



HARLEY-DAVIDSON

**SERVICE BULLETIN**

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**REAR DISC BRAKE SERVICE INFORMATION / FL, FLH, FX, FXE**

This bulletin will provide you with information on recent production changes, and our latest recommendations for servicing and maintaining the rear disc brake system.

**1. REAR CALIPER BRACKET BUSHINGS:**

Rear caliper mounting bracket bushings were changed to stainless steel in September, 1975. Stainless steel bushing, Part No.'s 45821-75 and 45822-75 replace Teflon lined bushing, Part No.'s 45821-72 and 45822-72 in the rear caliper bracket only. The new bushings provide more accurate caliper alignment leading to longer pad life. The new bushings also are more wear resistant to promote quiet operation. For the above reasons, stainless steel bushings are recommended for replacement of worn or loose fitting Teflon lined bushings in the rear caliper bracket.

**IMPORTANT:** Whenever calipers are removed from the bracket, the two mounting pins should be lubricated with "Never-Seez".

**2. BRAKE DISC:**

A change to a stainless steel rear brake disc was incorporated during March, 1976 on FL and FX models for improved appearance and longer brake pad life. The new stainless steel disc, Part No. 41806-72B replaces chrome plated steel disc, Part No. 41806-72.

**3. CALIPER PISTON RETRACTOR SPRING:**

A revised caliper with a retractor spring piston was incorporated in production starting April 26, 1976 with motorcycle VIN's 1A, 2A, 2C or 9D 46589 H6. The retractor spring was added to provide positive piston retraction, increased pad-to-disc clearance and to eliminate the possibility of brake drag. The new spring washer is now included in parts order caliper piston assembly, Part No. 44129-73, outer caliper assembly, Part No. 44105-72, and caliper assembly complete, Part No. 44114-73. With the use of the retractor spring, a slightly lower brake pedal position will result. The pedal position with brake applied, although lower, does not reduce effectiveness when the proper brake adjusting and bleeding procedures are followed. See the FL/FX-1200 Service Manual page 2-39B for rear brake adjusting procedure, and page 2-41A for hydraulic system bleeding procedure.

**CAUTION:** The use of the retractor spring equipped caliper with the earlier organic composition (gray color) brake pads or with pads of any other manufacturer, could decrease brake effectiveness in the rain, when linings are wet. For this reason only current production brake pad set, Part No. 44135-74, having metallic (copper color) pads and retractor-type caliper piston should be used for replacement.

**4. SADDLEBAG SUPPORT BRACKET:**

Motorcycles equipped with saddlebags should be checked for right saddlebag carrier support interference with brake caliper which would prevent caliper from floating freely on the mounting pins. To provide necessary clearance, install additional spacers, Part No. 90908-58 on bolts between saddlebag carrier and fender support, to provide at least 1/4" clearance between caliper and carrier when suspension is fully compressed.

## 5. MAINTENANCE RECOMMENDATIONS:

For satisfactory brake operation and brake component life, caliper must be free-floating and correctly aligned, with sufficient clearance between the pads and disc with brake released.

Clearance can be checked by raising the motorcycle rear end and checking for free rotation of the rear wheel. Brake pads should be parallel to disc and not drag with brake released.

To correct misalignment:

- A. See that axle is positioned at same location in axle slots on both sides of motorcycle after adjusting chain. Also, it is important that axle nut is tightened to 55 ft-lbs. This will locate brake disc properly. See Service Bulletin 516C for wheel alignment information and Owner's Manual for rear chain adjusting procedure.
- B. Be sure that retractor spring-type caliper piston has been installed per item 3 above.
- C. See that caliper mounting bracket is not bent out of original shape causing the caliper to be out of parallel with brake disc. Install new caliper mounting bracket, Part No. 44166-73 if necessary.

**IMPORTANT!** Whenever caliper is removed from the vehicle and replaced; either for inspection, maintenance, or replacement of brake pads; the piston must be retracted by pressing it to bottom of caliper bore prior to replacing the caliper on the vehicle.

## 6. OPERATING RECOMMENDATIONS:

For maximum brake effectiveness, the application of both front and rear brakes should be balanced with the rear foot brake being applied slightly before the front hand brake. The front brake, being more effective because of motorcycle weight transfer, should be applied as required to provide more stopping power, but always in conjunction with the rear brake.

Caution should be exercised not to apply either brake so much as to lock the wheel and cause it to skid...especially in turns and under slippery road conditions. Riders should be cautioned against continuous use of the brakes which may result in overheating, excessive wear and reduced brake effectiveness. Especially avoid "riding" the rear brake foot pedal, which is usually unintentional, but a dragging brake also can cause overheating and reduced brake effectiveness.

Contaminated brake fluid can cause brakes to malfunction; therefore, avoid pressure washing or submersion of master cylinder cap vent hole in water. Hydraulic system should be completely purged using new heavy-duty (D.O.T. 3 or higher) brake fluid at yearly intervals, or any time water contamination is suspected.