

## REAR BRAKE CALIPER / 1980 FLT MOTORCYCLES

The rear brake caliper casting on certain 1980 FLT motorcycles could be porous and could allow brake fluid to seep from the caliper assembly. If this happens, the rear brake will gradually lose fluid and pressure. This problem, if undetected, ultimately could lead to total loss of the rear brake.

As noted in Service Letter No. ML-143, we have decided to declare this a safety defect and we are recalling all potentially affected vehicles in compliance with the National Traffic and Motor Vehicle Safety Act. As soon as possible, the rear brake on all 1980 FLT motorcycles below VIN 5G 01832 J0 must be pressure tested and, when necessary, the special Code 046 Caliper Kit, Part No. 93322, must be installed on each FLT failing the pressure test. Instruction for pressure testing and, if necessary, installing the new rear brake caliper are listed at the end of this Bulletin.

**SPECIAL EXCEPTION**

***There are 488 vehicles within the above VIN range that York has already tested and, when necessary, remedied. Therefore, those vehicles are excluded from this recall. A VIN list of these 488 vehicles appears at the end this Bulletin for your convenience, although the registered owners of these vehicles will not receive an owner's letter.***

You must order your requirements of 93322 Kits immediately, using the enclosed special blue Warranty Code 046 Parts and Accessory order form. To guide you in determining your requirements, please bear in mind that we estimate that approximately 3% of the vehicles are actually affected.

The 93322 Kits will be shipped to your Dealership at no charge, transportation prepaid through November 14, 1980. After that date, any Kits ordered or any Kits previously shipped but not used will be charged to your account as a normal parts order item and you will receive parts and labor credit only after the properly completed Code 046 Dealer Service Card is returned.

All registered owners of record are being notified by mail to contact you and arrange to have this service performed at no charge to them. (See enclosed letter.) Each registered owner letter will include a Dealer Service Card 046, which must be completed, dated, and signed by both the customer and the Dealer.

We are including a list of registered owners and a list of unregistered vehicles delivered to your Dealership which are involved in this Campaign. It is your responsibility

to perform the required service on all potentially affected vehicles, including those which may not show up on your lists. We are enclosing sufficient blank Dealer Service Cards for those vehicles. If necessary, additional cards are available through the Service Department.

**IMPORTANT**

**Because only registered owners, as shown on the enclosed list, will receive notification from us, we request that YOU contact any owners of vehicles still listed as UNREGISTERED, warn them of the safety recall, and make arrangements for them to come in for service. We also request you provide us with their names, addresses and VINS as soon as possible to enable us to mail them an owner's letter as required by the National Traffic and Motor Vehicle Safety Act, as amended.**

After servicing each motorcycle, be sure to completely fill out the special Dealer Service Card provided. Fill in your Dealer Account Number, the Service Code (in this case 046), the Vehicle Identification Number (VIN), and your Dealership name and address along with the owner information if it is blank.

The boxes must be marked in **either** of two ways.

- A. If the caliper was tested and proved acceptable, mark the letter box with "I" and the quantity box with "0."
- B. If the caliper was tested, found unsatisfactory and therefore replaced, mark the Letter box with "C" and the quantity box with "1" which signifies one Rear Caliper Kit was installed.

The properly completed card must be signed and dated by both the customer and you. If the caliper was replaced, protect the card with plastic to prevent brake fluid contamination and package the protected card in the same box with the caliper. A return address P-label is enclosed with the parts furnished to you. Please put this label on the outside of the box containing the replaced parts and the Dealer Cards you are returning to us.

Upon receipt of a properly completed Code 046 Card and, when necessary, the replaced caliper, your account will be credited .3 hours for each vehicle tested and .8 hours for each vehicle serviced. This credit will cover the costs of labor, brake fluid and paper processing.

## TEST PROCEDURE

1. Remove right saddlebag, battery side cover, battery and saddlebag guard. Clean rear brake caliper.
2. Remove rear brake pedal (rubber covered plate only - not the whole lever).
3. Install test bracket to rear brake lever with welded hex facing outward (see Figure 1). Use both 1/2" bolts, but only one bolt gets a nut. Tighten securely.

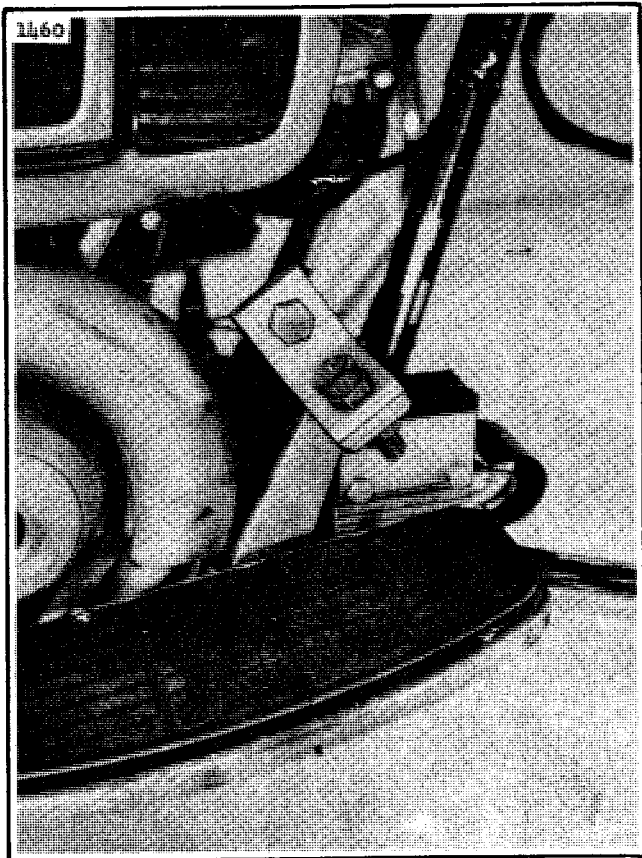


Figure 1. Proper Tool Mounting

4. Assemble a 15" to 20" long\* 1/2" drive torque wrench that reads a maximum of 100 ft-lb to a 12" extension and a 3/4" 12-point socket.

## NOTE

- \* Torque wrench length is measured from the center of the 1/2" square drive to the center of the grip. If your torque wrench is not between 15" and 20" in length, call Harley-Davidson Service Dept. for instructions.
5. Fit torque wrench assembly to the welded hex on test bracket with the wrench handle in line with the brake lever arm pivot point (see Figure 2).

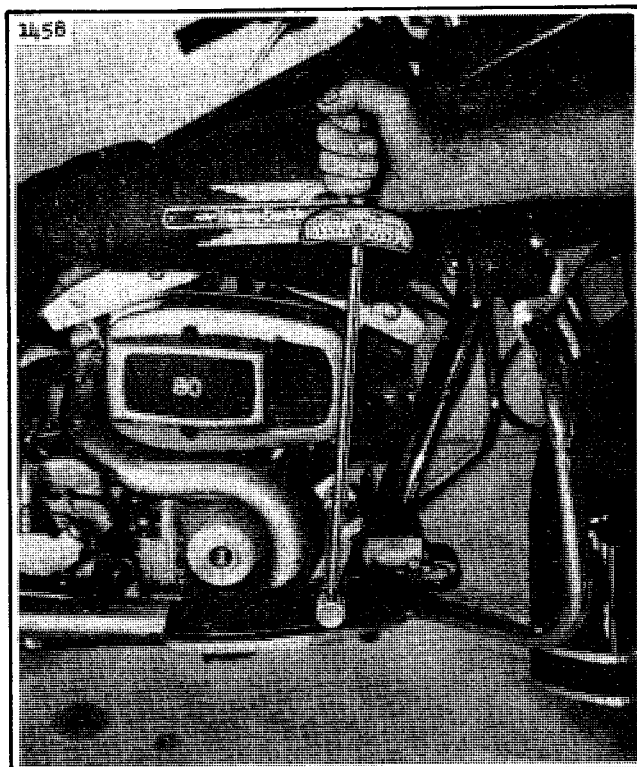


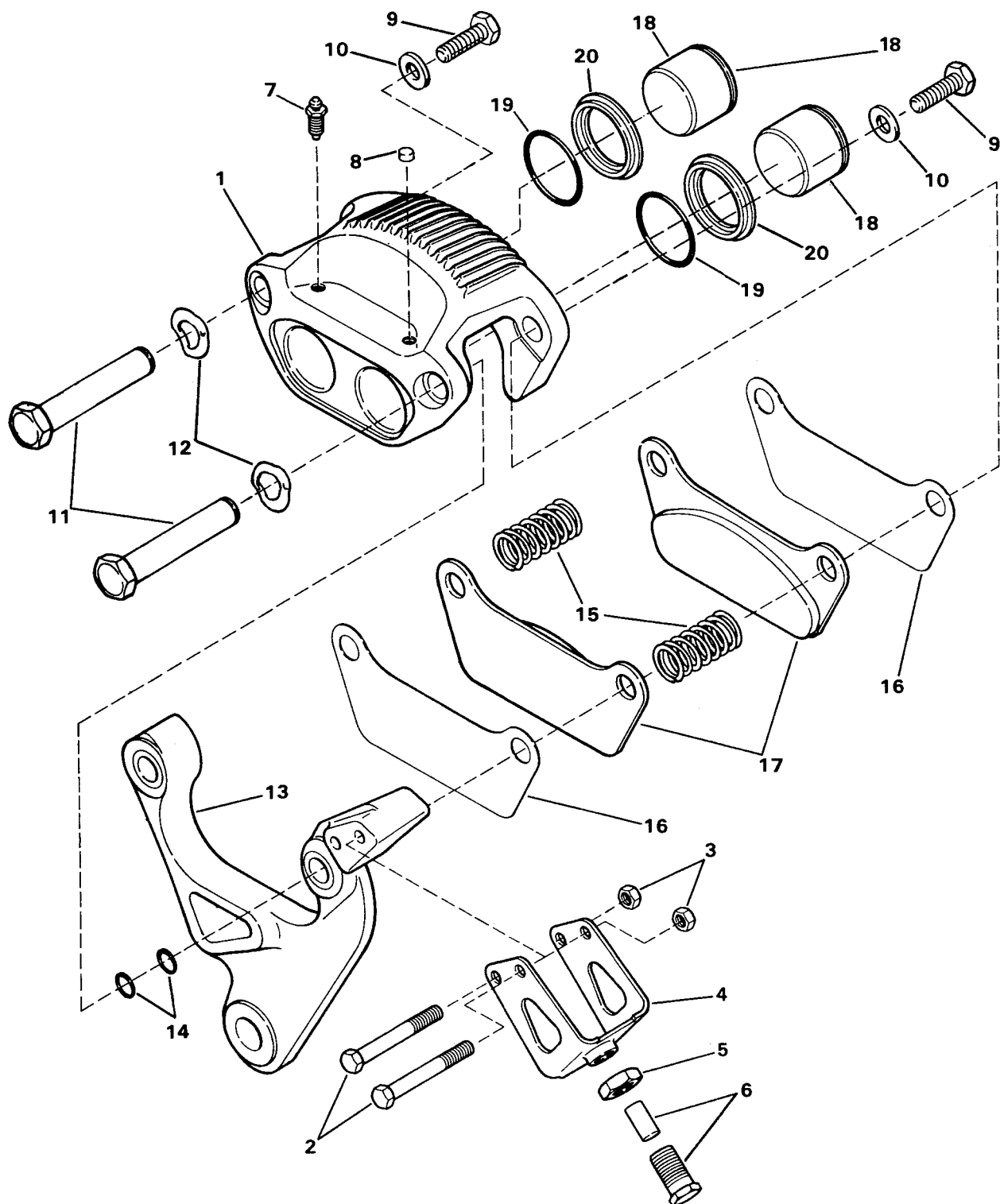
Figure 2. Proper Torque Wrench Position

6. Apply a clockwise torque of 85 ft-lbs to the wrench. This will create a pressure of 1500 to 1700 PSI in the brake system.
7. Have an observer mark the highway bar with a magic marker at the point at which the torque wrench handle settles when the 85 ft-lb is first applied.
8. Hold the 85 ft-lb reading for 2 minutes while the observer checks rear caliper for brake fluid seepage. **Use safety glasses.** Before releasing torque, check to see if torque wrench has changed position as compared to magic marker on highway bar. If the relationship between the wrench and mark has changed, again check for brake fluid seepage. **Use safety glasses.**

## WARNING

**DOT 5 brake fluid causes eye irritation. Avoid eye contact. In case of eye contact, flush eyes with plenty of water, and obtain medical attention. Keep brake fluid out of reach of children.**

9. If wrench does not move down and no seepage is evident, then remove the test bracket and replace the brake pedal using new locknut, Part No. 7825 and washer, Part No. 6486W.
10. If seepage is evident, proceed to Replacement Instructions for Brake Caliper Kit 93322.



- |                      |                       |                   |
|----------------------|-----------------------|-------------------|
| 1. Brake caliper     | 8. Brake hose seat    | 15. Spring (2)    |
| 2. Mounting bolt (2) | 9. Pin bolts (2)      | 16. Plate (2)     |
| 3. Mounting nut (2)  | 10. Pin washer (2)    | 17. Brake pad (2) |
| 4. Brake anchor      | 11. Pin (2)           | 18. Piston (2)    |
| 5. Locknut           | 12. Spring washer (2) | 19. Seal (2)      |
| 6. Bolt with spacer  | 13. Mounting bracket  | 20. Dust boot (2) |
| 7. Bleeder fitting   | 14. Seal (4)          |                   |

**Figure 3. Rear Caliper – Exploded View**

## WARNING

**Because brake performance is critical to motorcycle safety, brake system servicing requires special tools, correct replacement parts and proper procedures. We strongly recommend that the following procedures be performed only by a qualified Harley-Davidson mechanic.**

1. Block up the vehicle to raise the rear wheel.
2. Remove the mufflers. Disconnect the brake line from caliper. Loose mounting bracket locknut (5) and back off bolt (6). (See Figure 3.)
3. Disconnect the two mounting bolts (2) and nuts (3) and remove the brake anchor (4).
4. Remove the axle nut, lockwasher and washer and tap the axle out of the swing arm just enough so the caliper assembly can be removed from the wheel. Tap the axle back in to support the wheel assembly.
5. Remove the bleeder fitting (7) and drain brake fluid.

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6. Remove the two pin bolts (9) and washers (10) and pull the two pins (11) from the caliper (1).
7. Remove the bracket (13), springs (15), plates (16) and brake pads (17).

8. Put aside all but bracket to return with a properly completed Dealer Service Card for warranty credit.
9. Install brake caliper from Kit. Using old mounting bracket, install new brake pads (17), plates (16), springs (15) and bracket into the caliper (1) in the order shown in Figure 3.
10. Coat mounting pins with DOT 5 brake fluid before inserting in caliper. Install spring washers (12) on pins (11) and insert pins into caliper. Secure the pins with pin washers (10) and bolts (9). Torque bolts to 12 to 15 ft-lbs dry.
11. Install the bleeder fitting (7). Torque bleeder fitting to 32 to 40 in-lbs dry.
12. Tap the axle out just enough to install the caliper on the disc, then tap it back in through the support bracket. Install the axle washer, lockwasher and axle nut. Finger tighten only.
13. Install the brake anchor assembly (4), nuts (3), and mounting bolts (2). Tighten mounting bracket bolt (6) until all freeplay is gone and rubber spacer is slightly compressed. Tighten locknut (5) to 20 ft-lbs torque. Tighten the bolts (2) to 25 ft-lbs torque. Then tighten axle nut to 50 ft-lbs torque.
14. Connect the brake line to the caliper.
15. Bleed the rear brake. See BLEEDING THE HYDRAULIC BRAKE SYSTEM in your 1980 FLT Service Manual, Part No. 99483-80.
16. Install the mufflers, saddlebag guard, battery, side cover and saddlebag. Reinstall brake pedal.

**After the brake system is serviced, it should be tested on dry, clean pavement at slow speeds before putting the motorcycle in regular service.**

[illegible]

## VEHICLE V.I.N.S THAT HAVE ALREADY BEEN TESTED

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	5G01395J0			

## NOTE:

THIS IS A LIST OF VEHICLES THAT HAVE ALREADY BEEN TESTED, AND IF NECESSARY, REPAIRED AT YORK. THESE VEHICLES ARE NOT INCLUDED IN THE RECALL.

## VEHICLE V.I.N.S THAT HAVE ALREADY BEEN TESTED

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