



# INSTRUCTIONS

-J02145

REV 2-22-02

Kit Numbers 44417-02

## XL SILVER BRAKE CALIPERS KIT

### General

Kit Number 44417-02 is designed to fit 2000 and later XL models except 1200 Sport models.

#### NOTE

*This kit requires special tools and procedures. We recommend this kit be installed by a factory-trained technician at an authorized Harley-Davidson Dealership.*

See Service Parts Page Illustration for kit contents.

#### **WARNING**

The rider's safety depends upon the correct installation of this kit. If the procedure is not within your capabilities or you do not have the correct tools, have your Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury.

#### **WARNING**

Do not attempt to install this kit without an appropriate Service Manual which provides detailed instructions for the steps summarized below: illustrations, safety information, and critical specifications. Failure to follow Service Manual procedures could result in death or serious injury.

#### NOTE

*See applicable Service Manual for detailed disassembly procedures summarized below. A Service Manual for your motorcycle is available from your Harley-Davidson Dealer.*

### FRONT CALIPER

#### Removal

#### NOTE

*When performing the following Step, save banjo bolt for re-installation.*

#### NOTE

*When performing the following step, place a suitable container under caliper to catch brake fluid that may be released when detaching brake line.*

1. See Figure 1. Remove the banjo bolt and both steel/rubber washers to detach front brake line from caliper. Discard washers but save banjo bolt.
2. Remove the upper (long) and lower (short) mounting bolts securing caliper to fork leg. Lift caliper upward to remove from brake disc. Discard caliper and bleeder valve cover but save mounting bolts.

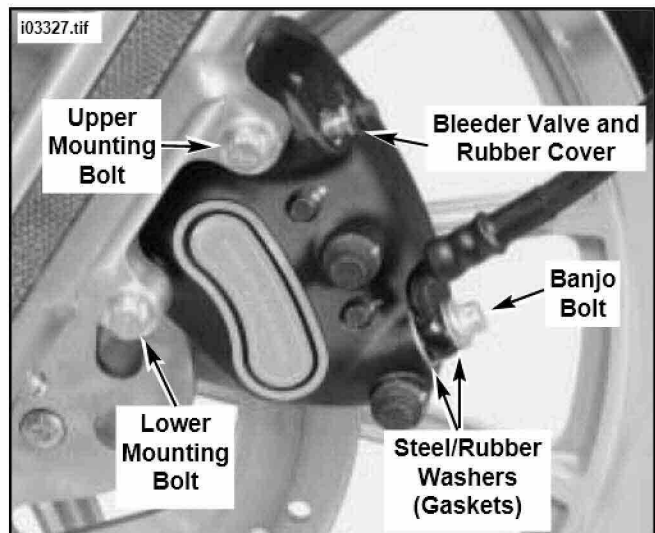


Figure 1. Remove Existing Caliper

### Installation

1. Obtain front silver caliper assembly from kit. Remove rubber bleeder valve cover from brake line port (as shipped) and save for later installation to bleeder valve. Place caliper over brake disc with bleeder valve facing upwards.
2. Loosely install upper (long) mounting bolt to top hole in fork leg.
3. Install lower (short) mounting bolt into bottom hole of fork leg. Tighten bolt to 28-38 ft-lbs (38.0-51.5 Nm).
4. Final tighten upper (long) mounting bolt to 28-38 ft-lbs (38.0-51.5 Nm).

#### **CAUTION**

To avoid leakage, verify that the washers, banjo bolt, brake line and caliper bore are completely clean.

5. Lubricate 2 new steel/rubber washers (gaskets) (P/N 41731-88A) with Harley-Davidson D.O.T. 5 SILICONE BRAKE FLUID. Connect the brake line to caliper using new steel/rubber washers (gaskets) and banjo bolt. Tighten banjo bolt to 17-22 ft-lbs (23.0-29.8 Nm).
6. Perform the steps under Bleeding Brakes.

## REAR CALIPER Removal

1. If present, remove left saddlebag.

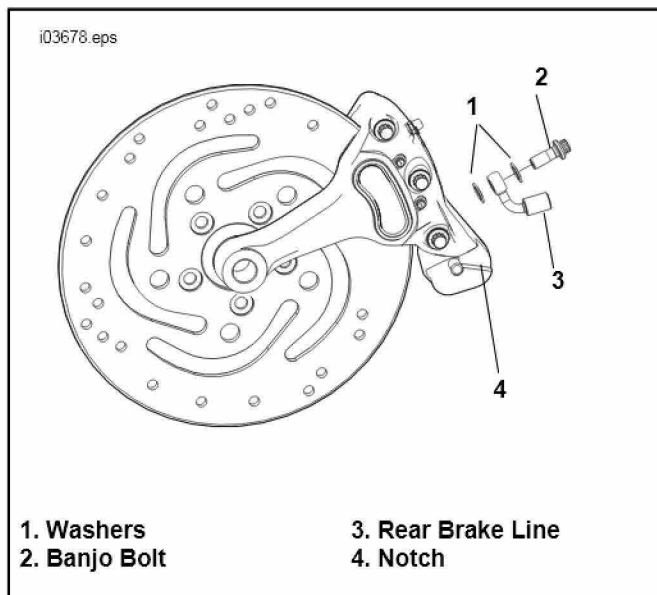


Figure 2. Rear Caliper Mount

### CAUTION

Damaged banjo bolt surfaces will leak when reassembled. Prevent damage to seating surfaces by carefully removing brake line components.

2. See Figure 2. Remove the banjo bolt (2) and both steel/rubber washers (1) to detach rear brake line (3) from caliper. Discard washers.
3. Pull axle from rear wheel.
4. Lift caliper away from axle and rear fork. Notch (4) in caliper mount must clear tab on rear fork.

## Installation

1. See Figure 2. Place caliper on rear axle with notch (4) inside rear fork tab. Verify that the rubber bumper is contacting the underside of the caliper mount for the full length of the bumper. Install rear axle and check drive belt tension per applicable Service Manual instructions.

### CAUTION

To avoid leakage, verify that the washers, banjo bolt, brake line and caliper bore are completely clean.

2. See Figure 2. Lubricate two **new** steel/rubber washers (gaskets) (P/N 41731-88A) with Harley-Davidson D.O.T. 5 SILICONE BRAKE FLUID. Connect the rear brake line (3) to caliper using two **new** washers (2) and banjo bolt. (1) Tighten banjo bolt to 17-22 ft-lbs (23.0-29.8 Nm).
3. Perform the steps under Bleeding Brakes.

## Bleeding Brakes

### CAUTION

Direct contact of D.O.T. 5 brake fluid with eyes may cause irritation, swelling and redness. Swallowing large amounts of D.O.T. 5 brake fluid may cause digestive discomfort. If swallowed, obtain medical attention. Use in well-ventilated area. **KEEP OUT OF THE REACH OF CHILDREN.**

### NOTE

Hydraulic brake fluid bladder-type pressure equipment can be used to fill brake master cylinder through the bleeder valve. Remove master cylinder reservoir cover so that system cannot pressurize. Do not use pressure bleeding equipment when the hydraulic system is sealed with master cylinder reservoir cover and gasket in place.

1. Install end of a length of clear plastic tubing over caliper bleeder valve (Refer to Figure 1 for bleeder valve location). Place the other end in a clean container. Stand motorcycle upright.
2. Remove cover from front brake master cylinder. Fill master cylinder with D.O.T. 5 SILICONE BRAKE FLUID. Verify that fluid level is 1/8 inch (3.2 mm) below top of reservoir with master cylinder in a level position. Depress and hold brake lever to build up hydraulic pressure.

### WARNING

Whenever a wheel is installed, **BEFORE** moving motorcycle, you must pump brake fluid until the pistons push the pads against the brake disc. If you don't pump fluid pressure up again, the brake will not be available to stop the motorcycle which could result in death or serious injury.

3. Open bleeder valve slowly about 1/2 turn counterclockwise; brake fluid will flow from bleeder valve and through tubing. When brake lever has moved its full range of travel, close bleeder valve (clockwise). Allow brake lever to return slowly to its released position.
4. Repeat Steps 2 and 3 until all air bubbles are purged.
5. Tighten bleeder valve to 80-100 in-lbs (9.0-11.3 Nm). Install rubber bleeder valve cover. saved in Step 1 of FRONT CALIPER - Installation instructions.
6. Verify master cylinder fluid level as described in Step 2. Add fresh, clean fluid, if necessary.

### WARNING

Make sure relief port is not plugged or covered. A plugged or covered relief port can cause brake drag or lockup, which may result in loss of vehicle control which could result in death or serious injury.

7. Verify proper operation of the master cylinder relief port. Actuate the brake lever with the cover removed. A slight spurt of fluid will break the surface if all internal components are working properly.

8. Install gasket and cover on master cylinder. Tighten master cylinder reservoir cover screws to 10-15 **in-lbs** (1.1-1.7 Nm).
9. Repeat steps 1-8 for Bleeding of Rear Brake Assembly.

**⚠ WARNING**

After completing repairs or bleeding the system, always test motorcycle brakes at low speed. If brakes are not operating properly or braking efficiency is poor, testing at high speeds could result in death or serious injury.

10. Test brake system as follows:

- a. Turn ignition switch ON. Pump front brake hand lever and rear brake pedal to verify operation of the brake lamp.
- b. Test ride the motorcycle. If the brakes feel spongy, bleed the brake system again.

**NOTE**

Avoid making hard stops for the first 100 miles (160 km). This allows the new pads to become conditioned to the brake discs.



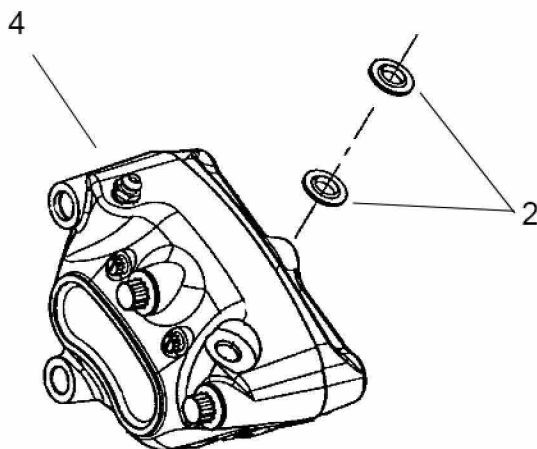
# Service Parts

Part No. 44417-02

Date 2/02

Silver Brake Caliper(s) Kit

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Item	Description	Part Number
1	Caliper, rear, silver (Not shown)	40965-02A
2	Gasket, brakeline (4)	41731-01
3	Bolt, banjo (2) (Not shown)	41747-82A
4	Caliper, front, silver	44452-01A