BRAKE SYSTEM

PRECAUTIONS

1. Care must be taken to replace each part properly could affect the performance of the brake syste result in a driving hazard. Replace the parts with p the same part number or equivalent.
2. It is very important to keep parts and area clean wh pairing the brake system.

TROUBLESHOOTING

Problem	Possible cause	Remedy	Pag
Low or spongy pedal	Brake pads worn	Replace brake pads	BR-14,2
	Leak in brake system	Repair leak	
	Master cylinder faulty	Repair or replace master cylinder	BR-9
	Air in brake system	Bleed brake system	BR-7
	Cylinder faulty	Repair cylinder	BR-14,2
	Piston seals worn or damaged	Repair brake calipers	BR-16,2
Brakes drag	Parking brake out of adjustment	Adjust parking brake	BR-8, 3
	Binding parking brake wire	Repair as necessary	
	Booster push rod out of adjustment	Adjust push rod	BR-12
	Return spring faulty	Replace spring	BR-26
	Brake line restricted	Repair as necessary	
	Pads cracked or distorted	Replace brake pads	BR-14,2
	Caliper piston sticking	Repair as necessary	BR-16,2
	Adjuster broken	Replace adjuster	BR-26
	Master cylinder faulty	Repair or replace master cylinder	BR-9
Brakes pull	Tires improperly inflated	Inflate tires to proper pressure	
	Oil or grease on pads	Check for cause/replace pads	BR-14,2
	Brake pads distorted, worn or glazed	Replace brake pads or shoes	BR-14,2
	Disc out of round	Replace disc	BR-14,2
	Return spring faulty	Replace spring	BR-26
	Cylinder faulty	Repair cylinder	BR-14,2
	Piston frozen in caliper	Repair caliper	BR-16,2
	Disc brake pad sticking	Replace pads	BR-14,2

TROUBLESHOOTING (Cont'd)

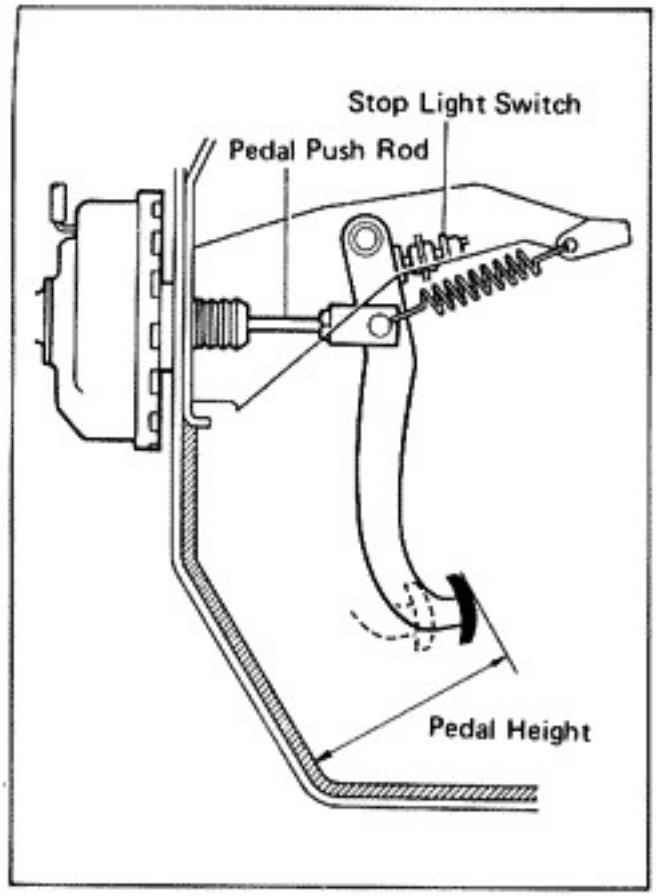
Problem	Possible cause	Remedy	Page
Hard pedal but brakes inefficient	Oil or grease on pads	Check for cause/replace pads	BR-14,20
	Brake pads distorted	Replace brake pads	BR-14,20
	Piston frozen in caliper	Repair caliper	BR-16,22
	Brake booster faulty	Repair booster	BR-12
	Vacuum leaks	Repair as necessary	
	Brake line restricted	Repair as necessary	
Snapping or clicking noise when brakes are applied	Drum brakes in 3 places–brake shoes binding at backing plate ledges	Lubricate	BR-28
	Drum brakes in 3 places–backing plate ledges worn	Replace and lubricate ledges	BR-28
	Drum brakes–loose or missing hold-down spring	Replace	BR-26
	Disc brakes–rust on front edge of inboard shoes	Inspect, lubricate, replace if necessary	BR-26
	Disc brakes–loose or missing anti-rattle spring	Replace	BR-14,20
	Disc brakes–loose installation bolt	Tighten	BR-14,20
	Disc brakes–wear on slide bushing	Replace	BR-14,20
Scraping or grinding noise when brakes are applied	Worn brake linings	Replace, Refinish rotors if heavily scored	BR-14,20
	Caliper to wheel or rotor interference	Replace as required	BR-14,20
	Dust cover to rotor interference	Correct or replace	BR-14,20
	Other brake system components: Warped or bent brake backing plate or splash shield, cracked rotors	Inspect or service	BR-14,20
	Tires rubbing against chassis and body	Inspect or service	

TROUBLESHOOTING (Cont'd)

Problem	Possible cause	Remedy	Page
Squealing, groaning or chattering noise when brakes are applied Note: Brake friction materials inherently generate noise and heat in order to dissipate energy. As a result, occasional squeal is normal and is aggravated by severe environmental conditions such as cold, heat, wetness, snow, salt, mud, etc. This occasional squeal is not a functional problem and does not indicate any loss of brake effectiveness	Rotors and pads worn or scored	Inspect, service or replace	BR-14,2
	Disc brakes–missing or damaged brake pad anti-squeal shim	Replace	BR-14,2
	Disc brakes–burred or rusted calipers	Clean or deburr	BR-16,2
	Dirty, greased, contaminated or glazed linings	Clean or replace	BR-14,2
	Improper lining parts	Inspect for correct usage, replace	BR-14,2
	Mal-adjustment of brake pedal or booster push-rod	Inspect and adjust	BR-6,12
	Loose or damaged shoe retaining pins, springs and clips and grooved backing plate ledges	Inspect, service or replace	BR-26
	Pad wear and pad wear indicator making contact with the rotor	Replace	BR-14,2
Squealing noise when brakes are not applied	Bent or warped backing plate causing interference with drum	Service or replace	BR-26
	Improper machining of drum causing interference with backing plate or shoe	Replace drum	BR-26
	Mal-adjustment of brake pedal or booster push-rod	Inspect and adjust	BR-6,12
	Poor return of brake booster or master cylinder	Inspect, service or replace	BR-9,12 14,2
	Disc brakes–rusted, stuck	Inspect, lubricate as necessary	BR-14,2
	Other brake system components: Loose or extra parts in brakes Rear drum adjustment too tight causing lining to glaze Worn, damaged or insufficiently lubricated wheel bearings	Inspect, service, replace as required	BR-26
	Drum brakes–weak, damaged or incorrect shoe hold-down springs		BR-26
	Drum brakes–grooved backing plate ledges		BR-26
	Improper positioning of pad in caliper		BR-14,2
	Outside diameter of rotor rubbing		

TROUBLESHOOTING (Cont'd)

Problem	Possible cause	Remedy	Page
Groaning, clicking or rattling noise when brakes are not applied	Stones or foreign material trapped inside wheel covers	Remove stones, etc.	
	Loose wheel nuts	Tighten to correct torque. Replace if stud holes are elongated	
	Disc brakes—loose or missing anti-rattle spring or pad support plate or crimping on outer pad	Inspect, service or replace	BR-14,20
	Disc brakes—failure of shim	Inspect, replace if necessary	BR-14,20
	Disc brakes—wear on slide bushing	Inspect, replace if necessary	BR-14,20
	Disc brakes—loose installation bolt	Inspect, tighten if necessary	BR-14,20
	Mal-adjustment of break pedal or booster push-rod	Inspect and adjust	BR-6,12
	Disc brakes—poor return of piston	Inspect, service or replace	BR-16,22
	Drum brakes—loose or extra parts	Inspect, remove or service	BR-26
	Worn, damaged or dry wheel bearings	Inspect, lubricate or replace	



CHECKS AND ADJUSTMENTS

CHECK AND ADJUSTMENT OF BRAKE PED

1. **CHECK THAT PEDAL HEIGHT IS CORRECT, A SHOWN**

Pedal height from asphalt sheet: 154 – 164 mm (6.06 – 6.46 in.)

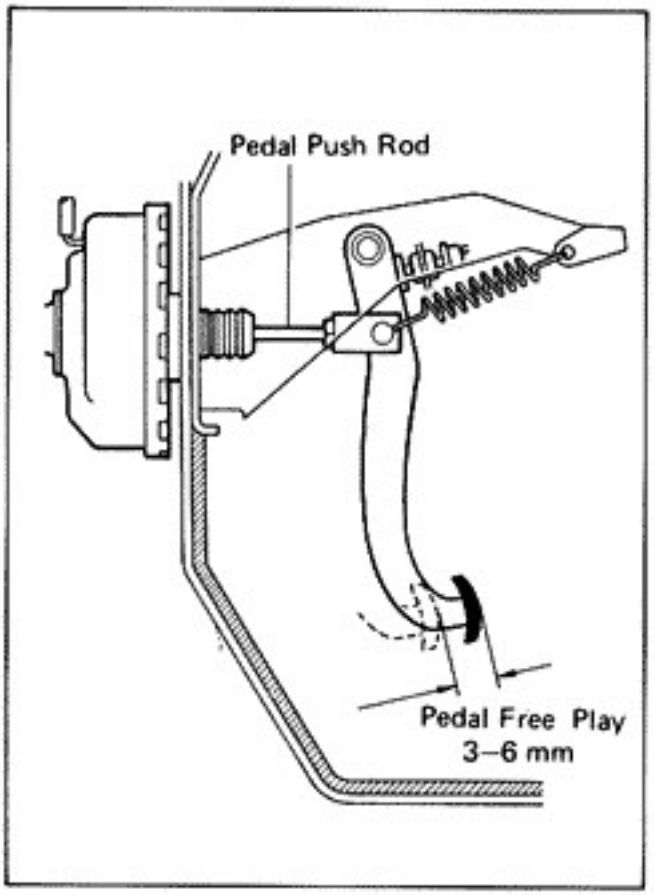
2. **IF NECESSARY, ADJUST PEDAL HEIGHT**

(a) Sufficiently loosen the stop light switch.

(b) Adjust the pedal height by turning the pedal push

(c) Return the stop light switch until it lightly con the pedal stopper.

(d) After adjusting the pedal height, check and adjus pedal freeplay.



3. **CHECK THAT PEDAL FREEPLAY IS CORRECT, SHOWN**

(a) Stop the engine and depress the brake pedal sev times until there is no more vacuum left in booster.

(b) Push in the pedal until the beginning of resistan felt. Measure the distance, as shown.

Pedal freeplay: 3 – 6 mm (0.12 – 0.24 in.)

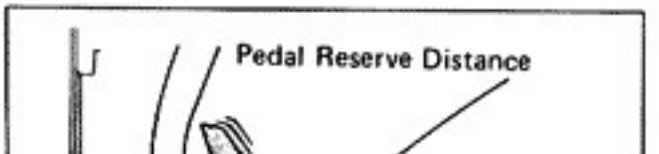
NOTE: The pedal freeplay is the amount of the st until the booster air valve is moved by the pedal push

4. **IF NECESSARY, ADJUST PEDAL FREEPLAY**

(a) If incorrect, adjust the pedal freeplay by turning pedal push rod.

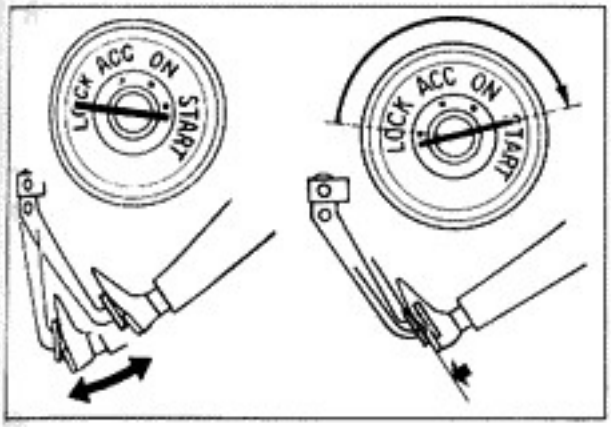
(b) Start the engine and confirm that pedal free exists.

(c) After adjusting the pedal freeplay, check the p height.



5. **CHECK THAT PEDAL RESERVE DISTANCE IS CORRECT, AS SHOWN**

Release the parking brake.



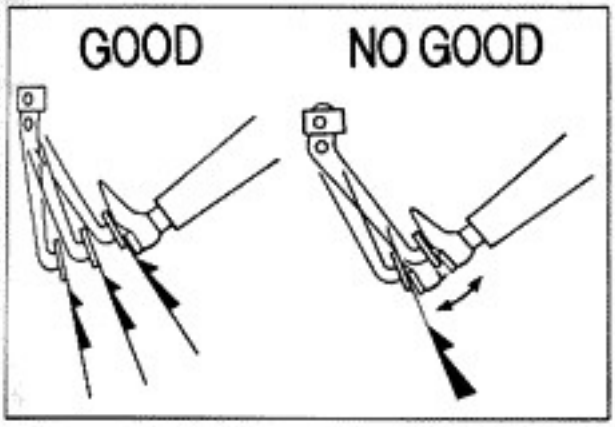
OPERATIONAL TEST OF BRAKE BOOSTER

NOTE: If available, use a brake booster tester to check the booster operating condition.

1. OPERATING CHECK

(a) Depress the brake pedal several times with the engine off, and check that there is no change in the pedal reserve distance.

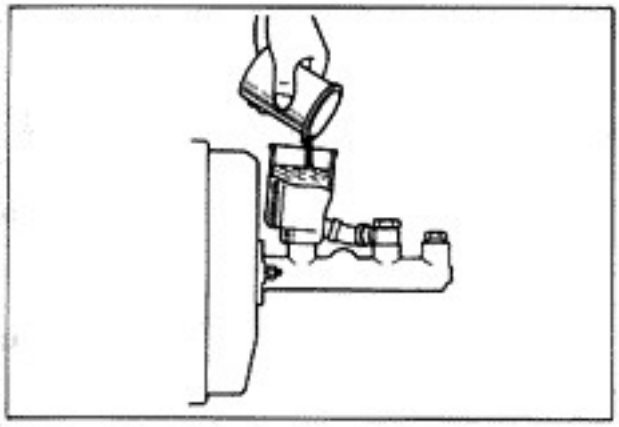
(b) Depress the brake pedal and start the engine. If the pedal goes down slightly, operation is normal.



2. AIR TIGHTNESS

(a) Start the engine and stop it after one or two minutes. Depress the brake pedal several times slowly. If the pedal goes down furtherest the first time, but gradually rises after the second or third time, the booster is air tight.

(b) Depress the brake pedal while the engine is running, and stop it with the pedal depressed. If there is no change in pedal reserve travel after holding the pedal for thirty seconds, the booster is air tight.



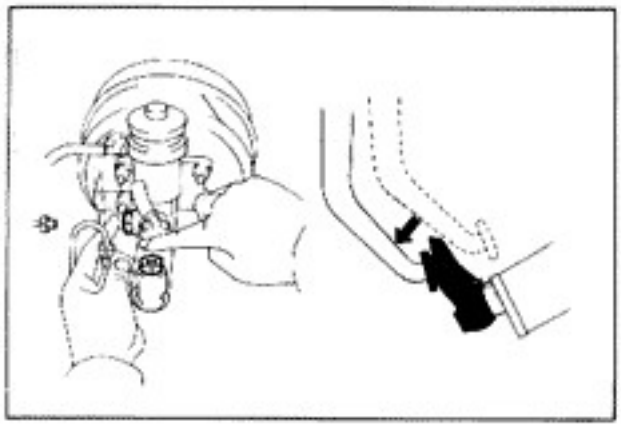
BLEEDING OF BRAKE SYSTEM

NOTE: If any work is done on the brake system or if air is suspected in the brake lines, bleed the system of air.

CAUTION: Do not let brake fluid remain on a painted surface. Wash it off immediately.

1. FILL BRAKE RESERVOIRS WITH BRAKE FLUID

Check the reservoir after bleeding each wheel. Add fluid, if necessary.



2. BLEED MASTER CYLINDER

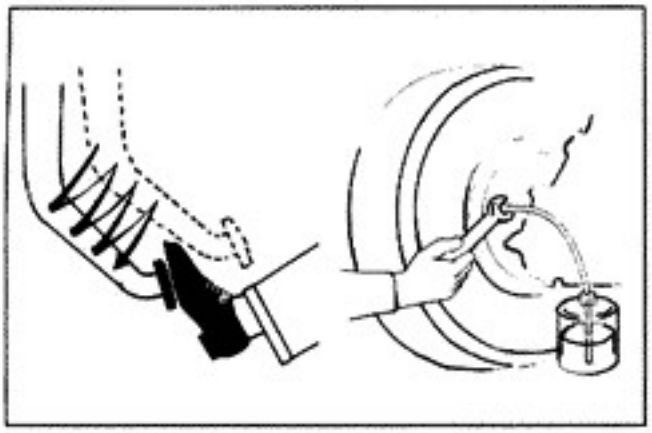
NOTE: If the master cylinder was disassembled or if the reservoir tank becomes empty, bleed the air from the master cylinder.

(a) Disconnect the brake tubes from the master cylinder.

(b) Depress the brake pedal and hold it.

(c) Block off the outlet plug with your finger, and release the brake pedal.

(d) Repeat (b) and (c) three or four times.



3. **BEGIN BLEEDING AIR FROM BRAKE CYLIND WITH LONGEST HYDRAULIC LINE**

4. **CONNECT VINYL TUBE TO BRAKE CYLINDE BLEEDER PLUG**

   Insert other end of the tube in a half-full contain brake fluid.

5. **BLEED BRAKE LINE**

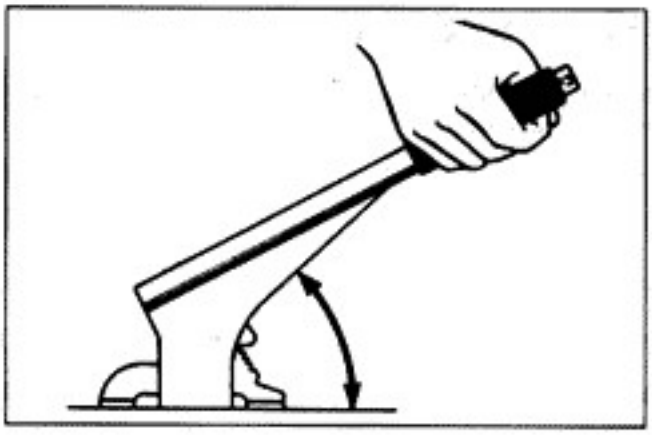
   (a) Slowly pump the brake pedal several times.

   (b) While having an assistant press on the pedal, l the bleeder plug until fluid starts to runout. close the bleeder plug.

   (c) Repeat this procedure until there are no mo bubbles in the fluid.

   Bleeder plug tightening torque:
   85 kg-cm (74 in.-lb, 8.3 N·m)

6. **REPEAT PROCEDURE FOR EACH WHEEL**



CHECK AND ADJUSTMENT OF PARKING BRAKE

1. **CHECK THAT PARKING BRAKE LEVER TRAVEL CORRECT**

   Pull the parking brake lever all the way up, and cou notches of lever travel.

   Parking brake lever travel at 20 kg (44.1 lb, 196 N):
   5 – 8

   If incorrect, adjust the parking brake.

2. **IF NECESSARY, ADJUST PARKING BRAKE**

   NOTE: Before adjusting the parking brake, mak that the rear brake shoe clearance has been adjusted.

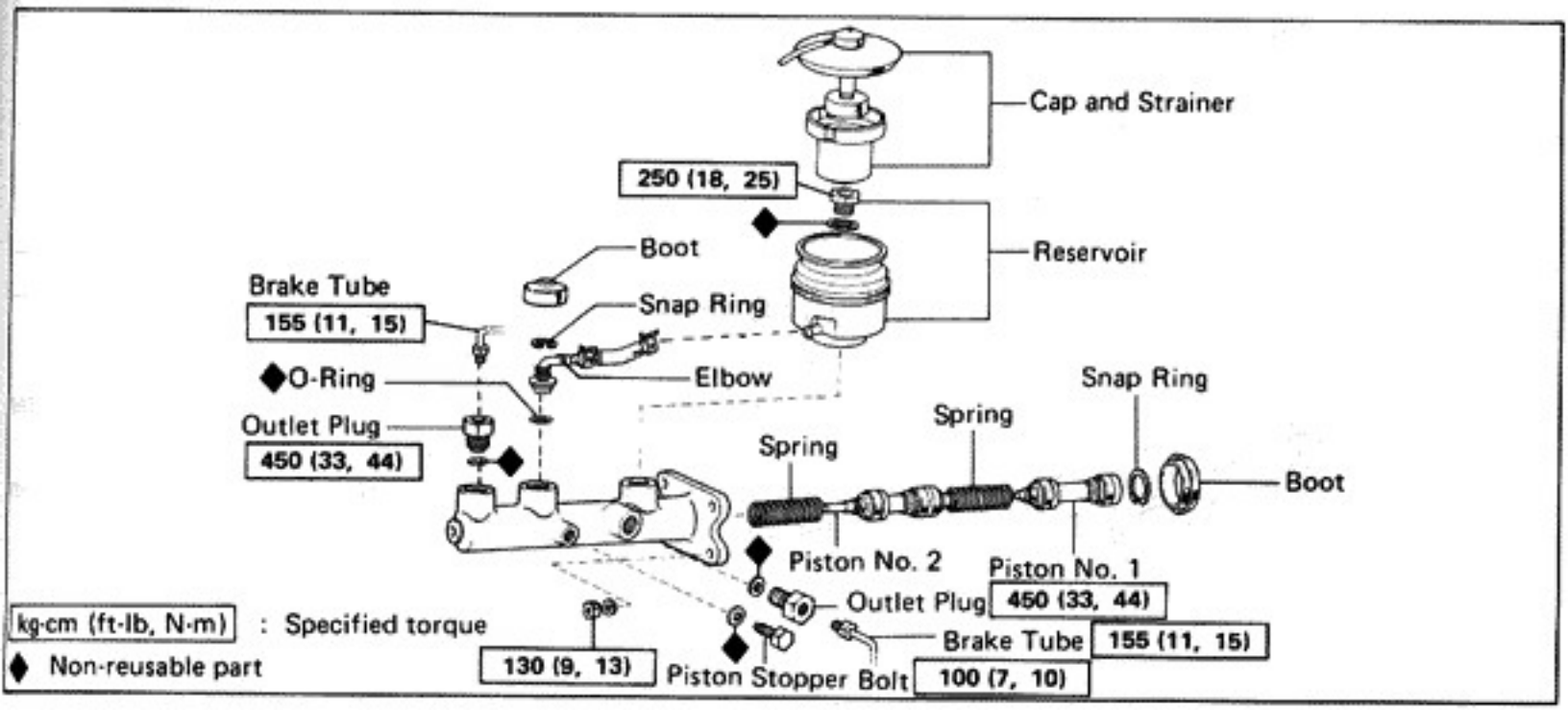
   For shoe clearance adjustment, see step 10 on page B

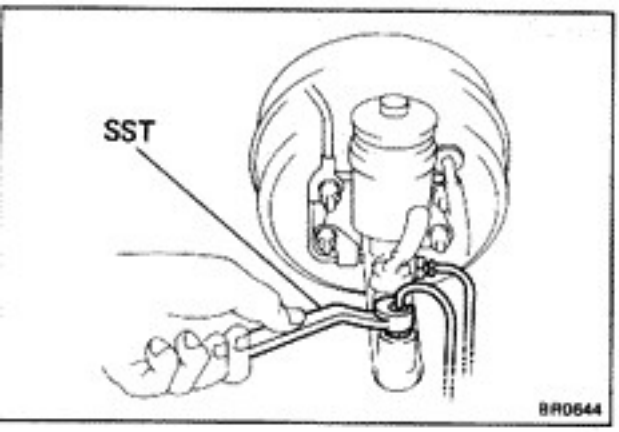
(a) Remove the rear console box.

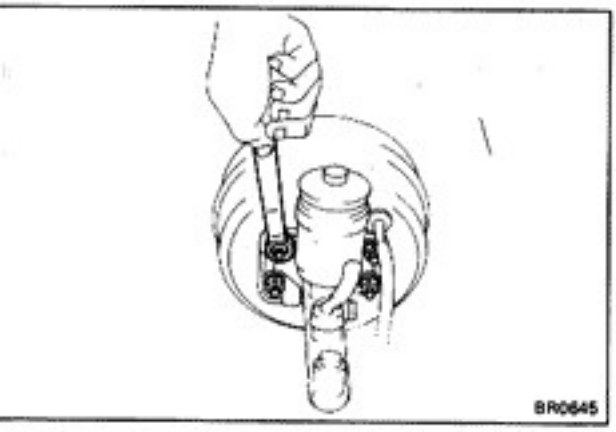
(b) Loosen the lock nut and turn the adjusting until the travel is correct.

MASTER CYLINDER

COMPONENTS







REMOVAL OF MASTER CYLINDER

CAUTION: Do not let brake fluid remain on a painted surface. Wash it off immediately.

1. **DISCONNECT LEVEL WARNING SWITCH CONNECTOR**

2. **DISCONNECT TWO BRAKE TUBES**

   Using SST, disconnect two brake tubes from the master cylinder.

   SST 09751-36011

3. **REMOVE MASTER CYLINDER**

   (a) Remove the four nuts.

   (b) Remove the master cylinder and gasket from the brake booster.

DISASSEMBLY OF MASTER CYLINDER

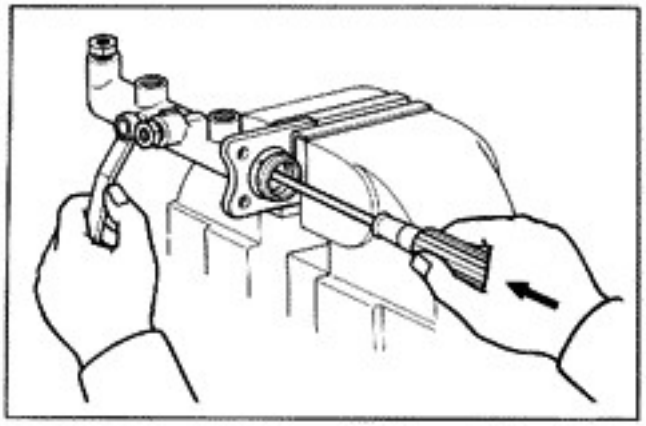
1. **PLACE CYLINDER IN VISE**

2. **DISCONNECT RESERVOIR AND HOSE**

   Remove the cap, strainer, bolt and hose.

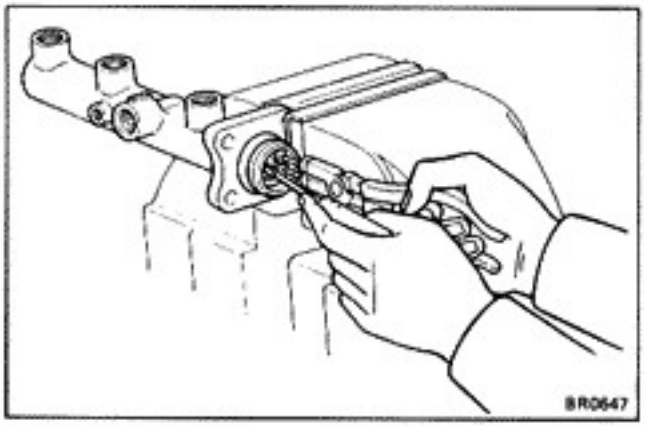
3. **REMOVE SNAP RING AND ELBOW**

4. **REMOVE TWO OUTLET PLUGS**



5. REMOVE PISTON STOPPER BOLT

Using a screwdriver, push the pistons in all the way remove the piston stopper bolt.

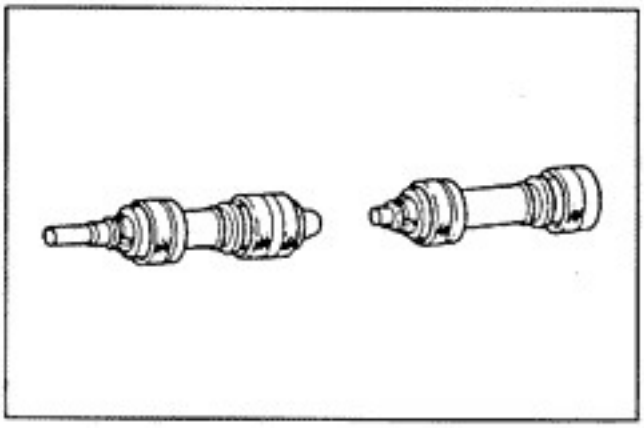


6. REMOVE TWO PISTONS AND SPRINGS

(a) Using snap ring pliers, remove the snap ring.

(b) Remove two pistons and springs from the ma cylinder.

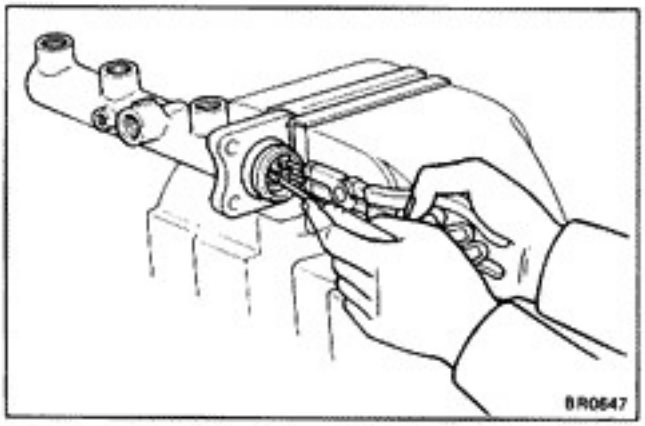
NOTE: It may be necessary to inject compressed a the check valve hole to force out the No. 2 piston.



ASSEMBLY OF MASTER CYLINDER

(See page BR-9)

1. APPLY LITHIUM SOAP BASE GLYCOL GREASE TO RUBBER PARTS OF PISTON

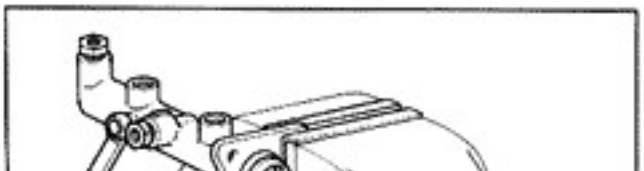


2. INSTALL TWO SPRINGS AND PISTONS

CAUTION: Be careful not to damage the rubber lip the pistons.

(a) Insert two springs and pistons in the master cyli housing as shown.

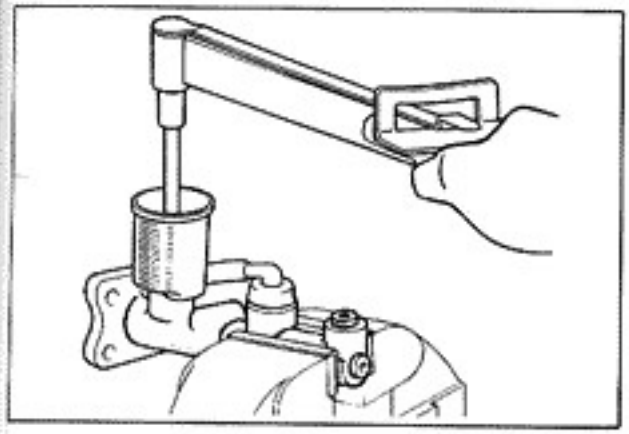
(b) Using snap ring pliers, install the snap ring.



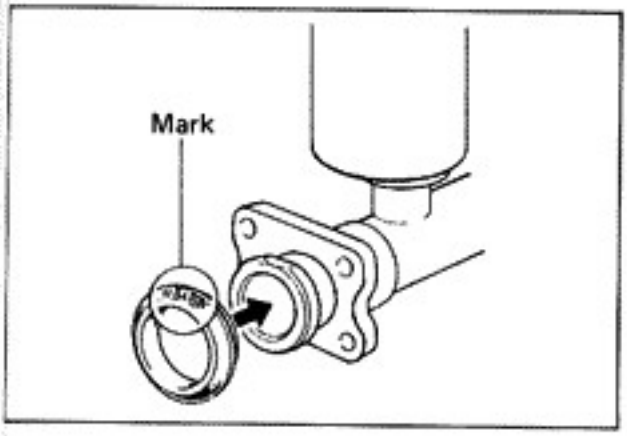
3. INSTALL PISTON STOPPER BOLT

Using screwdriver, push the pistons in all the way install the piston stopper bolt. Torque the bolt.

Torque: 100 kg-cm (7 ft-lb, 10 N-m)



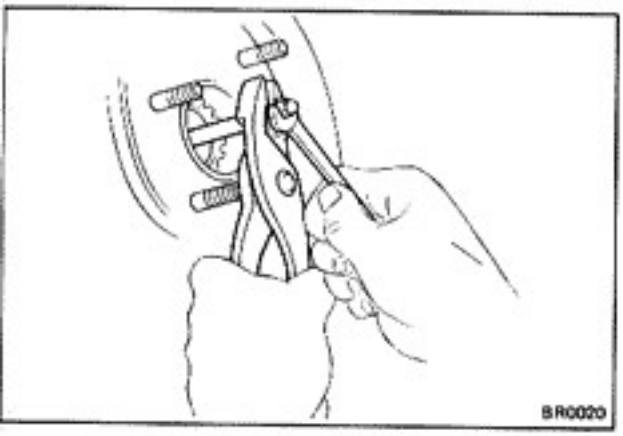
5. INSTALL RESERVOIR
   (a) Install the reservoir on the master cylinder. Torque the bolt.
   Torque: 250 kg-cm (18 ft-lb, 25 N·m)
   (b) Install the strainer and cap.
6. INSTALL ELBOW AND SNAP RING
7. CONNECT RESERVOIR HOSE



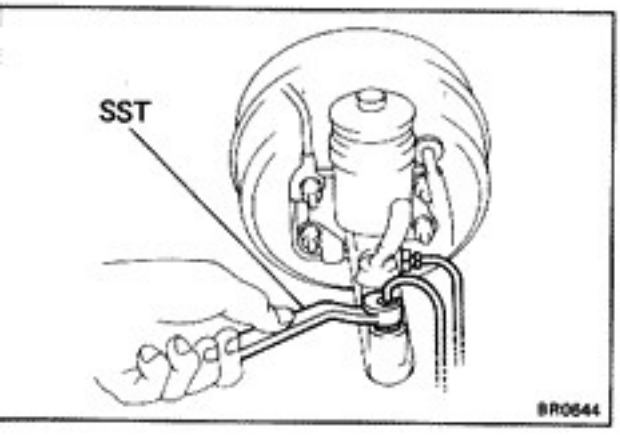
INSTALLATION OF MASTER CYLINDER

(See page BR-9)

1. CLEAN OUT GROOVE ON LOWER INSTALLATION SURFACE OF MASTER CYLINDER
2. CONFIRM THAT "UP" MARK OF MASTER CYLINDER BOOT IS IN CORRECT POSITION



3. ADJUST LENGTH OF BRAKE BOOSTER PUSH ROD BEFORE INSTALLING MASTER CYLINDER
(See page BR-12)
4. INSTALL MASTER CYLINDER
   Install the master cylinder and gasket on the brake booster with four nuts.
   Torque: 130 kg-cm (9 ft-lb, 13 N·m)

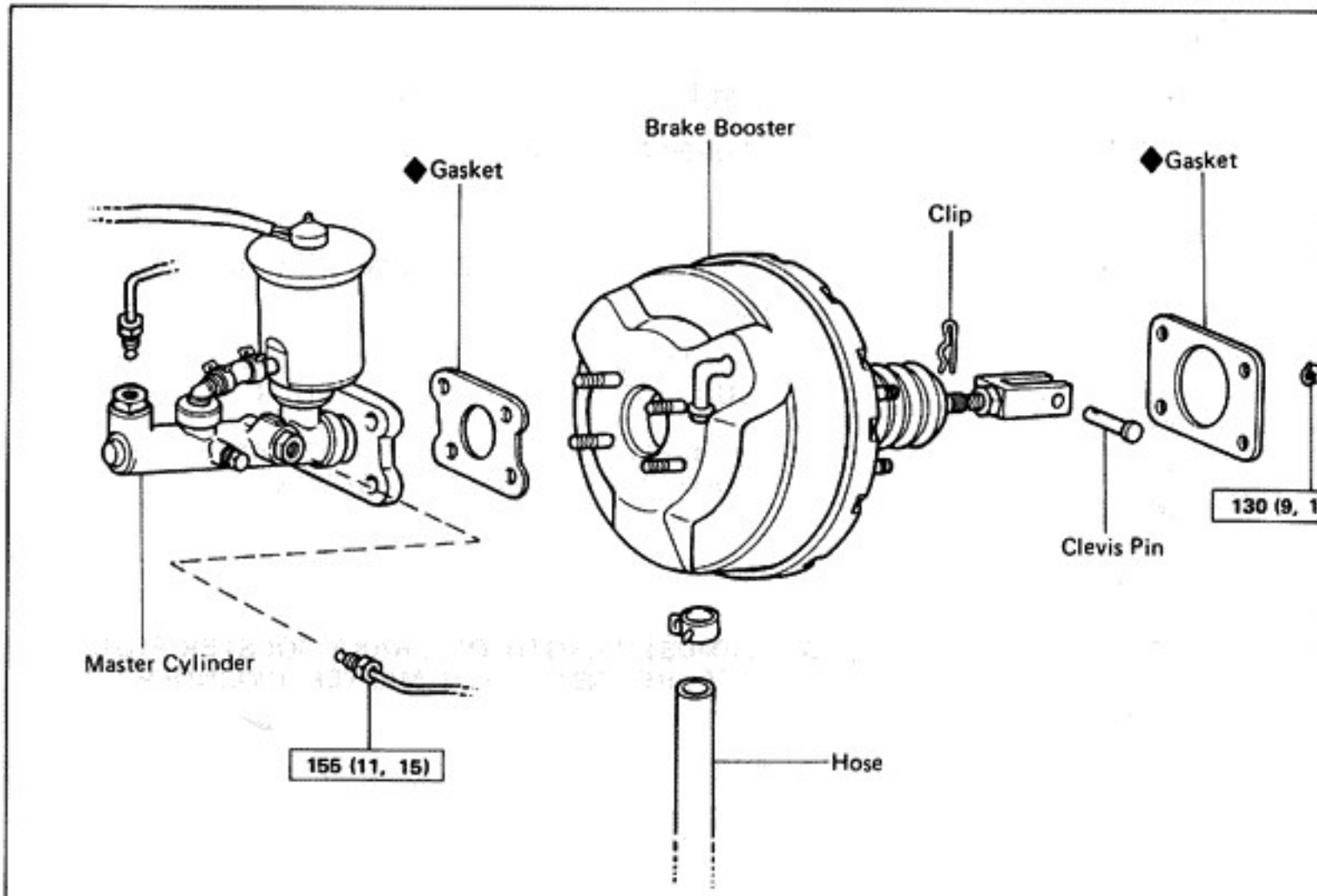


5. CONNECT TWO BRAKE TUBES
   Using SST, connect two brake tubes to the outlet plugs.
   SST 09751-36011
   Torque: 155 kg-cm (11 ft-lb, 15 N·m)
6. CONNECT LEVEL WARNING SWITCH CONNECTOR

7. ADJUST BRAKE PEDAL (See page BR-6)
8. FILL BRAKE RESERVOIR WITH BRAKE FLUID AND BLEED BRAKE SYSTEM (See page BR-7)

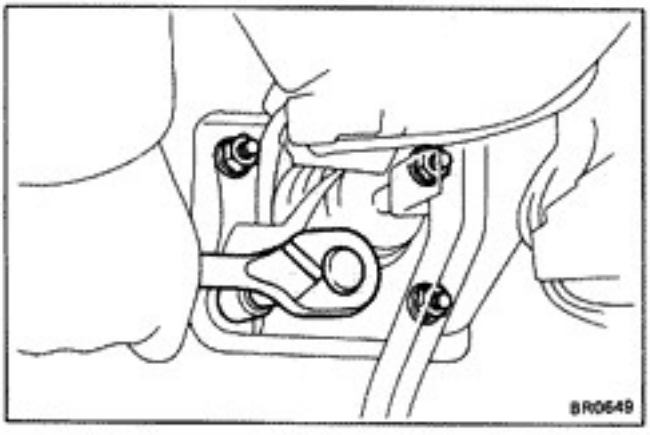
BRAKE BOOSTER

REMOVAL OF BRAKE BOOSTER

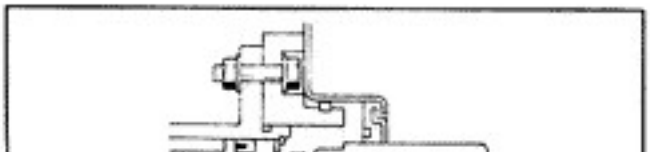


kg-cm (ft-lb, N-m) : Specified torque

◆ Non-reusable part

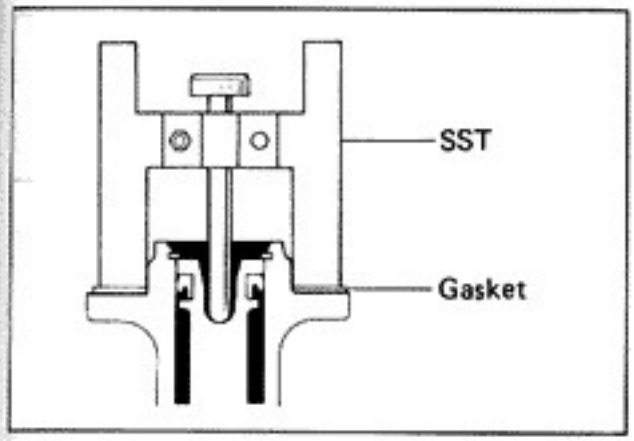


1. REMOVE MASTER CYLINDER (See page BR-9)
2. REMOVE CLEVIS PIN FROM BRAKE PEDAL
   Remove the clip and clevis pin.
3. DISCONNECT HOSE FROM BRAKE BOOSTER
4. REMOVE BRAKE BOOSTER
   Remove the four nuts, and pull out the brake boo



INSTALLATION OF BRAKE BOOSTER

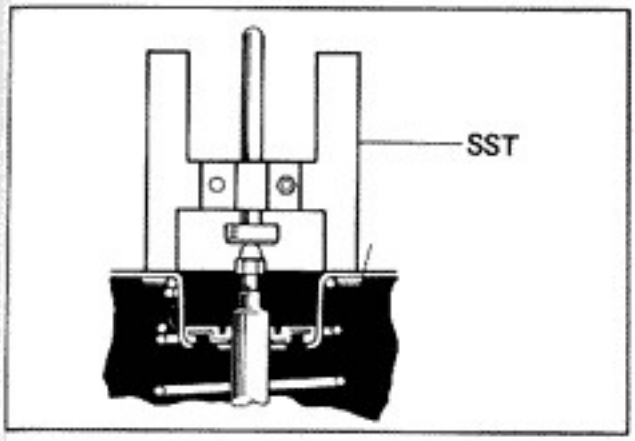
1. ADJUST LENGTH OF BOOSTER PUSH ROD
   Adjust the length of the booster push rod to provide



(a) Set SST on the master cylinder, and lower the pi until its tip slightly touches the piston.

SST 09737-00010

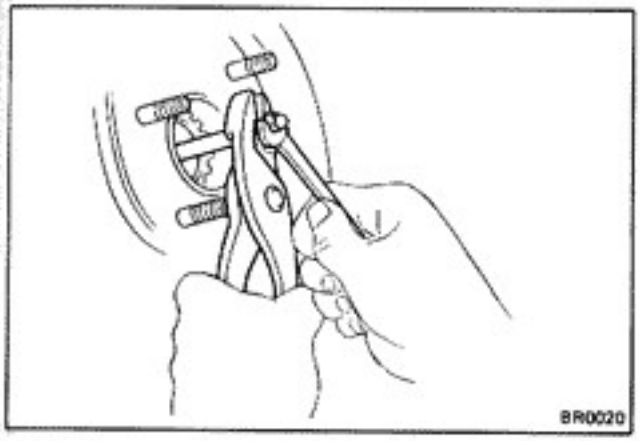
NOTE: Take the measurement with the gasket in plac



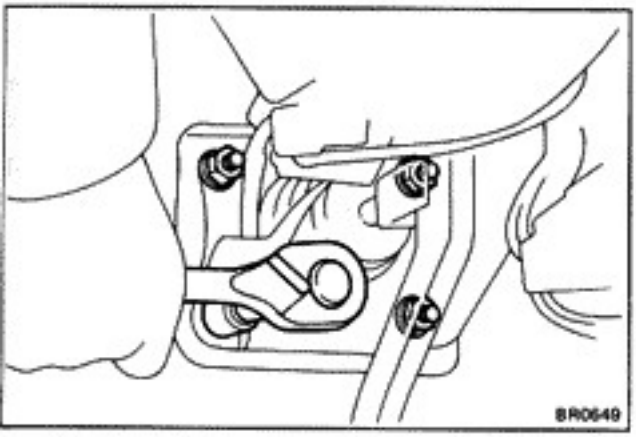
(b) Turn SST upside down, and set it on the booste

SST 09737-00010

(c) Check that push rod lightly touches the pin head.



(d) Adjust the booster push rod length until the push ro lightly touches the pin head.



2. **INSTALL BRAKE BOOSTER**
   (a) Install the brake booster over the gasket.
   (b) Tighten the four nuts.
   Torque: 130 kg-cm (9 ft-lb, 13 N·m)

3. **CONNECT CLEVIS TO BRAKE PEDAL**
   Install the clevis pin and clip.

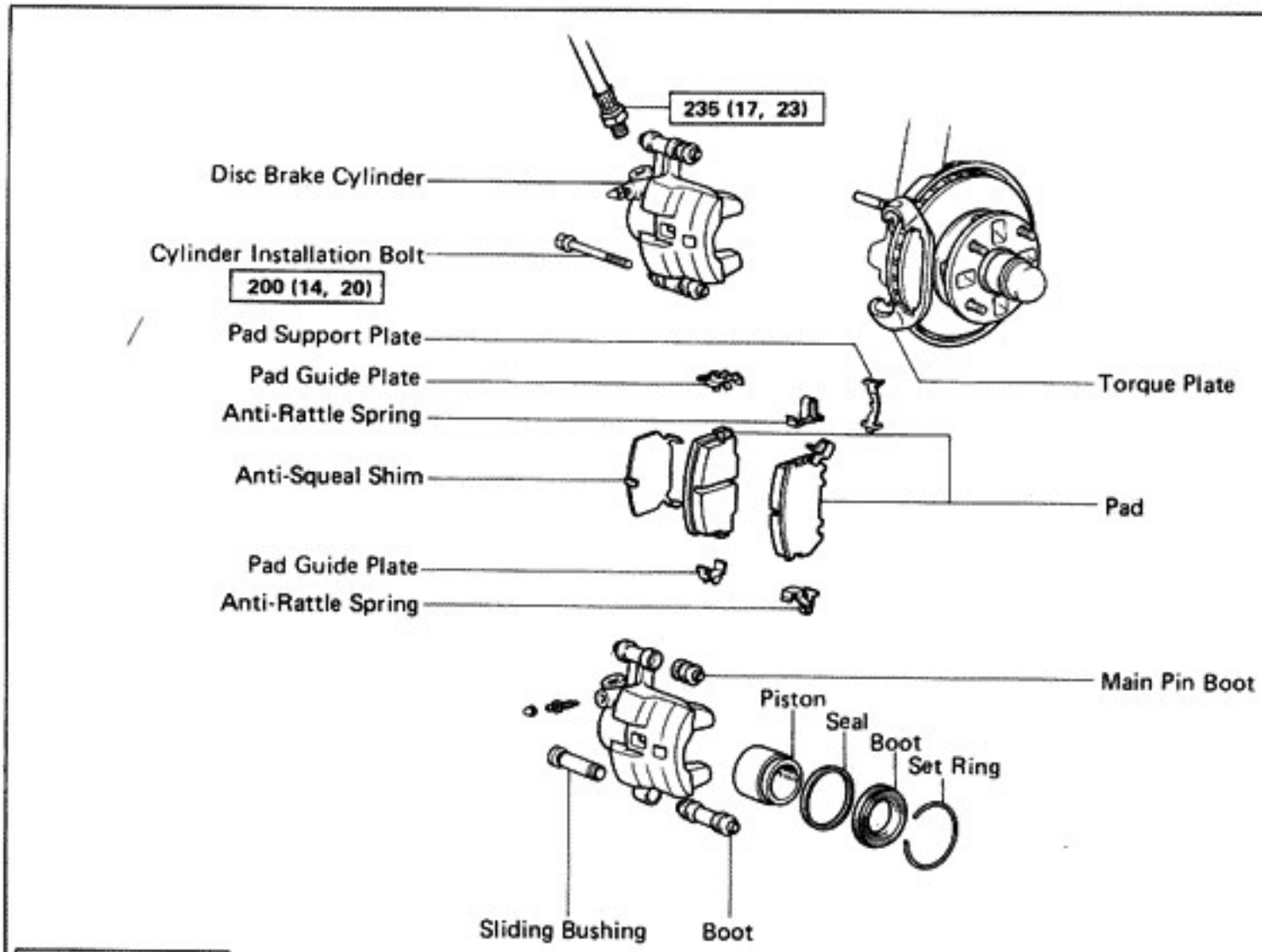
4. **INSTALL MASTER CYLINDER**
   (See steps 1, 2 and 4 on page BR-11)

5. **CONNECT HOSE TO BRAKE BOOSTER**

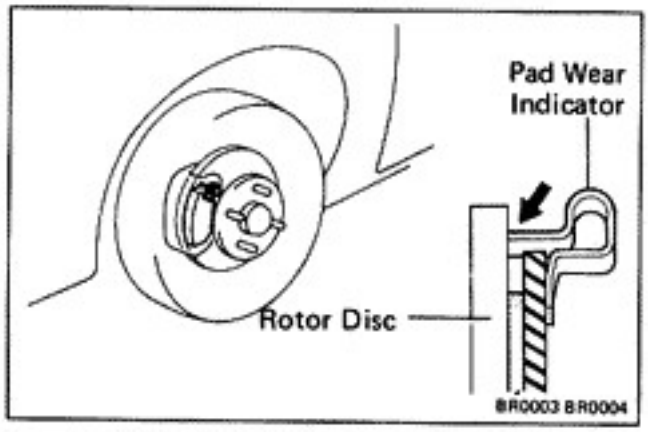
6. **ADJUST BRAKE PEDAL (See page BR-6)**

FRONT BRAKE

COMPONENTS



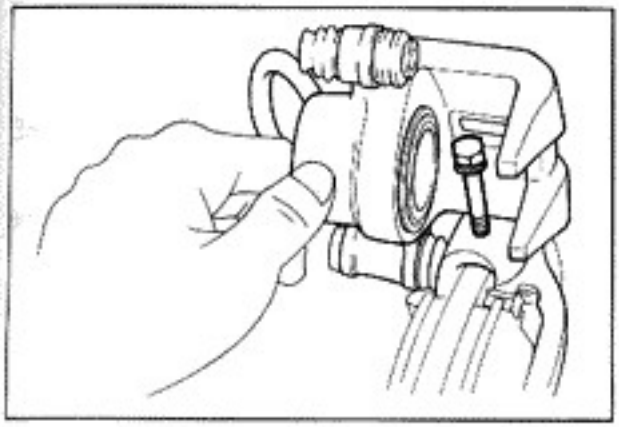
kg-cm (ft-lb, N·m) : Specified torque



REPLACEMENT OF BRAKE PADS

NOTE: If a squealing noise occurs from the brakes w
driving, check the pad wear indicator. If there are tr
of the indicator contacting the rotor disc, the disc
should be replaced.

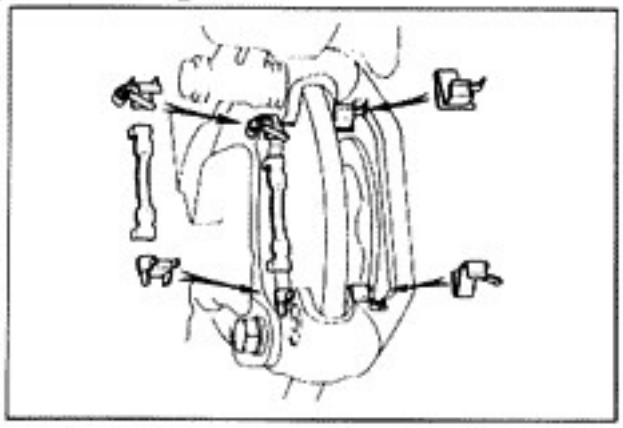
1. DRAW OUT A SMALL AMOUNT OF BRAKE FL
2. REMOVE CYLINDER INSTALLATION BOLT



3. **LIFT UP CYLINDER**
   (a) Lift up the cylinder.
   (b) Insert a bolt into the torque plate hole to secure the cylinder.

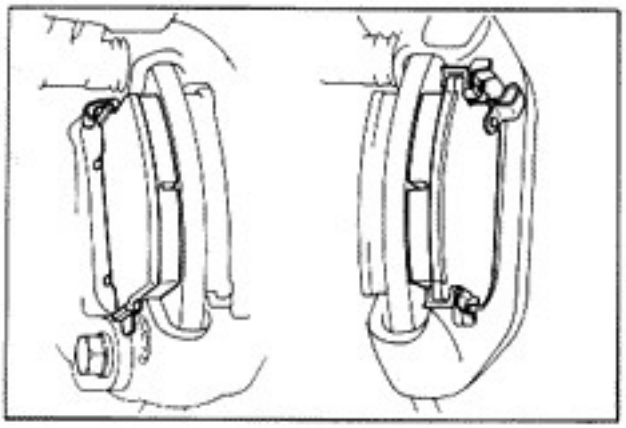
4. **REMOVE PADS AND ANTI-SQUEAL SHIM**

5. **REMOVE ANTI-RATTLE SPRINGS, PAD GUIDE PLATES AND SUPPORT PLATE**



6. **INSTALL NEW PAD SUPPORT PLATE, NEW PAD GUIDE PLATES AND NEW ANTI-RATTLE SPRINGS**

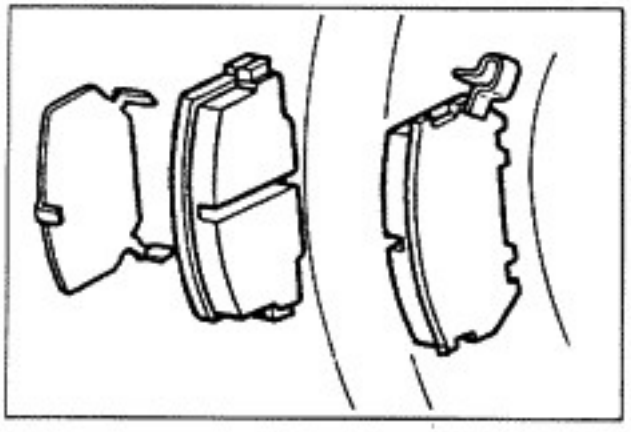
7. **PUSH PISTON INTO CYLINDER**



8. **INSTALL NEW PADS AND NEW ANTI-SQUEAL SHIM**
   (a) Install the pads onto each spring.

   NOTE: Install the outside pad so the wear indicator is at the top side.

   CAUTION: Do not allow oil or grease to touch the rubbing face.

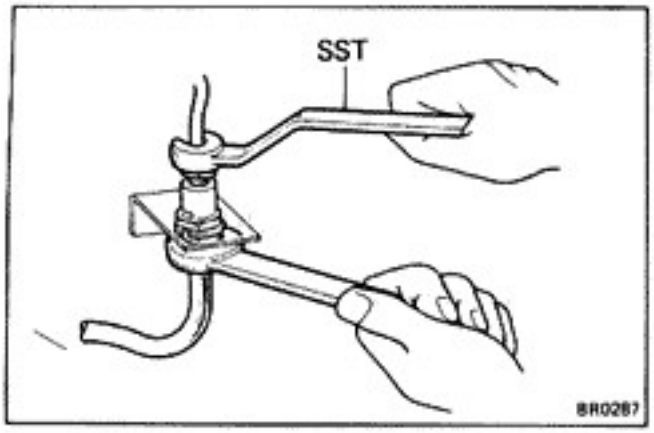


   (b) Install the anti-squeal shim toward the inside of the pad.

9. **LOWER CYLINDER**

   Remove the bolt from the torque plate and lower the cylinder.

   NOTE: Insert the cylinder carefully so the boot is not wedged.



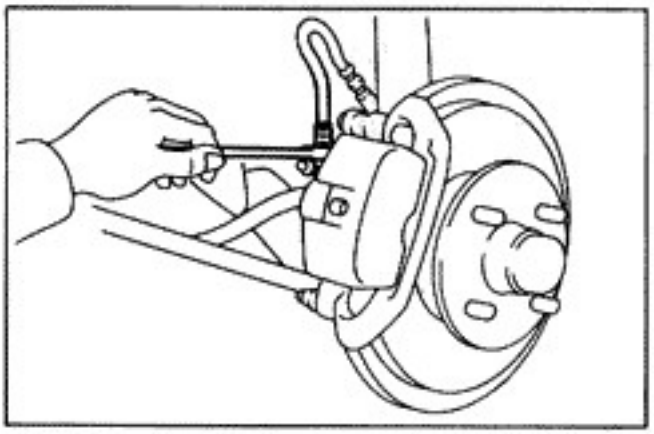
REMOVAL OF CYLINDER

(See page BR-14)

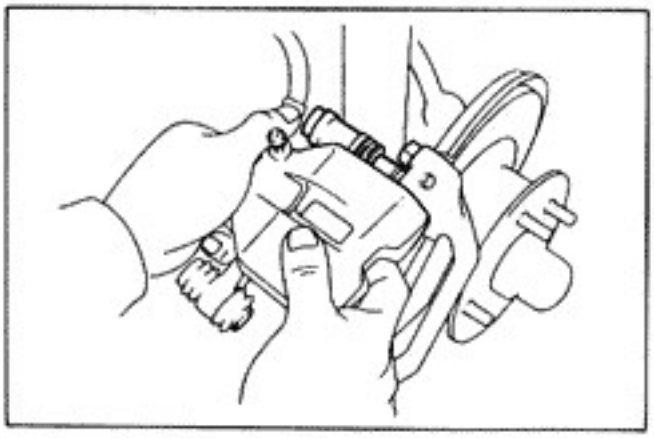
1. DISCONNECT BRAKE HOSE FROM BRAKE TU AND CYLINDER
   (a) Using SST and a spanner, disconnect the brake t from the hose.

   SST 09751-36011

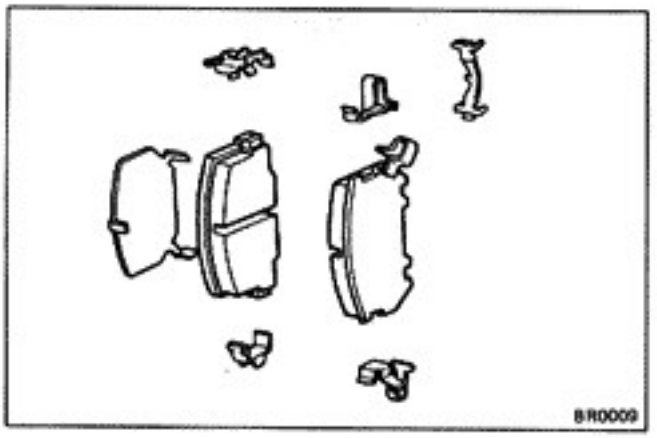
   (b) Use a container to catch the brake fluid.



   (c) Remove the clip from brake hose.
   (d) Disconnect the brake hose from the cylinder.



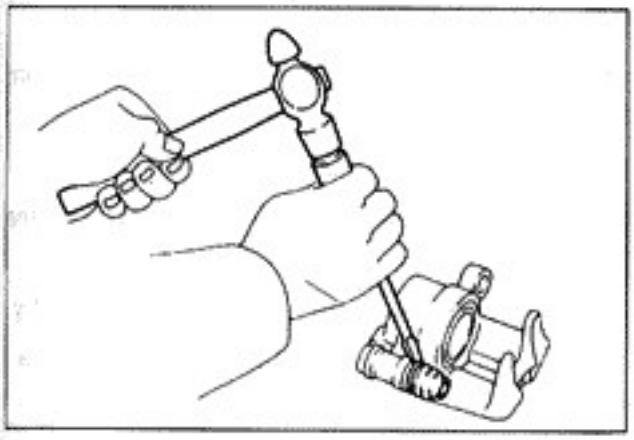
2. REMOVE CYLINDER
   (a) Hold the sliding bushing and remove the cylin installation bolt.
   (b) Lift up and push out the cylinder from the tor plate pin.



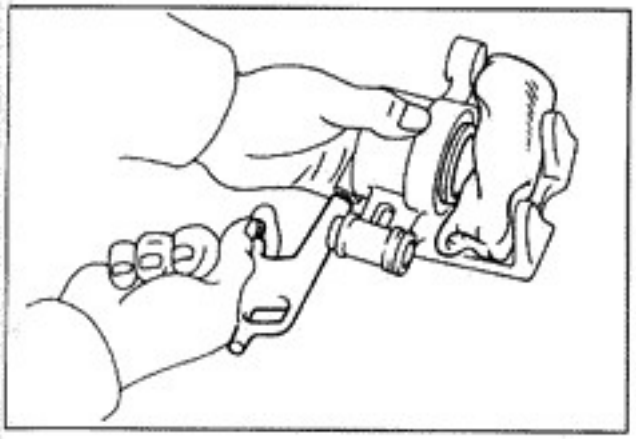
3. REMOVE FOLLOWING PARTS:
   (a) Anti-squeal shim
   (b) Brake pads
   (c) Anti-rattle springs
   (d) Pad guide plates
   (e) Pad support plate

DISASSEMBLY OF CYLINDER

(See page BR-14)



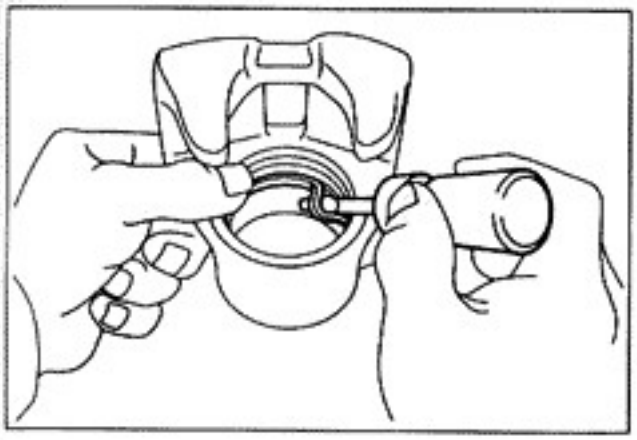
2. REMOVE MAIN PIN BOOT WITH A CHISEL



3. REMOVE PISTON FROM CYLINDER

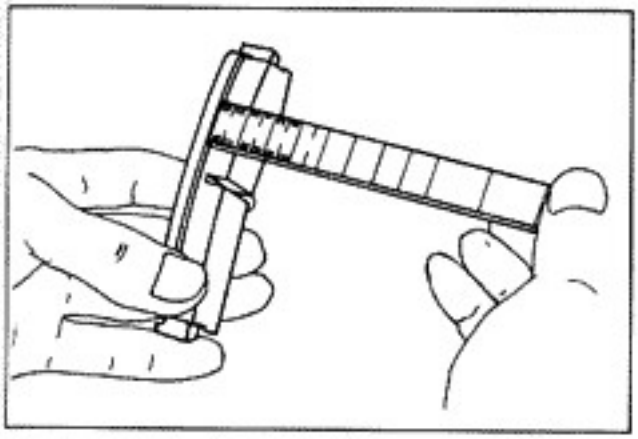
Use compressed air to remove the piston from the cylinde

WARNING: Do not place your fingers in front of th piston when using compressed air.



4. REMOVE CYLINDER BOOT AND SET RING FRO CYLINDER

5. REMOVE PISTON SEAL FROM CYLINDER

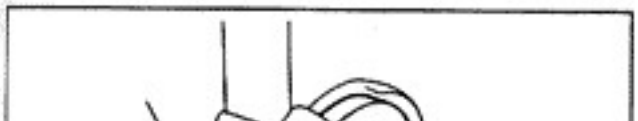


INSPECTION OF FRONT BRAKE COMPONENT

1. MEASURE PAD LINING THICKNESS

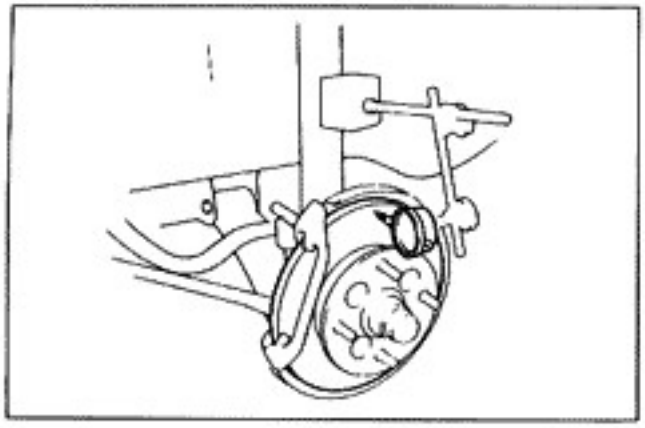
Standard thickness: 10.5 mm (0.413 in.)
Minimum thickness: 3.0 mm (0.118 in.)

Replace the pad if the thickness is less than the minimu (the 1.0 mm slit is no longer visible) or if it shows sign o uneven wear.



2. MEASURE ROTOR DISC THICKNESS

Standard thickness: 20.0 mm (0.787 in.)
Minimum thickness: 19.0 mm (0.748 in.)



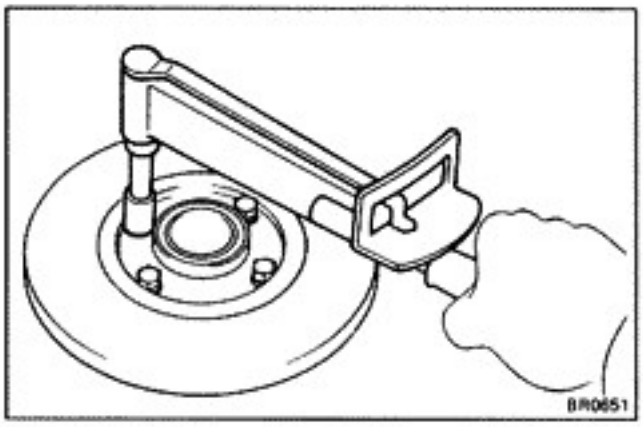
3. MEASURE ROTOR DISC RUNOUT

Measure the rotor disc runout at 10 mm (0.39 in.) fr
the outer edge of rotor disc.

Maximum disc runout: 0.15 mm (0.0059 in.)

If the runout is greater than the maximum, replace
disc.

NOTE: Make sure the front bearing is adjusted correc



4. IF NECESSARY, REPLACE ROTOR DISC

(a) Remove the torque plate from the knuckle.

(b) Remove the axle hub. (See page FA-6)

(c) Remove the disc from the axle hub.

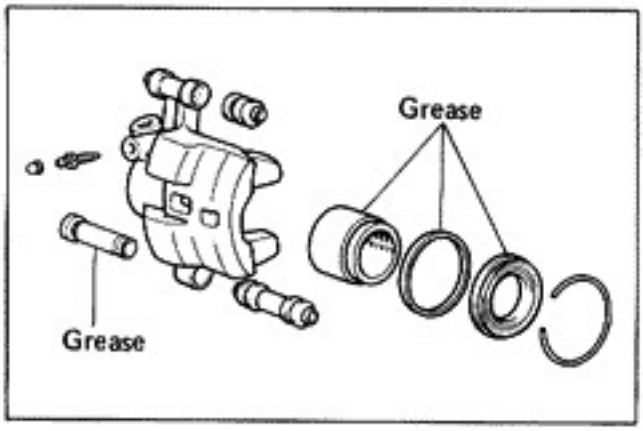
(d) Install a new rotor disc. Torque four bolts.

Torque: 650 kg-cm (47 ft-lb, 64 N-m)

(e) Install the axle hub and adjust the front bearing p
load. (See page FA-8)

(f) Install the torque plate onto the knuckle.

Torque: 925 kg-cm (67 ft-lb, 91 N-m)



ASSEMBLY OF CYLINDER

(See page BR-14)

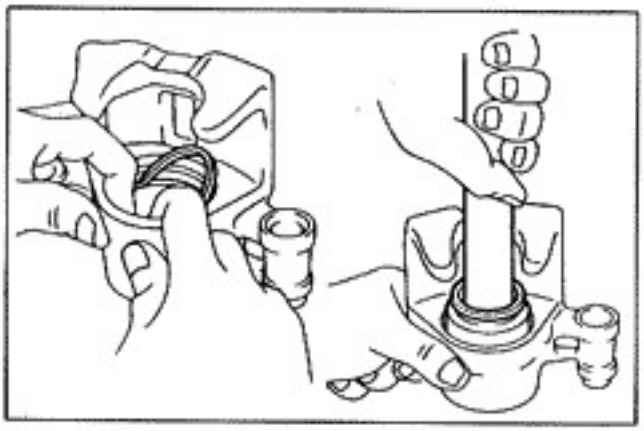
1. APPLY LITHIUM SOAP BASE GLYCOL GREASE
TO FOLLOWING PARTS:

(a) Main pin boot

(b) Sliding pin and boot

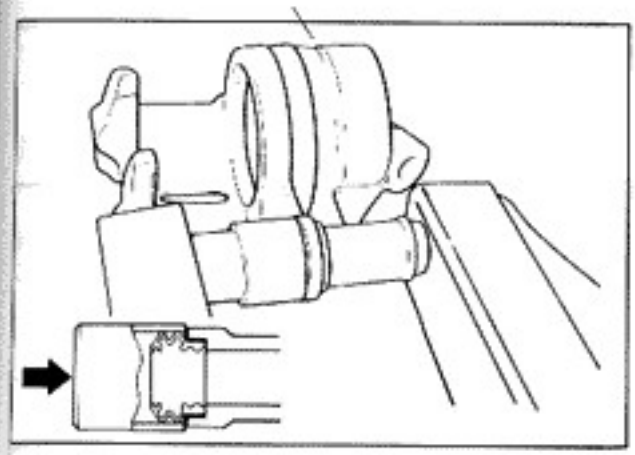
(c) Piston seal and piston

(d) Dust boot



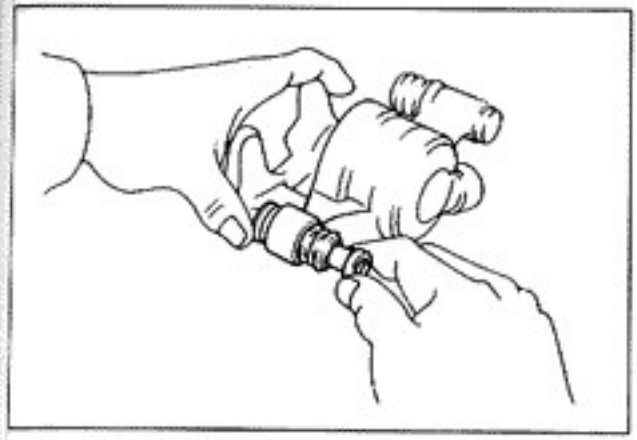
2. INSTALL PISTON SEAL AND PISTON IN CYLINDER

3. INSTALL CYLINDER BOOT AND SET RING IN
CYLINDER



4. INSTALL MAIN PIN BOOT

Using a 21-mm socket wrench, press in the boot.



5. INSTALL DUST BOOT AND SLIDING BUSHING

(a) Install the dust boot.

NOTE: Be careful that the seal does not fold under.

(b) Install the bushing into the boot facing the flang toward the inside.

INSTALLATION OF CYLINDER

(See page BR-14)

SEE
FRONT BRAKE
REPLACEMENT OF BRAKE PADS
BR-14

1. INSTALL FOLLOWING PARTS:

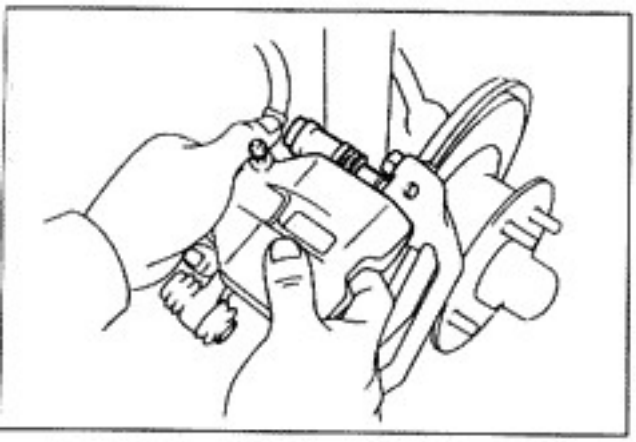
(a) Pad support plate

(b) Pad guide plates

(c) Anti-rattle springs

(d) Brake pads

(e) Anti-squeal shim



2. INSTALL CYLINDER

(a) Install the cylinder onto the main pin.

NOTE: Make sure that the boot end is installed into th groove of the main pin.

(b) Install the cylinder over the brake pads.

3. INSTALL CYLINDER INSTALLATION BOLTS

Install the cylinder installation bolts, torque one bolt.

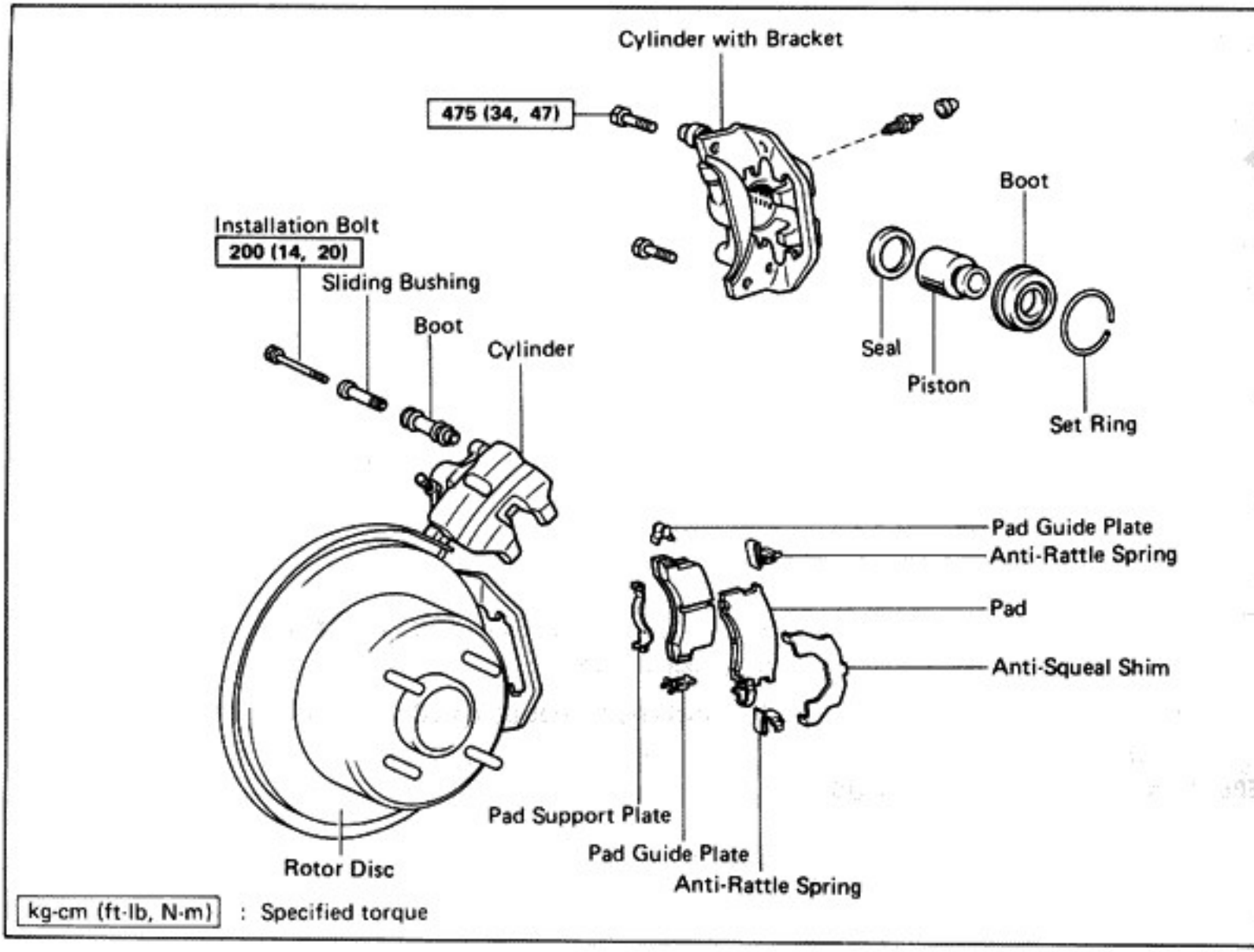
Torque: 200 kg-cm (14 ft-lb, 20 N-m)

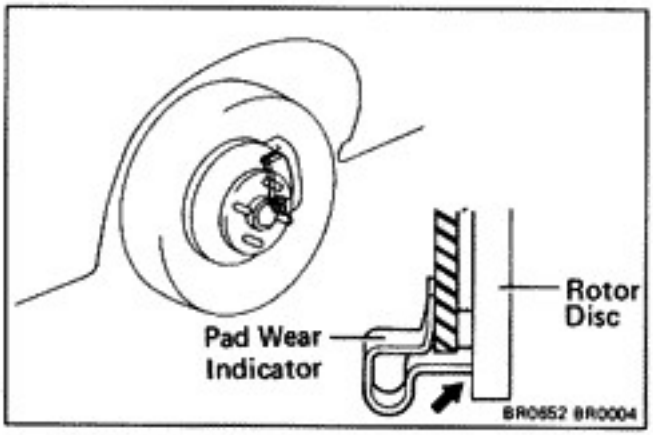
NOTE: Insert the installation bolt into the cylinder care fully so as not to wedge the boot.

4. CONNECT BRAKE LINE

REAR BRAKE

COMPONENTS

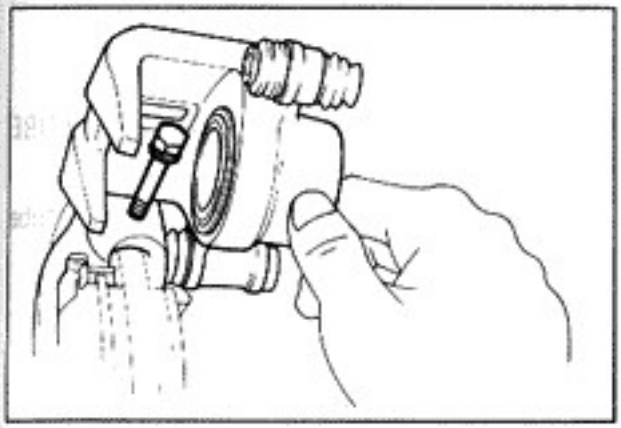




REPLACEMENT OF BRAKE PADS

NOTE: If a squealing noise occurs from the brakes w
driving, check the pad wear indicator. If there are tr
of the indicator contacting the rotor disc, the disc
should be replaced.

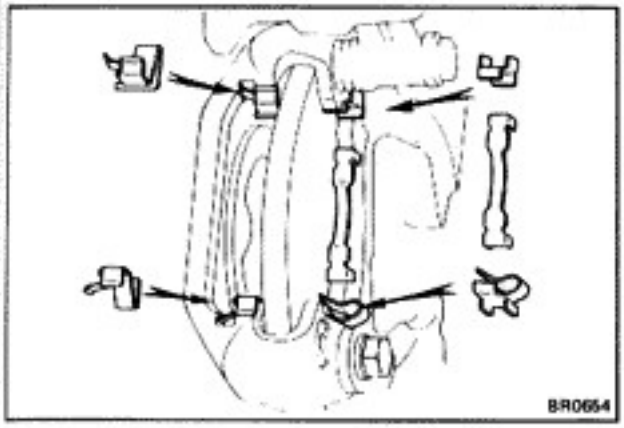
1. DRAW OUT A SMALL AMOUNT OF BRAKE F
2. UNSCREW CYLINDER INSTALLATION BOLT



3. **LIFT UP CYLINDER**
   (a) Lift up the cylinder.
   (b) Insert a bolt into the torque plate hole to secure th cylinder.

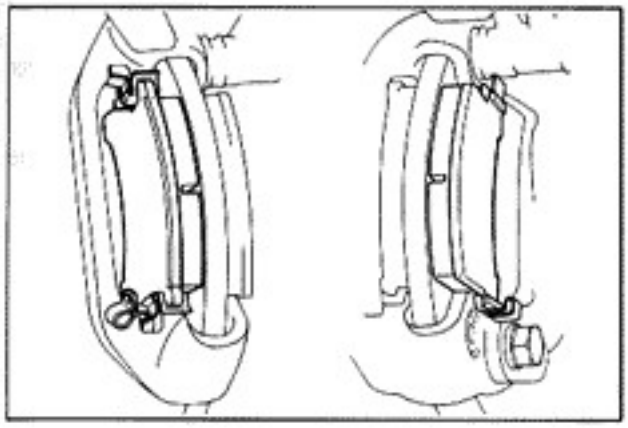
4. **REMOVE PADS AND ANTI-SQUEAL SHIM**

5. **REMOVE ANTI-RATTLE SPRINGS, PAD GUIDE PLATES AND SUPPORT PLATE**



6. **INSTALL NEW PAD SUPPORT PLATE, NEW PAD GUIDE PLATES AND NEW ANTI-RATTLE SPRINGS**

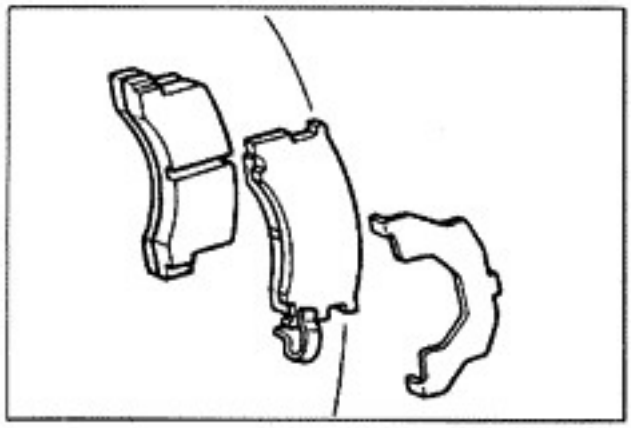
7. **PUSH PISTON INTO CYLINDER**



8. **INSTALL NEW PADS AND NEW ANTI-SQUEAL SHIM**
   (a) Install the pads onto each spring.

   NOTE: Install the outside pad so the wear indicator is a the bottom side.

   CAUTION: Do not allow oil or grease to touch the rub bing face.

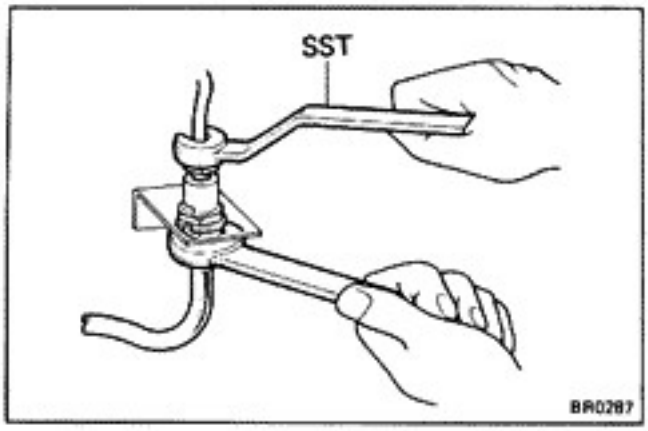


   (b) Install the anti-squeal shim toward the outside of th pad.

9. **LOWER CYLINDER**

   Remove the bolt from the torque plate and lower th cylinder.

   NOTE: Insert the cylinder carefully so the boot is no wedged.



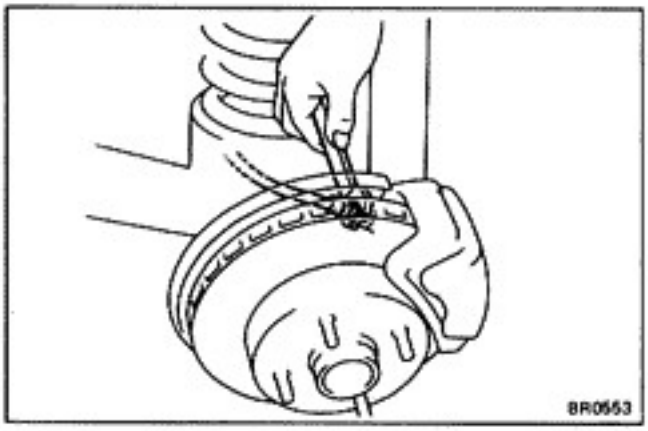
REMOVAL OF CYLINDER

(See page BR-20)

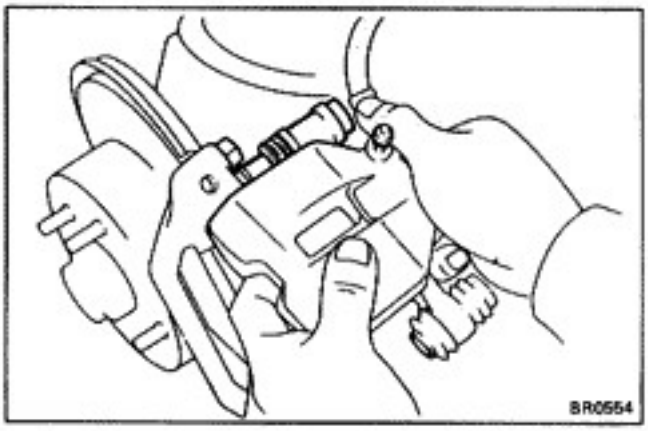
1. DISCONNECT BRAKE HOSE FROM BRAKE TU AND CYLINDER
   (a) Using SST and a spanner, disconnect the brake from the hose.

   SST 09751-36011

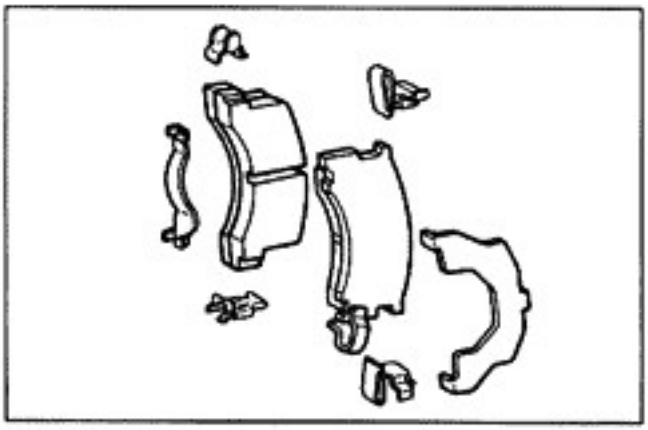
   (b) Use a container to catch the brake fluid.



   (c) Remove the clip from brake hose.
   (d) Disconnect the brake hose from the cylinder.



2. REMOVE CYLINDER
   (a) Hold the sliding bushing and unscrew the cyli installation bolt.
   (b) Lift up and push out the cylinder from the to plate pin.

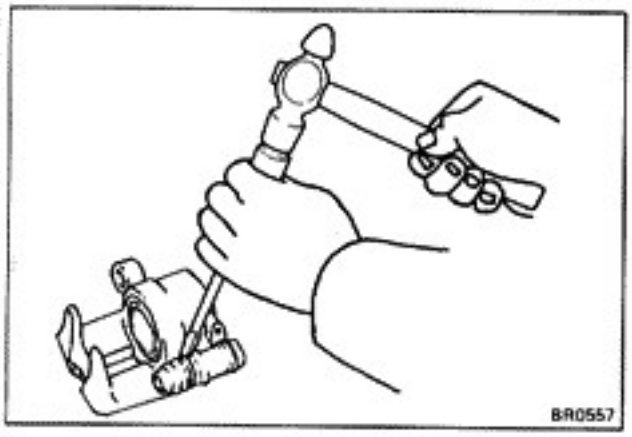


3. REMOVE FOLLOWING PARTS:
   (a) Anti-squeal shim
   (b) Brake pads
   (c) Anti-rattle springs
   (d) Pad guide plates
   (e) Pad support plate

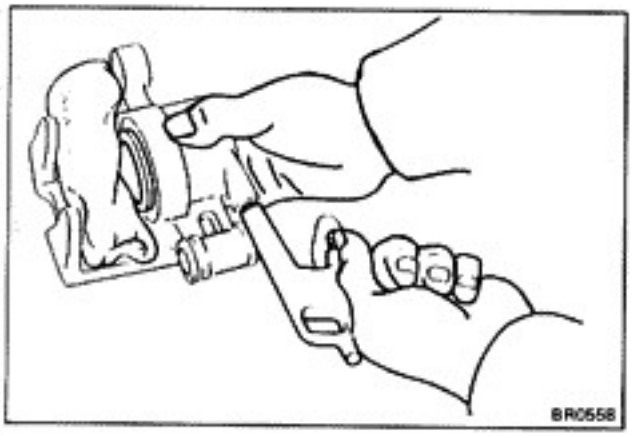
DISASSEMBLY OF CYLINDER

(See page BR-20)

1. REMOVE SLIDING BUSHING AND BOOT



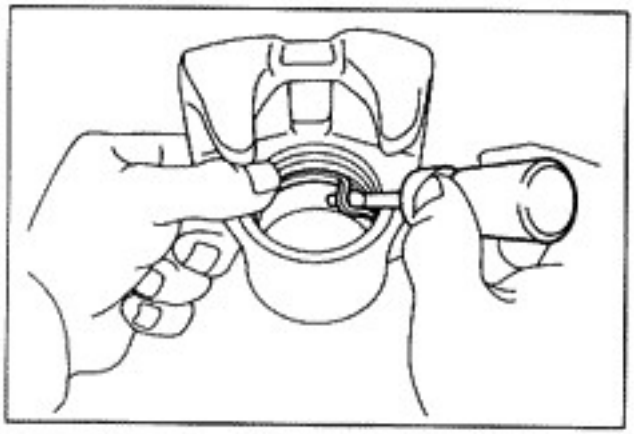
2. REMOVE MAIN PIN BOOT WITH A CHISEL



3. REMOVE PISTON FROM CYLINDER

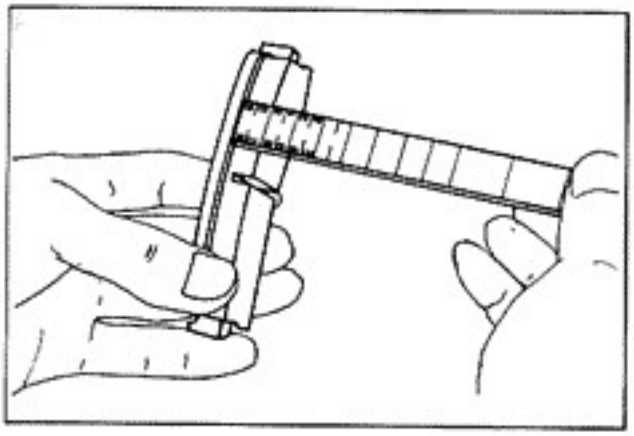
Use compressed air to remove the piston from the cylinder

WARNING: Do not place your fingers in front of the piston when using compressed air.



4. REMOVE CYLINDER BOOT AND SET RING FROM CYLINDER

5. REMOVE PISTON SEAL FROM CYLINDER



INSPECTION OF REAR BRAKE COMPONENTS

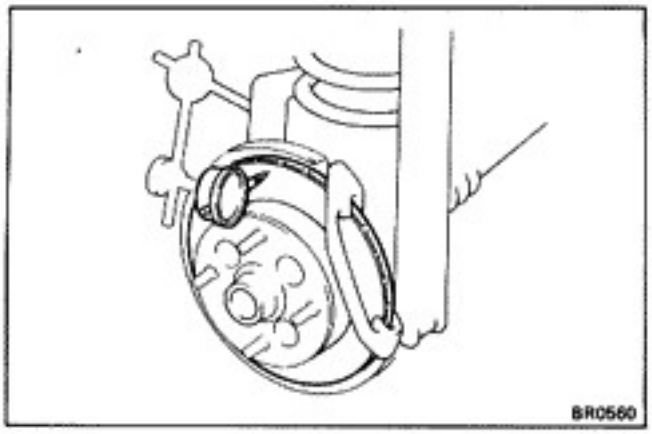
1. MEASURE PAD LINING THICKNESS

Standard thickness: 10.5 mm (0.413 in.)
Minimum thickness: 3.0 mm (0.118 in.)

Replace the pad if the thickness is less than the minimum (the 1.0 mm slit is no longer visible) or if it shows sign of uneven wear.

2. MEASURE ROTOR DISC THICKNESS

Standard thickness: 18.0 mm (0.709 in.)
Minimum thickness: 17.0 mm (0.669 in.)



3. MEASURE ROTOR DISC RUNOUT

(a) Temporarily install the hub nuts in reverse.

(b) Measure the rotor disc runout at 10 mm (0.39 from the outer edge of rotor disc.

Maximum runout: 0.15 mm (0.0059 in.)

If the runout is greater than the maximum, replace disc.

4. IF NECESSARY, REPLACE ROTOR DISC

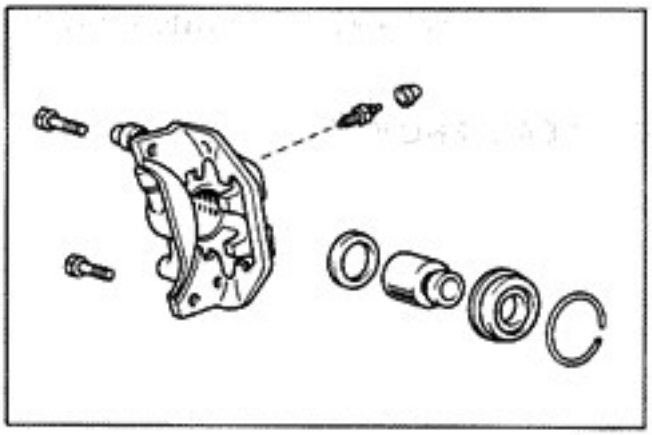
(a) Remove the torque plate from the rear axle hous

(b) Remove the rotor disc and hub nuts.

(c) Install the rotor disc, and adjust the shoe cleara

(d) Install the torque plate onto the rear axle hous

Torque: 475 kg-cm (34 ft-lb, 47 N-m)



ASSEMBLY OF CYLINDER

(See page BR-20)

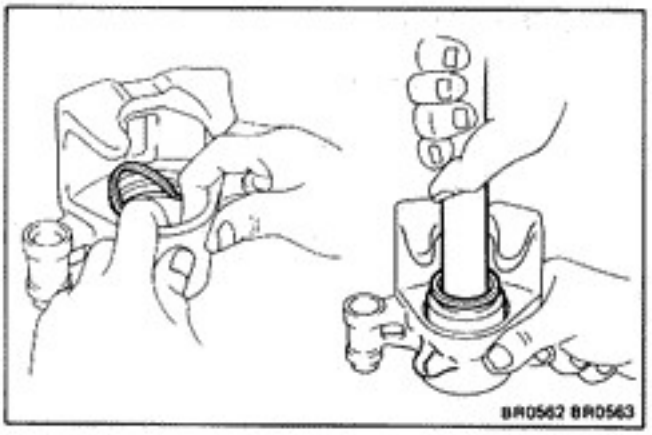
1. APPLY LITHIUM SOAP BASE GLYCOL GREASE TO FOLLOWING PARTS:

(a) Main pin boot

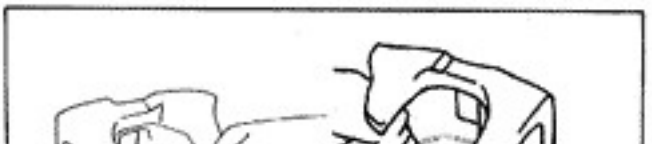
(b) Sliding pin and boot

(c) Piston seal and piston

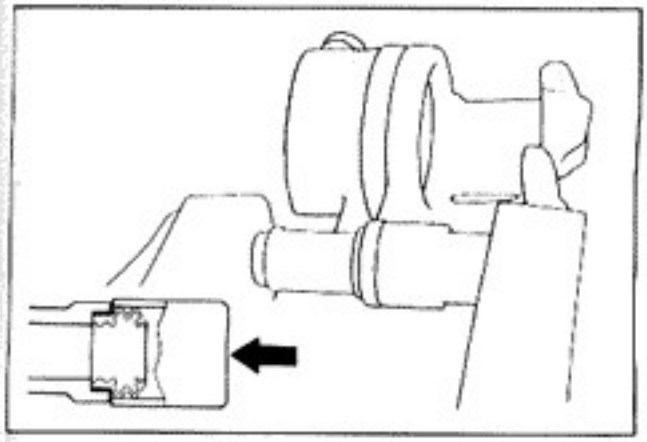
(d) Dust boot



2. INSTALL PISTON SEAL AND PISTON IN CYLIND

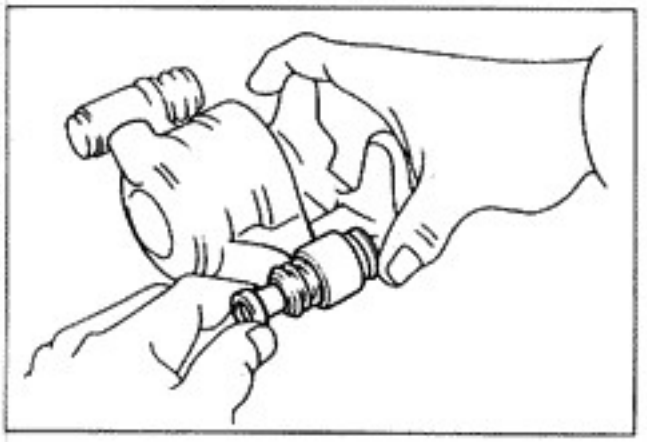


3. INSTALL CYLINDER BOOT AND SET RING IN CYLINDER



4. INSTALL MAIN PIN BOOT

Using a 21-mm socket wrench, press in the boot.



5. INSTALL DUST BOOT AND SLIDING BUSHING

(a) Install the dust boot.

NOTE: Be careful that the seal does not fold under.

(b) Install the bushing into the boot facing the flan toward the inside.

SEE
REAR BRAKE
REPLACEMENT OF BRAKE PADS
BR-20

INSTALLATION OF CYLINDER

(See page BR-20)

1. INSTALL FOLLOWING PARTS:

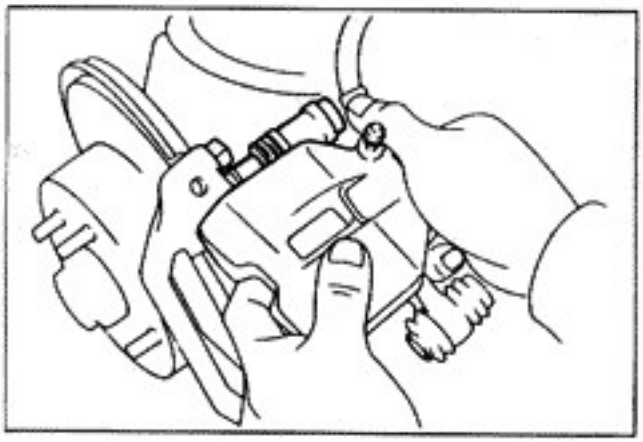
(a) Pad support plate

(b) Pad guide plates

(c) Anti-rattle springs

(d) Brake pads

(e) Anti-squeal shim



2. INSTALL CYLINDER

(a) Install the cylinder onto the main pin.

NOTE: Make sure that the boot end is installed into t groove of the main pin.

(b) Insert the cylinder installation bolt into the cylind body.

(c) Install the cylinder over the brake pads.

3. TORQUE CYLINDER INSTALLATION BOLT

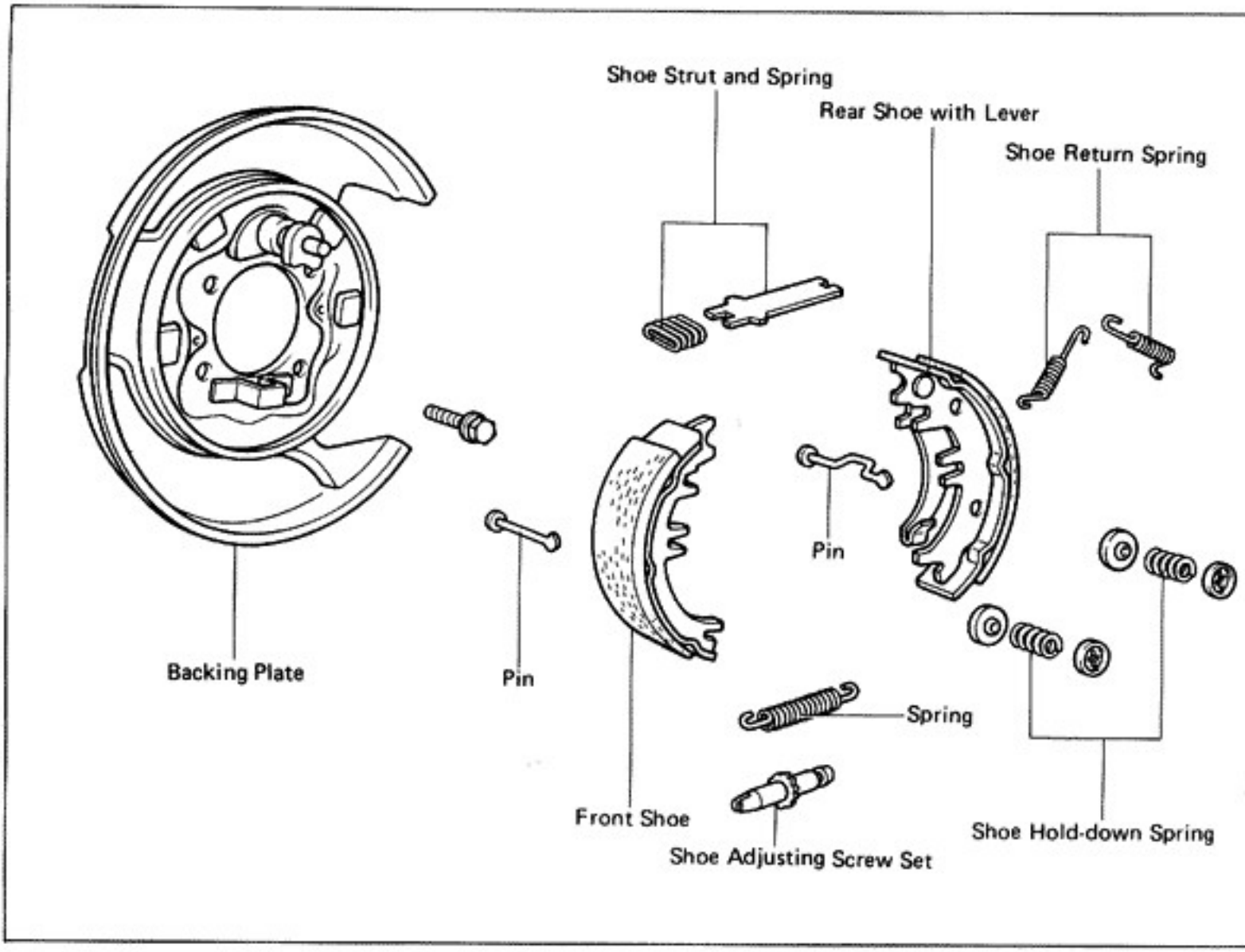
Torque the bolt.

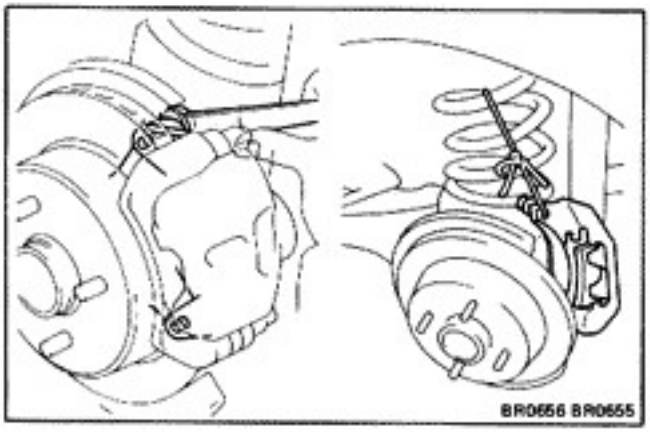
Torque: 200 kg-cm (14 ft-lb, 20 N-m)

4. CONNECT BRAKE LINE

Rear Parking Brake

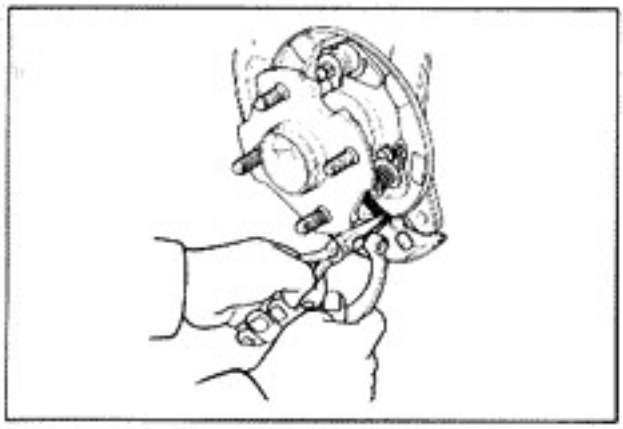
COMPONENT





DISASSEMBLY OF PARKING BRAKE

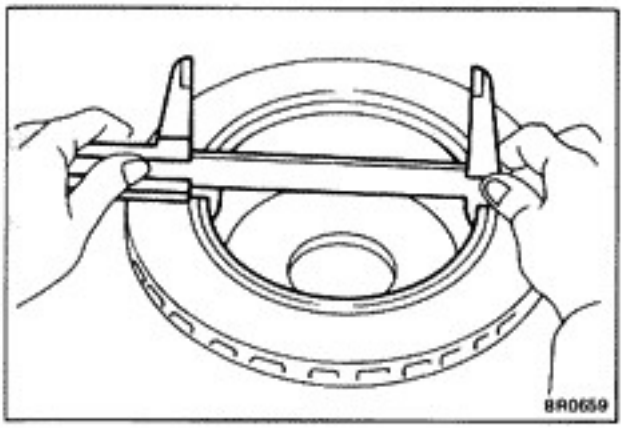
1. **REMOVE REAR DISC BRAKE ASSEMBLY**
   (a) Remove two torque plate mount bolts and rem
   the disc brake.
   (b) Suspend the disc brake so the hose is not stretc
2. **REMOVE ROTOR DISC**
3. **MEASURE BRAKE SHOE LINING THICKNESS**
   (See page BR-33)
4. **REMOVE SHOE RETURN SPRINGS**
5. **REMOVE SHOE STRUT WITH SPRING**



7. REMOVE REAR SHOE

(a) Slide out the rear shoe.

(b) Disconnect the parking brake cable from the parking brake shoe lever.

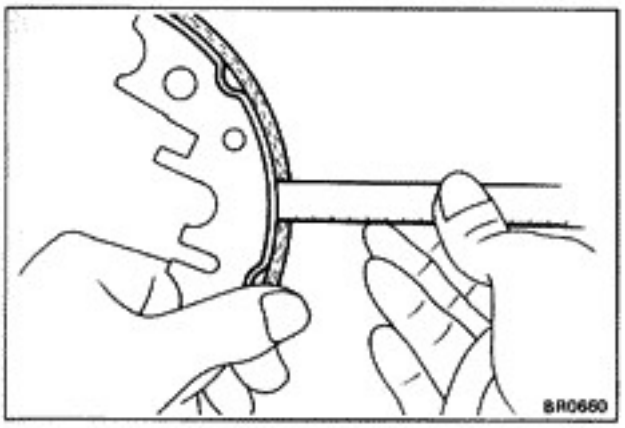


INSPECTION AND ADJUSTMENT OF PARKING BRAKE COMPONENTS

1. MEASURE BRAKE DRUM INSIDE DIAMETER

Standard inside diameter : 167 mm (6.57 in.)
Maximum inside diameter: 168 mm (6.61 in.)

If the drum is scored or worn, the brake drum may be lathed to the maximum inside diameter.

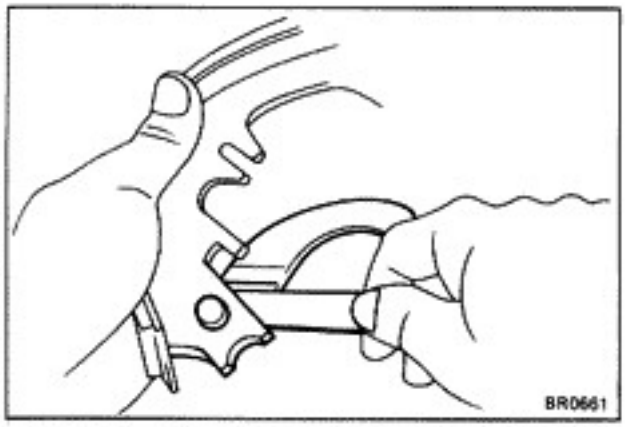


2. MEASURE BRAKE SHOE LINING THICKNESS

Standard thickness : 2.0 mm (0.079 in.)
Minimum thickness : 1.0 mm (0.039 in.)

If the shoe lining is less than minimum, replace the parking brake shoes.

NOTE: In order to maintain effective brakes, replace all of the shoes if the thickness of any one is not within specification.



3. INSPECT REAR PARKING BRAKE LINING AND DRUM FOR PROPER CONTACT

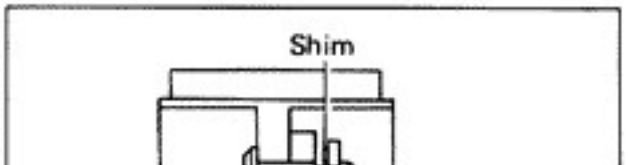
Replace the brake or lathe the brake disc as necessary.

4. MEASURE CLEARANCE BETWEEN PARKING BRAKE SHOE AND LEVER

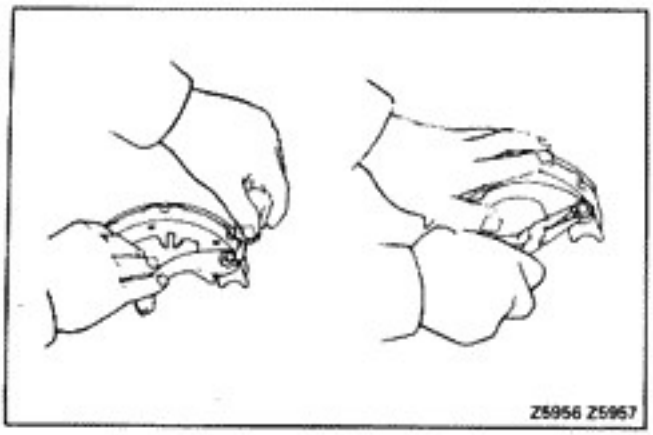
Using a feeler gauge, measure the clearance.

Standard clearance: 0 – 0.35 mm (0 – 0.0138 in.)

If the clearance is not within specification, replace the shim with one of the correct size.



Thickness	mm (in.)	Thickness	mm (in.)
0.3	(0.012)	0.9	(0.035)
0.6	(0.024)		

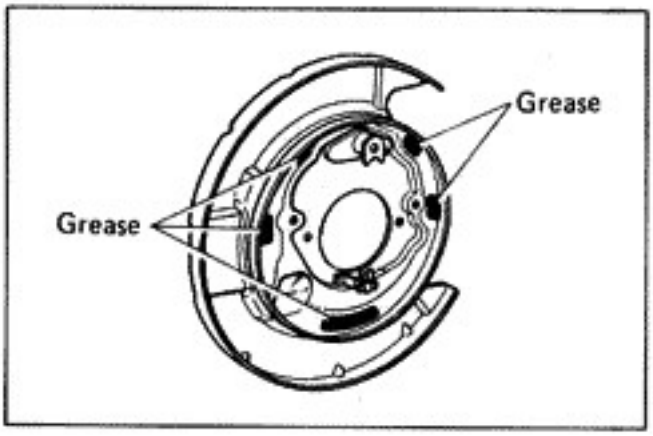


5. IF NECESSARY, REPLACE SHIM

(a) Remove the parking brake lever, and install the rect size shim.

(b) Install the parking brake lever with a new C-washe

(c) Remeasure the clearance.

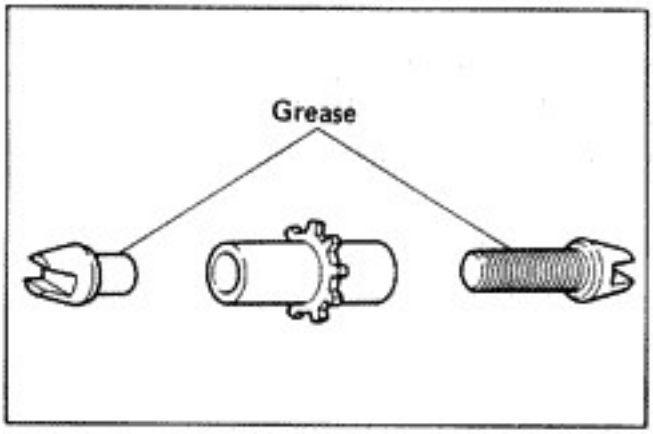


ASSEMBLY OF PARKING BRAKE

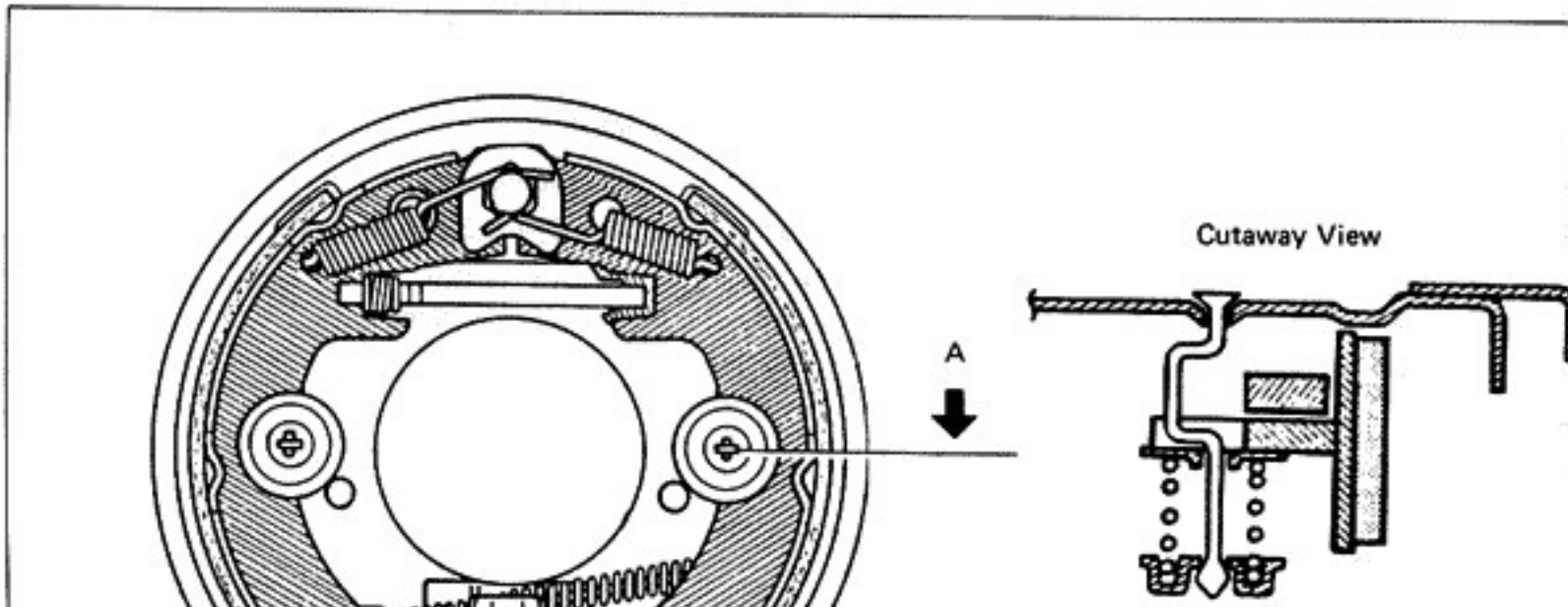
(See page BR-26)

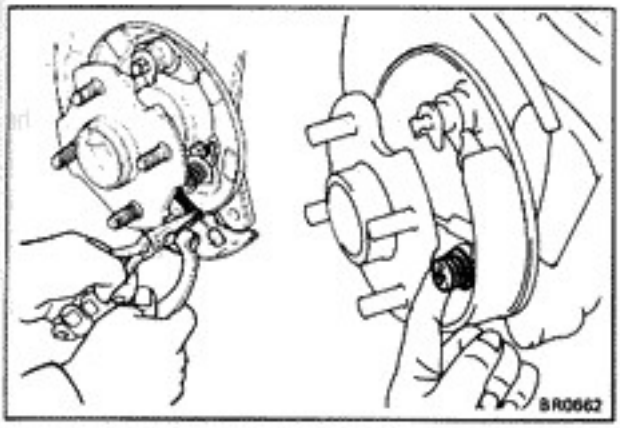
1. APPLY NON-MELTING TYPE GREASE ON BACK PLATE AS SHOWN

Apply non-melting type grease to the sliding surface the shoe.



2. APPLY NON-MELTING TYPE GREASE TO SH ADJUSTING SCREW SET





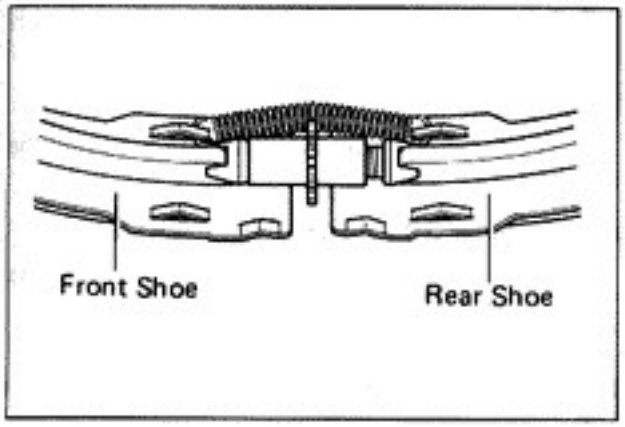
3. CONNECT PARKING BRAKE LEVER TO CABLE

Compress the cable spring and connect the lever.

4. INSTALL REAR SHOE

Slide in the rear shoe between the shoe hold-down spring seat and the backing plate.

CAUTION: Do not allow oil or grease to touch the rubbing face.

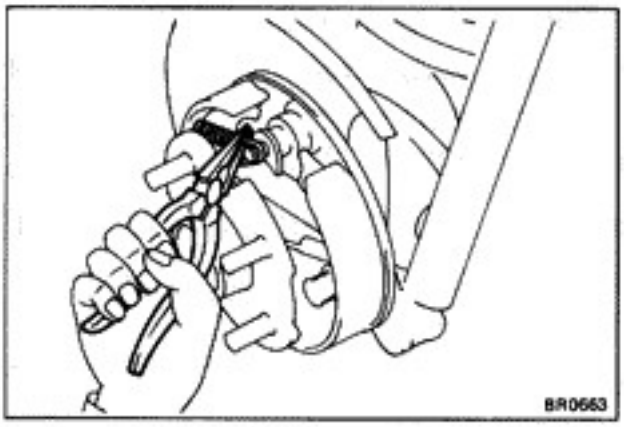


5. INSTALL TENSION SPRING, FRONT SHOE AND SHOE ADJUSTING SCREW SET

(a) Install the tension spring to the rear shoe.

(b) Install the front shoe to the tension spring.

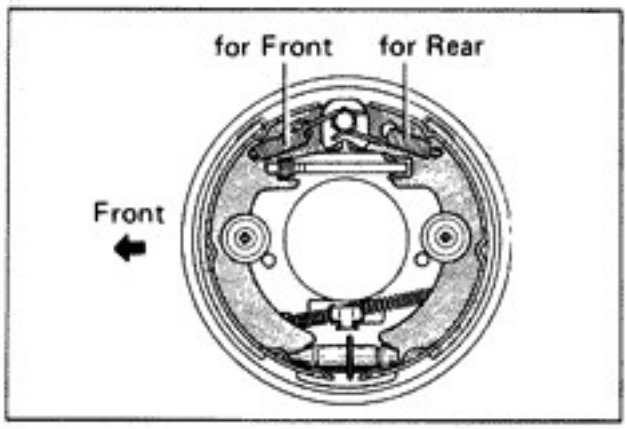
(c) Install the shoe adjusting screw set between the front and rear shoes.



(d) Slide in the front shoe between the shoe hold-down spring seat and the backing plate.

6. INSTALL FRONT SHOE RETURN SPRING

7. INSTALL STRUT WITH SPRING

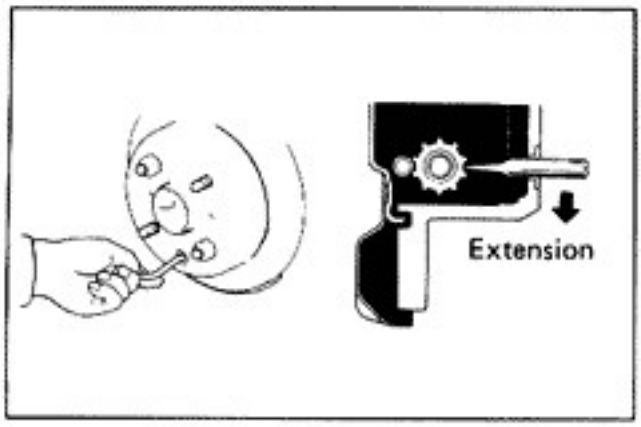


8. INSTALL REAR SHOE RETURN SPRING

9. INSTALL REAR DISC

(a) Before installing, polish the disc and shoe surfaces with sandpaper.

(b) Align the groove on the rear axle shaft flange and

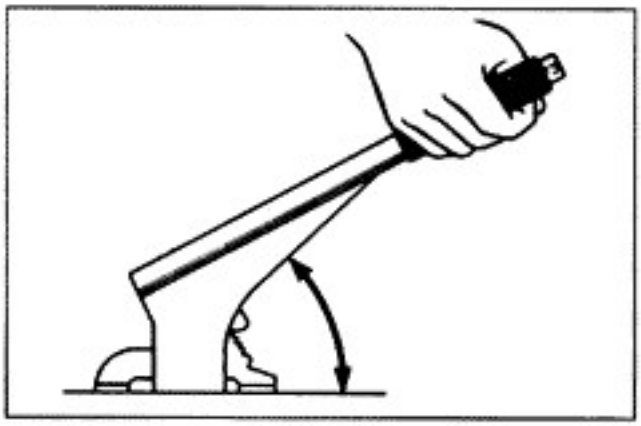


10. ADJUST PARKING BRAKE SHOE CLEARANCE

(a) Temporarily install hub nuts.

(b) Turn the adjuster and expand the shoes until rotor disc locks.

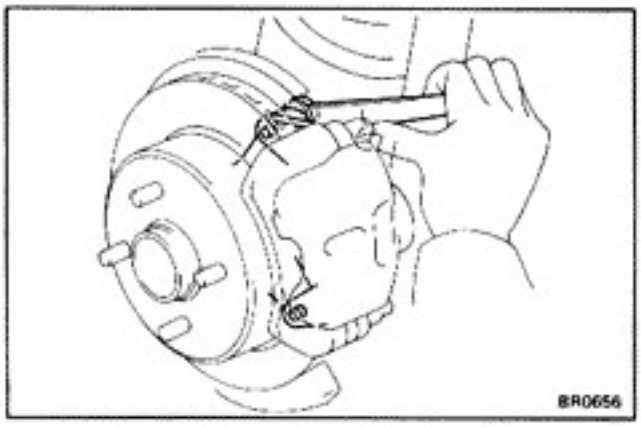
(c) Return the adjuster 8 notches.



11. INSPECT AND ADJUST PARKING BRAKE LEV TRAVEL

Check that parking brake lever travel is correct.
Pull the parking brake lever all the way up, and count notches of lever travel.

Parking brake lever travel at 20 kg (44.1 lb, 196 N):
5 – 8 cl



12. INSTALL REAR DISC BRAKE ASSEMBLY

Install the disc brake and torque two torque plate mo bolts.

Torque: 475 kg-cm (34 ft-lb, 47 N·m)

13. BED DOWN PARKING BRAKE SHOES AND DRU

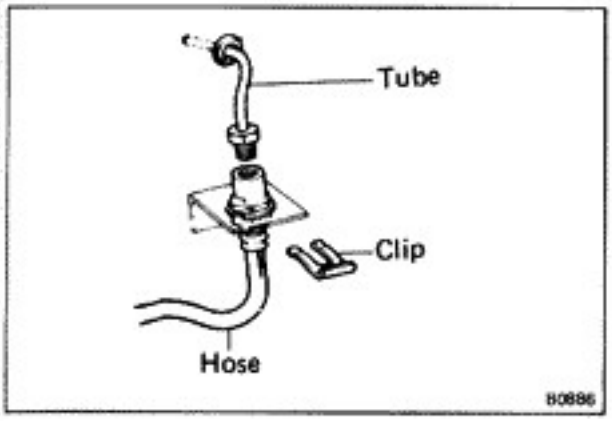
(a) Drive the vehicle at about 50 km/h (31 mph) on a safe, level and dry road.

(b) With the parking brake release button pushed in, on the lever with 9 kg (19.8 lb or 88 N) of force.

(c) Drive the vehicle for about 400 meters (1/4 mile this condition.

(d) Repeat this procedure two or three times.

14. RECHECK PARKING BRAKE LEVER TRAVEL



BRAKE HOSES AND TUBES

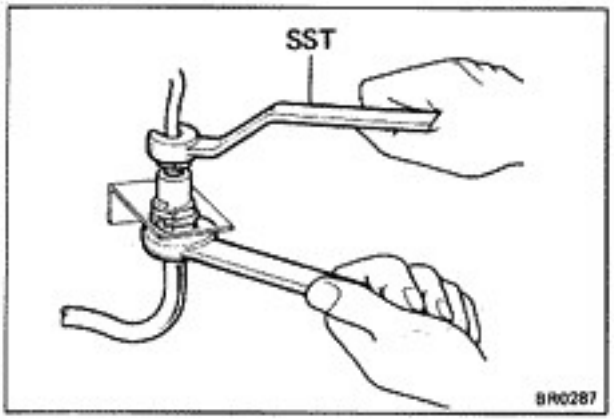
DISCONNECT AND CONNECT HOSE AND TUBE

1. DISCONNECT HOSE AND TUBE

(a) Disconnect the clip.

(b) Using a wrench to hold the hose and SST to hold the tube, disconnect the tube and hose.

SST 09751-36011



2. CONNECT HOSE AND TUBE

(a) Connect the hose and tube by hand.

(b) Using a wrench to hold the hose and SST to hold the tube, torque the connection.

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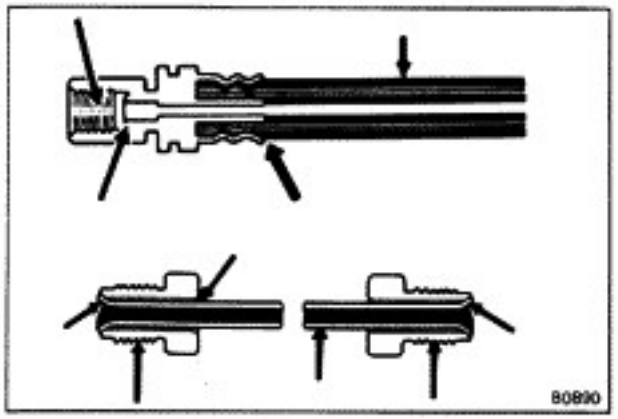
Torque: 155 kg-cm (11 ft-lb, 15 N·m)

(c) Install a new hose clip.



INSPECTION OF BRAKE HOSES AND TUBES

1. INSPECT BRAKE HOSES

(a) Inspect the hose for damage, cracks or swelling.

(b) Inspect the threads for damage.

2. INSPECT BRAKE TUBES

(a) Inspect the tube for damage, cracks, dents or corrosion.

(b) Inspect the threads for damage.