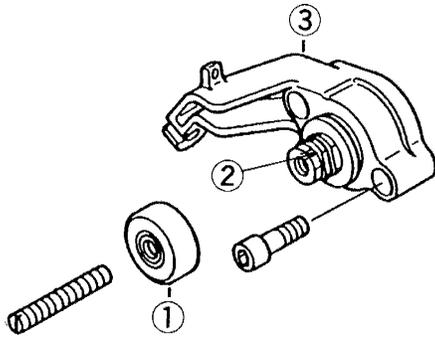
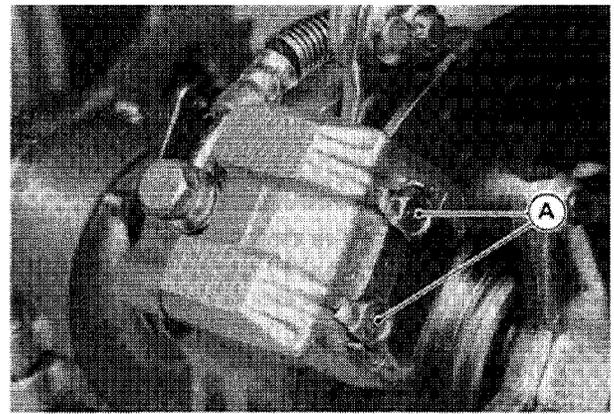


Rear Caliper Inspection



- 1. Boot
- 2. Parking Brake Shaft
- 3. Brake Cam Assembly



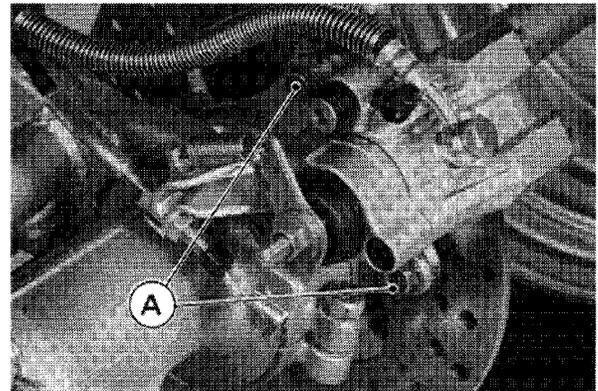
A. Pad Mounting Bolts

- Loosen the torque link nuts after removing the clips.
- Remove the caliper mounting bolts.
- Take the caliper off the disc with the brake hose, the brake cable and the torque link installed.

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Brake Pads

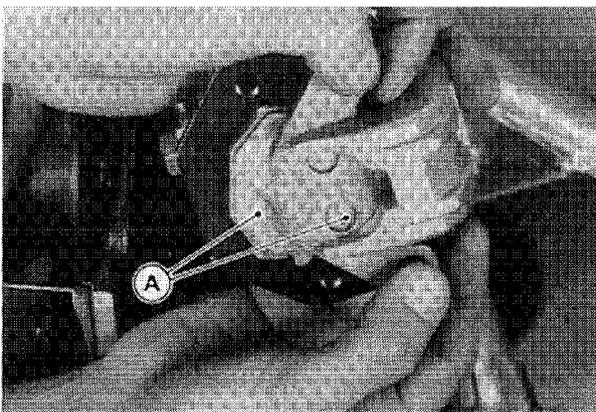
Front Brake Pad Removal

- Remove the front wheel (see Wheel Removal in Wheels/ Tires chapter).
- Lift off the caliper by taking off the mounting bolts.
- Push the caliper holder toward the piston side, and then remove the pads.



A. Caliper Mounting Bolts

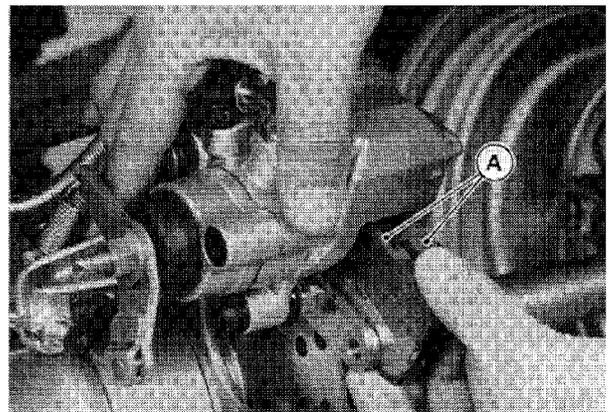
- Remove the pad mounting bolts.
- Take out the pads.



A. Pads

Rear Brake Pad Removal

- After bending the lockwasher tabs up, loosen the pad mounting bolts.

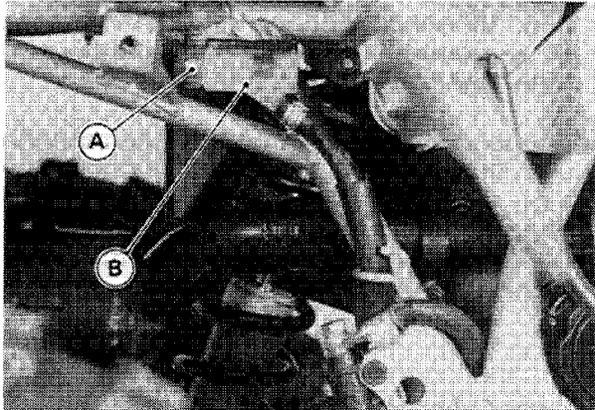


A. Pads

- Remove the clamp bolts and take off the master cylinder. Immediately wipe up any brake fluid that spills.

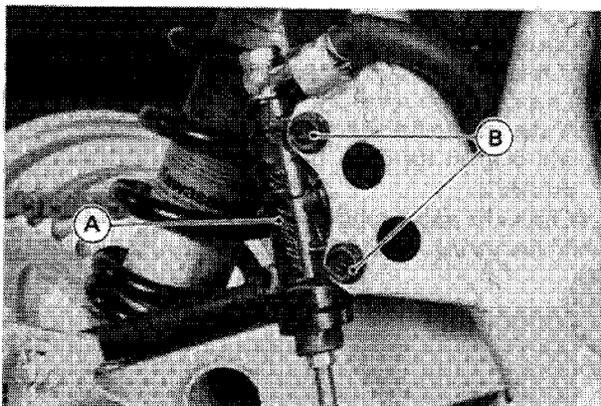
Rear Master Cylinder Removal

- Remove the reservoir tank by taking out the mounting bolt.



A. Mounting Bolt B. Reservoir Tank

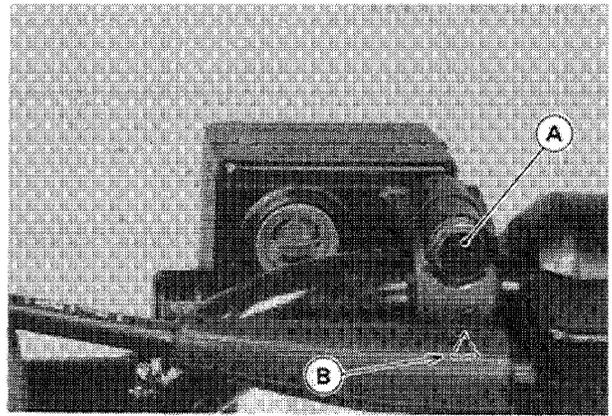
- Remove the master cylinder cap and diaphragm, and empty out the brake fluid.
- Remove the banjo bolt connected to the rear caliper.
- Separate the master cylinder from the brake pedal by removing the pedal pin joint.
- Remove the master cylinder by taking out the mounting bolts.



A. Master Cylinder B. Mounting Bolts

Front Master Cylinder Installation Notes

- The master cylinder clamp must be installed with the arrow mark upward.
- Tighten the upper clamp bolt first, and then the lower clamp bolt to the specified torque (see Exploded View). There will be a gap at the lower part of the clamp after tightening.



A. Tighten upper clamp bolt first.
B. Arrow Mark

- Use a new flat washer on each side of the brake hose fitting, and tighten the banjo bolt to the specified torque (see Exploded View).

Rear Master Cylinder Installation Notes

- Use a new flat washer on each side of the brake hose fitting, and tighten the banjo bolt to the specified torque.
- Run the brake hose according to the Cable and Harness Routing section in the General Information chapter.

Master Cylinder Inspection after Installation

- Bleed the brake line after master cylinder installation.
- Check the brake for good braking power, no brake drag, and no fluid leakage.

Front Master Cylinder Disassembly Notes

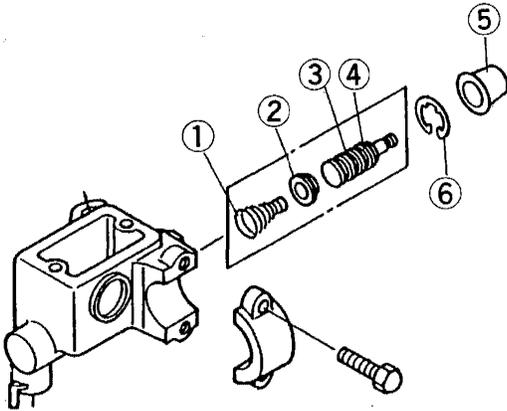
- Remove the front master cylinder from the handlebar.
- Remove the master cylinder cap and diaphragm, and empty out the brake fluid.
- Remove the locknut and pivot bolt, and remove the brake lever.
- Slide out the dust seal.
- Remove the stopper with circlip pliers.
- Remove the piston with the secondary cup, primary cup and spring.

NOTE

- Do not remove the secondary cup from the piston since removal will damage it.

11-12 BRAKES

Front Master Cylinder



- | | |
|----------------|------------------|
| 1. Spring | 4. Secondary Cup |
| 2. Primary Cup | 5. Dust Seal |
| 3. Piston | 6. Stopper |

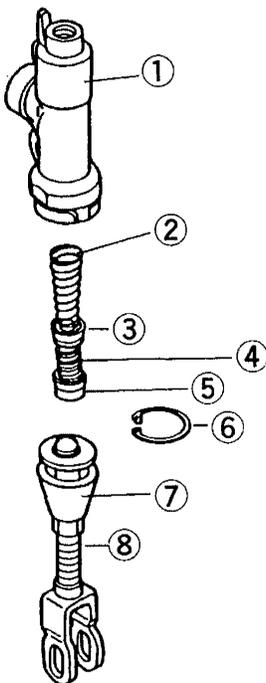
Rear Master Cylinder Disassembly Notes

- Remove the rear master cylinder.
- Slide the dust seal out.
- Remove the stopper with circlip pliers and pull out the push rod and clevis.
- Then remove the piston along with the secondary cup, spring and primary cup.

NOTE

- Do not remove the primary cup and the secondary cup from the piston since removal will damage them.

Rear Master Cylinder



- | |
|------------------------|
| 1. Master Cylinder |
| 2. Spring |
| 3. Primary Cup |
| 4. Piston |
| 5. Secondary Cup |
| 6. Stopper |
| 7. Dust Seal |
| 8. Push Rod and Clevis |

Front and Rear Master Cylinder Assembly Notes

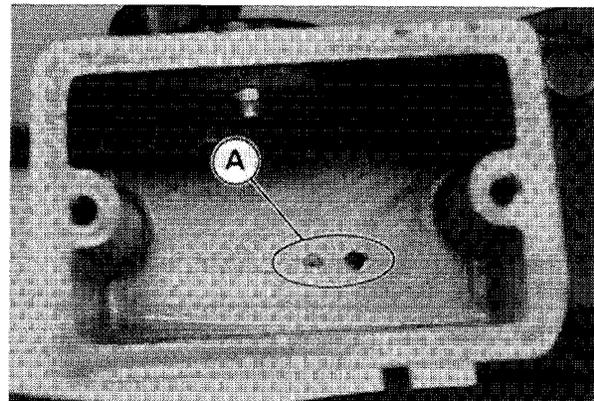
- Before assembly, clean all parts including the master cylinder with brake fluid or alcohol.

CAUTION

- Except for the disc pads and disc; use only disc brake fluid, isopropyl alcohol, or ethyl alcohol, for cleaning brake parts. Do not use any other fluid for cleaning these parts. Gasoline, engine oil, or any other petroleum distillate will cause deterioration of the rubber parts. Oil spilled on any part will be difficult to wash off completely, and will eventually deteriorate the rubber used in the disc brake.
- Take care not to scratch the piston or the inner wall of the cylinder.
- Apply brake fluid to the parts removed and to the inner wall of the cylinder.
- When assembling the master cylinder parts, follow the exploded view illustrations.

Master Cylinder Inspection (Visual Inspection)

- Disassemble the front and rear master cylinders.
- Check that there are no scratches, rust or pitting on the inside of the master cylinder and on the outside of the piston.
- ★ If the master cylinder or piston shows any damage, replace them.
- Inspect the primary cups and secondary cups.
- ★ If a cup is worn, damaged, softened (rotted), or swollen, replace the piston assembly.
- ★ If fluid leakage is noted, the piston assembly should be replaced.
- Check the dust covers for damage.
- ★ If they are damaged, replace them.
- Check that the relief and supply ports are not plugged.
- ★ If the small relief port becomes plugged, the brake pads will drag on the disc. Blow the ports clean with compressed air.
- Check the piston return springs for any damage.
- ★ If the spring is damaged, replace the piston assembly.

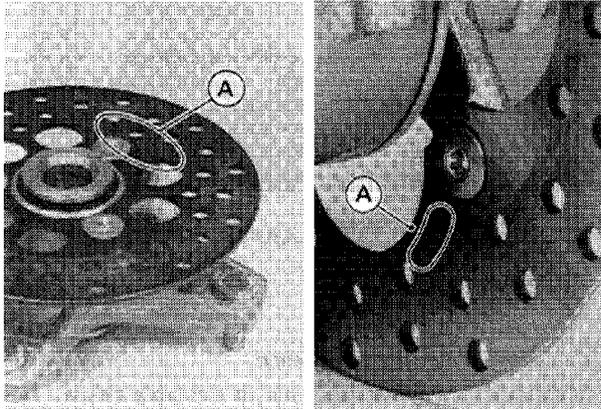


A. Relief and Supply Ports

Discs

Disc Installation Notes

- Tighten the disc mounting Allen bolts to the specified torque. The disc must be installed with the chamfered hole side facing toward the front hub or the disc holder. The marked side should face outward.

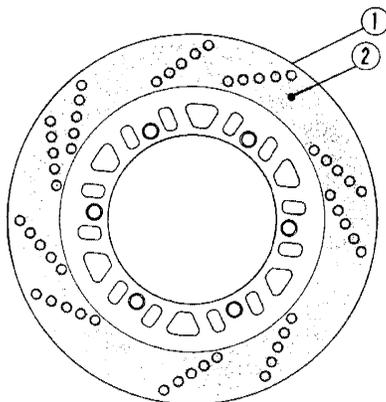


A. Marked Side

- After installing the discs, check the disc runout. Completely clean off any grease that has gotten on either side of the disc with a high flash-point solvent. Do not use one which will leave an oily residue.

Disc Wear

- Measure the thickness of each disc at the point where it has worn the most.
- ★Replace the disc if it has worn past the service limit.



1. Brake Disc
2. Measuring Area

Front Disc Thickness

Standard	3.3 – 3.7 mm
Service Limit	3 mm

Rear Disc Thickness

Standard	3.8 – 4.2 mm
Service Limit	3.5 mm

Disc Cleaning

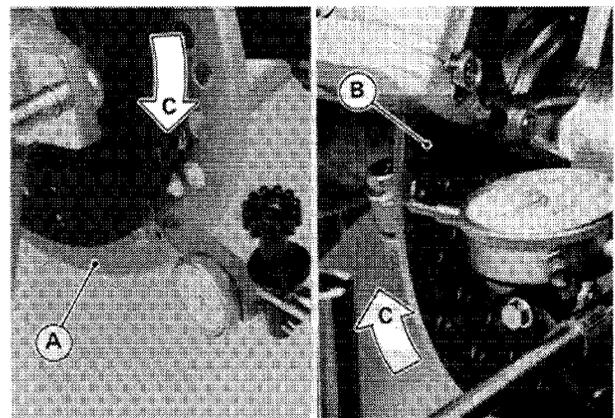
Poor braking can be caused by oil on a disc. Oil on a disc must be cleaned off with an oilless cleaning fluid such as trichloroethylene or acetone.

WARNING

- These cleaning fluids are usually highly flammable and harmful if breathed for prolonged periods. Be sure to heed the fluid manufacturer's warnings.

Disc Warp Inspection

- Jack up the vehicle so that the wheels are off the ground.
- For front disc inspection, remove the front wheels, and turn the handlebar fully to one side.
- Set up a dial gauge against the disc as shown, and measure disc runout.
- ★If runout exceeds the service limit, replace the disc.



A. Front Brake Disc B. Rear Brake Disc
C. Turn the disc by hand.

Disc Runout (front and rear)

Standard	Under 0.2 mm
Service Limit	0.3 mm

Brake Fluid

Brake Fluid Level Inspection

In accordance with the Periodic Maintenance Chart, inspect the brake fluid level in the front and rear brake fluid reservoirs.

- Check the brake fluid level in the reservoirs.