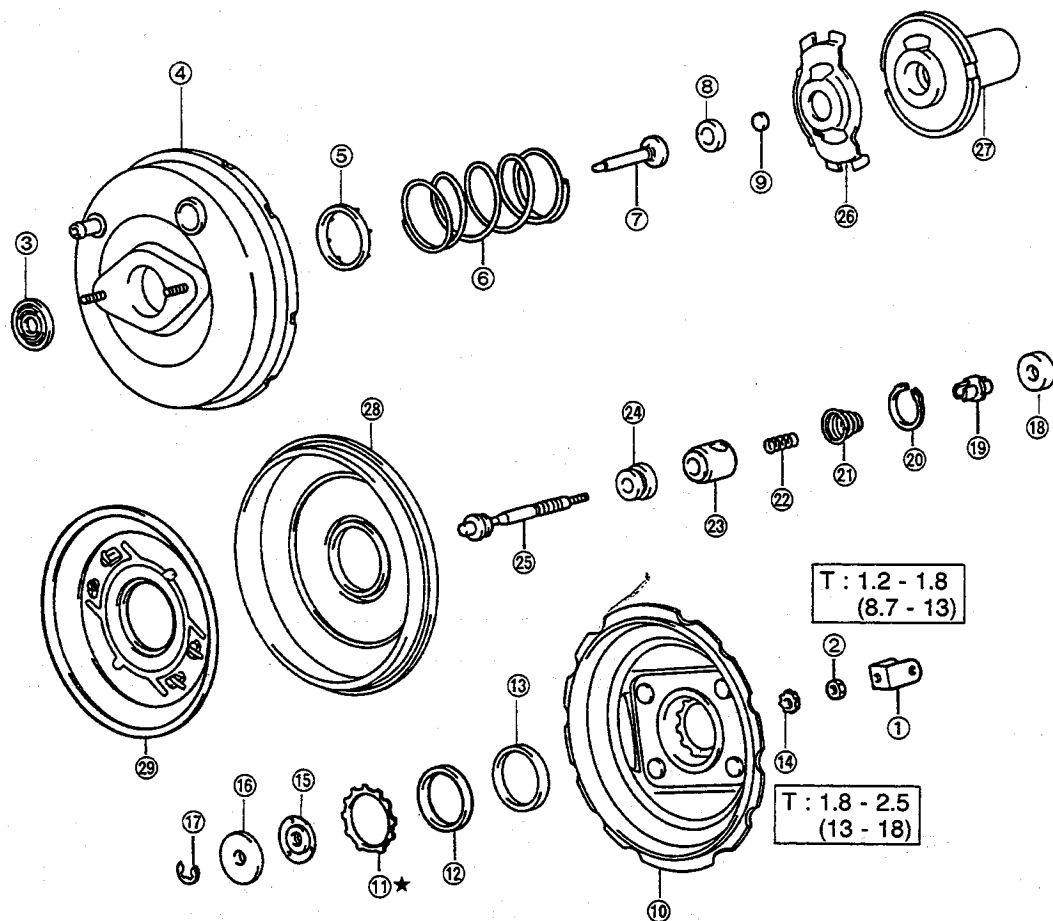


Fig. 8-56

WR-08061

COMPONENTS

(7-inch Booster)



T : Tightening torque
Unit: kg-m (ft-lb)
★ : Non-reusable parts

- ① Master cylinder push rod clevis
- ② Nut
- ③ Rod seal
- ④ Booster body
- ⑤ Retainer spring
- ⑥ Booster spring
- ⑦ Booster piston rod
- ⑧ Reaction disc
- ⑨ Reaction plate
- ⑩ Booster housing
- ⑪ Booster push rod seal retainer
- ⑫ Valve ring
- ⑬ Piston seal
- ⑭ Nut

- ⑮ Adjuster nut
- ⑯ Element B
- ⑰ "E" ring
- ⑱ Element A
- ⑲ Control valve spring retainer
- ⑳ Piston return spring retainer
- ㉑ Valve spring
- ㉒ Control valve spring
- ㉓ Air valve spring retainer
- ㉔ Poppet valve
- ㉕ Booster with rod, valve S/A
- ㉖ Set cover
- ㉗ Valve body
- ㉘ Diaphragm
- ㉙ Booster plate

Fig. 8-57

WR-08062

BRAKES

(7-inch Booster) DISASSEMBLY

1. Remove the master cylinder push rod clevis and lock nut.
2. Remove the rod seal.
3. Separate the booster housing from the booster body as follows:
 - (1) Put mate marks on the booster body and booster housing.

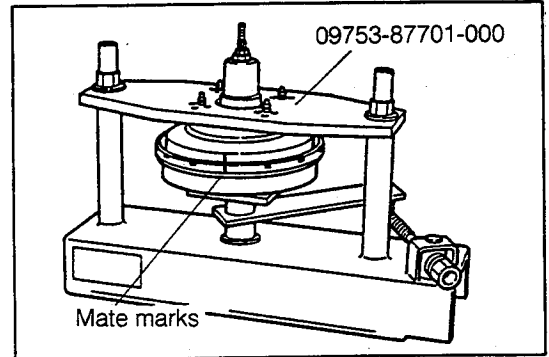


Fig. 8-58

WR-08063

- (2) Secure the brake booster on the following SST.
SST: 09753-87701-000

NOTE:

Be certain to evenly tighten the SST nuts at the right and left sides. Also, be very careful not to tighten the SST nuts excessively.

- (3) Turn the SST screw clockwise so as to disengage the booster housing from the booster body.
- (4) Remove the brake booster from the SST.

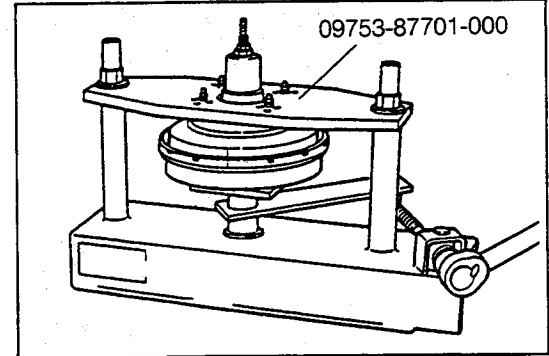


Fig. 8-59

WR-08064

4. Disassemble the brake booster.

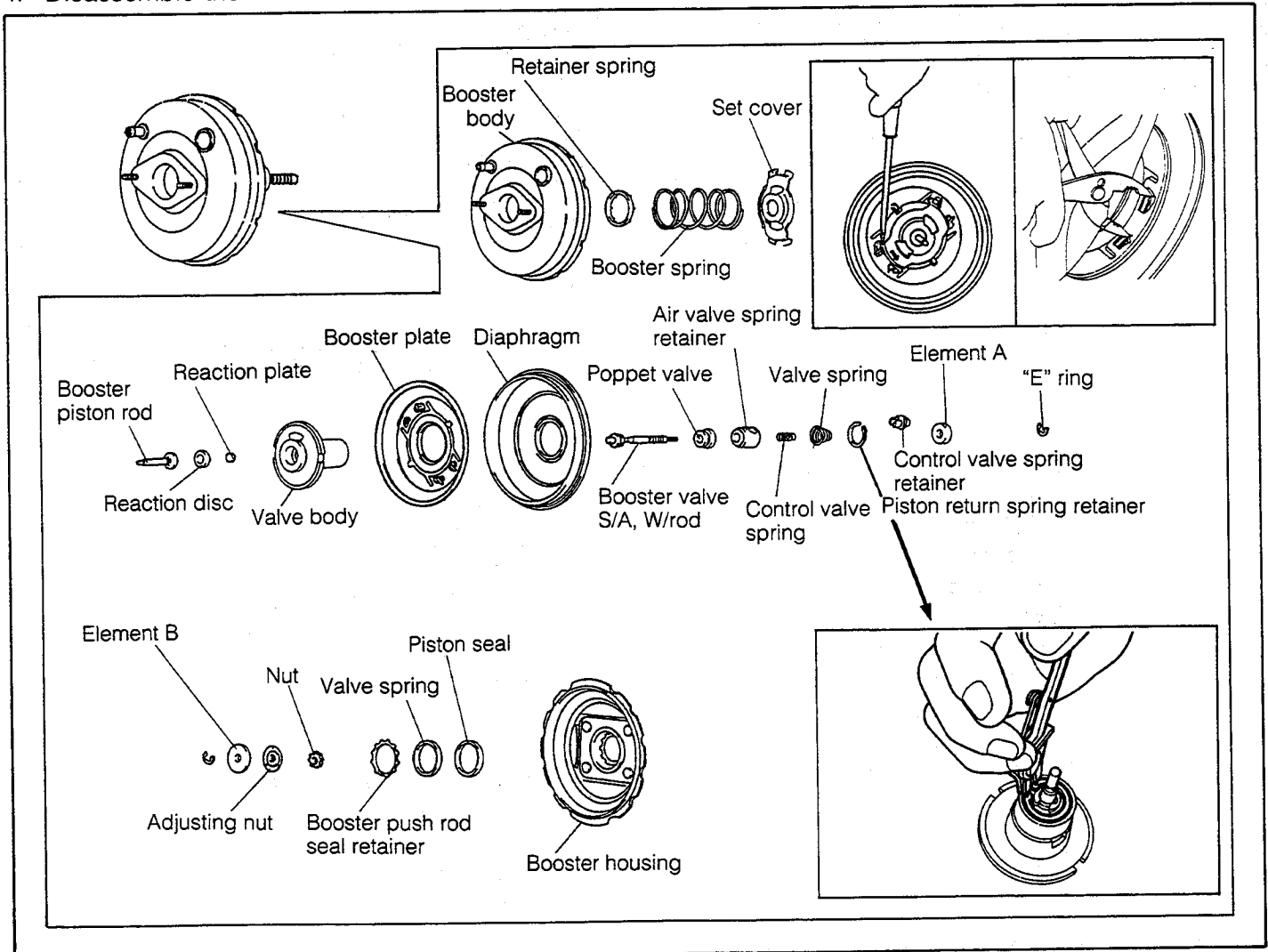


Fig. 8-60

WR-08065

INSPECTION

Inspect the following parts.

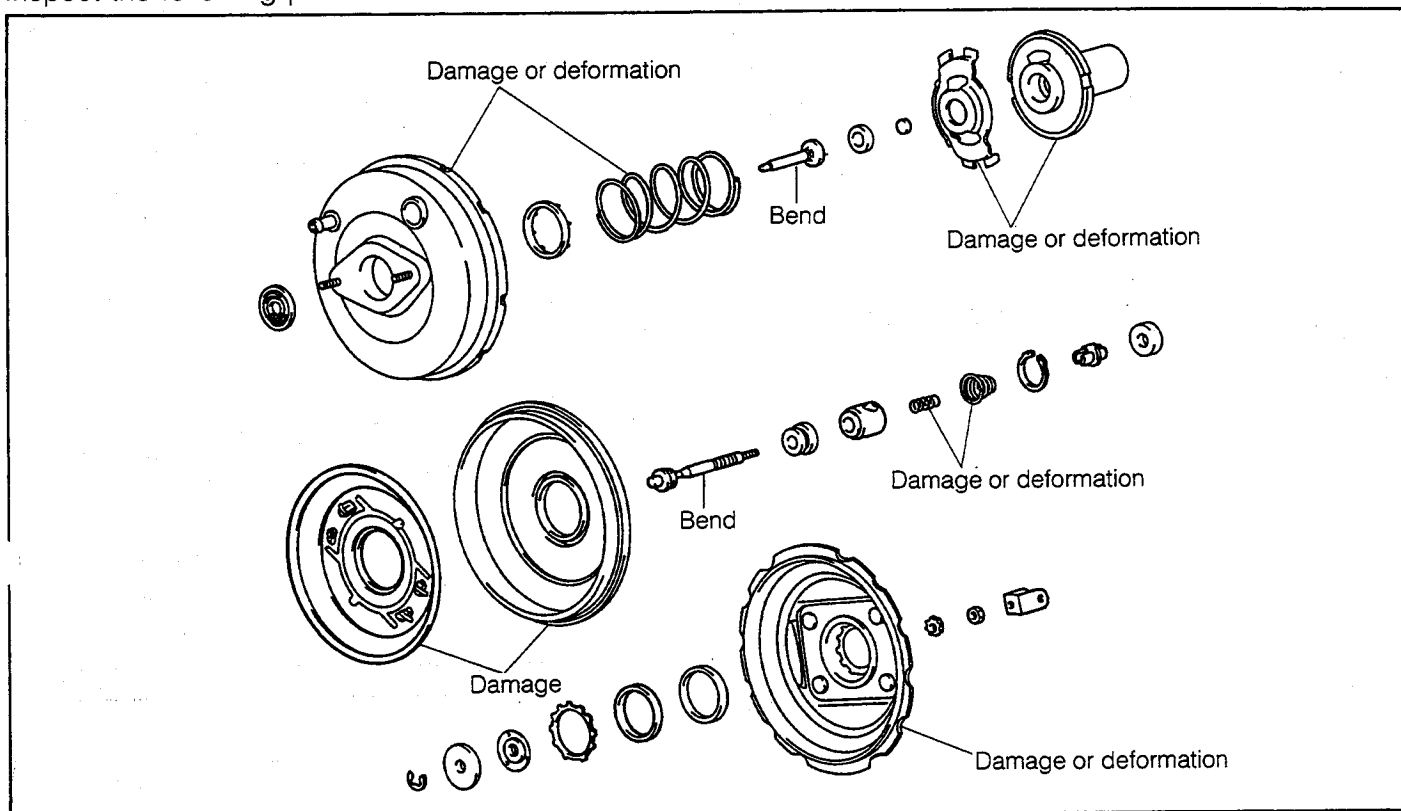


Fig. 8-61

WR-08066

ASSEMBLY

1. Application of silicon grease
Apply silicon grease to those points indicated by arrow heads in the figure below.

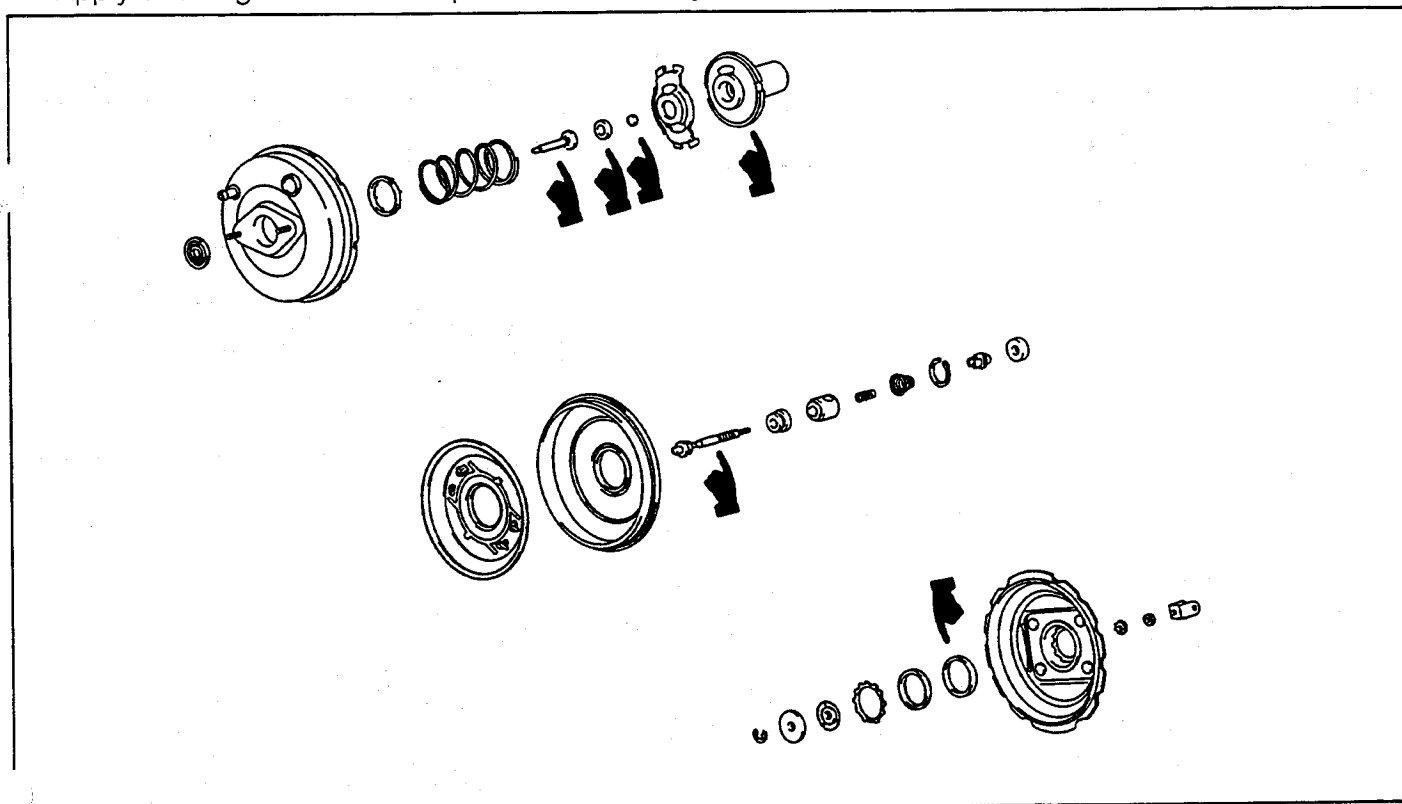


Fig. 8-62

WR-08067

BRAKES

2. Assemble the following parts in the booster valve sub-assembly with rod.
 - (1) Install the poppet valve in the air valve spring retainer. Install them in the booster valve subassembly with rod.
 - (2) Install the control valve spring, valve spring, control valve spring retainer, element and "E" ring.
3. Install the booster valve subassembly with rod and the piston return spring retainer in the valve body.

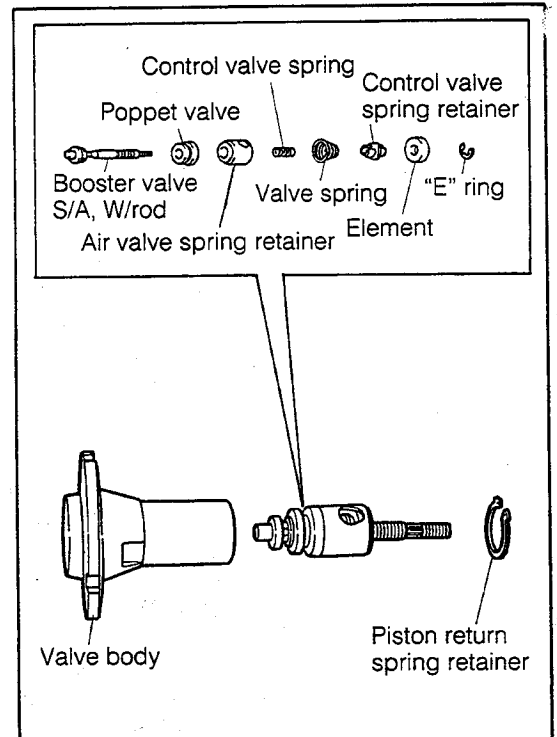


Fig. 8-63

WR-08068

4. Install the element, adjusting nut and nut in place.

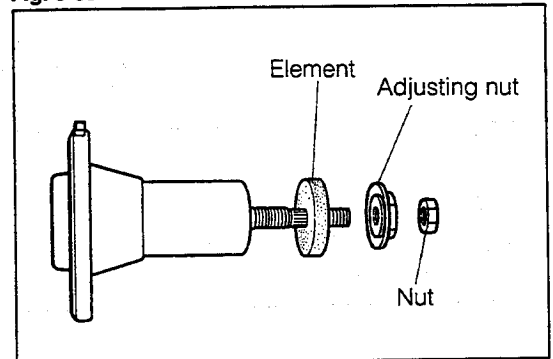


Fig. 8-64

WR-08069

5. Assemble the following parts in the booster plate.
 - (1) Install the diaphragm.
 - (2) Install the valve body, reaction plate, reaction disc and booster piston rod.

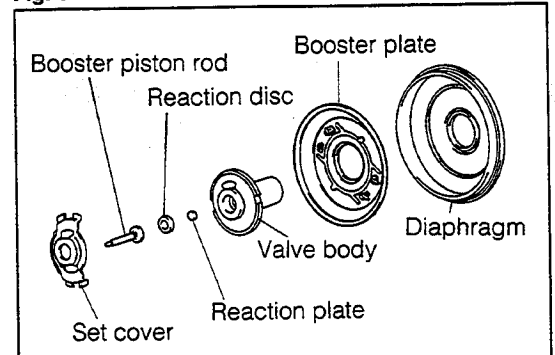


Fig. 8-65

WR-08070

- (3) Install the set cover as follows:
 - Temporarily install the set cover on the booster plate.
 - Assemble the set cover by pinching the joint section of the booster plate with the claw section of the set cover, using pliers.
 - Slide the claw section of the set cover using a common screwdriver, until it is no longer possible to move the claw section.

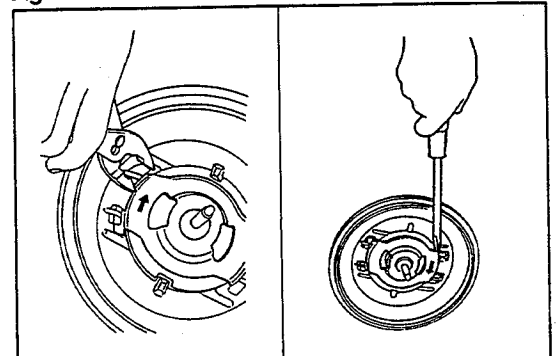


Fig. 8-66

WR-08071

6. Install the piston seal, valve ring and booster push rod seal retainer in the booster housing.

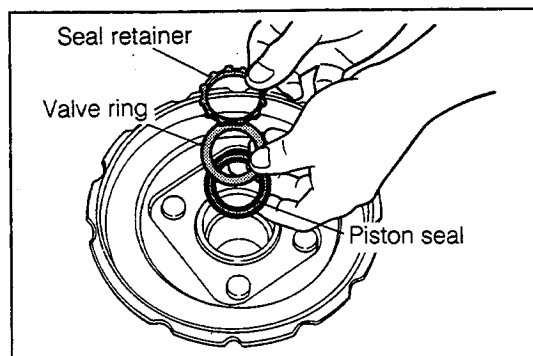


Fig. 8-67 WR-08072

7. Assemble the booster housing and booster plate.

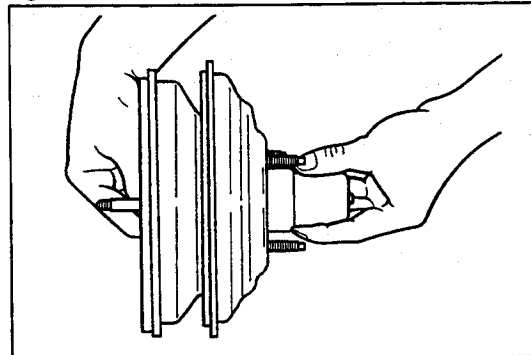


Fig. 8-68 WR-08073

8. Assemble the booster body and booster housing as follows:

- (1) Place the booster body, spring retainer and booster spring in the following SST.

SST: 09753-87701-000

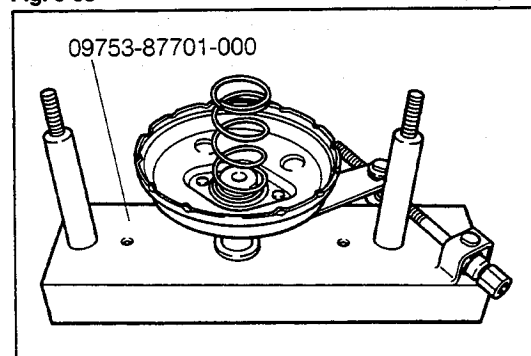


Fig. 8-69 WR-08074

- (2) Place the booster housing in the following SST.

SST: 09753-87701-000

NOTE:

Be certain to evenly tighten the SST nuts at the right and left sides. Also, be very careful not to tighten the SST nuts excessively.

Furthermore, care must be exercised to ensure that the diaphragm will not be pinched.

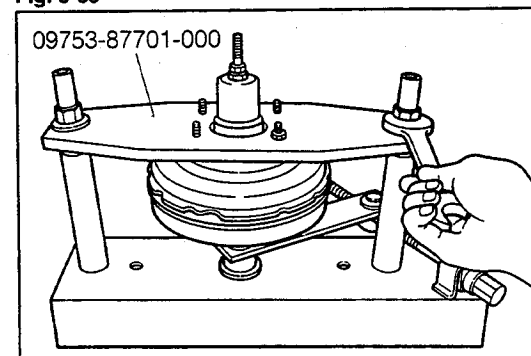


Fig. 8-70 WR-08075

- (3) Turn the SST screw counterclockwise so that the mating marks may be lined up.

If the force required for turning is great, apply a small amount of silicon grease to the portion where the booster body is making contact with the booster housing.

- (4) Remove the brake booster from the SST.

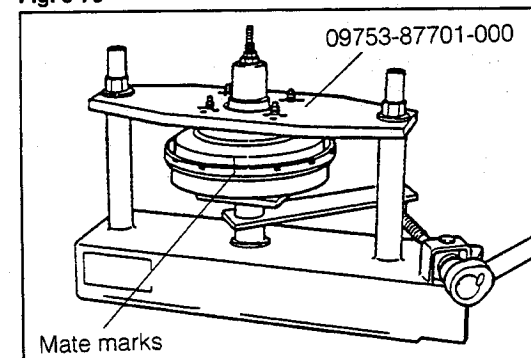


Fig. 8-71 WR-08076

BRAKES

9. Install the rod seal in the brake booster.
10. Temporarily install the master cylinder push rod clevis and nut.

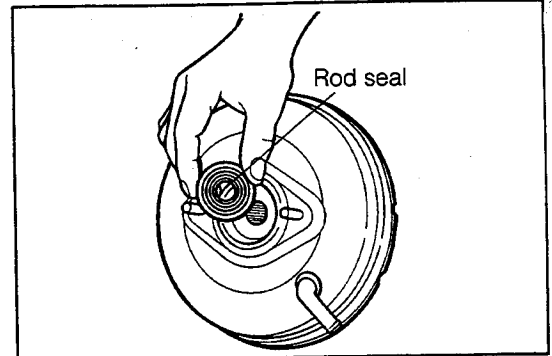


Fig. 8-72

WR-08077

11. Adjust the brake booster push rod clearance as follows:
 - (1) Set the SST in such a way that the SST rod makes a light contact with the piston of the master cylinder, as indicated in Fig. 8-73.

SST: 09737-87001-000

NOTE:

Be sure to carry out this adjustment with the gasket attached in position.

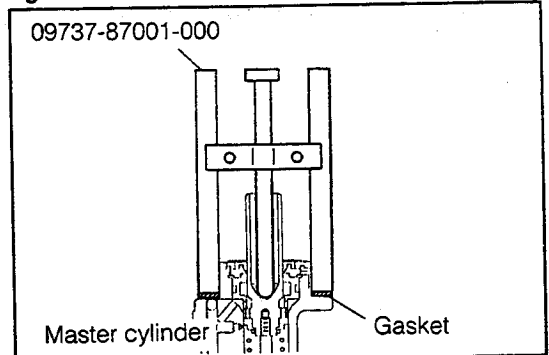


Fig. 8-73

WR-08078

- (2) Set the SST as indicated in Fig. 8-74. Adjust the push rod so that the push rod clearance may become zero.

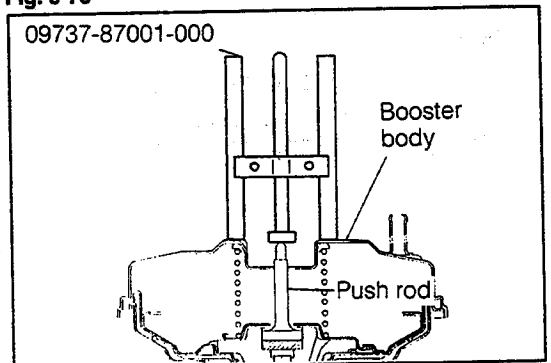


Fig. 8-74

WR-08079

- (3) Perform the adjustment of the push rod clearance by turning the nut provided at the tip end of the push rod.

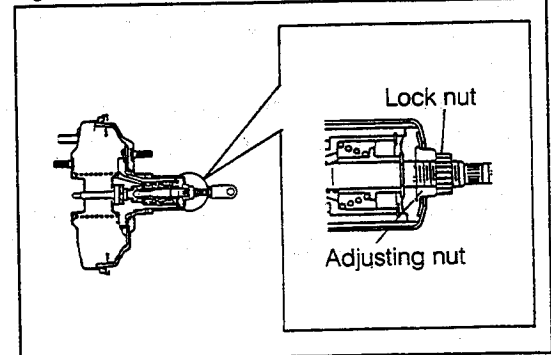


Fig. 8-75

WR-08080

INSTALLATION

1. Install the brake booster on the body with a new gasket interposed, using the four nuts.
2. Attach the master cylinder push rod clevis to the brake pedal by means of the with-hole pin and clip.

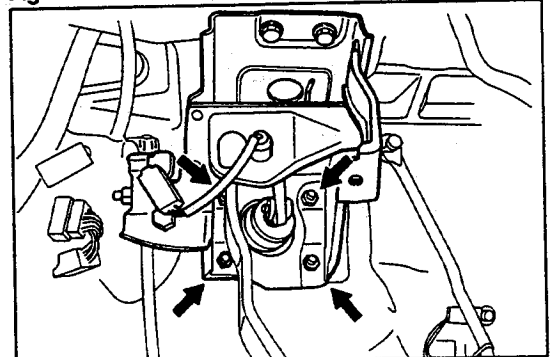


Fig. 8-76

WR-08081

3. Attach the vacuum hose.
4. Install the front suspension upper brace subassembly.
(RHD TURBO and GT_{ti} grades only)
5. Install the clutch cable and ignition coil.
(LHD TURBO and GT_{ti} grades only)
6. Install the master cylinder. (See page 8-14.)

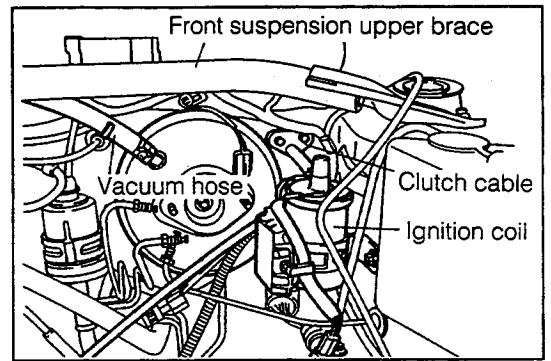


Fig. 8-77

WR-08082

BRAKES

FRONT BRAKE

SECTIONAL VIEW

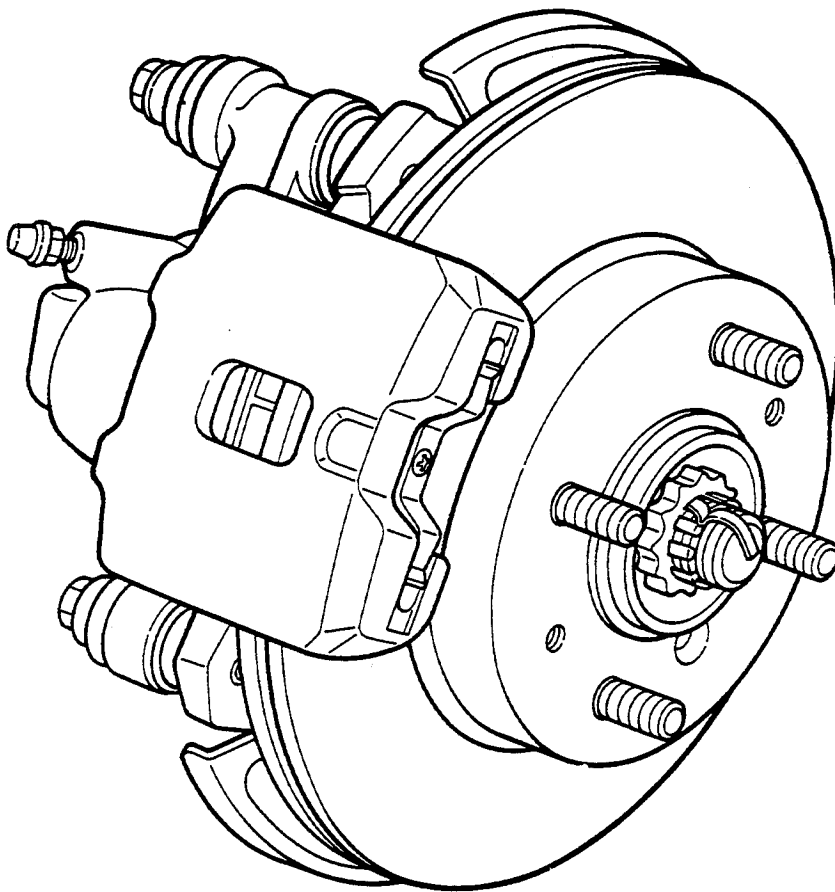
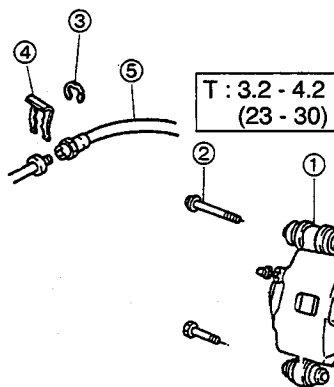


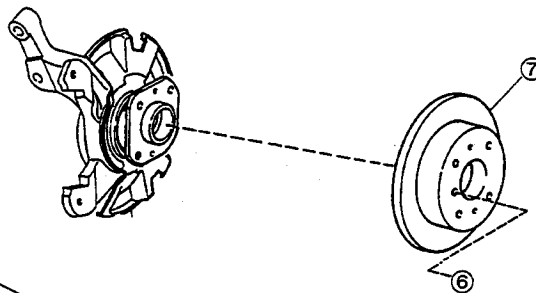
Fig. 8-78

WR-08083

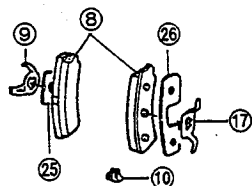
COMPONENTS



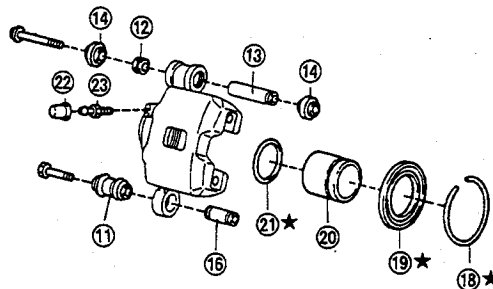
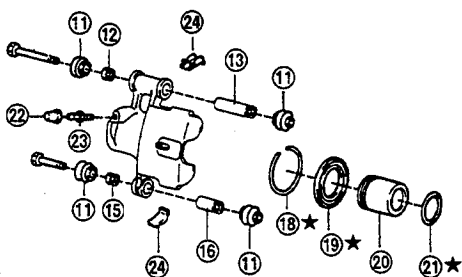
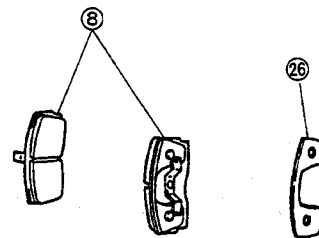
T : Tightening torque
Unit: kg-m (ft-lb)
★ : Non-reusable parts



General specifications except for TURBO, GT_{ti} grade



Others



- ① Disc brake front caliper Ay
- ② Bolt
- ③ "E" ring
- ④ Tube clamp
- ⑤ Flexible hose
- ⑥ Screw
- ⑦ Front disc
- ⑧ Disc brake pad
- ⑨ Anti-rattle spring No. 1
- ⑩ Pad wear indicator plate
- ⑪ Bush dust boot
- ⑫ Bush retainer
- ⑬ Cylinder slide bush

- ⑭ Piston boot
- ⑮ Bush retainer
- ⑯ Cylinder slide bush
- ⑰ Anti-rattle spring No. 2
- ⑱ Set ring
- ⑲ Cylinder boot
- ⑳ Front disc brake piston
- ㉑ Piston seal
- ㉒ Bleeder plug cap
- ㉓ Bleeder plug
- ㉔ Disc brake pad guide plate
- ㉕ Anti-squeal shim No. 1
- ㉖ Anti-squeal shim No. 2

Fig. 8-79

WR-08084

BRAKES

DISC BRAKE PAD REMOVAL

1. Jack up the front end of the vehicle. Support the body with safety stands. Remove the front wheel.
2. Inspect the brake pad thickness through the inspection hole provided in the disc brake front caliper.

	General specifications except for TURBO, GT _{ti} grade	Others
Specified Thickness	10 mm (0.39 inch)	9 mm (0.35 inch)
Minimum Limit	1 mm (0.04 inch)	1 mm (0.04 inch)

3. Remove the two attaching bolts of the disc brake front cylinder assembly.
4. Remove the disc brake pad and anti-squeal shim.
5. Detach the disc brake pad guide plate.
6. Check the front disc thickness. (See Fig. 8-98.)

	General specifications except for TURBO, GT _{ti} grade	Others
Specified Thickness	11 mm (0.43 inch)	18 mm (0.71 inch)
Minimum Limit	10 mm (0.39 inch)	17 mm (0.67 inch)

7. Drain a small amount of brake fluid from the master cylinder reservoir. Push in the piston with the handle of a hammer or the like.

NOTE:

Be sure to carry out the pad replacement operation for one wheel at a time, for there is a possibility that the piston at the opposite side may be jumped out.

INSTALLATION

1. Install a new disc brake pad guide plate on the knuckle.

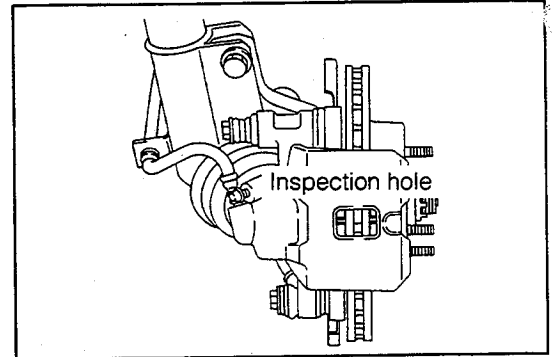


Fig. 8-80

WR-08085

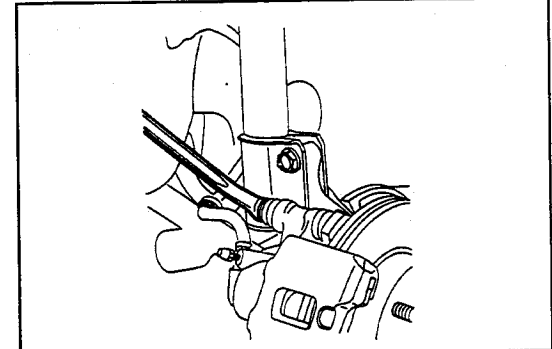


Fig. 8-81

WR-08086

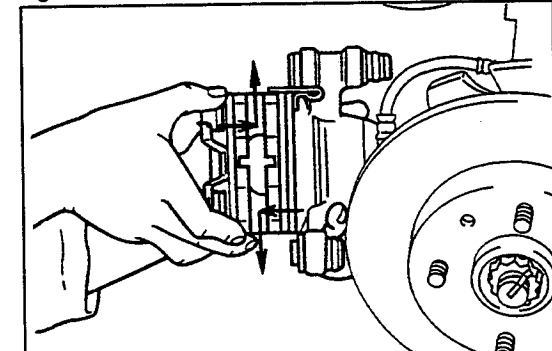


Fig. 8-82

WR-08087

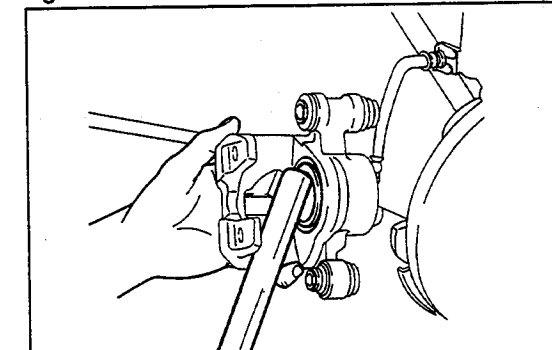


Fig. 8-83

WR-08088

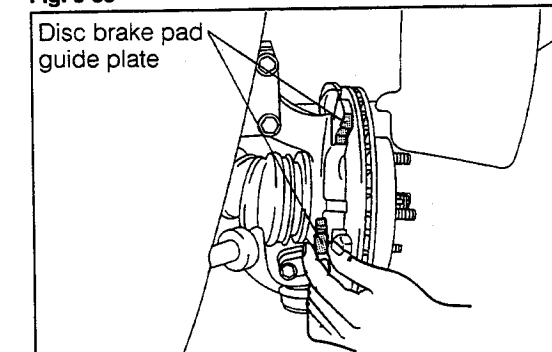


Fig. 8-84

WR-08089

- Assemble a new anti-squeal shim at a new disc brake pad (outboard side). Then, install them on the disc brake front caliper.

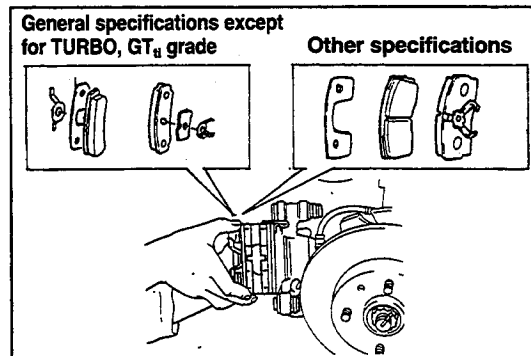


Fig. 8-85

WR-08090

- Install the disc brake front caliper assembly on the knuckle.

Tightening Torque: 3.2 - 4.2 kg-m (23 - 30 ft-lb)

NOTE:

Care must be exercised so that the caliper boot may not be pinched during the installation.

- Install the front wheel.
- Fill the brake fluid up to the "MAX" reference line of the master cylinder reservoir.

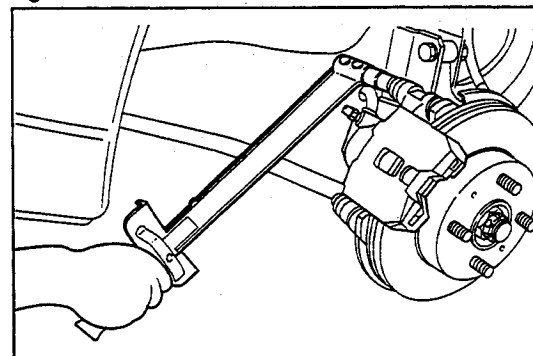


Fig. 8-86

WR-08091

DISC BRAKE FRONT CALIPER REMOVAL

- Jack up the front end of the vehicle. Support the body with safety stands. Remove the front wheel.
- Disconnect the flexible hose as follows:

(Body side)

- Separate the flexible hose from the brake tube, using the following SST.

SST: 09751-36011-000

- Detach the clip.

(Shock absorber side)

- Detach the clip.
- Disconnect the flexible hose from the shock absorber bracket.

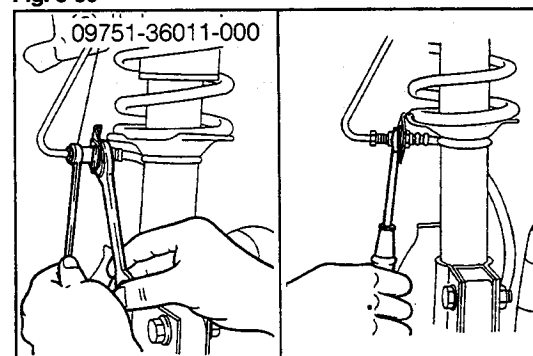


Fig. 8-87

WR-08092

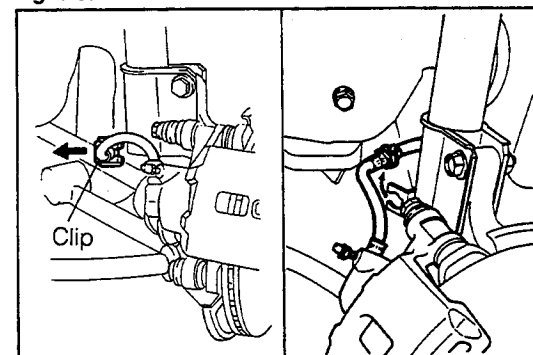


Fig. 8-88

WR-08093

- Disconnect the flexible hose from the disc brake front caliper, using the following SST.

SST: 09751-36011-000

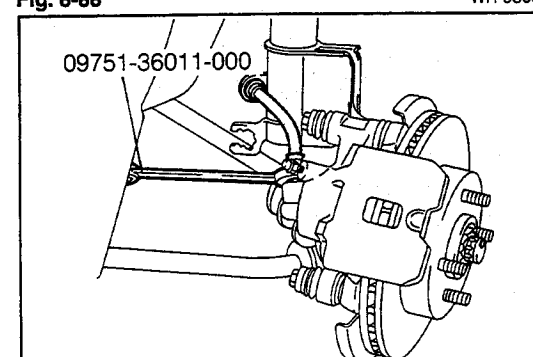


Fig. 8-89

WR-08094

BRAKES

3. Remove the caliper from the vehicle by removing the two attaching bolts of the disc brake front caliper.
4. Detach the disc brake pad from the disc brake front caliper.

DISASSEMBLY

1. Remove the following parts from the disc brake front caliper.
 - (1) General specifications except for TURBO, GT_{ti} grade
(Bush dust boot, bush retainer, cylinder slide bush, bleeder plug and plug cap)
 - (2) Other specifications
(Piston boot, bush dust boot, bush retainer, cylinder slide bush, bleeder plug and plug cap)

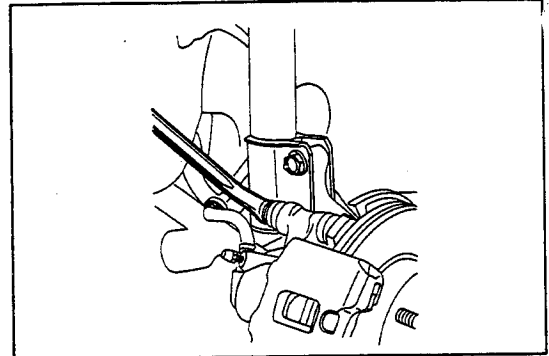


Fig. 8-90

WR-08095

General specifications except for TURBO, GT_{ti} grade

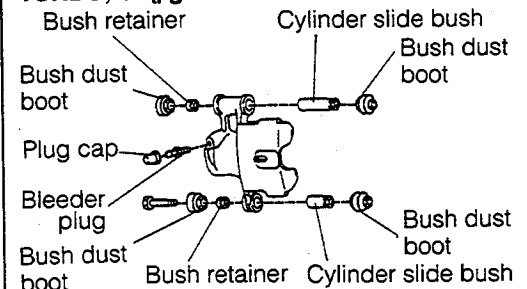


Fig. 8-91

WR-08096

Other specifications

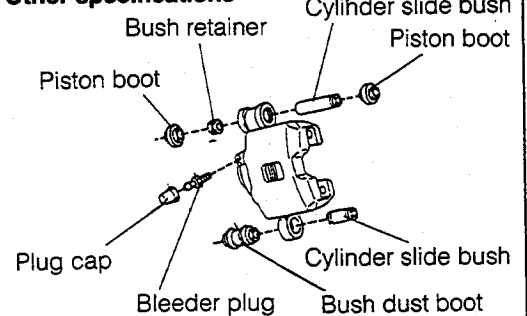


Fig. 8-92

WR-08097

2. Detach the cylinder boot set ring and cylinder boot, using a common screwdriver.

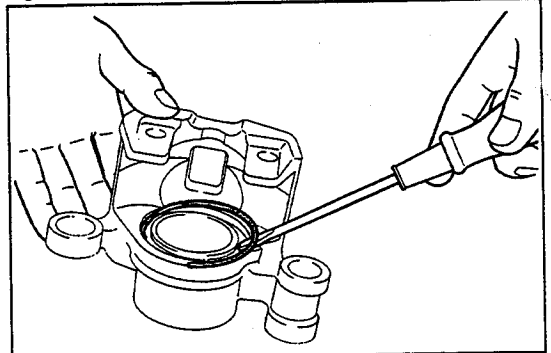


Fig. 8-93

WR-08098

3. With a wooden piece or a cloth placed at the end of the disc cylinder, as indicated in the right figure, drive out the piston by applying compressed air.

NOTE:

Special caution must be exercised so that no brake fluid may be splashed. Also, be very careful not to allow your finger be pinched.

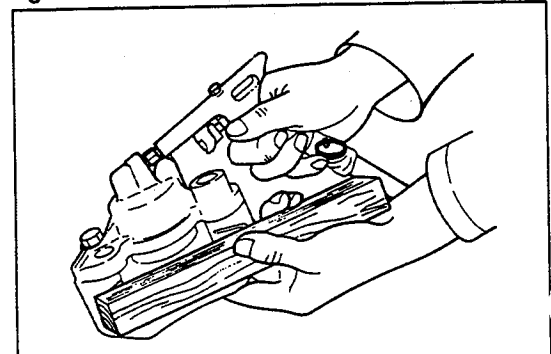


Fig. 8-94

WR-08099

- Detach the piston seal, using a common screwdriver.

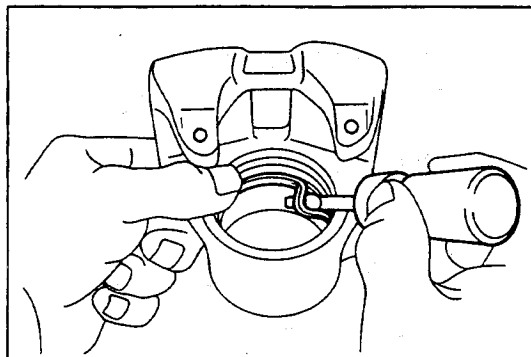


Fig. 8-95

WR-08100

INSPECTION

- Inspect each part of the disc brake front caliper assembly.

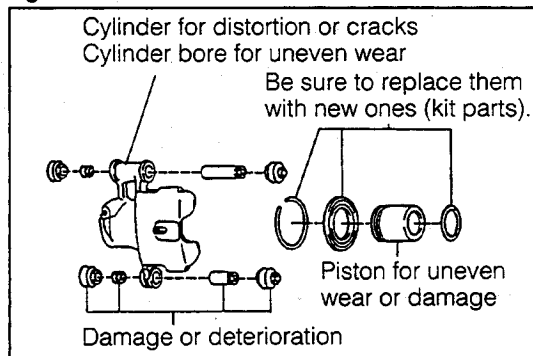


Fig. 8-96

WR-08101

- Measurement of pad thickness

	General specifications except for TURBO, GT _{ti} grade	Others
Specified Thickness	10 mm (0.39 inch)	9 mm (0.35 inch)
Minimum Limit	1 mm (0.04 inch)	1 mm (0.04 inch)

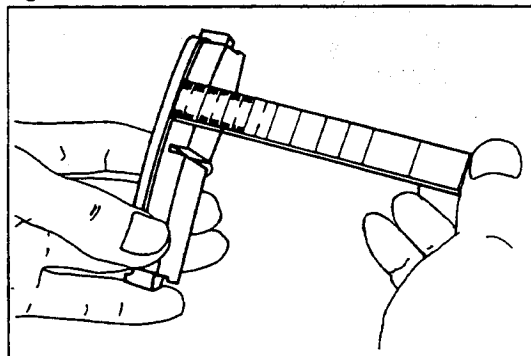


Fig. 8-97

WR-08102

- Checking of disc thickness

	Specifications other than GT _{ti}	GT _{ti} grade
Specified Thickness	11 mm (0.43 inch)	18 mm (0.71 inch)
Minimum Limit	10 mm (0.39 inch)	17 mm (0.67 inch)

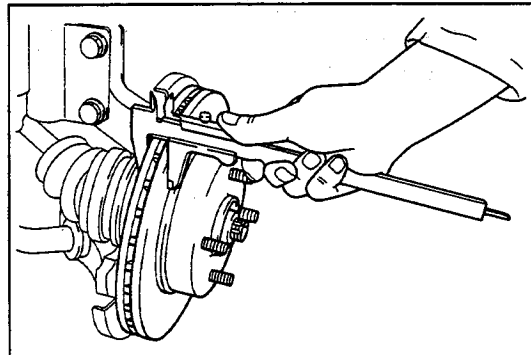


Fig. 8-98

WR-08103

- Replace the front disc.

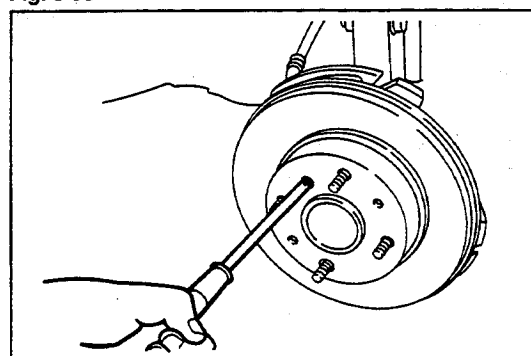


Fig. 8-99

WR-08105

BRAKES

ASSEMBLY

1. Apply rubber grease to those points indicated by arrow heads in the figure below.

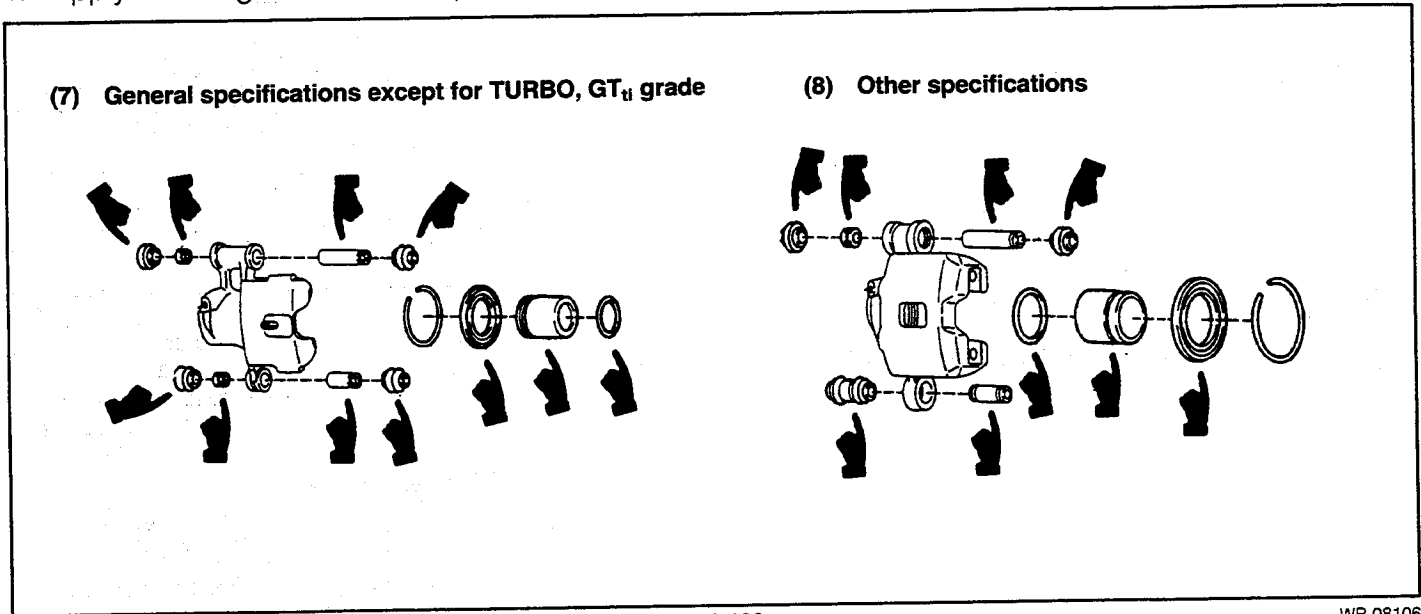


Fig. 8-100

WR-08106

2. Assemble the piston seal and piston.
 - (1) Assemble the piston seal in the disc brake front caliper.

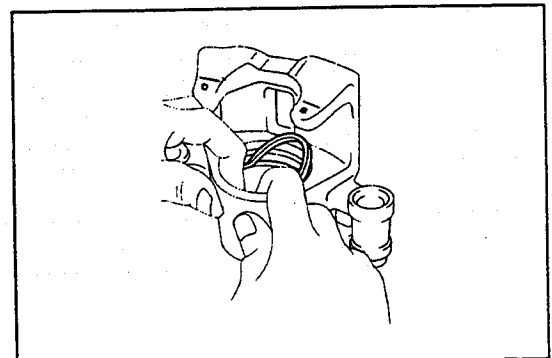


Fig. 8-101

WR-08107

- (2) Insert the piston into the disc brake front caliper, making sure that the piston is not tilted during the installation.

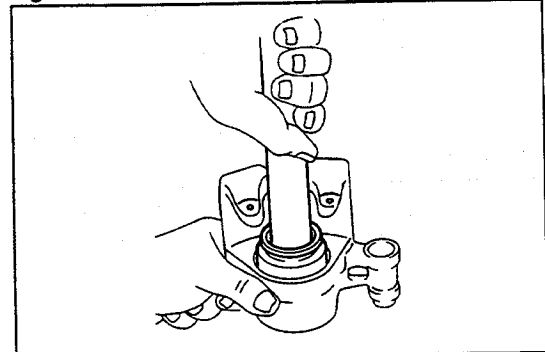


Fig. 8-102

WR-08107A

3. Assemble the cylinder boot in the disc brake front caliper.
NOTE:
Make sure that the boot is fitted securely in the groove.
4. Assemble the cylinder boot set ring, making sure that no scratch is made to the boot.

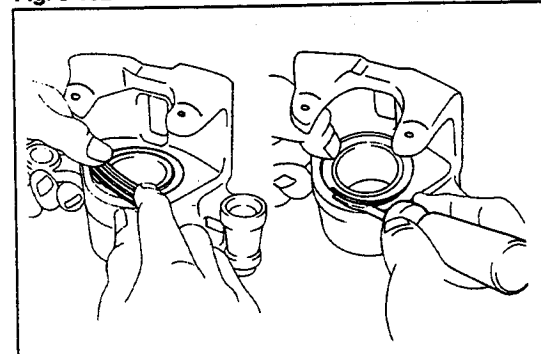


Fig. 8-103

WR-08108

5. Assemble those parts indicated in the figure below in the disc brake front caliper.

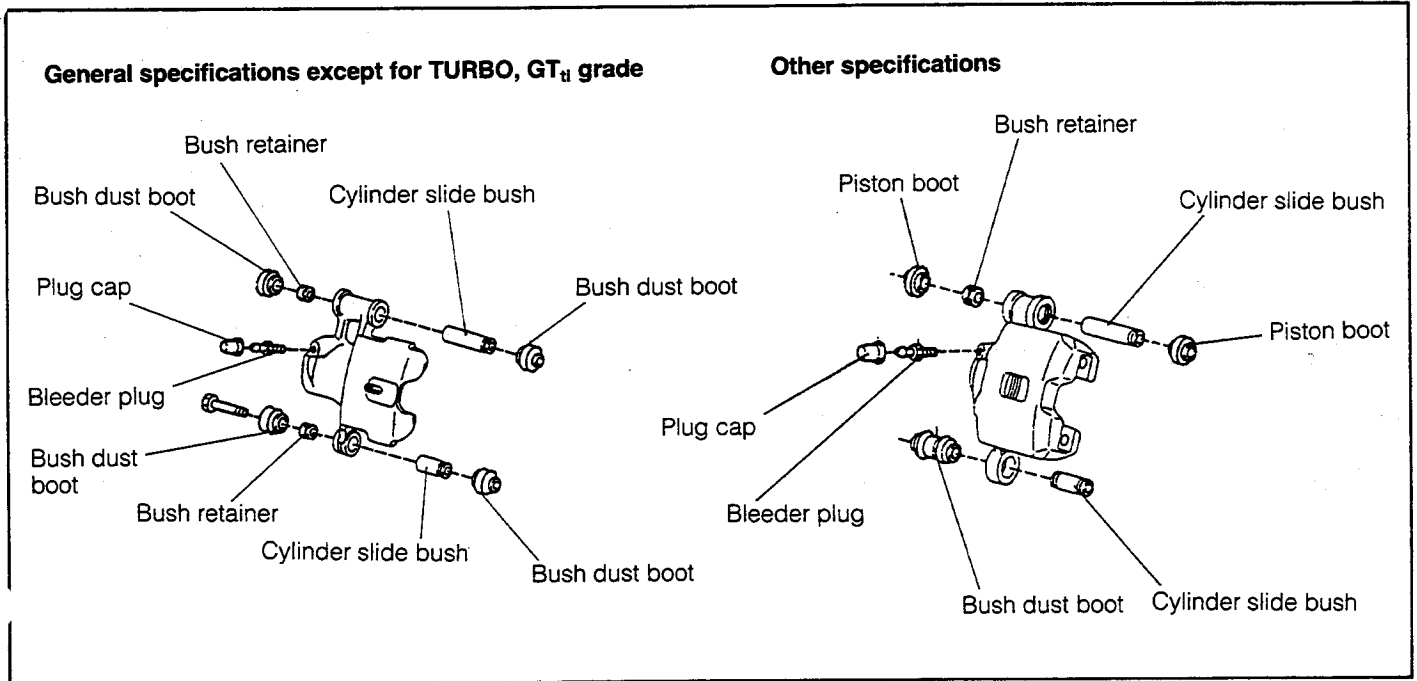


Fig. 8-104

WR-08109

INSTALLATION

1. Install the disc brake pad guide plate on the knuckle. (See Fig. 8-84.)
2. Install the anti-squeal shim at the disc brake pad (out-board side). Then, install them on the disc brake front caliper.

3. Install the disc brake front caliper assembly on the knuckle.

Tightening Torque: 3.2 - 4.2 kg-m (23 - 30 ft-lb)

NOTE:

Care must be exercised so that the caliper boot may not be pinched during the installation.

4. Install the flexible hose.
 - (1) Attach the flexible hose to the disc brake front caliper, using the following SST.
SST: 09751-36011-000
 - (2) Attach the flexible hose to the bracket section at the shock absorber side, using the clip.

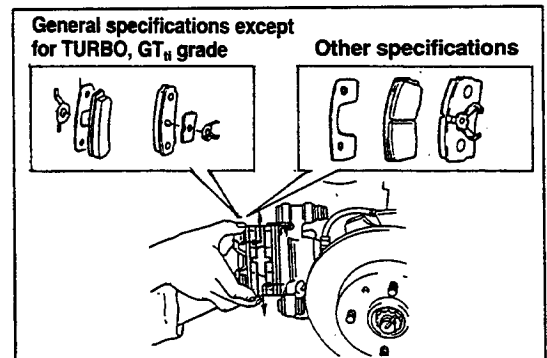


Fig. 8-105

WR-08110

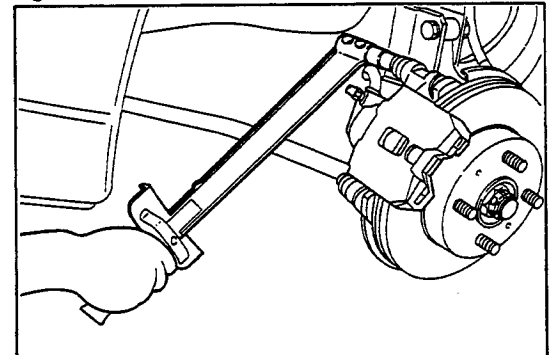


Fig. 8-106

WR-08111

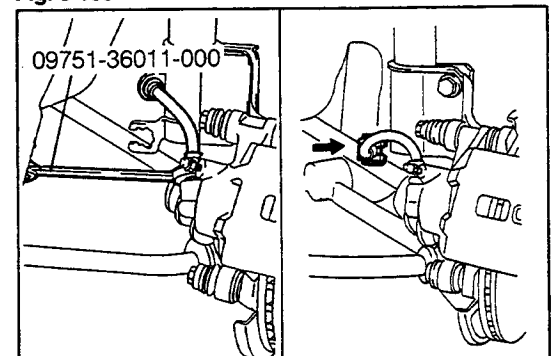


Fig. 8-107

WR-08112

BRAKES

(3) Temporarily install the flexible hose and brake tube by hands.

(4) Tighten the flexible hose and brake tube.

NOTE:

Make sure that the flexible hose is not twisted or stretched excessively.

(5) Attach the clip at the bracket section at the body side.

NOTE:

After completion of the installation, turn the steering wheel from lock to lock position. Make sure that the flexible hose is not interfering with any part of the body.

5. Perform air bleeding for the brake system.

(See page 8-5.)

6. Check the brake system for brake fluid leakage.

(See page 8-5.)

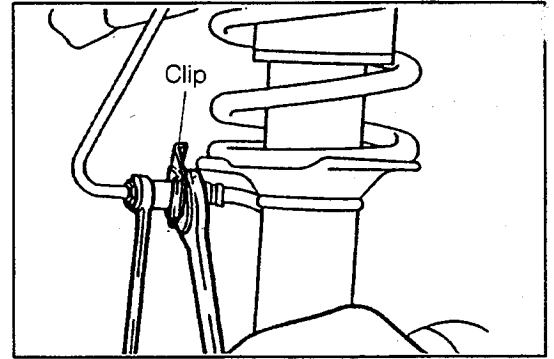


Fig. 8-108

WR-08113

WR-08114

REAR DRUM BRAKE

SECTIONAL VIEW

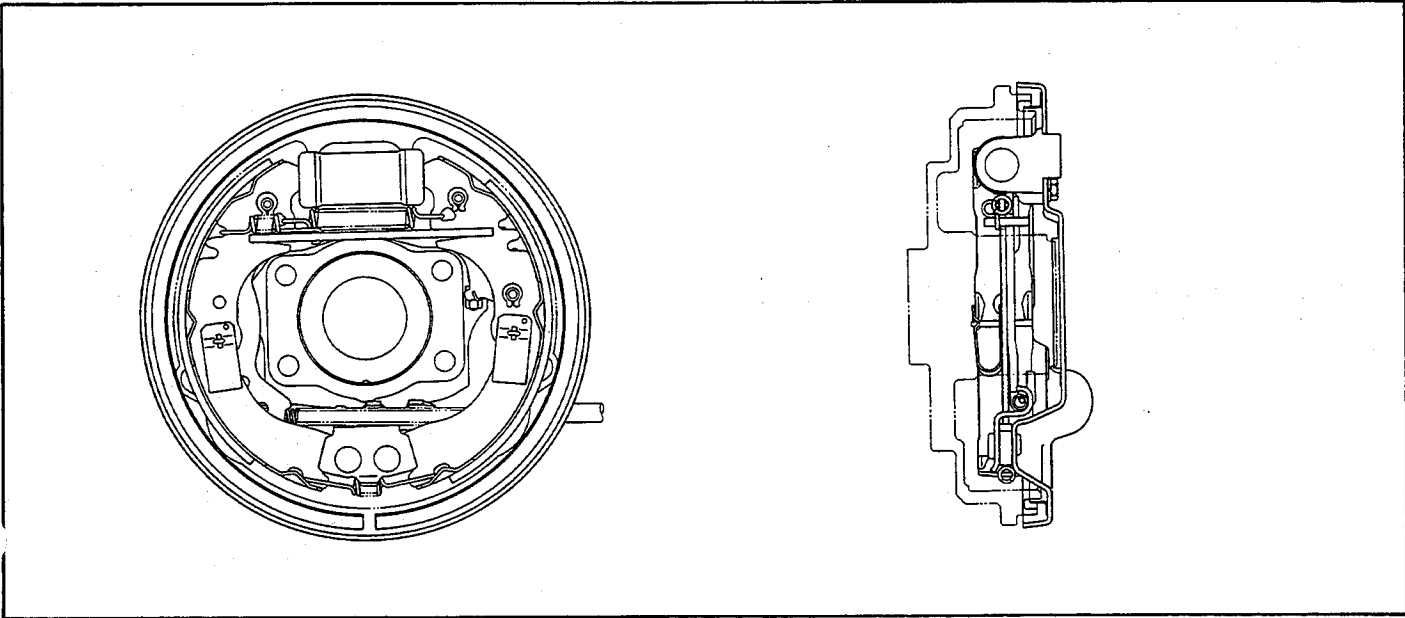
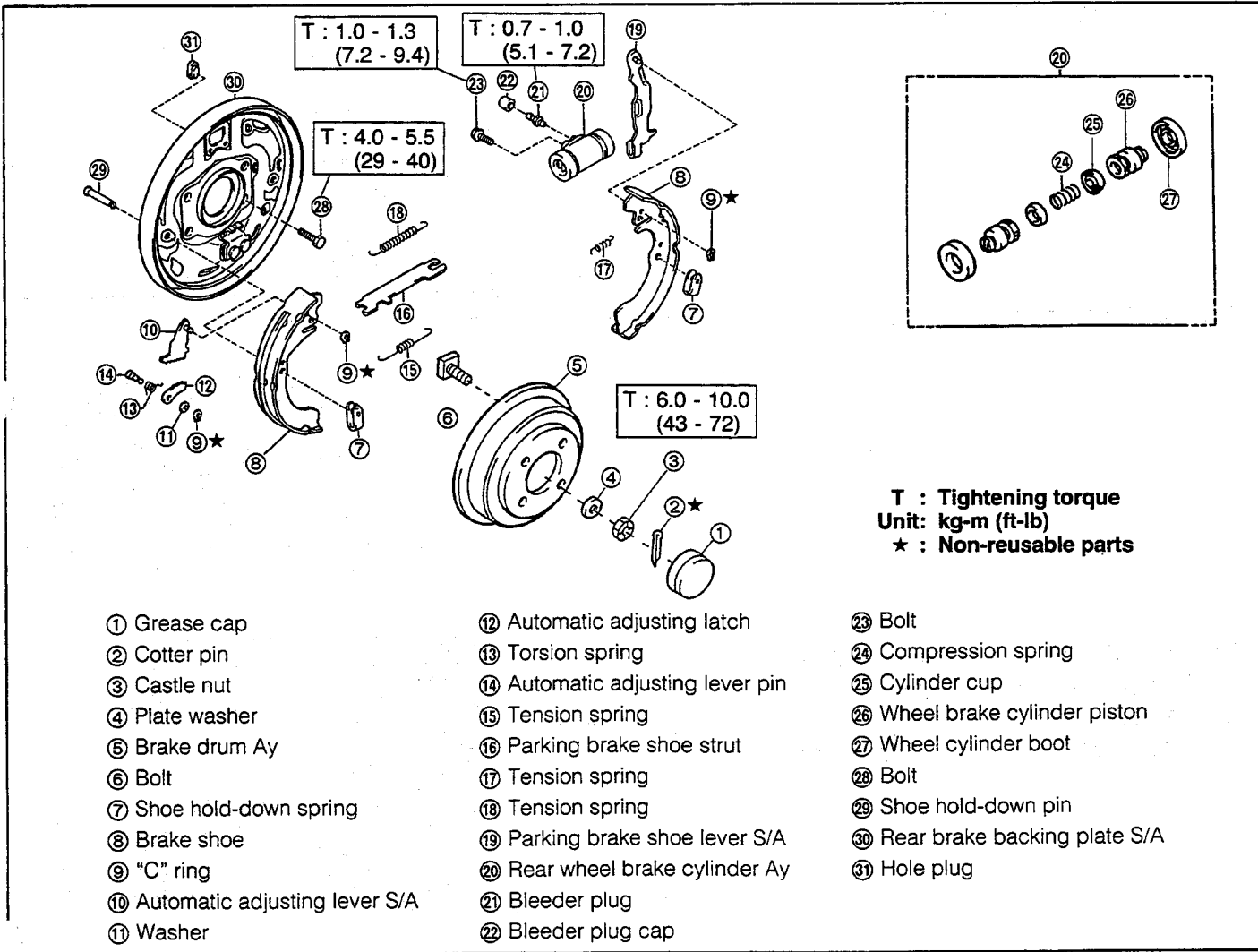


Fig. 8-109

WR-08115

COMPONENTS



- | | | |
|---------------------------------|---------------------------------|--------------------------------|
| ① Grease cap | ⑫ Automatic adjusting latch | ⑳ Bolt |
| ② Cotter pin | ⑬ Torsion spring | ㉑ Compression spring |
| ③ Castle nut | ⑭ Automatic adjusting lever pin | ㉒ Cylinder cup |
| ④ Plate washer | ⑮ Tension spring | ㉓ Wheel brake cylinder piston |
| ⑤ Brake drum Ay | ⑯ Parking brake shoe strut | ㉔ Wheel cylinder boot |
| ⑥ Bolt | ⑰ Tension spring | ㉕ Bolt |
| ⑦ Shoe hold-down spring | ⑱ Tension spring | ㉖ Shoe hold-down pin |
| ⑧ Brake shoe | ㉒ Parking brake shoe lever S/A | ㉗ Rear brake backing plate S/A |
| ⑨ "C" ring | ㉓ Rear wheel brake cylinder Ay | ㉘ Hole plug |
| ⑩ Automatic adjusting lever S/A | ㉔ Bleeder plug | |
| ⑪ Washer | ㉕ Bleeder plug cap | |

Fig. 8-110

WR-08116

BRAKES

REMOVAL

1. Jack up the rear section of the vehicle. Support the body with safety stands. Remove the rear wheel.
2. Remove the grease cap, cotter pin, castle nut and plate washer.

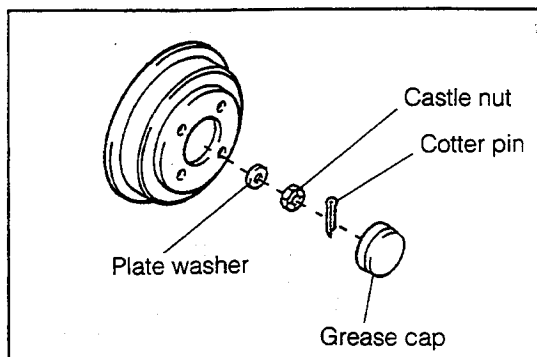


Fig. 8-111

WR-08117

3. Remove the brake drum, using the following SST.
SST: 09510-87301-000

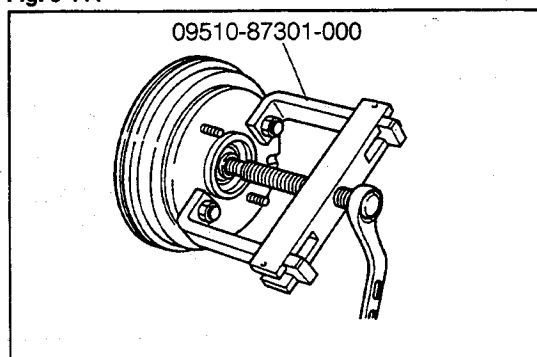


Fig. 8-112

WR-08118

4. Remove the tension spring, using the following SST.
SST: 09703-30010-000

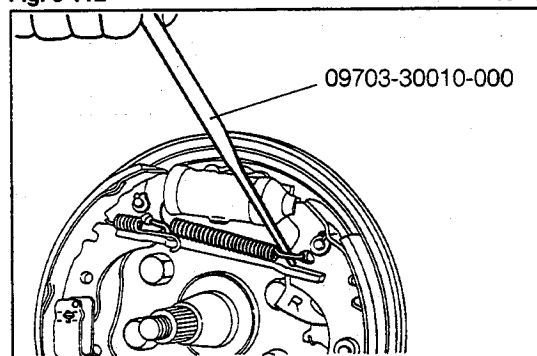


Fig. 8-113

WR-08119

5. Detach the tension spring, using a common screwdriver.

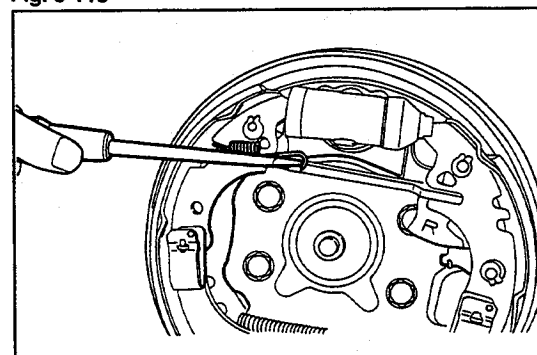


Fig. 8-114

WR-08120

6. Removal of brake shoe (leading side)
 - (1) Detach the shoe hold-down spring and pin.
 - (2) Remove the brake shoe, parking brake shoe strut and tension spring at the leading side.

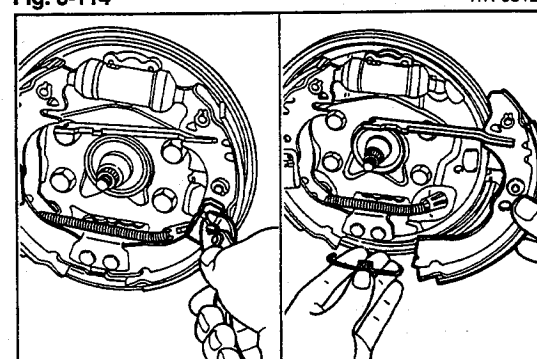


Fig. 8-115

WR-08121

7. Brake shoe (trailing side) removal

- (1) Remove the shoe hold-down spring and pin.
- (2) Remove the parking brake cable from the parking brake shoe lever, using pliers.

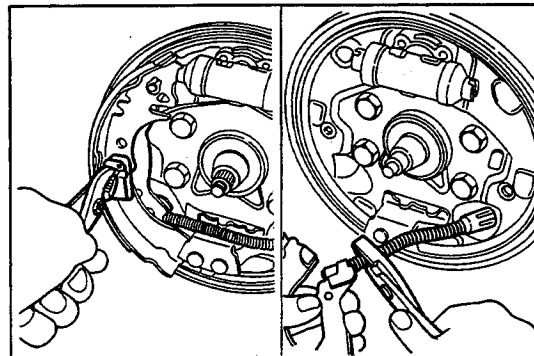


Fig. 8-116

WR-08122

8. Detach the "C" ring, using a common screwdriver. Remove the parking brake shoe lever and automatic adjusting lever-related parts.

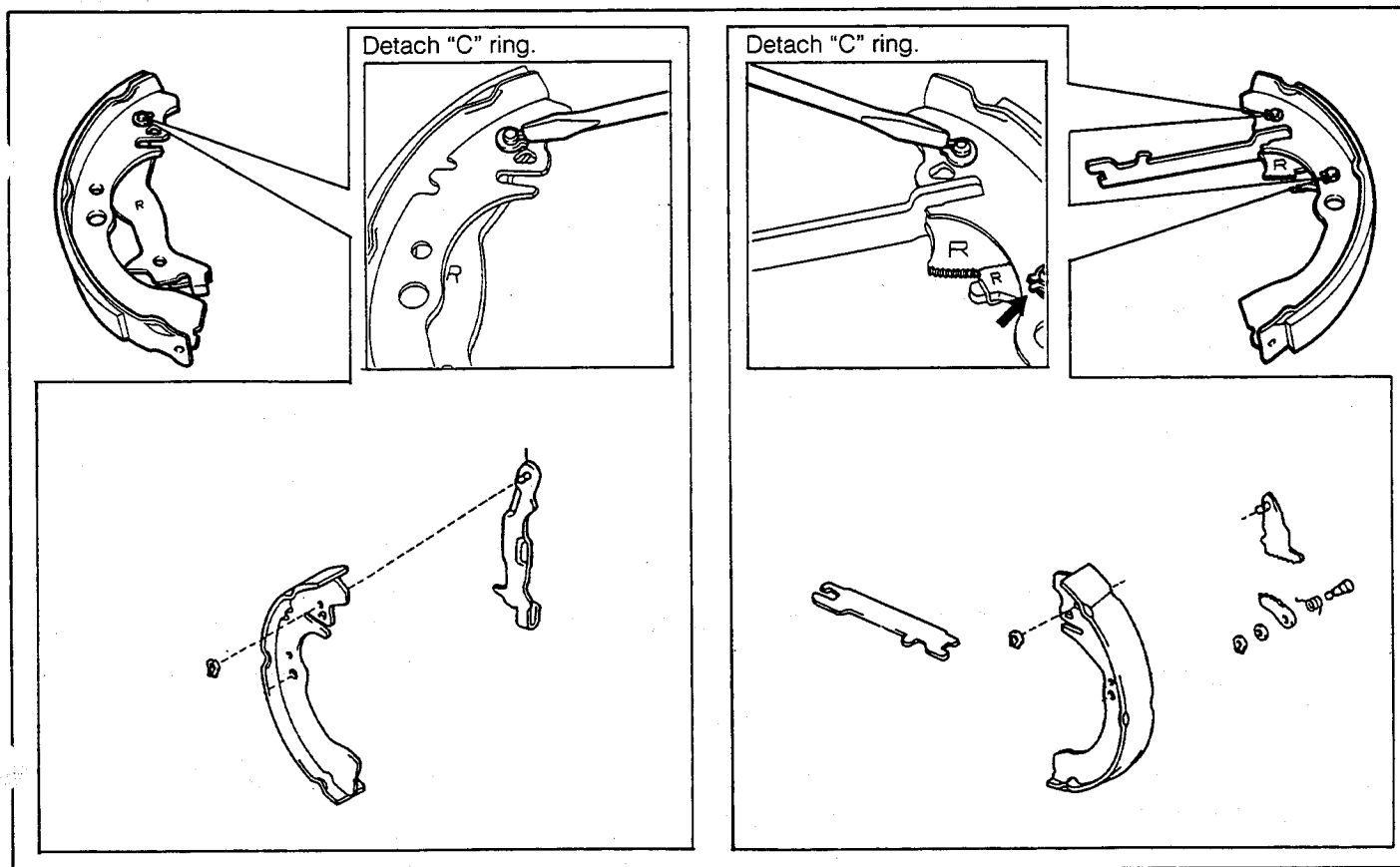


Fig. 8-117

WR-08123

9. Wheel cylinder removal

- (1) Disconnect the brake tube from the wheel cylinder, using the following SST.
- SST: 09751-36011-000

- (2) Remove the two attaching bolts of the wheel cylinder. Proceed to remove the wheel cylinder from the backing plate.

NOTE:

The wheel cylinder can be disassembled or checked with the wheel cylinder mounted on the backing plate. It is, therefore, unnecessary to remove the wheel cylinder from the backing plate except for cases where the wheel cylinder assembly is replaced.

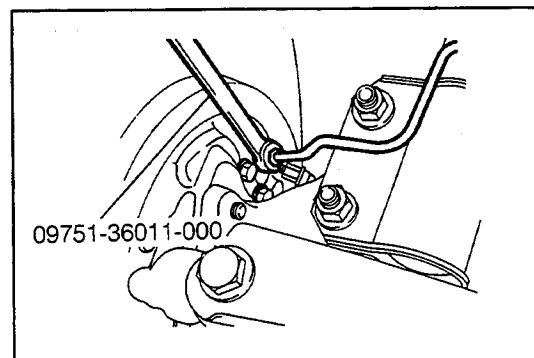


Fig. 8-118

WR-08124

BRAKES

10. Remove the following parts from the wheel cylinder.

- (1) Wheel cylinder boots (2 pieces)
- (2) Wheel cylinder pistons (2 pieces)
- (3) Wheel cylinder piston cups (2 pieces)
- (4) Compression spring

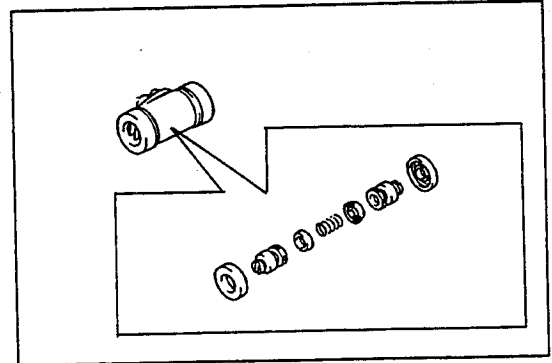


Fig. 8-119

WR-08125

INSPECTION

Inspect the following parts.

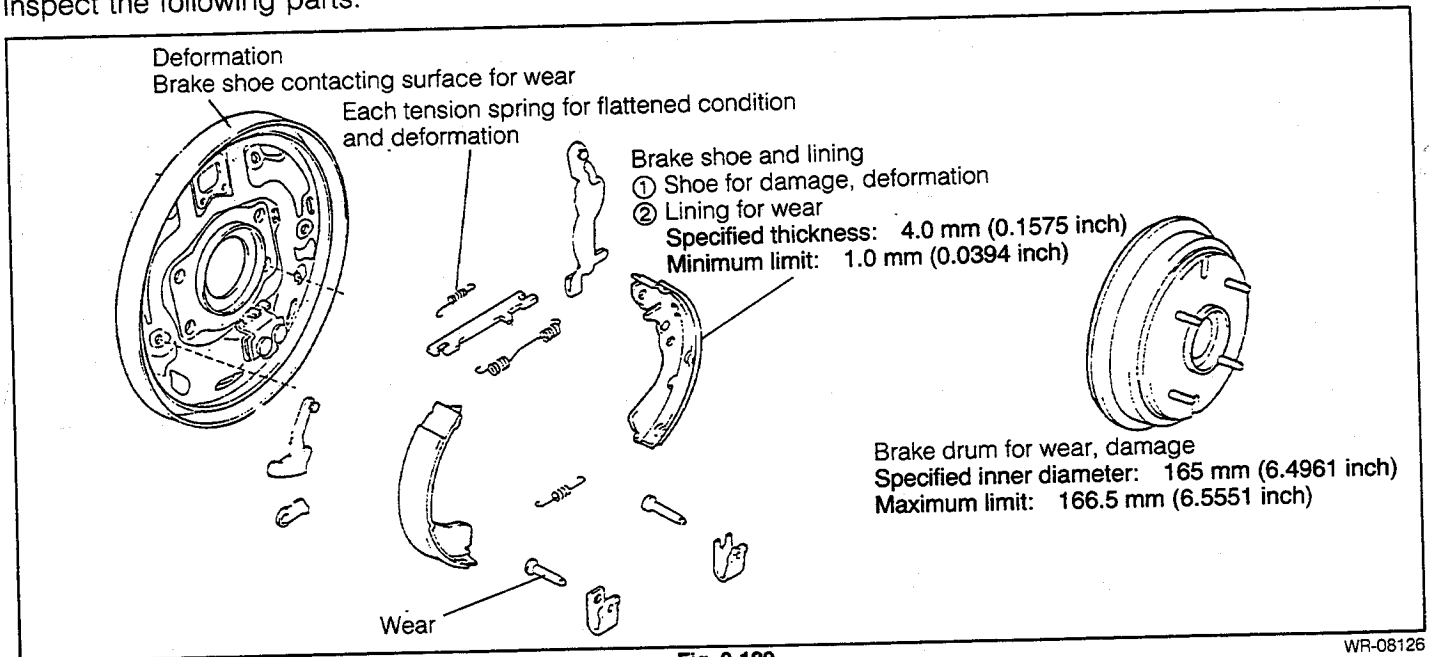


Fig. 8-120

WR-08126

1. Rear brake backing plate replacement

- (1) Remove the four attaching bolts of the rear brake backing plate.
- (2) Apply Daihatsu Bond No.4 (999-6304-6323-00) to the installation surface of the rear brake backing plate with the rear axle carrier. At this time, do not plug the grease releasing hole [5 mm (0.20 inch) dia.] with the grease.
- (3) Install the rear brake backing plate, using the four bolts.

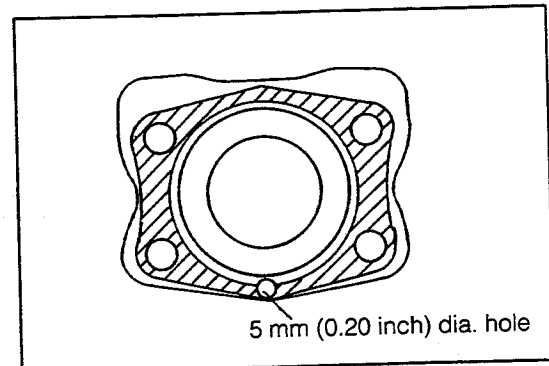


Fig. 8-121

WR-08127

2. Brake drum replacement

- (1) Apply Mp grease to the points indicated in the right figure.

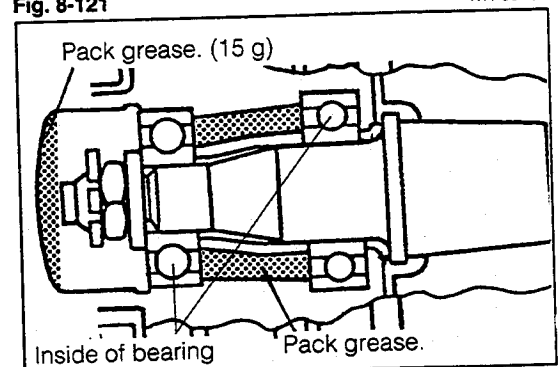


Fig. 8-122

WR-08128

- (2) Install the outer bearing, using the following SST.
SST: 09608-12010-000 (No.13 in the set)
- (3) Install the outer retainer.
- (4) Install the inner bearing, using the following SST.
SST: 09608-12011-000 (No.5 in the set)

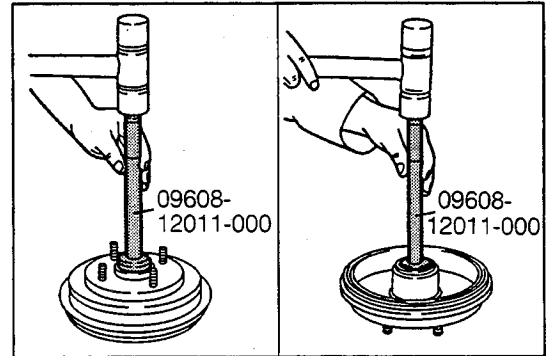


Fig. 8-123

WR-08129

INSTALLATION

- 1. Assembly of wheel cylinder
 - (1) Apply rubber grease to the points indicated by arrows.
 - (2) Assemble the cup on the wheel cylinder piston.

NOTE:
Be sure to install the cup in the correct direction.

 - (3) Install the two pistons and compression spring to the wheel cylinder.
 - (4) Assemble the two wheel cylinder boots.

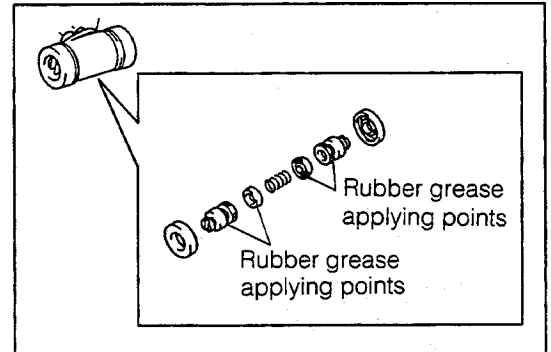


Fig. 8-124

WR-08130

- 2. Wheel cylinder installation
 - (1) Apply liquid gasket to the installation section of the rear brake backing plate with the wheel cylinder.
 - (2) Install the wheel cylinder to the rear brake backing plate, using the two bolts.

Tightening Torque: 4.0 - 5.5 kg-m (28.9 - 39.8 ft-lb)

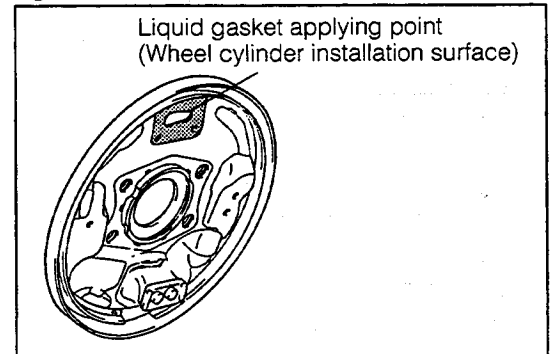


Fig. 8-125

WR-08131

- 3. Brake tube installation
 - (1) Install the brake tube to the wheel cylinder temporarily by hands.
 - (2) Tighten the brake tube to the wheel cylinder, using the following SST.

SST: 09751-36011-000

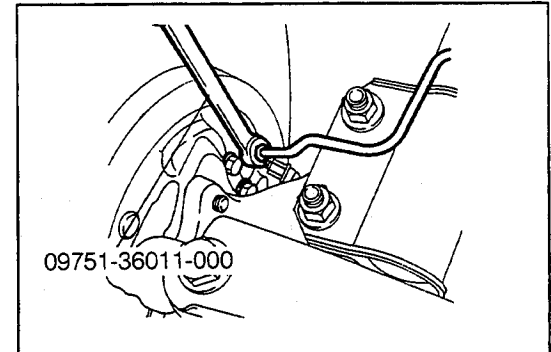


Fig. 8-126

WR-08132

BRAKES

4. Install the parking brake shoe lever and automatic adjusting lever-related parts to the brake shoe.

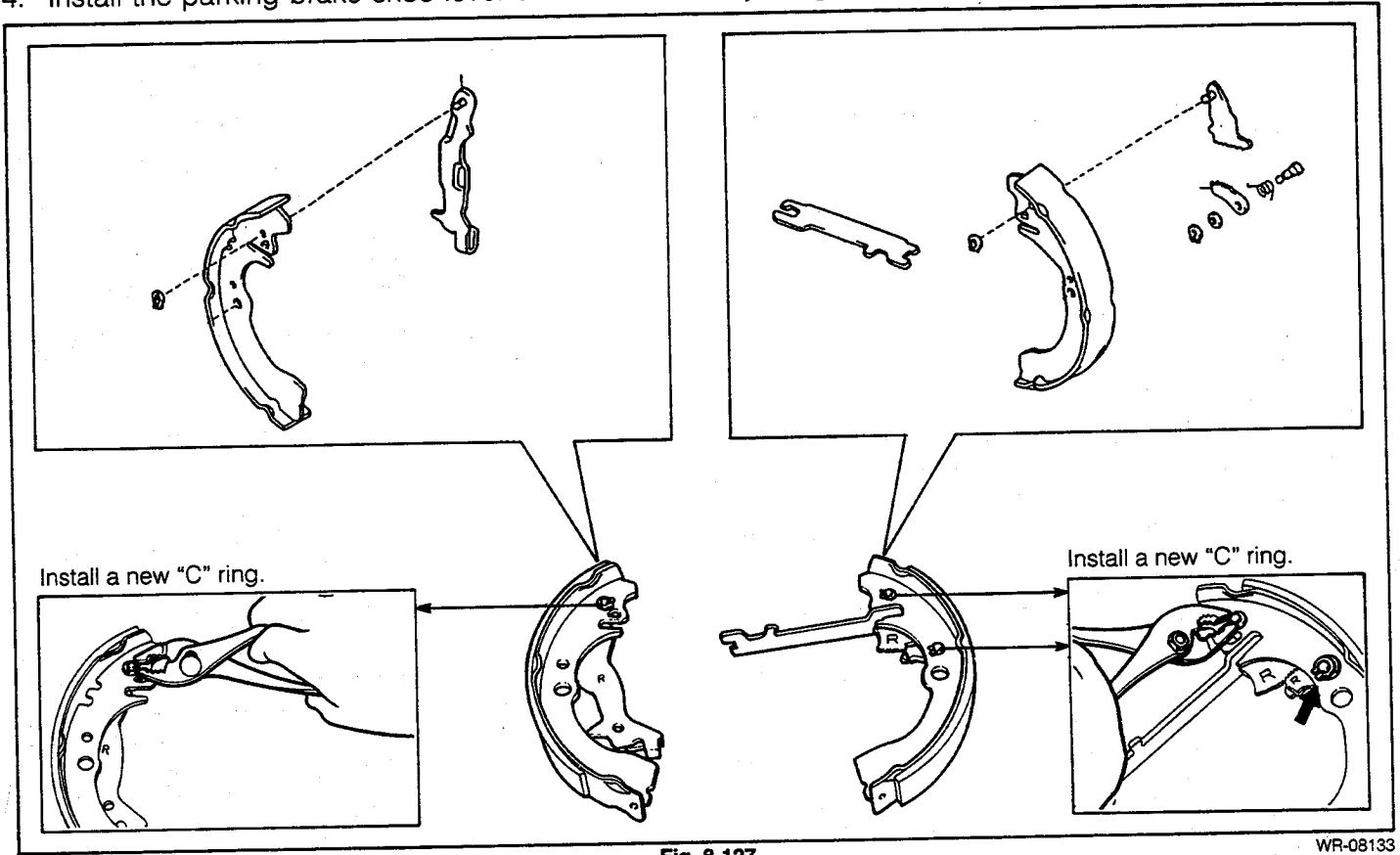


Fig. 8-127

WR-08133

5. Apply brake grease to the contacting points of the rear brake backing plate with the brake shoe.

NOTE:

Be careful not to allow lubricants, such as grease, to get to the wheel cylinder boot.

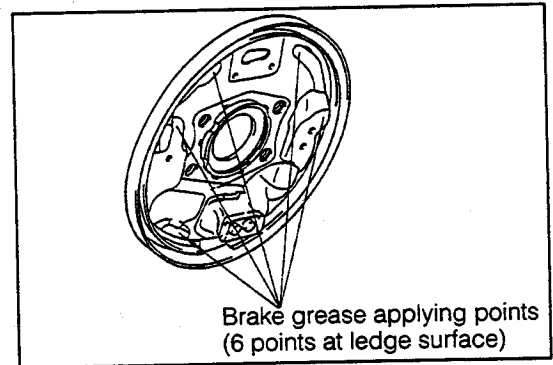


Fig. 8-128

WR-08134

6. Assembly of brake shoe (trailing side)

- (1) Assemble the parking brake cable to the parking brake shoe lever, using pliers.
- (2) Assemble the brake shoe on the rear brake backing plate. Install the shoe hold-down spring and pin.

NOTE:

Apply liquid gasket to the installation section of the rear brake backing plate with the shoe hold-down spring.

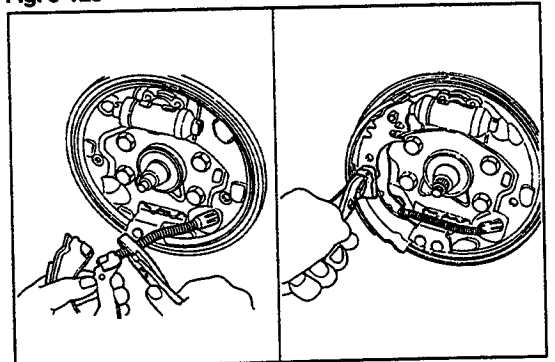


Fig. 8-129

WR-08135

- Assemble the brake shoe (leading side) on the rear brake backing plate. Install the shoe hold-down spring and pin.

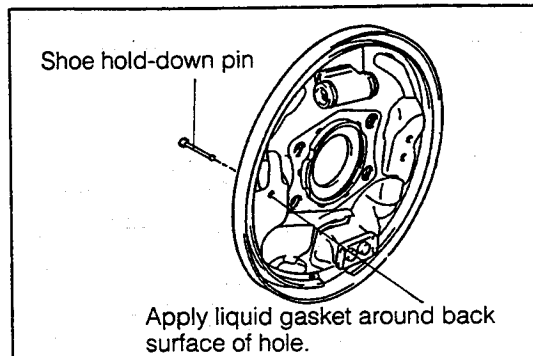


Fig. 8-130

WR-08136

- Install the tension spring, using a cross point screwdriver.

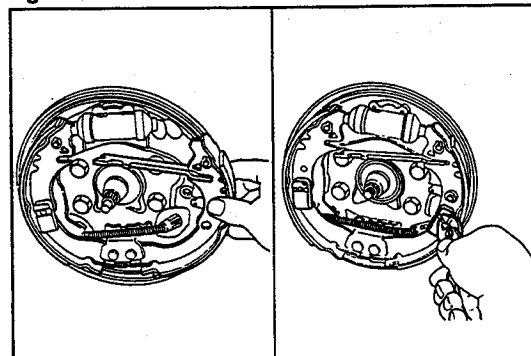


Fig. 8-131

WR-08137

- Install the tension spring, using the following SST.

SST: 09703-30010-000

NOTE:

Be careful not to damage the wheel cylinder boot during the installation.

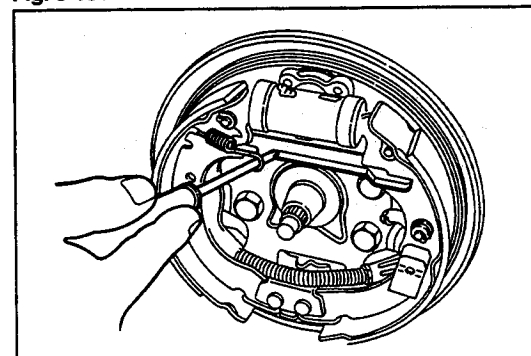


Fig. 8-132

WR-08138

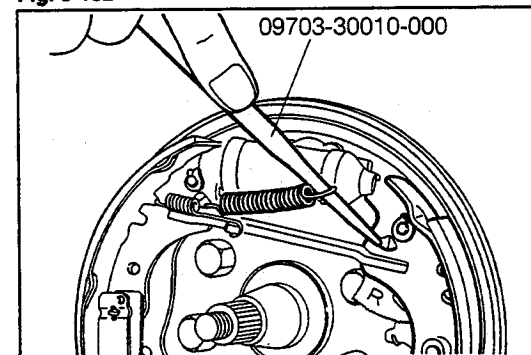


Fig. 8-133

WR-08139

BRAKES

10. Ensure that the rear brake components have been assembled properly.

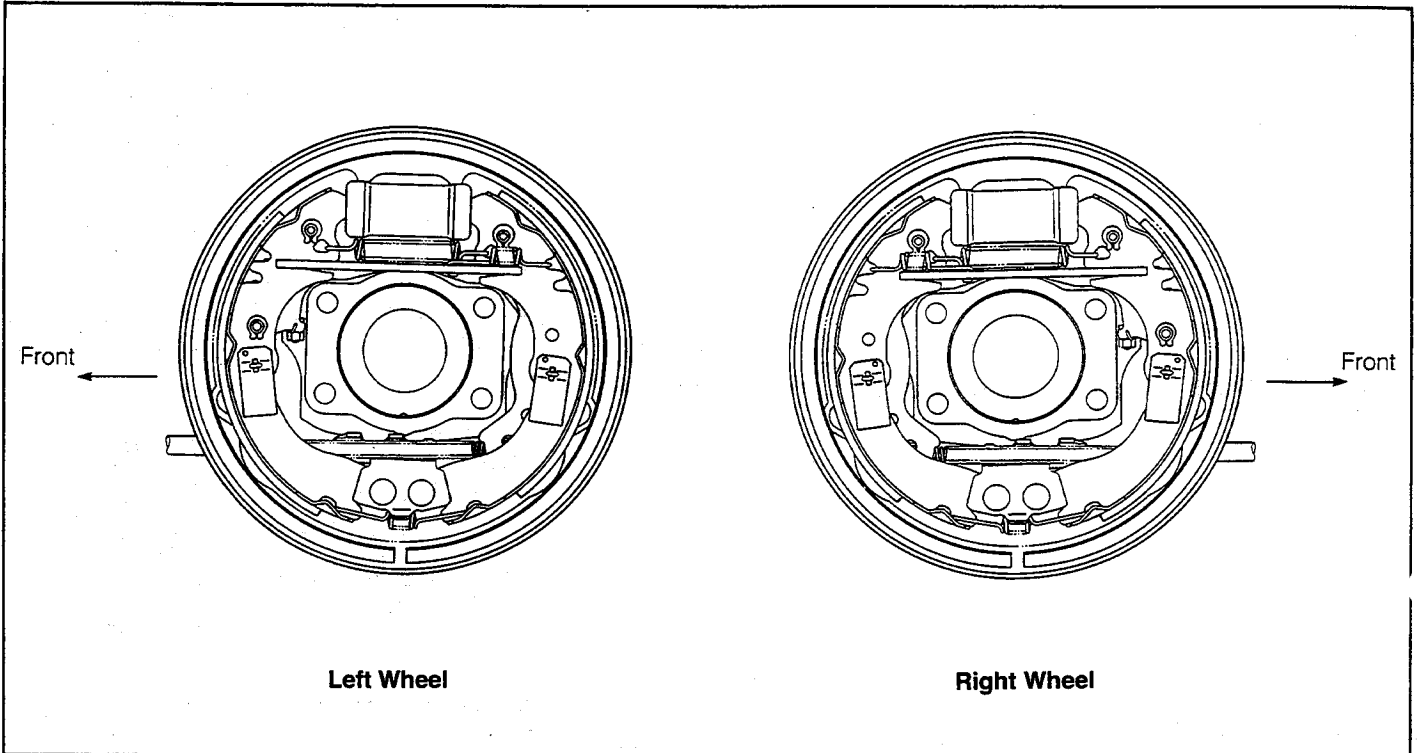


Fig. 8-134

WR-08140

11. Brake adjustment procedure

(1) Retract the shoe by moving the engagement of the parking brake shoe strut, using a common screwdriver or the like.

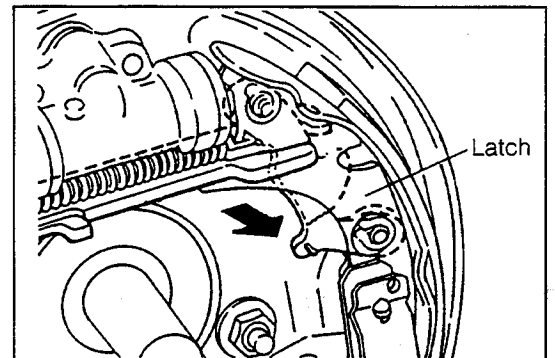


Fig. 8-135

WR-08141

(2) Brake drum installation

(Bearing inner retainer, brake drum, plate washer, castle nut, new cotter pin and grease cap)

Tightening Torque: 6.0 - 10.0 kg-m (43 - 72 ft-lb)

(3) Perform air bleeding for the brake system. (See page 8-5.)

(4) Check the brake system for brake fluid leakage.

(5) Depress the brake pedal and ensure that the automatic adjusting mechanism emits operating sound. Repeat this operation until you no longer hear the operating sound.

(6) Adjust the working travel of the parking brake lever. (See page 8-57.)

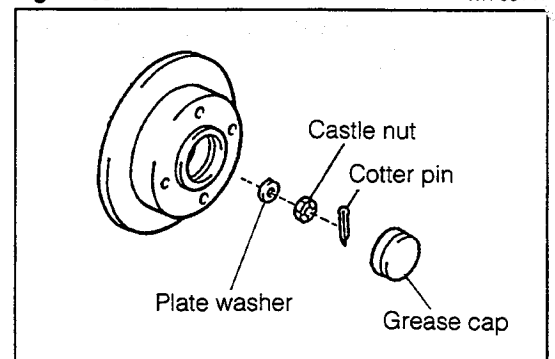


Fig. 8-136

WR-08142

REAR DISC BRAKE
SECTIONAL VIEW

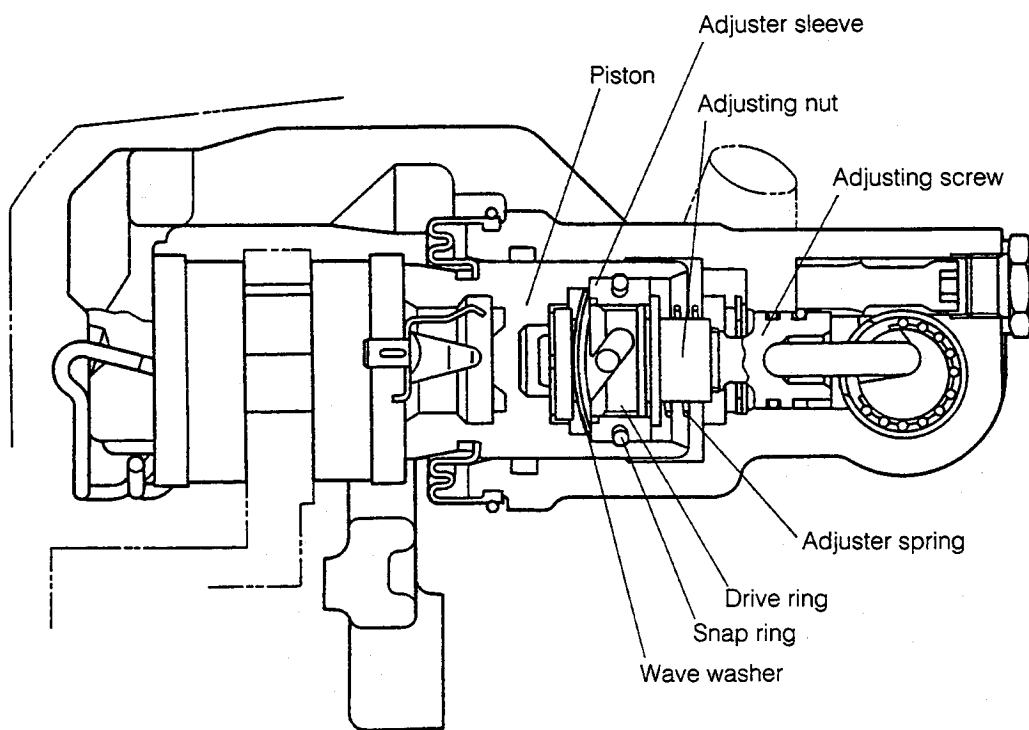
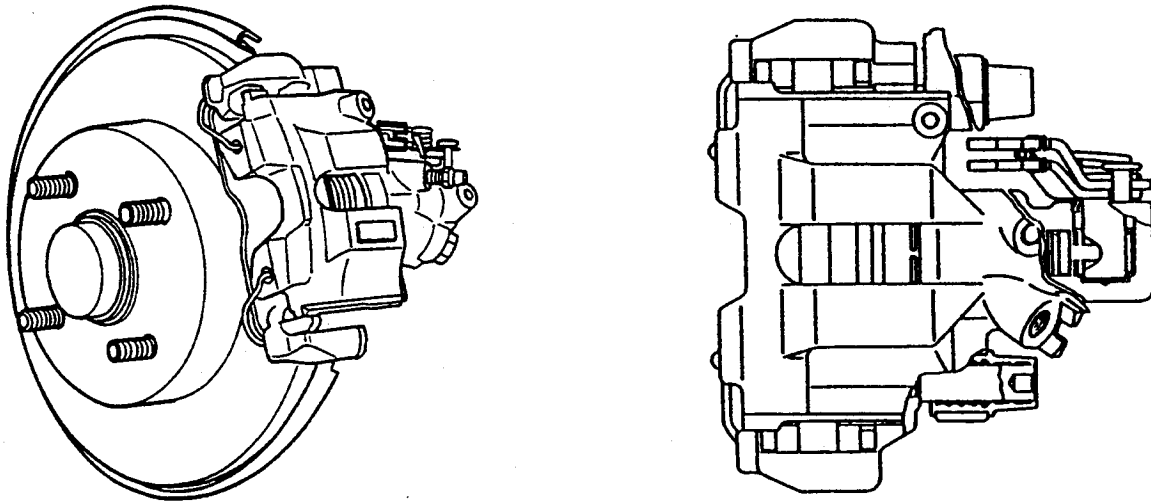
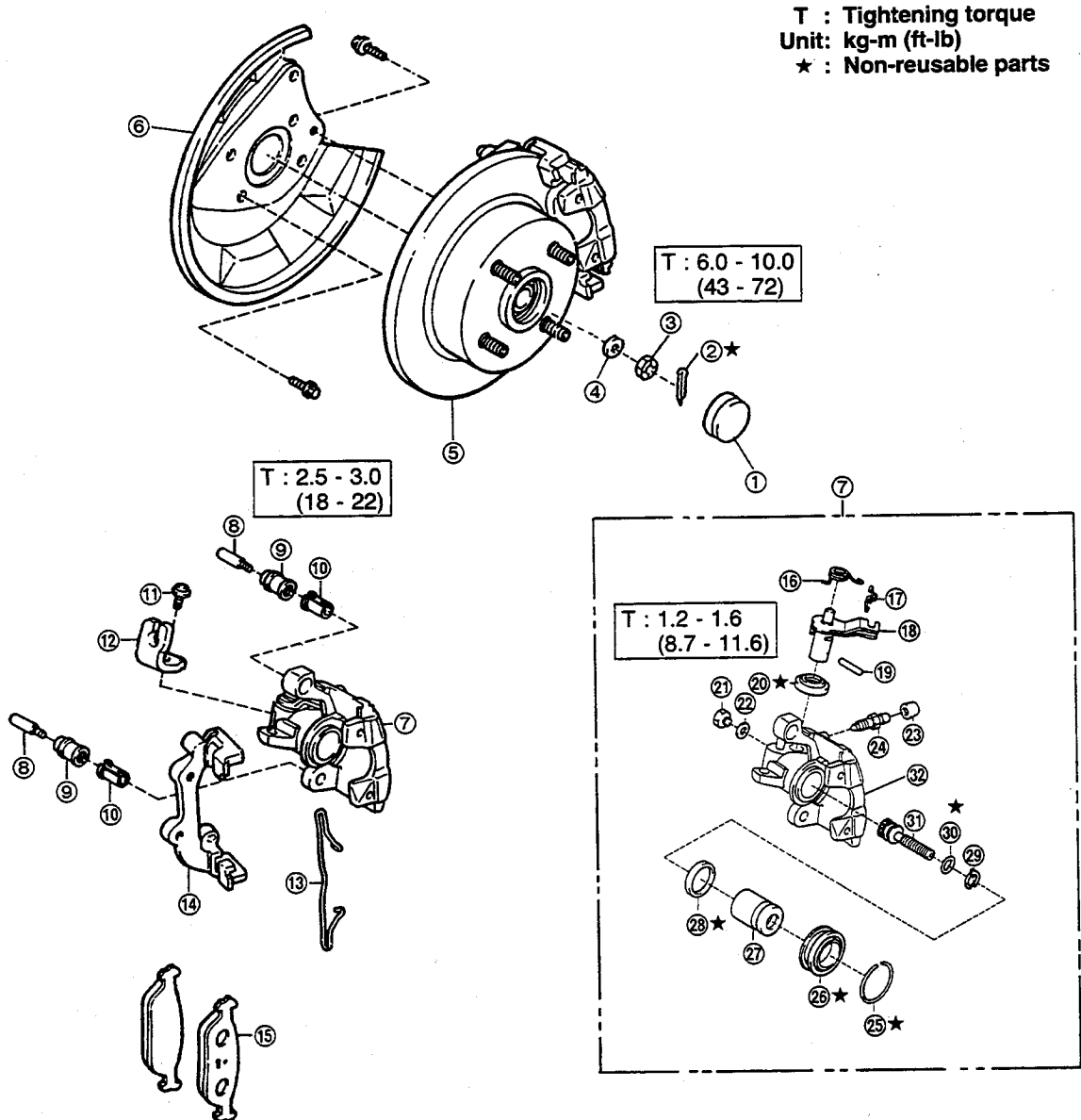


Fig. 8-137

WR-08143

BRAKES

COMPONENTS



- ① Grease cap
- ② Cotter pin
- ③ Castle nut
- ④ Plate washer
- ⑤ Brake rear disc S/A
- ⑥ Brake dust cover
- ⑦ Disc brake caliper Ay
- ⑧ Hexagon socket head cap bolt
- ⑨ Bush dust boot
- ⑩ Cylinder slide bush
- ⑪ Bolt
- ⑫ Cable support bracket
- ⑬ Anti-rattle spring
- ⑭ Disc brake cylinder mounting
- ⑮ Disc brake pad
- ⑯ Torsion spring

- ⑰ Clip
- ⑱ Parking brake clamp S/A
- ⑲ Parking brake strut
- ⑳ Oil seal
- ㉑ Screw plug
- ㉒ Gasket
- ㉓ Bleeder plug cap
- ㉔ Bleeder plug
- ㉕ Set ring
- ㉖ Cylinder boot
- ㉗ Disc brake piston S/A
- ㉘ Piston seal
- ㉙ Hole snap ring
- ㉚ "O" ring
- ㉛ Pad adjusting bolt
- ㉜ Disc brake rear cylinder

Fig. 8-138

WR-08144

DISC BRAKE PAD REMOVAL

1. Jack up the rear section of the vehicle. Support the body with safety stands. Remove the rear wheel.
2. Inspect the pad thickness through the inspection hole provided in the disc brake caliper.

Specified Thickness: 9 mm (0.35 inch)

Minimum Limit: 1 mm (0.04 inch)

3. Remove the parking cable guide.
4. Detach the anti-rattle spring.

5. Remove the screw plug.
6. Turn the adjusting gear counterclockwise as far as it will go, using a hexagon wrench key, so that the piston may be retracted.

NOTE:

It should be noted that the adjusting gear can not be removed.

7. Remove the hexagon socket head cap bolts (2 pieces), using a hexagon wrench key.

8. Remove the disc brake pad.

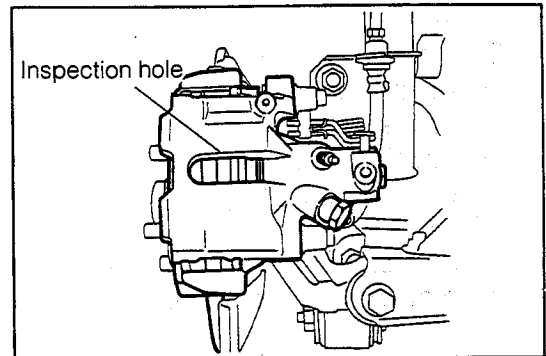


Fig. 8-139

WR-08145

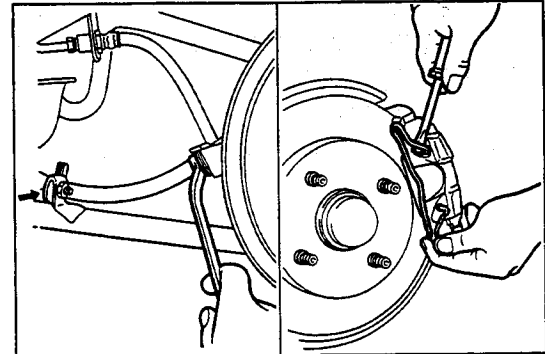


Fig. 8-140

WR-08146

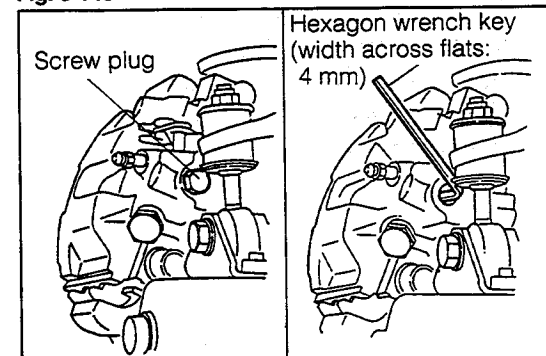


Fig. 8-141

WR-08147

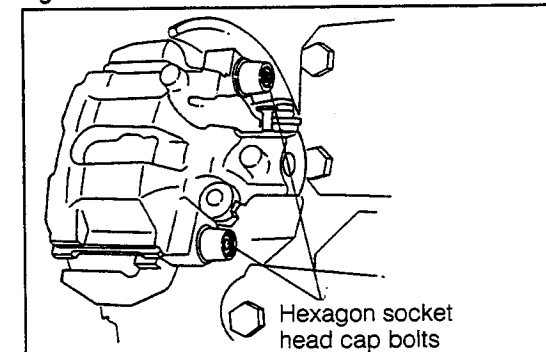


Fig. 8-142

WR-08148

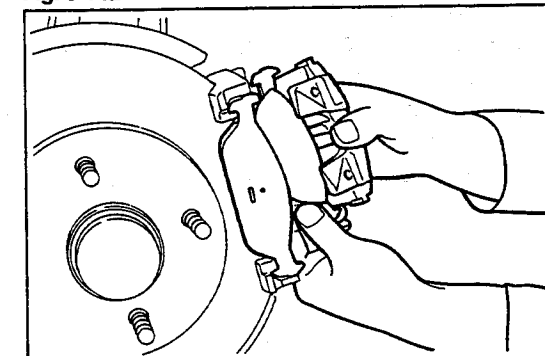


Fig. 8-143

WR-08149

BRAKES

INSTALLATION

1. Disc brake pad installation
 - (1) Install the inner disc brake pad to the disc brake caliper.
 - (2) Install the outer disc brake pad to the disc brake cylinder mounting.

NOTE:

Be careful not to allow oil, grease and other dirt to get to the friction surfaces of the pad and brake disc.

2. Disc brake caliper assembly installation
 - (1) Tighten the hexagon socket head cap bolt, using a hexagon wrench key. Assemble the disc brake caliper assembly.
 - (2) Install the anti-rattle spring.

3. Turn the adjusting gear clockwise, using a hexagon wrench key, until the disc brake pad is pressed against the brake disc. Then, back off the adjusting gear about 180 degrees counterclockwise.
4. Install the gasket and screw plug.

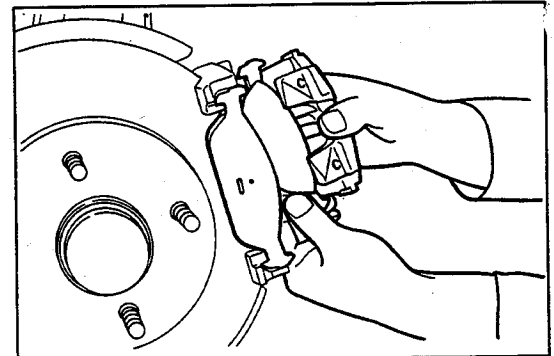


Fig. 8-144

WR-08150

5. Install the parking cable guide.

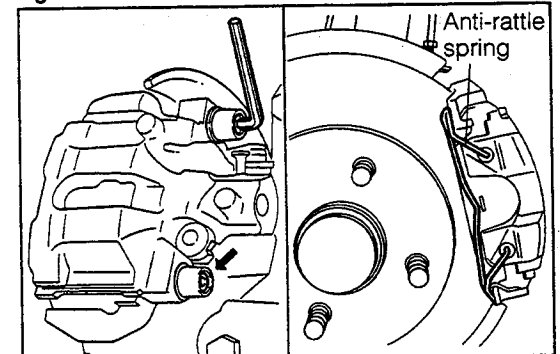


Fig. 8-145

WR-08151

6. Depress the brake pedal about 40 times. (This operation makes it possible to adjust the clearance between the disc brake pad and the rear brake disc.)
7. Adjust the working travel of the parking brake lever. (See Fig. 8-181.)
8. Install the rear wheel. Jack down the vehicle.

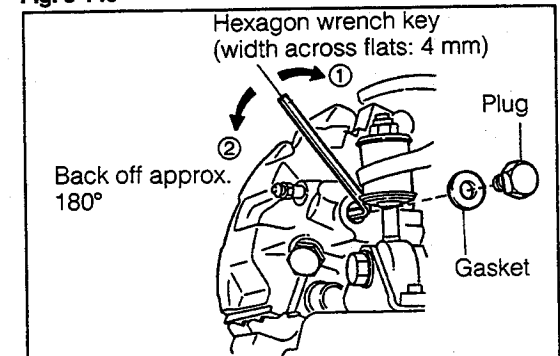


Fig. 8-146

WR-08152

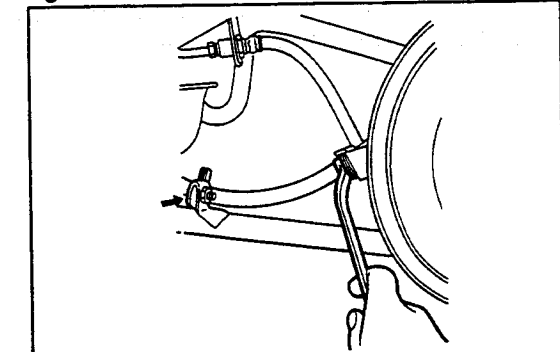


Fig. 8-147

WR-08153

WR-08154

**DISC BRAKE REAR CYLINDER
REMOVAL**

1. Jack up the rear section of the vehicle. Support the body with safety stands. Remove the rear wheel.
2. Disconnect the brake hose from the disc brake rear cylinder.
3. Detach the clip and torsion spring.

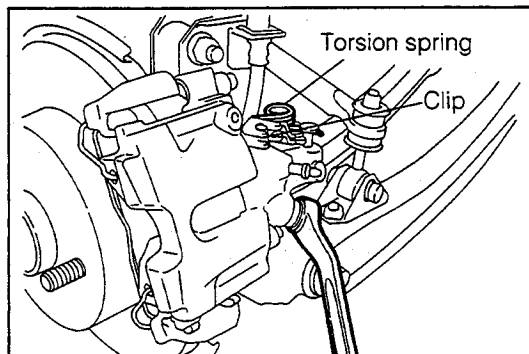


Fig. 8-148

WR-08155

4. Parking brake cable removal
 - (1) Remove the parking brake cable guide.
 - (2) Remove the cable support bracket.
 - (3) Remove the parking brake cable from the disc brake cylinder.

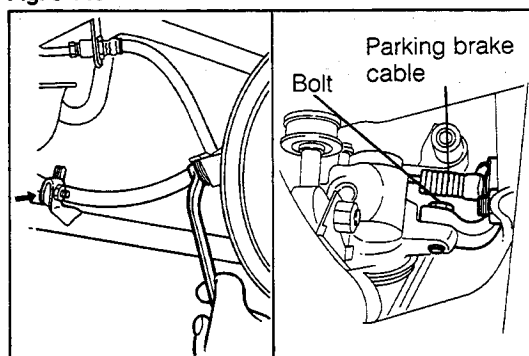


Fig. 8-149

WR-08156

5. Remove the anti-rattle spring.
6. Remove the hexagon socket head cap bolts (2 pieces), using a hexagon wrench key.

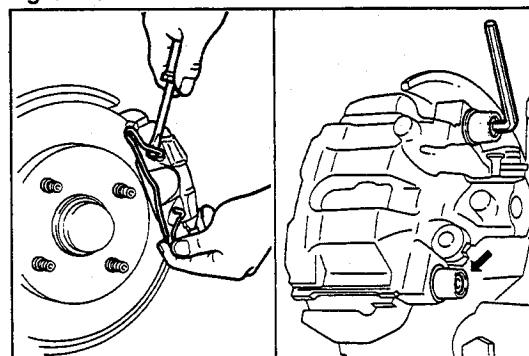


Fig. 8-150

WR-08157

7. Remove the disc brake rear cylinder from the vehicle. Remove the disc brake pad.

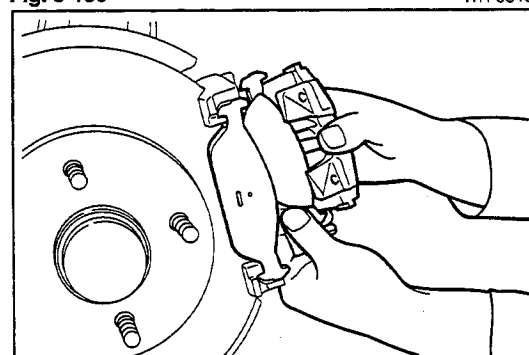


Fig. 8-151

WR-08158

DISASSEMBLY

1. Remove the set ring and cylinder boot from the disc brake rear cylinder.

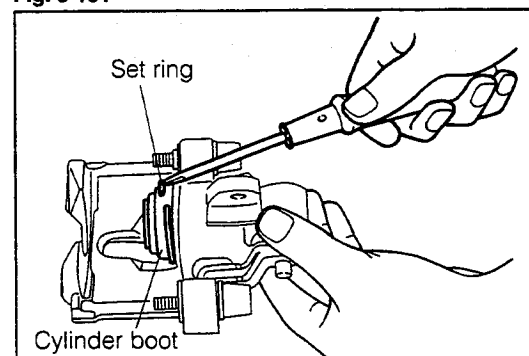


Fig. 8-152

WR-08159

BRAKES

2. Disc brake piston assembly removal

- (1) Remove the screw plug and gasket.
- (2) Turn the adjusting gear clockwise, using a hexagon wrench key, so that the adjusting screw may be disengaged from the piston assembly. (Turn the adjusting gear, until it can be turned lightly.)
- (3) With a wooden piece or a cloth placed at the end of the disc brake cylinder, drive out the piston, using compressed air.

NOTE:

During this operation, care must be exercised as to the piston being jumped out from position.

3. Remove the piston seal.

4. Pad adjusting bolt removal

- (1) Detach the hole snap ring, using the SST.
SST: 09905-87701-000
- (2) Take out the pad adjusting bolt from the disc brake cylinder. Remove the "O" ring from the pad adjusting bolt.

5. Remove the parking brake strut, parking brake clamp subassembly and oil seal from the disc brake cylinder.

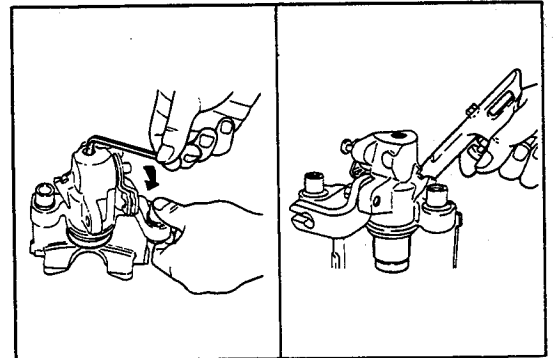


Fig. 8-153

WR-08160

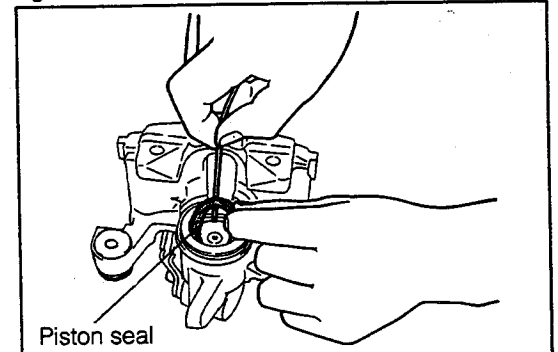


Fig. 8-154

WR-08161

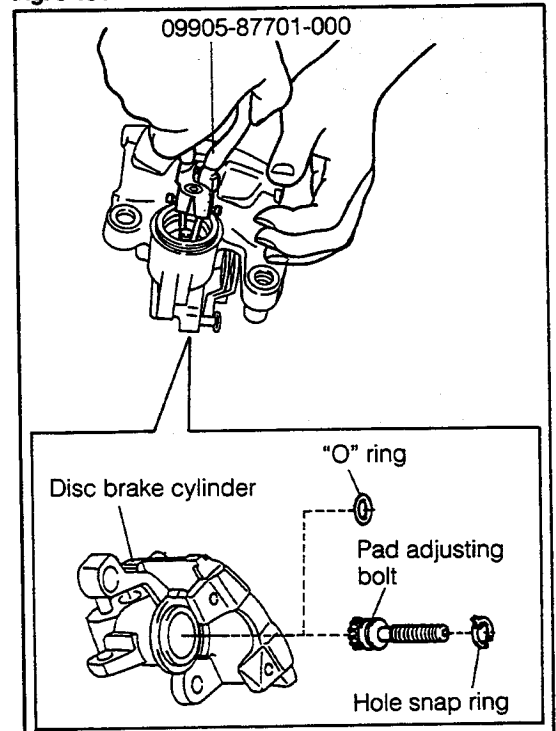


Fig. 8-155

WR-08162

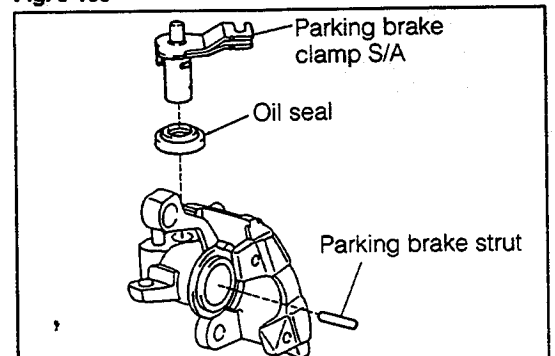


Fig. 8-156

WR-08163

- Remove the bush dust boot and cylinder slide bush from the disc brake cylinder.

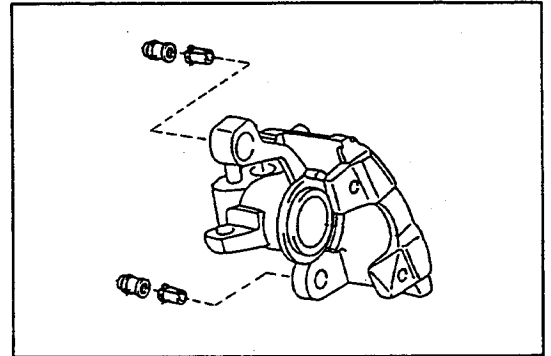


Fig. 8-157

WR-08164

INSPECTION

- Inspect the following parts.

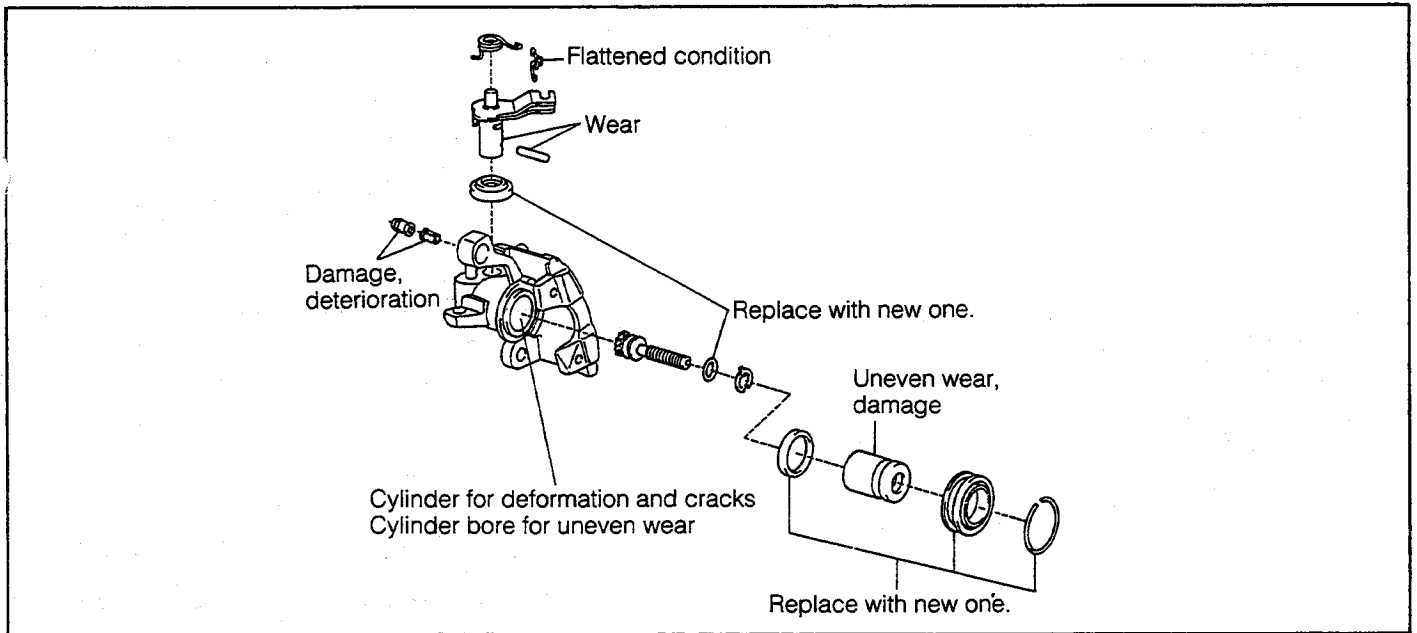


Fig. 8-158

WR-08165

- Pad thickness measurement
 Specified Thickness: 9 mm (0.35 inch)
 Minimum Limit: 1 mm (0.04 inch)

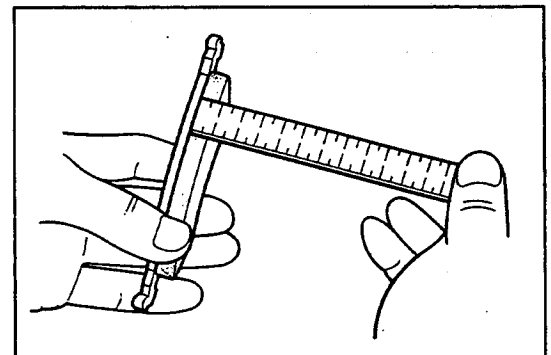


Fig. 8-159

WR-08166

- Brake rear disc thickness check
 Specified Thickness: 10 mm (0.39 inch)
 Minimum Limit: 9 mm (0.35 inch)

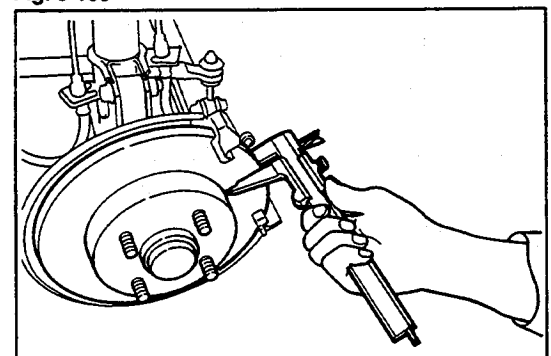


Fig. 8-160

WR-08167

BRAKES

4. Checking of brake rear disc for runout

- (1) Before the brake rear disc is checked for runout, ensure that the rear axle bearing exhibits no excessive looseness.
- (2) Measure the runout of the brake rear disc at the outer edge surface.
Maximum Limit: 0.08 mm (0.003 inch)

5. Brake rear disc replacement

- (1) Remove the disc brake cylinder mounting, grease retainer cap, cotter pin, castle nut and brake rear disc.
- (2) Check the brake dust cover for defects, such as damage, cracks and deformation. Replace the brake dust cover which exhibits any defect.
Tightening Torque: 4.0 - 5.5 kg-m (28.9 - 39.8 ft-lb)

- (3) Install the outer bearing, outer retainer and inner bearing to the brake rear disc, using the following SSTs.

(Outer bearing)

SST: 09608-12010-000 (No.13)

(Inner bearing)

SST: 09608-12010-000 (No.5)

- (4) Apply chassis grease to the points indicated in the right figure.

- (5) Install the bearing inner retainer, brake rear disc, plate washer and castle nut.

Tightening Torque: 6.0 - 10.0 kg-m (43 - 72 ft-lb)

- (6) Install a new cotter pin. Attach the grease retainer cap.

- (7) Install the disc brake cylinder mounting.

Tightening Torque: 4.0 - 5.5 kg-m (29 - 40 ft-lb)

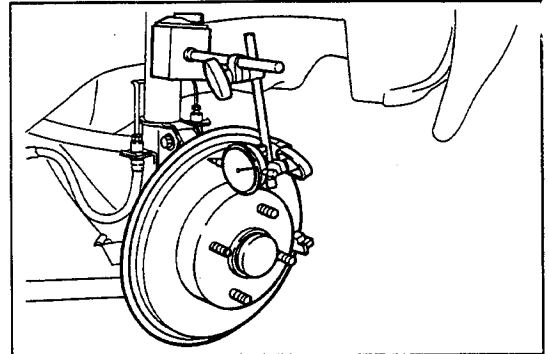


Fig. 8-161

WR-08168

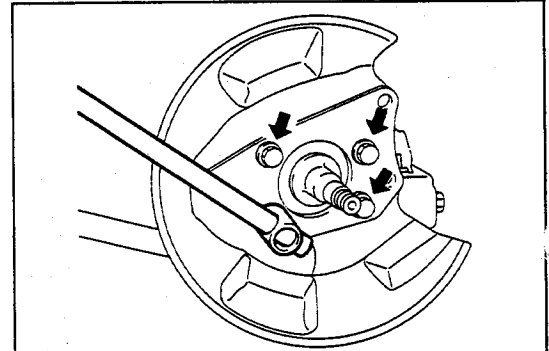


Fig. 8-162

WR-08169

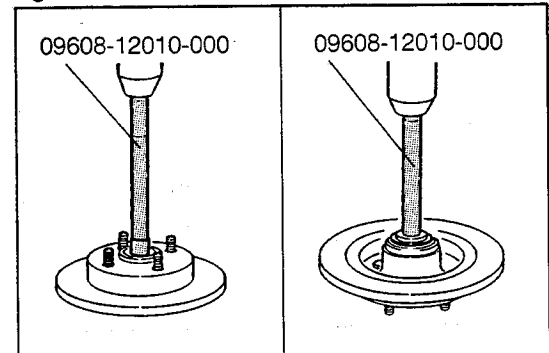


Fig. 8-163

WR-08170

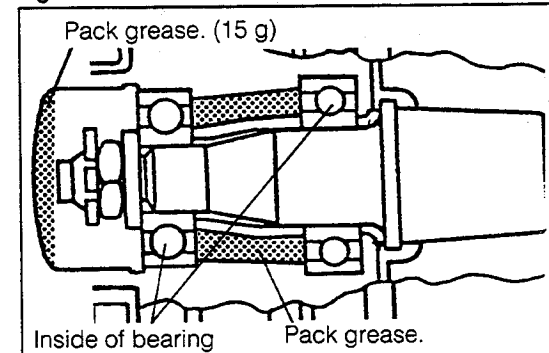


Fig. 8-164

WR-08171

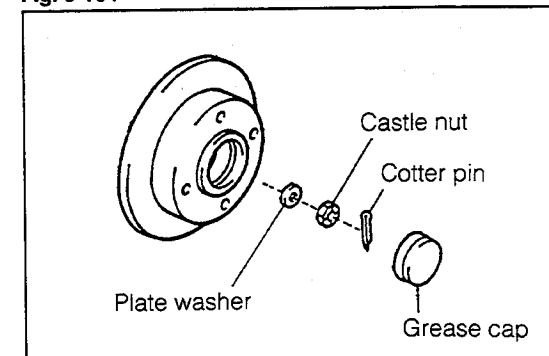


Fig. 8-165

WR-08172

ASSEMBLY

1. Apply rubber grease to the points indicated in the figure below.

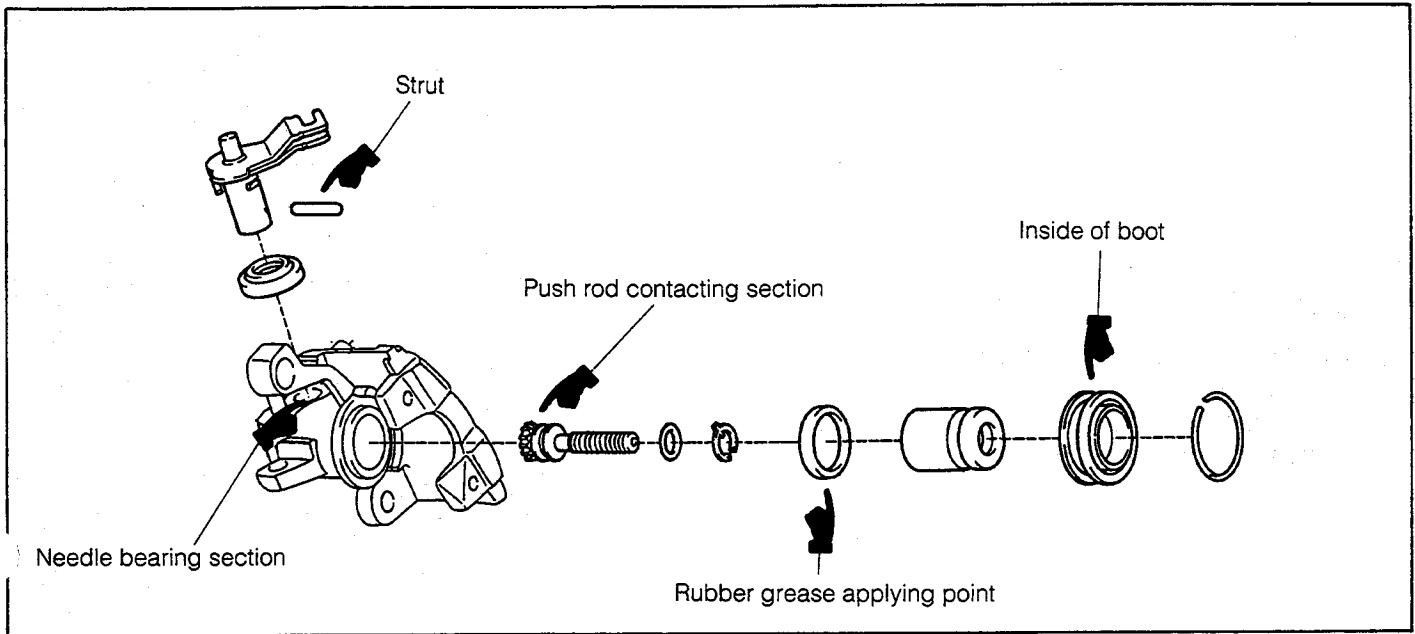


Fig. 8-166

WR-08173

2. Install the oil seal, parking brake clamp subassembly and parking brake stopper to the disc brake cylinder.

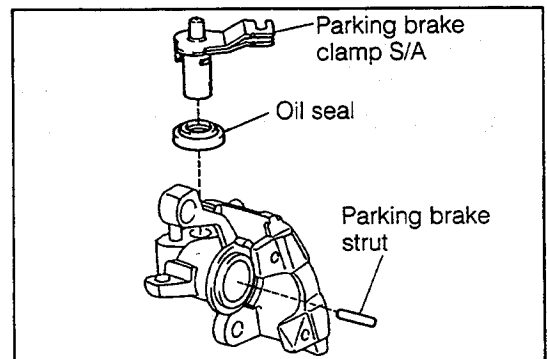


Fig. 8-167

WR-08174

3. Pad adjusting bolt installation
 - (1) Install the "O" ring to the pad adjusting bolt. Assemble the pad adjusting bolt to the disc brake cylinder.
 - (2) Attach the hole snap ring, using the following SST.

SST: 09905-87701-000

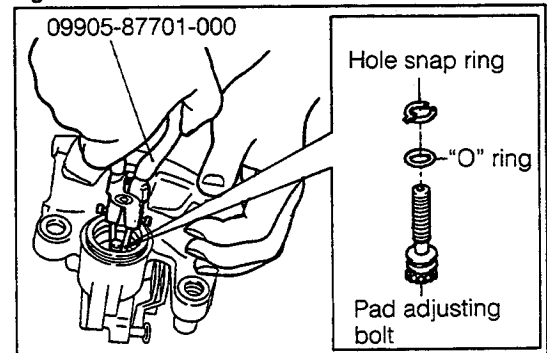


Fig. 8-168

WR-08175

4. Installation of disc brake piston assembly
 - (1) Install the piston seal in the disc brake cylinder.
 - (2) Insert the piston into the caliper. With the piston pushed lightly, turn the adjusting gear counterclockwise as far as it will go, using a hexagon wrench key. Then, pull back the piston, until it is no longer possible to turn the adjusting gear.

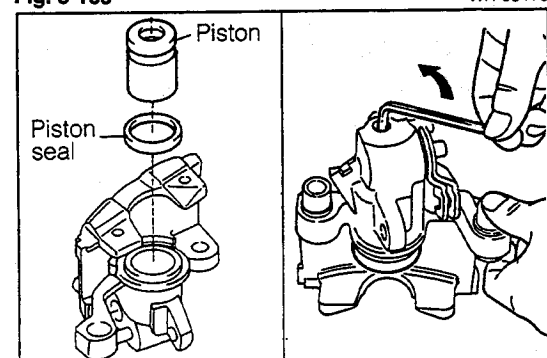


Fig. 8-169

WR-08176

BRAKES

5. Install the cylinder boot and set ring to the disc brake cylinder.
6. Install the bush dust boot and cylinder slide bush to the disc brake cylinder.

INSTALLATION

1. Disc brake cylinder installation
 - (1) Install the disc brake cylinder to the disc brake cylinder mounting, using a hexagon wrench key.
 - (2) Install the anti-rattle spring.
2. Parking brake cable installation
 - (1) Attach the tip end of the parking brake cable to the parking brake clamp subassembly.
 - (2) Install the cable support bracket.
3. Install the parking brake guide.
4. Install the following parts to the disc brake cylinder.
 - (1) Install the torsion spring and clip.
 - (2) Connect the brake hose.
(Use a new gasket.)

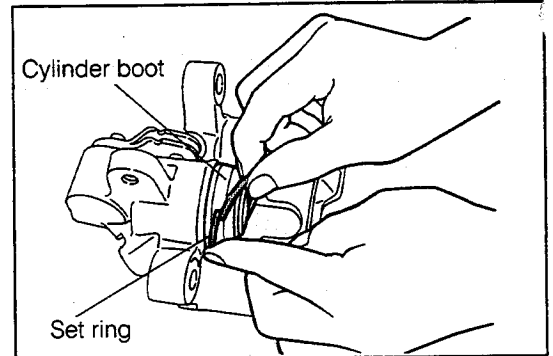


Fig. 8-170

WR-08177

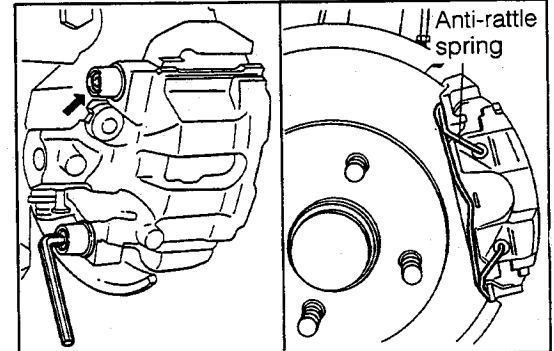


Fig. 8-171

WR-08178

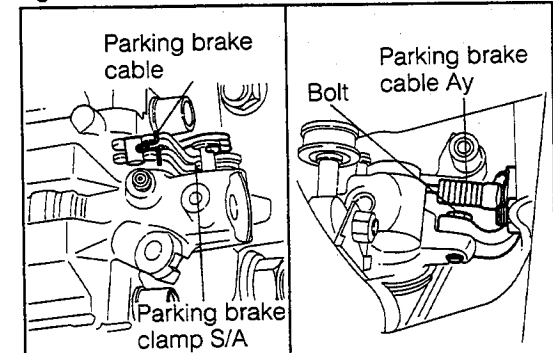
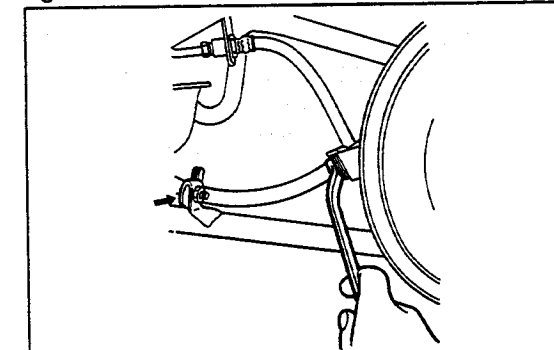


Fig. 8-172

WR-08179



WR-08180

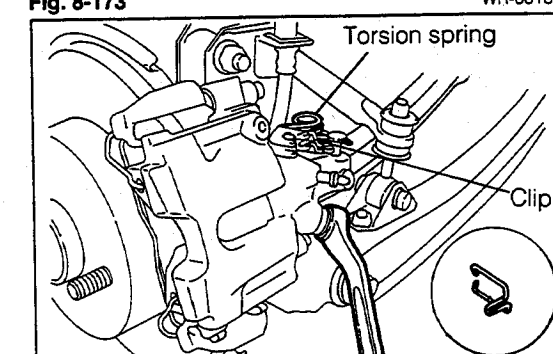


Fig. 8-174

WR-08181

5. Disc brake pad clearance adjustment

- (1) Turn the adjusting gear clockwise, using a hexagon wrench key, until the disc brake pad is pressed against the brake disc. Then, back off the adjusting gear about 180 degrees counterclockwise.
- (2) Install the gasket and screw plug.
- (3) Perform air bleeding for the brake system. Depress the brake pedal about 40 times. (This operation makes it possible to adjust the clearance between the disc brake pad and the brake disc.)
- (4) Adjust the working travel of the parking brake lever. (See Fig. 8-181.)

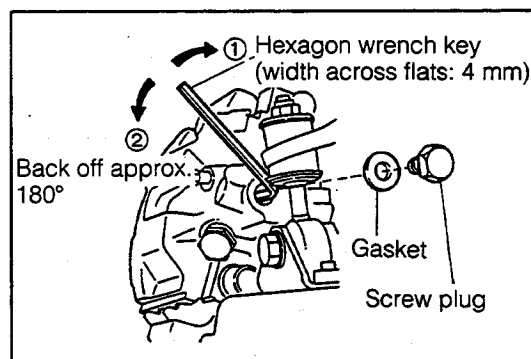


Fig. 8-175

WR-08182

Gasket

BRAKES

PARKING BRAKE

PARKING BRAKE LEVER COMPONENTS

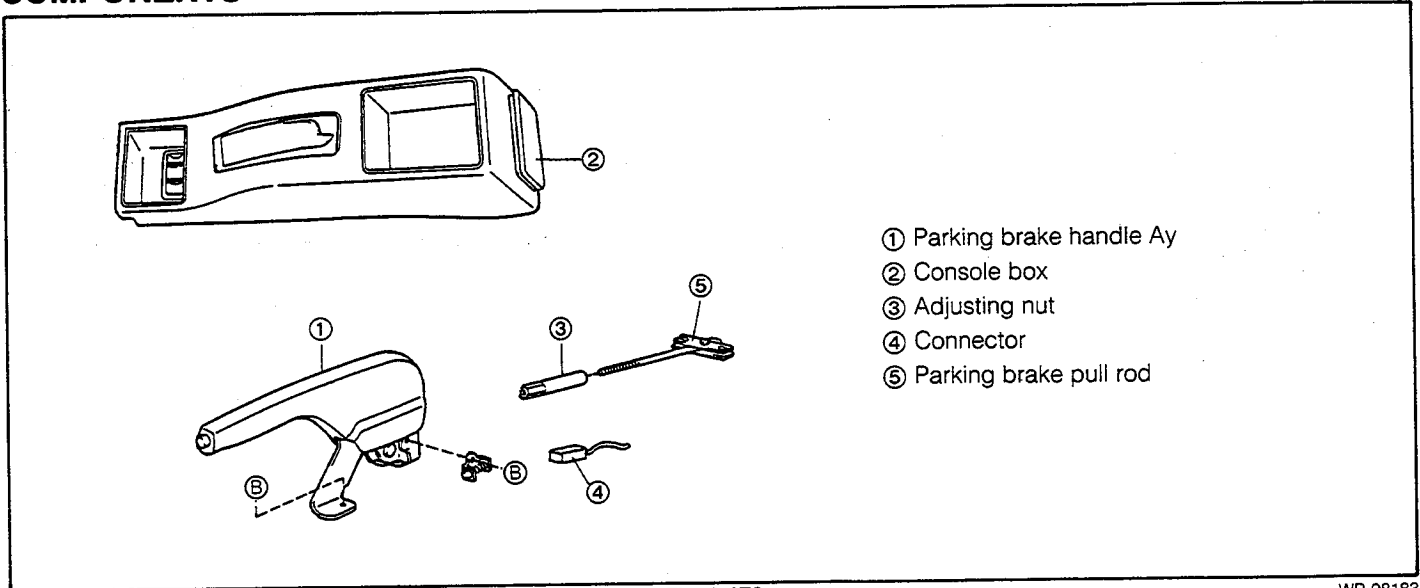


Fig. 8-176

WR-08183

REMOVAL

1. Console box
 - (1) Remove the coin box.
 - (2) Remove the console box from the vehicle by removing the bolts and screws, two each.
2. Remove the connector and adjusting nut.
3. Remove the two bolts. Remove the parking brake handle assembly from the vehicle.

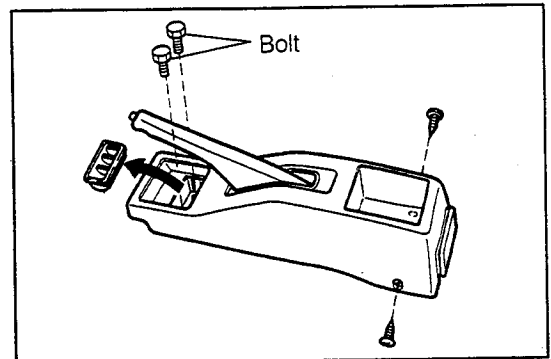


Fig. 8-177

WR-08184

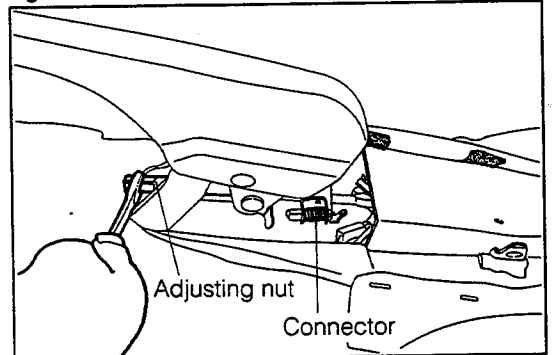


Fig. 8-178

WR-08185

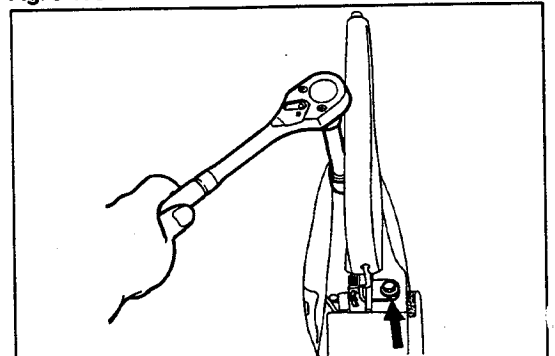


Fig. 8-179

WR-08186

INSTALLATION

1. Install the parking brake handle assembly with the two bolts.

Tightening Torque: 1.0 - 1.6 kg-m (7.2 - 11.6 ft-lb)

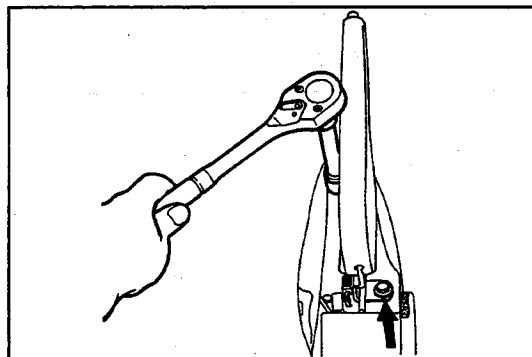


Fig. 8-180

WR-08187

2. Install the connector and adjusting nut. Adjust the working travel by turning the adjusting nut. (Check the parking brake indicator lamp for proper operation.)

Specified Value: 5 - 9 Notches

[When pulled by a force of 20 kg (44 lb)]

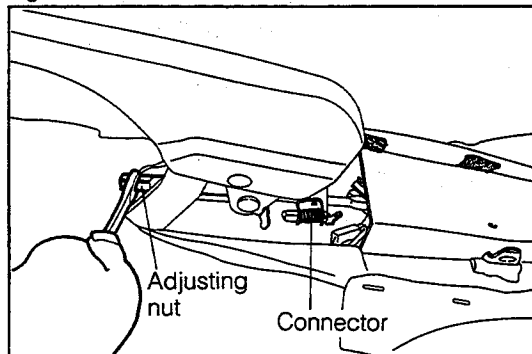


Fig. 8-181

WR-08188

3. Install the console box.

- (1) Install the console box to the vehicle with the bolts and screws, two each.
- (2) Install the coin box.

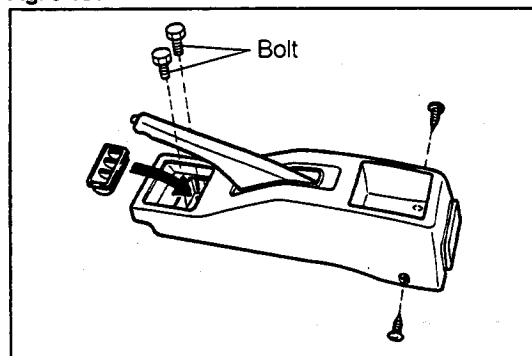


Fig. 8-182

WR-08189

BRAKES

PARKING BRAKE CABLE COMPONENTS

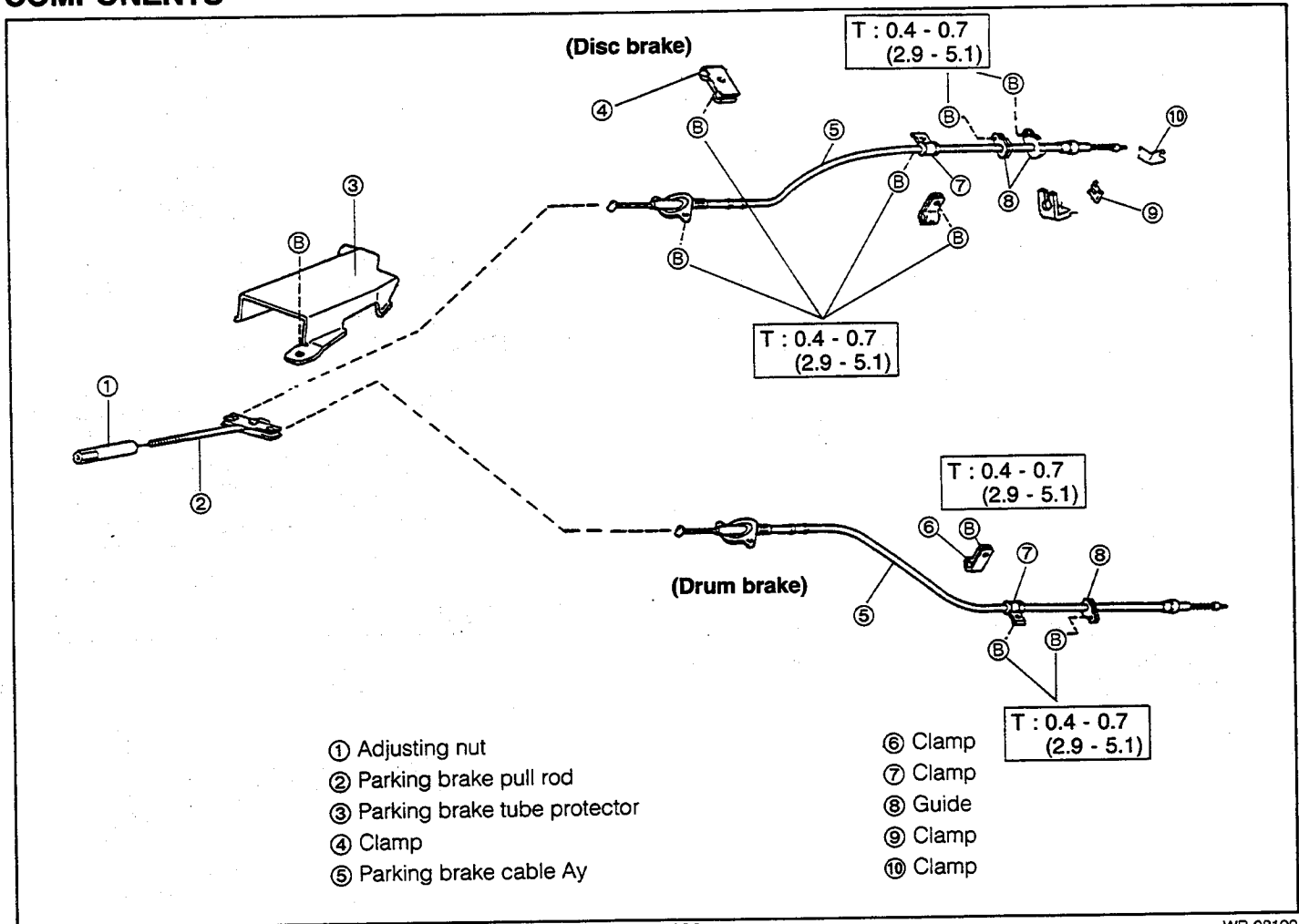


Fig. 8-183

WR-08190

REMOVAL

1. Remove the console box. (See Fig. 8-177.)
2. Remove the parking brake tube protector.

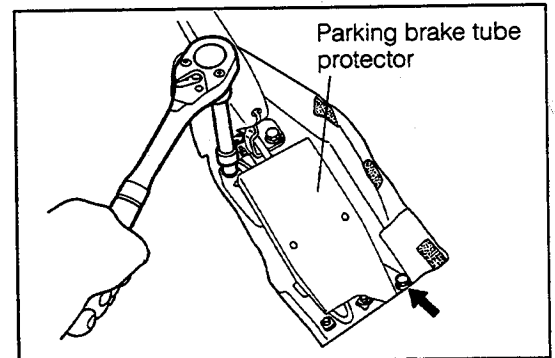


Fig. 8-184

WR-08191

3. Remove the parking brake cable from the parking brake pull rod.

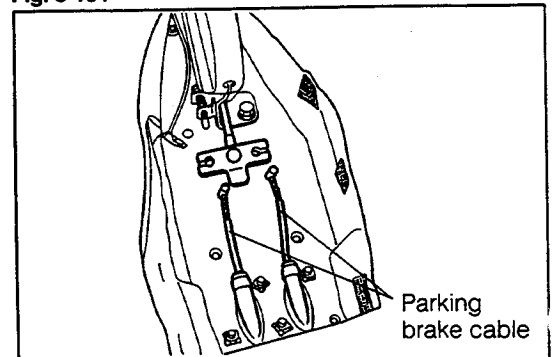


Fig. 8-185

WR-08192

4. Jack up the vehicle. Remove the clamp-related parts provided under the body.

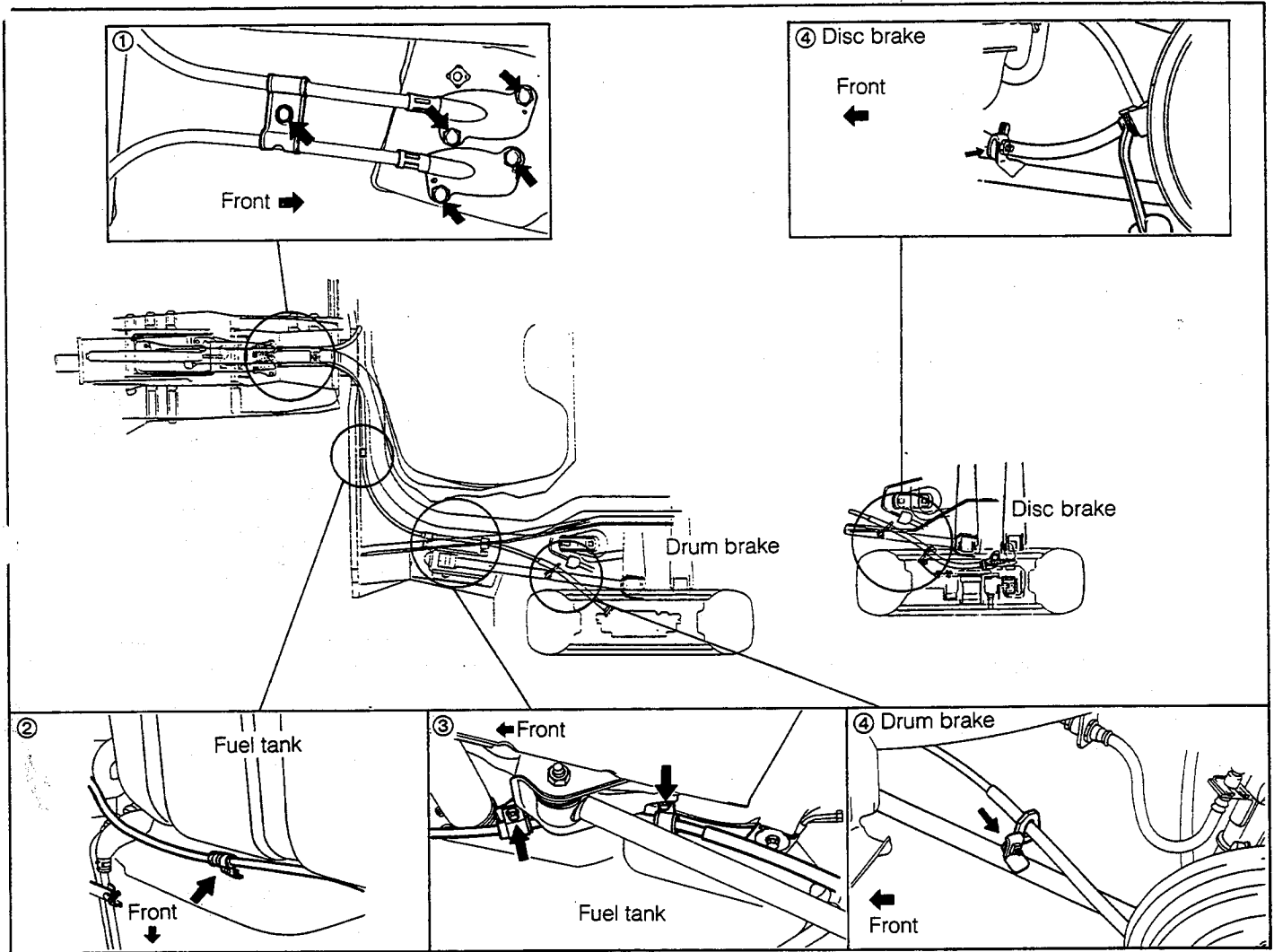


Fig. 8-186

WR-08193

5. Removal of rear brake-related parts
(Drum brake)

- (1) Remove the brake shoe. (See page 8-38.)
- (2) Remove the parking brake cable from the rear brake backing plate.

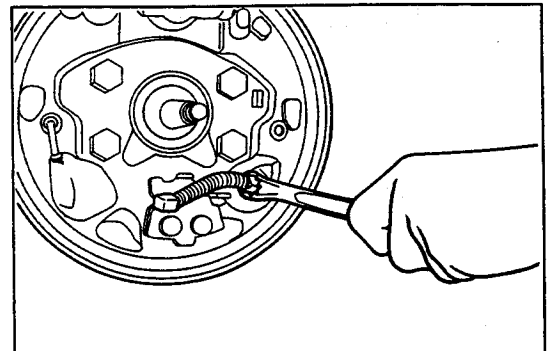


Fig. 8-187

WR-08194

(Disc brake)

- (1) Remove the clip attaching the parking brake cable to the cable support bracket.
- (2) Detach the clip from the parking brake clamp. Then, remove the parking brake cable.

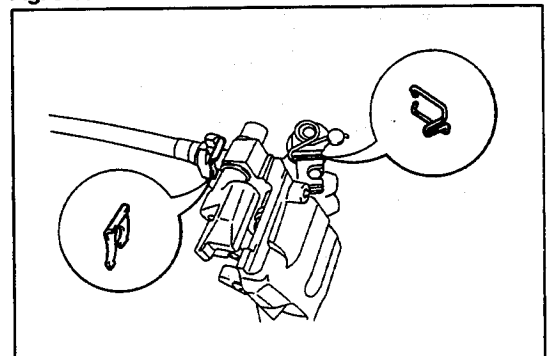


Fig. 8-188

WR-08195

BRAKES

INSTALLATION

1. Installation of rear brake-related parts
(Drum brake)
 - (1) Install the parking brake cable to the rear brake backing plate.
 - (2) Install the brake shoe-related parts. (See page 8-41.)

WR-08196

(Disc brake)

- (1) Install the parking brake cable to the disc brake caliper.
- (2) Install the clips at two points.

2. Install the clamp-related parts provided under the body.
(See Fig. 8-186.)
3. Attach the parking brake cable to the cable end.

4. Install the parking brake tube protector.

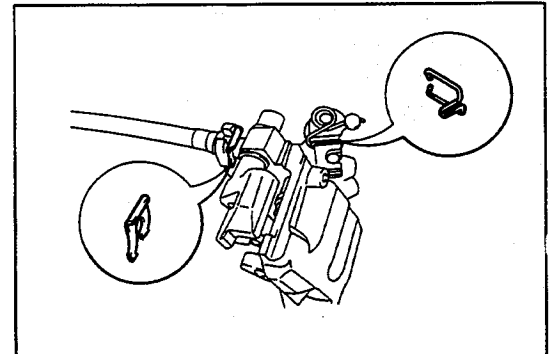


Fig. 8-189

WR-08197

5. Rear brake adjustment
Drum brake (See Fig. 8-44.)
6. Adjust the working travel of the parking brake.
Specified Value: 5 - 9 Notches
[When pulled by a force of 20 kg (44 lb)]
7. Install the console box. (See Fig. 8-182.)

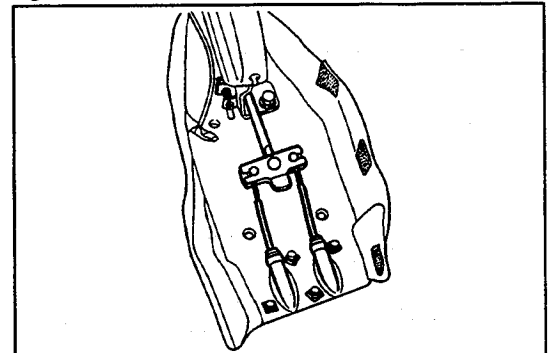


Fig. 8-190

WR-08198

5. Rear brake adjustment
Drum brake (See Fig. 8-44.)
6. Adjust the working travel of the parking brake.
Specified Value: 5 - 9 Notches
[When pulled by a force of 20 kg (44 lb)]
7. Install the console box. (See Fig. 8-182.)

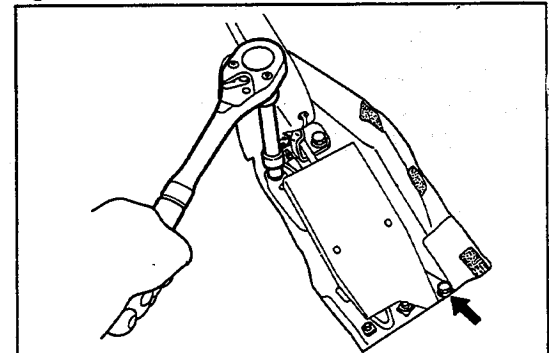


Fig. 8-191

WR-08199

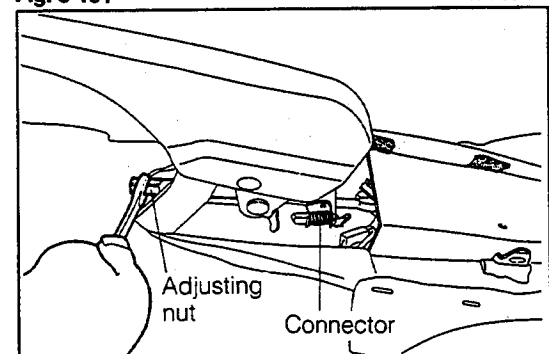


Fig. 8-192