



**PHOTO 1**

## Installing Rear Calipers On FXR, FXWG, FXD & FL Models

### Removing The Stock Brakes

The basic steps are the same to install a PM rear brake caliper kit on any of the late model Harley Davidson “swingarm” style motorcycles; all require the removal of the rear wheel. Using a suitable lift, raise the motorcycle high enough off the ground to allow you to remove the rear wheel assembly.

#### **Warning**

Center the motorcycle on the lift so that it will not fall while you are working on it.



**PHOTO 2**

Photo 1: Loosen brake line at caliper. Remove the rear brake caliper assembly by unscrewing the 2 caliper mounting bolts that go through the caliper into the caliper mounting bracket. Lift the caliper up and off the mounting bracket and brake rotor, fold the caliper back out of your working area. Don't remove the brake line from the caliper yet; you will do this just before you are ready to hook it up to the new caliper. The brake pads are held into the caliper mounting bracket by 2 spring clips; slide the brake pads out of the mounting bracket and remove the retaining springs. Loosen the axle adjuster nuts and remove the rear wheel assembly.



**PHOTO 3**

Remove the stock caliper mounting bracket. Clean the inside of the swingarm of any dirt or grease.

Photo 2: Slide the PM caliper mounting bracket into position on the swingarm. The brackets for the FX, FXR and FL models fit over the swingarm tube and the bracket for the FXD Dyna fits onto a lug that is welded onto the inside surface of the swingarm. Make sure that the bracket slides all the way onto the swingarm; remove any nicks or burs that keep the bracket from seating on the swingarm.

Photo 3: Raise the wheel up into position with the drive belt/chain on the rear sprocket; slide the axle through the swingarm, the axle spacer (from the caliper kit, if a spacer other than the stock one is needed), the caliper mount, the wheel and any axle spacers that were used on the drive side of the wheel.



**PHOTO 4**

Photo 4: Adjust the wheel, per the service manual so that it is centered in the swingarm and so that the drive belt/chain is correctly tensioned. Mount the PM caliper onto the bracket using the 3/8-16 X 1” button head cap screws; tighten them only hand tight. Check for any clearance problems by rotating the wheel. Center the caliper per instructions on page 3 and install the brake line and bleed the system per instructions on page 10.

# Completing The Brake Installation

## Attaching The Brake Line

First tape handle bar master lever 1/2 way closed. This will prevent fluid from free flowing from hose. Remove the end of the brake line from the stock caliper; you will need a 3/8" 12 point socket wrench or box end wrench to remove the banjo bolt from the stock caliper. Working rapidly, so that an excessive amount of brake fluid does not run out of the end of the brake hose, attach the end of the brake line to the new PM caliper using the PM supplied seal washers, one washer goes on each side of the banjo fitting; see Photo 1.

\_\_\_\_\_ **Note** \_\_\_\_\_

*Position the banjo fitting so that the brake hose does not rub on the front fender or other part of the motorcycle.*

Tighten banjo bolt to 10 ft.lbs. of torque.

## Bleeding The Brake System

You will find it is easier to bleed the brake system if you have a helper. First, fill the master cylinder with manufactures suggested brake fluid and put the cover back on the master cylinder. Attach a short length of rubber hose to the bleeder screw on the brake caliper, see Photo 2; put the other end of the hose into a coffee can or other suitable catch can. Have your helper pull in on the front brake lever or push down on the rear brake pedal 5 times, see Photo 3. At the end of the 5th stroke, have your helper hold the brake lever in or pedal down. While the helper holds the lever/pedal, open the bleeder fitting on the caliper, you will need a 1/4" end wrench for this. Air and brake fluid should come out of the end of the hose that is connected to the bleeder fitting. After the air and brake fluid have stopped coming out of the hose, close the bleeder fitting; your helper can now release the brake lever/pedal. This action will force the air that is trapped in the brake system out the bleeder screw, because the brake system can contain more air than you can expel in one bleeding; you will need to repeat this procedure more than once. Check the fluid level in the master cylinder after each bleeding, don't let the master cylinder run dry as this will push air back into the brake system which will require the bleeding procedure to be started over again.

\_\_\_\_\_ **Note** \_\_\_\_\_

*Do not over tighten the bleeder screw.*

**Warning**

Failing to bleed all the air out of the brake system will impede the performance of the brakes.



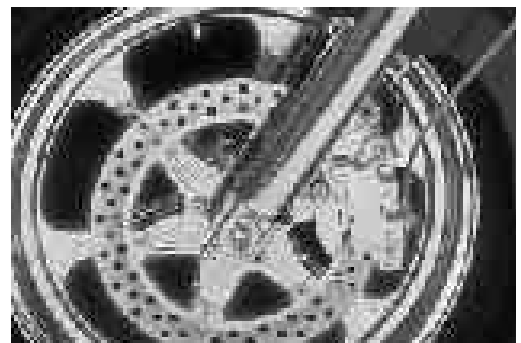
**PHOTO 1**



**PHOTO 2**



**PHOTO 3**



**COMPLETED FRONT BRAKE CALIPER INSTALLATION**