

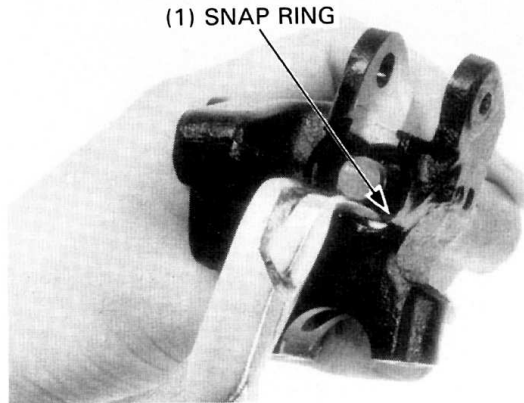
Remove the boot.

Remove the piston and spring by removing the snap ring.

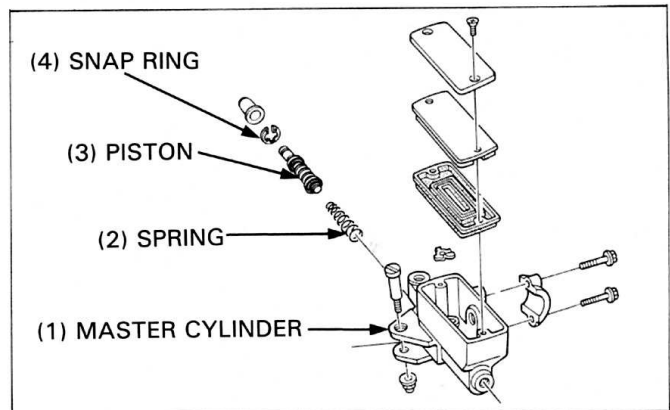
## TOOL:

Snap ring pliers

**07914—3230001**  
or equivalent commercially  
available in U. S. A.



Clean the inside of the master cylinder, reservoir, spring and piston with clean brake fluid.



## INSPECTION

Measure the master cylinder I.D.

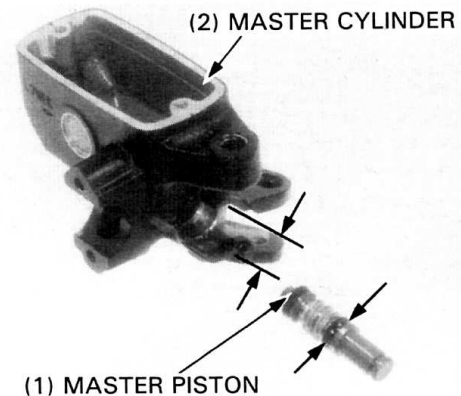
**SERVICE LIMIT: 12.76 mm (0.502 in)**

Check the master cylinder for scores, scratches or nicks.

Measure the master piston O.D. at the location shown.

**SERVICE LIMIT: 12.65 mm (0.498 in)**

Check the primary and secondary cups for damage before assembly.



## ASSEMBLY

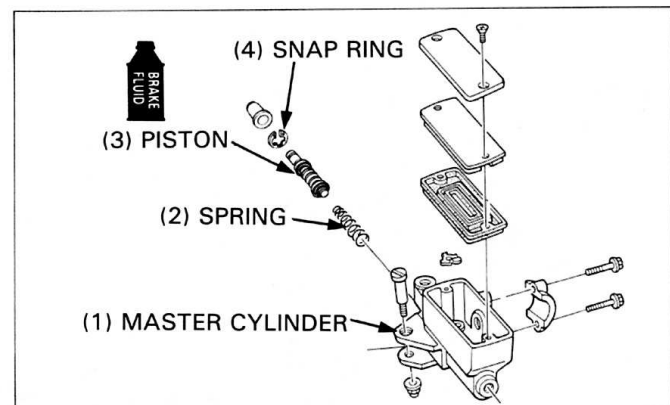
### CAUTION

- *Handle the master cylinder piston, cylinder and spring as a set.*

Coat all parts with clean brake fluid before assembly.  
Install the spring in the master cylinder with its large diameter facing inside.  
Install the piston.

### CAUTION

- *When installing the piston, do not allow the cup lips to turn inside out.*



## HYDRAULIC BRAKE

Install the snap ring using a snap ring pliers.  
Install the boot.

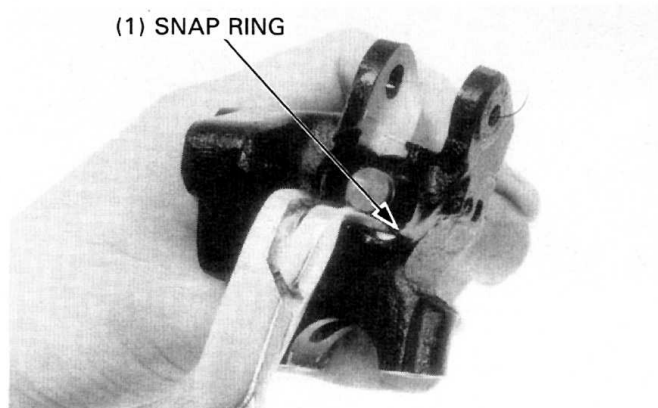
### CAUTION

- *Be certain that the snap ring is seated firmly in the groove.*

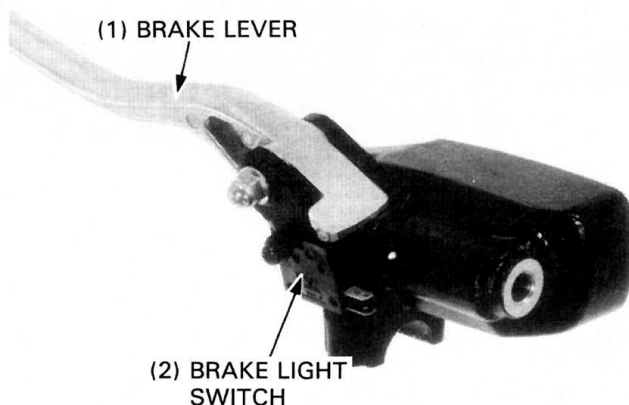
### TOOL:

Snap ring pliers

**07914-3230001**  
or equivalent commercially  
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Install the brake lever and brake light switch.



## INSTALLATION

Set the master cylinder onto the handlebar with the holder "UP" mark facing up.

Temporarily install the holder bolts. Align the slit of the master cylinder with the punch mark on the handlebar.

Tighten the upper bolt first, then the lower bolt.

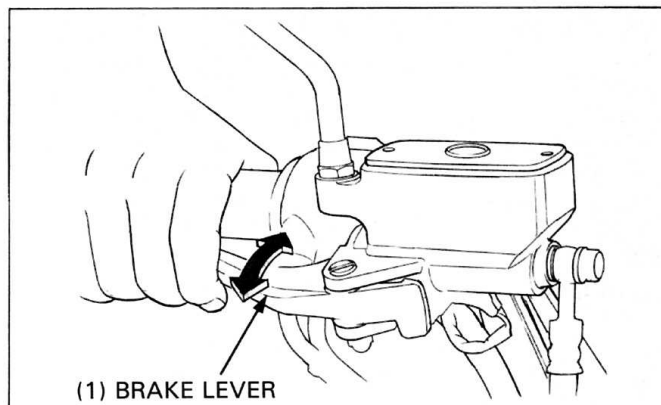
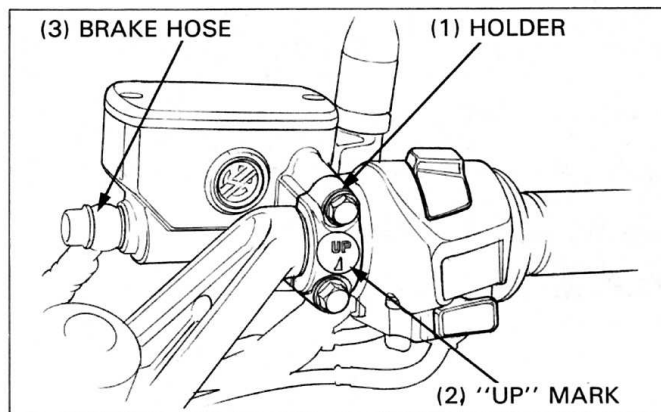
Connect the brake light switch wires to the switch terminals.  
Install the rear view mirror.

Connect the brake hose with the oil bolt and two sealing washers and tighten the oil bolt.

**TORQUE: 30 N·m (3.0 kg-m, 22 ft-lb)**

Fill the reservoir with DOT 4 brake fluid to the casting ledge and bleed the brake system (page 14-3).

Operate the brake lever to seat the caliper pistons against the pads.



## FRONT BRAKE CALIPER

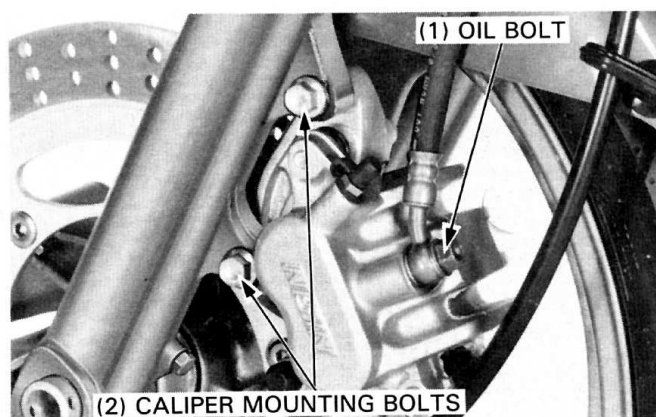
### REMOVAL

Place a clean container under the caliper and disconnect the brake hose from the caliper by removing the oil bolt and sealing washers.

### CAUTION

- *Avoid spilling brake fluid on painted surfaces.*

Remove the brake pads (page 14-5).  
Remove the caliper mounting bolts and caliper.



### DISASSEMBLY

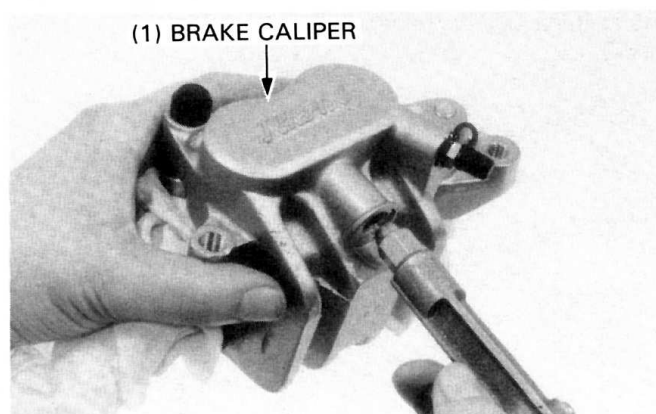
Remove the following:

- pad spring and pin bolt boot from the caliper
- pin bolt boot from the bracket

If necessary, apply compressed air to the caliper fluid inlet to get the pistons out. Place a shop rag under the caliper to cushion the pistons when they are expelled. Use the air in short spurts.

### WARNING

- *Do not use high pressure air or bring the nozzle too close to the inlet.*



Push the dust seals and piston seals in, lift them out and discard them.

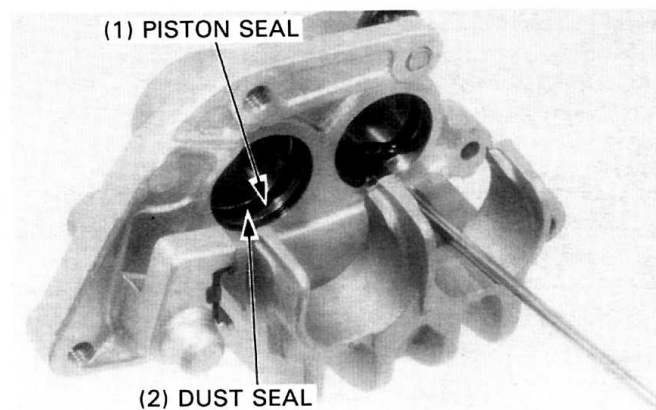
### NOTE

- The seals must be replaced whenever they are removed.

Clean the seal grooves with clean brake fluid.

### CAUTION

- *Be careful not to damage the piston sliding surfaces.*



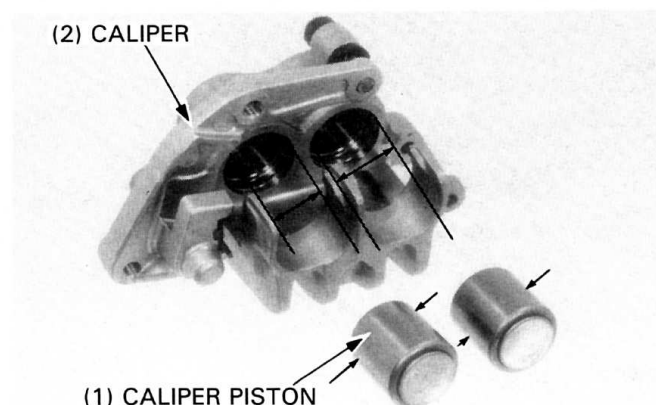
### INSPECTION

Check the pistons for scoring, scratches or other faults.  
Measure the piston O.D.

**SERVICE LIMIT: 30.14 mm (1.187 in)**

Check the caliper cylinder for scoring, scratches or other faults.  
Measure the caliper cylinder I.D.

**SERVICE LIMIT: 30.29 mm (1.193 in)**

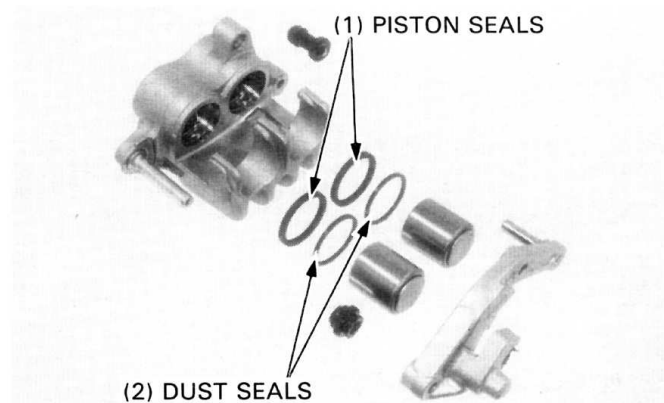


## HYDRAULIC BRAKE

### ASSEMBLY

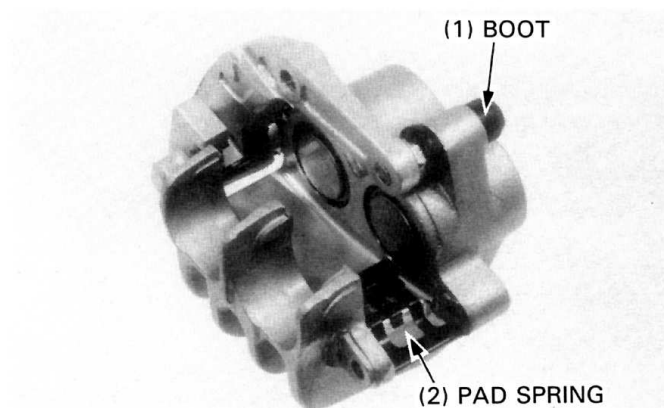
Coat new piston seals and dust seals with clean brake fluid and install them in the caliper.

Install the pistons with the dished ends toward the pads.



Install the pad spring on the caliper as shown.

Apply silicone grease to the inside of the boot, and install it.

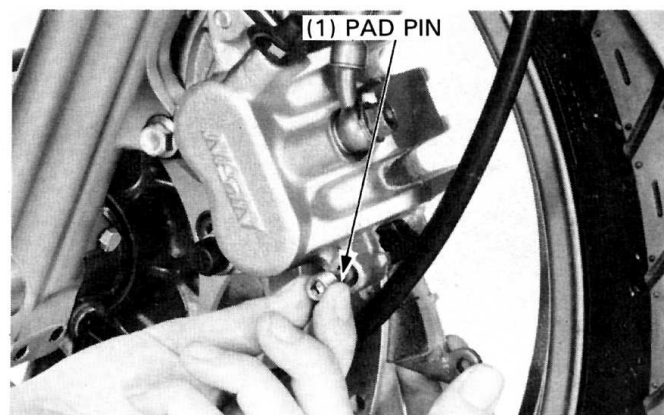


Install the pads and pad pins in the caliper.

Install the caliper assembly over the brake disc so that the disc is positioned between the pads.

### CAUTION

- *Be careful not to damage the pads.*



Install and tighten the caliper mounting bolts.

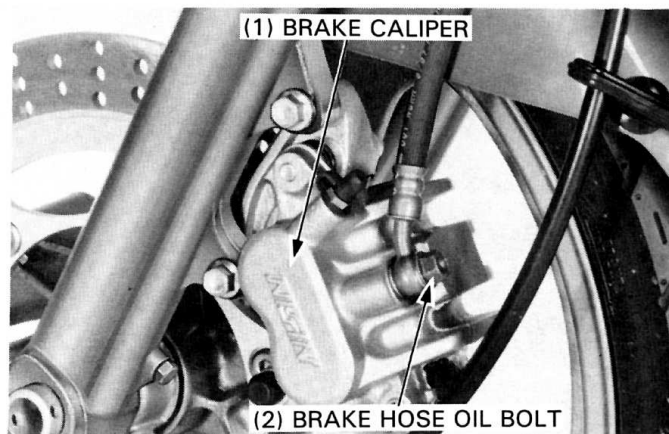
**TORQUE: 27 N·m (2.7 kg-m, 20 ft-lb)**

Tighten the pad pins and install and tighten the pad pin plug (page 14-5).

Connect the brake hose to the caliper with the oil bolt and two new sealing washers.

**TORQUE: 30 N·m (3.0 kg-m, 22 ft-lb)**

Bleed the air from the brake system (page 14-3).



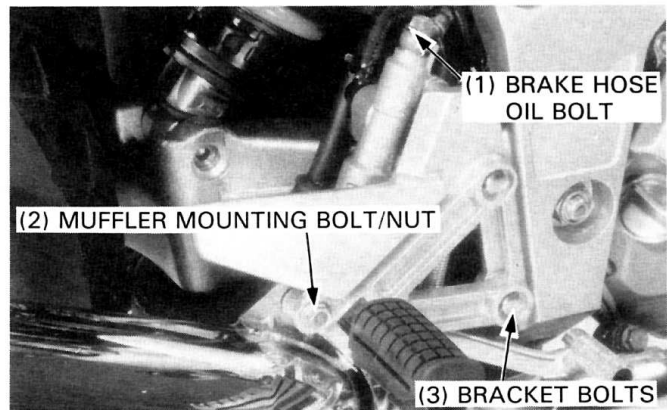
## REAR BRAKE MASTER CYLINDER

### REMOVAL

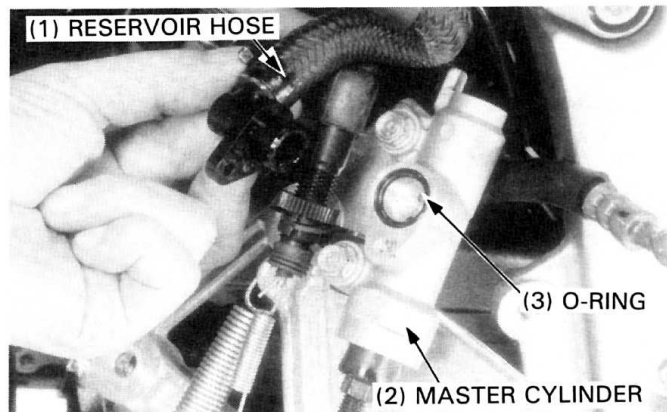
Drain the rear brake hydraulic system (page 14-3).  
Remove the brake oil bolt and disconnect the brake hose.

Remove the following:

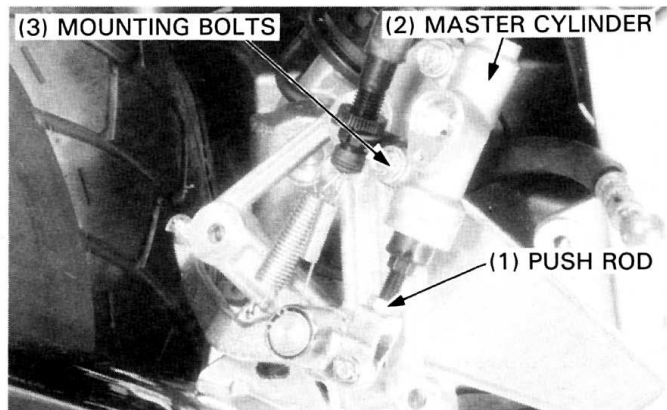
- right foot peg bracket bolts
- muffler mounting bolt and nut
- right foot peg bracket



Remove the connector screw and disconnect the reservoir hose from the master cylinder.



Remove the cotter pin and joint pin, and disconnect the brake actuating arm from the master cylinder push rod.  
Remove the rear master cylinder from the foot peg bracket.



### DISASSEMBLY

Remove the rubber boot.

Remove the snap ring and push rod from the master cylinder body.

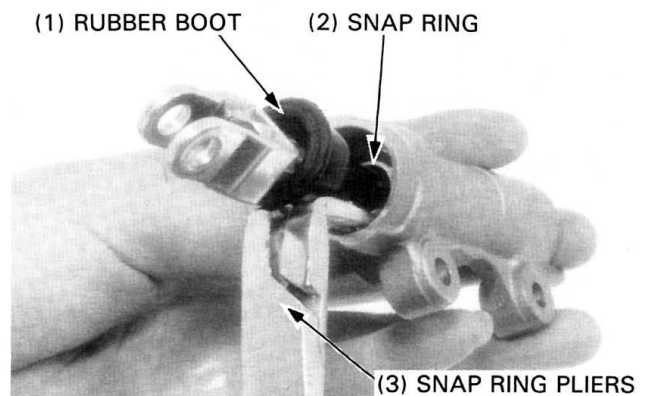
### CAUTION

- *The push rod will pop out when the snap ring is removed.*

### TOOL:

Snap ring pliers

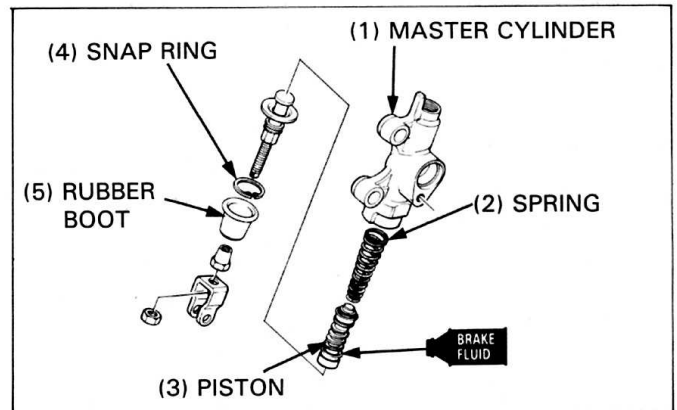
07914—3230001  
Equivalent commercially  
available in U.S.A.



## HYDRAULIC BRAKE

Remove the master piston and spring.

It may be necessary to apply a small amount of air pressure to the fluid outlet to remove the master piston and spring.



### INSPECTION

Check the inside of the master cylinder for scores, scratches or nicks.

Measure the inside diameter of the master cylinder bore.

**SERVICE LIMIT: 12.76 mm (0.502 in)**

Check the piston and piston cups for damage, wear or deterioration.

Measure the master piston O.D.

**SERVICE LIMIT: 12.65 mm (0.498 in)**

### ASSEMBLY

Clean the master cylinder with compressed air.

Dip the piston cups in clean brake fluid before assembly.

Install the spring and master piston together.

#### NOTE

- The master cylinder piston, cups and spring must be installed as a set.

#### CAUTION

- *When installing the cups, do not allow the lips to turn inside out and be certain the snap ring is seated firmly in the groove.*

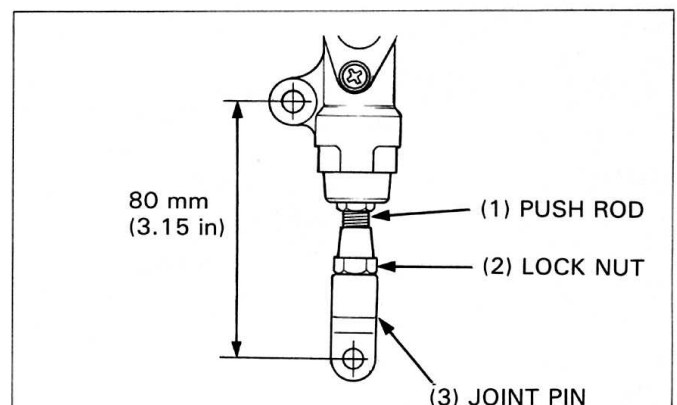
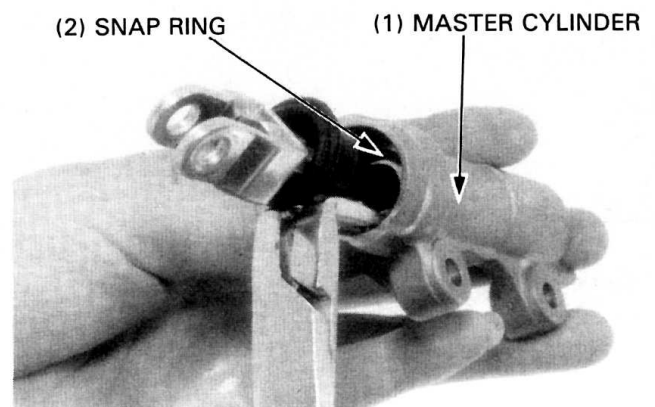
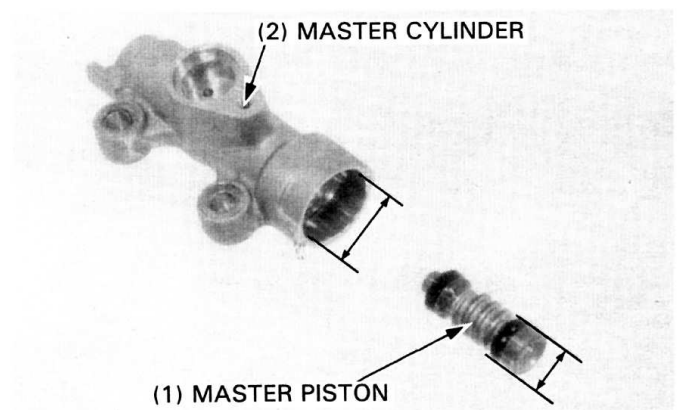
Install the push rod into the master cylinder.  
Install the washer, snap ring and rubber boot.

#### TOOL:

Snap ring pliers

07914—3230001

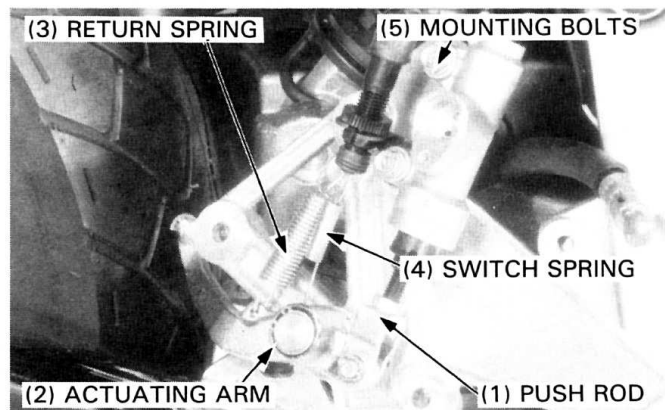
Adjust the push rod standard length so that the distance from the center of the master cylinder lower mount hole to the center of the joint pin hole is 80 mm (3.15 in).  
Tighten the lock nut.



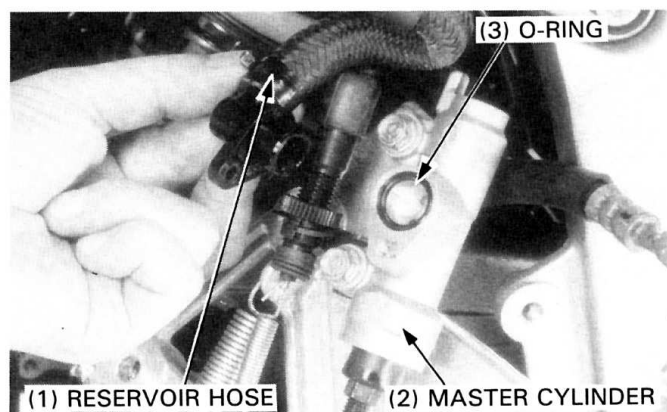


Connect the rear brake actuating arm to the master cylinder push rod with the joint pin, and secure the joint pin with the washer and new cotter pin.

Hook the rear brake pedal return spring and brake light switch spring to the actuating arm. Install the brake light switch, switch stay and rear brake master cylinder. Tighten the master cylinder mounting bolts securely.



Connect the reservoir hose to the master cylinder with the new O-ring and screw.



Install the right foot peg bracket. Tighten the mounting bolts.

**TORQUE: 22 N·m (2.2 kg-m, 16 ft-lb)**

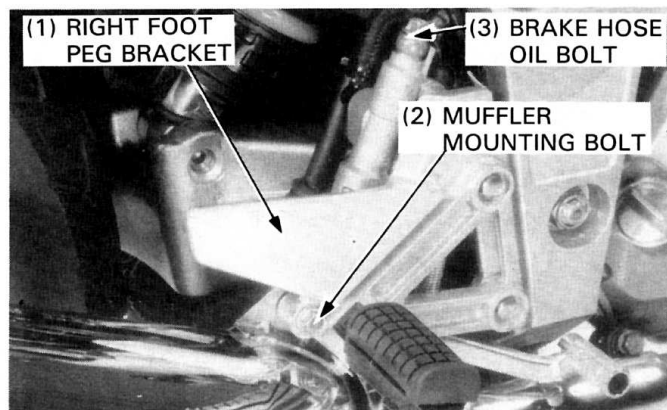
Install the muffler mounting bolt and nut.

**TORQUE: 27 N·m (2.7 kg-m, 20 ft-lb)**

Connect the rear brake hose with the oil bolt and two new sealing washers.

**TORQUE: 30 N·m (3.0 kg-m, 22 ft-lb)**

Fill and bleed the rear brake system (page 14-3).  
Check the brake light switch operation.



Operate the brake pedal to seat the caliper piston against the pads.

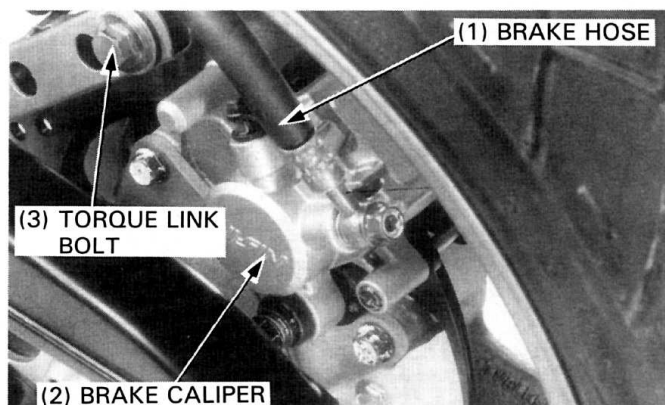
## REAR BRAKE CALIPER

### REMOVAL

Drain the brake fluid from the hydraulic system.

Disconnect the brake hose from the caliper.

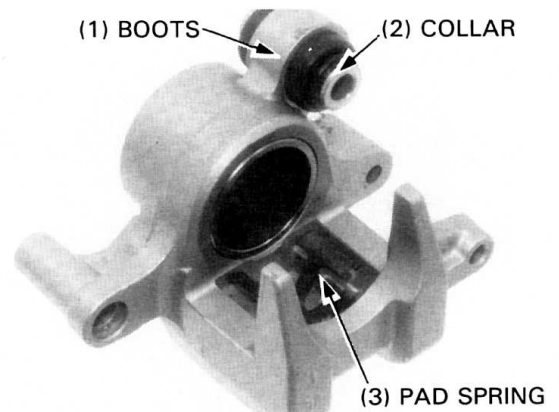
Remove the brake pads (page 14-6).  
Remove the caliper mounting bolts and torque link bolt.  
Remove the brake caliper.



## HYDRAULIC BRAKE

### DISASSEMBLY

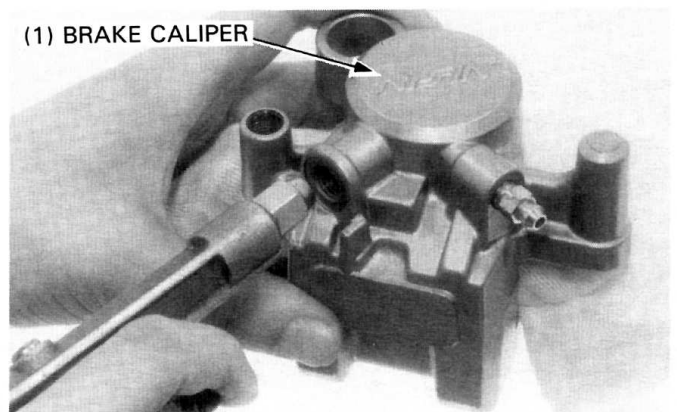
Remove the pad spring, boots and collar from the rear brake caliper.



Place a shop towel over the piston, position the caliper with the piston down and apply small squirts of air pressure to the fluid inlet to remove the piston.

#### ⚠ WARNING

- *Do not use high pressure air or bring the nozzle too close to the inlet.*

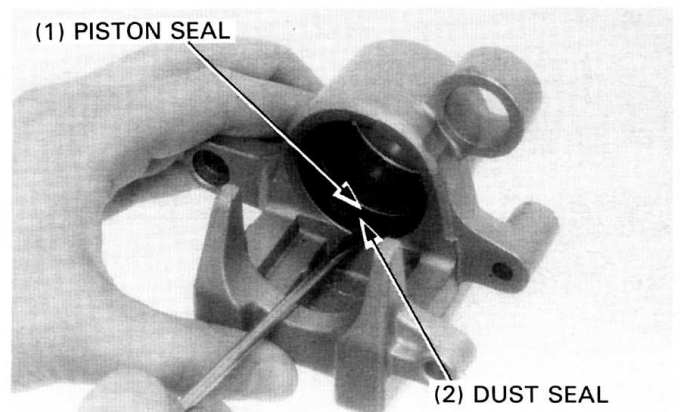


Push the dust and piston seals in and lift them out.

Wash the caliper cylinder, seal grooves and caliper piston with clean brake fluid.

#### CAUTION

- *Be careful not to damage the piston sliding surface.*



### INSPECTION

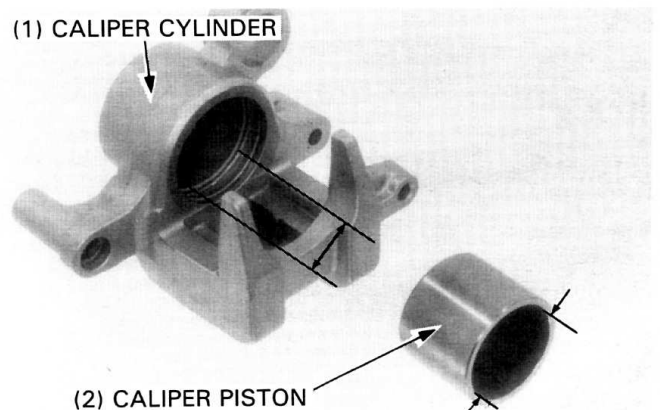
Check the caliper piston for scratches, scoring or other damage.

Measure the caliper cylinder I.D.

**SERVICE LIMIT: 38.24 mm (1.505 in)**

Measure the caliper piston O.D.

**SERVICE LIMIT: 38.11 mm (1.500 in)**





## ASSEMBLY

The piston and dust seals must be replaced whenever they are removed.

Check the boot and replace it if it is hardened or deteriorated.

Coat the piston and dust seals with clean brake fluid and install them with the small diameter facing in. Lubricate the caliper cylinder and piston with clean brake fluid and install the piston into the caliper cylinder with the piston dished end facing toward the pads.

Apply silicone grease to the collar and the insides of the boots and install them into the caliper. Make sure that the boot is seated in the collar and caliper grooves properly. Install the pad spring.

Assemble the bracket and caliper. Install the pads (page 14-6). Install the caliper onto the brake disc so the disc is positioned between the pads, being careful not to damage the pads.

Install the torque link bolt and tighten it.

**TORQUE: 35 N·m (3.5 kg-m, 25 ft-lb)**

Install the brake hose with the oil bolt and the new sealing washers. Tighten the oil bolt.

**TORQUE: 30 N·m (3.0 kg-m, 22 ft-lb)**

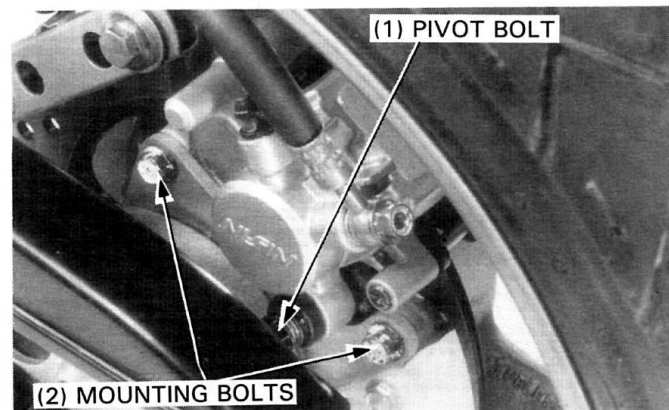
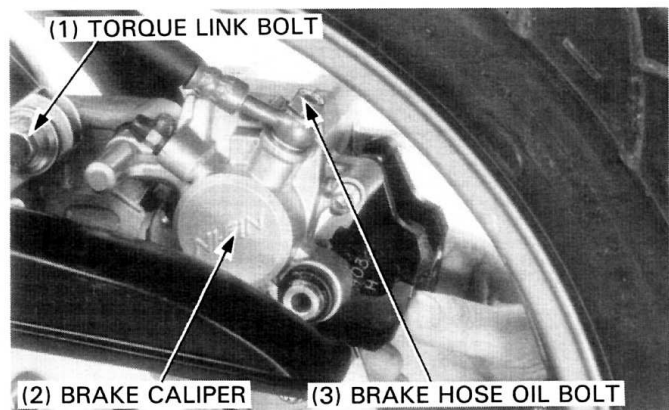
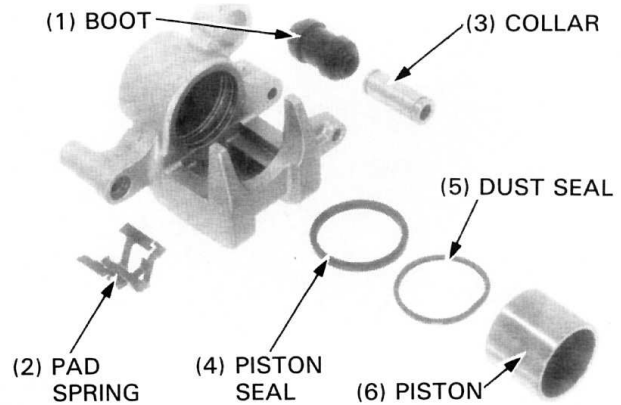
Install the caliper mounting bolts and tighten them.

**TORQUE: 27 N·m (2.7 kg-m, 20 ft-lb)**

Install the caliper pivot bolt and tighten it.

**TORQUE: 22 N·m (2.2 kg-m, 16 ft-lb)**

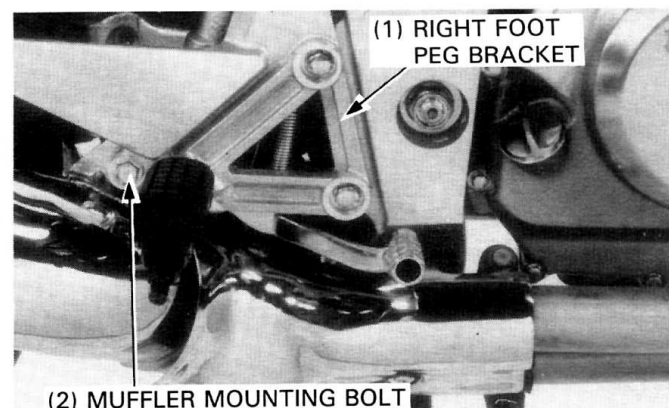
Operate the brake pedal to seat the caliper piston against the pads.



## BRAKE PEDAL

### REMOVAL/INSTALLATION

Remove the right foot peg bracket bolts and the muffler mounting bolt and nut.



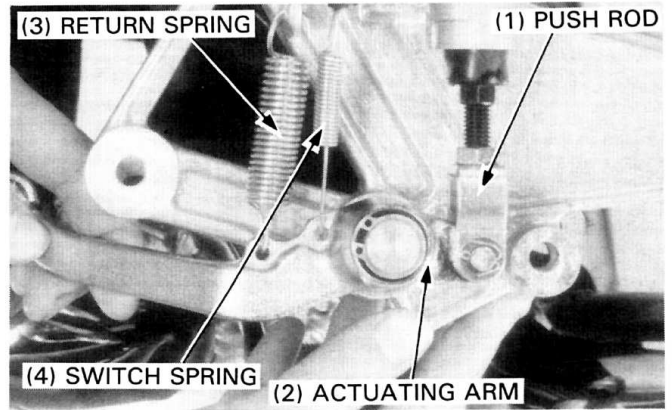
## HYDRAULIC BRAKE

Remove the cotter pin and joint pin, and disconnect the brake actuating arm from the master cylinder push rod.

Remove the following:

- brake pedal return spring
- brake light switch spring
- snap ring
- brake pedal

Apply clean grease to the brake pedal pivot and install the pedal into the bracket with the snap ring.



Installation is the reverse order of removal.

Install the right foot peg bracket. Tighten the mounting bolts.

**TORQUE: 22 N·m (2.2 kg-m, 16 ft-lb)**

Install the muffler mounting bolt and nut.

**TORQUE: 27 N·m (2.7 kg-m, 20 ft-lb)**

