



INSTRUCTIONS

-J00778

REV. 4-1-92

Kit Number 44090-92

DUAL DISC FRONT BRAKE KIT

General

This kit is designed for installation on those of the following models which have original equipment 39mm front fork tubes and 19-in. cast-aluminum front wheels:

- 1988 and later XLH Sportster model family.
- 1988 and later FXR model family.
- 1991 FXDB Sturgis.

This kit can also be installed on those of the above XLH and FXR models which have original equipment 39mm front fork tubes and 19-in. laced front wheels only after one of the following procedures is performed:

- The original single-flange hub of the 19-in. laced front wheel is replaced with a new double-flange hub (H-D Part No. 43600-78 - purchased separately), which will accept the second brake disc.

-OR-

- The original 19-in. laced front wheel assembly, which has a single-flange hub, is replaced with a new 19-in. laced front wheel assembly (H-D Part No. 43321-79 - purchased separately), which has a double-flange hub designed to accept the second brake disc.

This kit contains the following components:

| QTY | DESCRIPTION |
|-----|---|
| 1 | Screw, hex socket head 3/8 - 16 x 2 in. |
| 2 | Cable strap, double loop |
| 5 | Screw, pan head 5/16 - 18 x 7/8 in. |
| 1 | Screw, hex socket head 1/4 - 20 x 1 in. |
| 1 | Washer 3/8 in. ID |
| 6 | Washer, banjo fitting sealing |
| 2 | Bolt, banjo fitting |
| 1 | Caliper assembly, right front brake |
| 1 | Disc, front brake (rotor) |
| 1 | Cylinder assembly, front brake master (incl. lever) |
| 1 | Screw, hex socket compress M8 - 1.25 x 27 mm |
| 1 | Slider assembly, front fork right |
| 1 | Fork tube seal |
| 1 | Dust seal |
| 1 | Retaining ring |

This kit does not include the front brake line required for a dual disc system; the brake line must be purchased separately. If your motorcycle is equipped with buckhorn (pull-back) handlebars, order H-D Part No. 45111-89. If your motorcycle is equipped with low-rise (flat) handlebars, order H-D Part No. 45140-87.

WARNING

The rider's safety depends on the correct installation of this kit. Follow the procedures in this Instruction Sheet and in the appropriate Service Manual(s). If the procedures are not within your capabilities, or if you do not have the correct tools, have your Harley-Davidson dealer perform the installation.

Removal and Disassembly - Front Brake

1. Block motorcycle underneath frame so that front wheel is raised off the ground slightly.
2. Remove original front brake caliper from left side of front fork according to appropriate Service Manual procedures. Let caliper hang loose on brake line. Save all components and fasteners for reinstallation.

CAUTION

Do not operate the front brake lever with the front caliper removed because the piston may be forced from the caliper. Reseating the piston requires disassembly of the caliper.

3. Remove and discard any cable straps which secure speedometer cable to front brake line.
4. Remove socket head screw and washer which secure a clamp (retains front brake line) and a wire form (retains speedometer cable) to underside of front fork lower bracket (lower triple clamp). Discard screw and clamp; save washer and wire form for reinstallation.
5. Remove screw, lockwasher, and clamp which secure front brake line to right rear side of front fork upper bracket (upper triple clamp). Save all components for reinstallation.
6. Remove right mirror and, if applicable, right turn signal lamp assembly from original front brake master cylinder casting. Save all components and fasteners for reinstallation.
7. Remove original front brake master cylinder from right handlebar by removing two retaining screws and master cylinder clamp. Save screws and clamp for reinstallation.
8. Lift assembly of master cylinder, brake line, and caliper away from motorcycle. Disconnect front brake line from front brake caliper at banjo fitting. Discard original master cylinder, brake line, and banjo fitting sealing washers; save original caliper and banjo bolt for reinstallation.

Removal and Disassembly - Front Wheel

1. Remove front wheel according to appropriate Service Manual procedures.
2. Remove and discard five T-40 TORX® screws which secure hub plate to right side of wheel hub. Remove and discard hub plate.

Removal and Disassembly - Front Fork Right Slider / Tube

1. Remove front fork right slider / tube assembly from front fork upper and lower brackets according to appropriate Service Manual procedures.
2. Drain oil from front fork right slider / tube assembly according to appropriate Service Manual procedures.

NOTE

Note the orientation of parts disassembled in Step 3. They will need to be reassembled in the same order in a later procedure.

3. Disassemble slider from front fork right slider / tube assembly according to appropriate Service Manual procedures. Discard slider, fork seal, dust seal and retaining ring; save all other components and fasteners for reinstallation.

Assembly and Installation - Front Fork Right Slider / Tube

1. Assemble new right slider using new fork seal, dust seal and retaining ring from kit to original front fork right tube assembly. Use new M8 - 1.25 x 27 mm hex socket compression screw from kit. Follow procedures listed in appropriate Service Manual.
2. Install front fork right slider / tube assembly onto front fork lower and upper brackets according to appropriate Service Manual procedures.
3. Fill front fork right slider / tube assembly with the proper "wet fork" amount of Harley-Davidson Type E Fork Oil. Follow procedures listed in appropriate Service Manual.

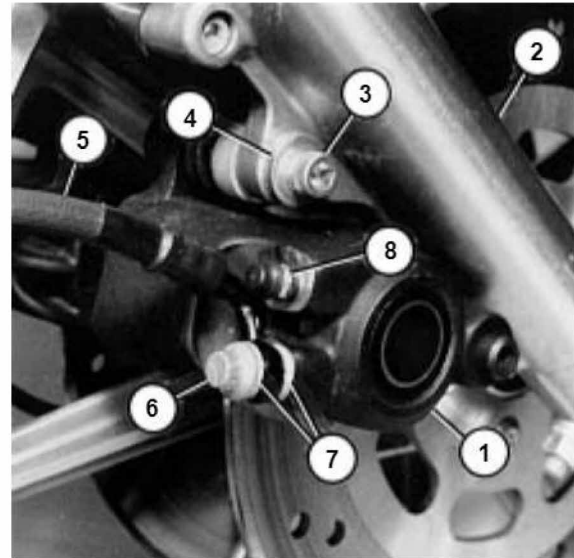
Assembly and Installation - Front Wheel

1. Verify that new front brake disc from kit is clean. With countersunk side of brake disc mounting holes facing away from wheel, assemble brake disc to right side of front wheel hub using five new 5/16 - 18 x 7/8 in. pan head screws from kit. Use a T-40 TORX® drive to tighten each screw to 16-24 ft-lbs.
2. Install front wheel assembly onto front fork according to appropriate Service Manual procedures.

Assembly and Installation - Front Brake System

1. Install original front brake caliper onto front fork left slider according to appropriate Service Manual procedures.
2. See Figure 1. Install new front brake caliper (1) from kit onto front fork right slider (2) in same manner as left caliper installation. Use new 3/8 - 16 x 2 in. hex socket head screw (3) and 3/8 in. ID washer (4) from kit in caliper upper mounting position. Tighten upper and lower mounting fasteners of caliper to 25-30 ft-lbs.

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1. Right front brake caliper
2. Front fork right slider
3. Socket head screw 3/8 -16 x 2 in.
4. Washer 3/8 in. ID
5. Lower right hose of dual disc front brake line
6. Banjo fitting bolt
7. Banjo fitting sealing washer (2)
8. Bleeder valve

Figure 1. New Right Front Brake Disc and Caliper

3. Install new front brake master cylinder assembly from kit onto right handlebar using original clamp and retaining screws. Refer to appropriate Service Manual for detailed installation procedures. Verify that master cylinder is tight against switch housing, then tighten retaining screws to 70-80 in-lbs.
4. Install original right mirror and, if applicable, right turn signal lamp assembly onto new brake master cylinder casting. Adjust mirror and turn signal lamp as required; tighten each securely.

- See Figure 2. Insert new 1/4 - 20 x 1 in. hex socket head screw (1) from kit through original plain washer (2) (previously removed in Step 4 of REMOVAL AND DISASSEMBLY - FRONT BRAKE SYSTEM). Insert the screw with washer through central mounting hole in manifold section of new front brake line (3) (specified in NOTE of GENERAL Section) and through small end of original wire form (4) (previously removed in Step 4 of REMOVAL AND DISASSEMBLY - FRONT BRAKE SYSTEM). Install assembly of screw, washer, brake line, and wire form onto underside of front fork lower bracket (5). Orient brake line (3) and wire form (4) as shown, then tighten screw (1) to 12-14 ft-lbs.

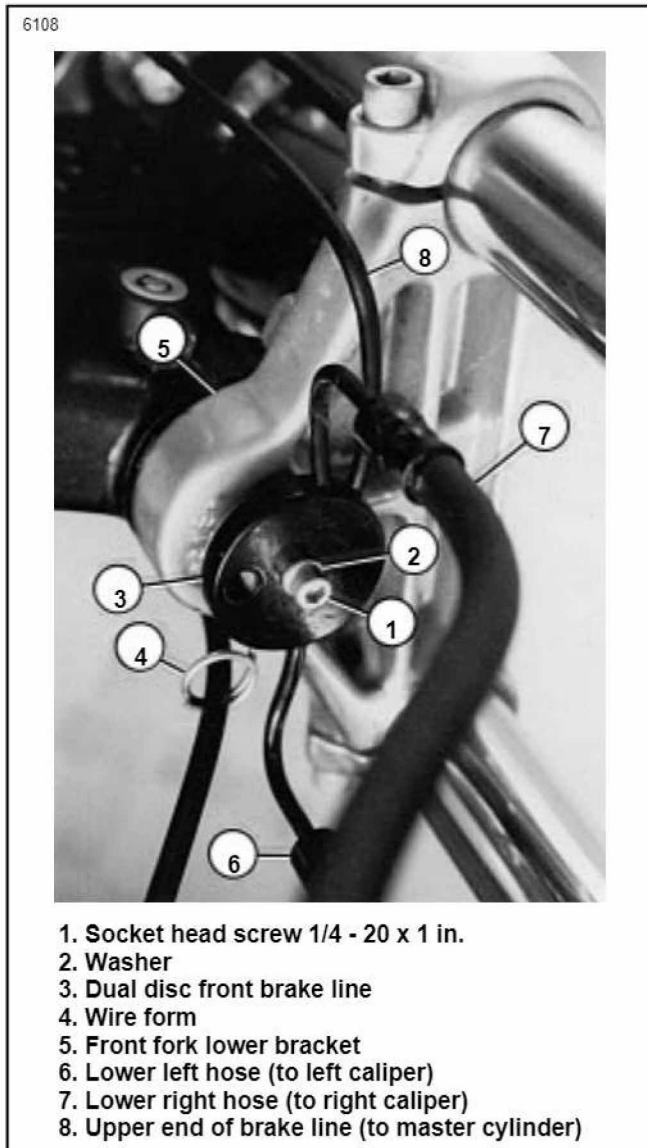


Figure 2. New Dual Disc Front Brake Line

- Secure front brake line to right rear side of front fork upper bracket using original screw, lockwasher, and clamp (previously removed in Step 5 of REMOVAL AND DISASSEMBLY- FRONT BRAKE SYSTEM).
- Connect lower left hose (6) of new brake line (3) to original left front brake caliper using original banjo fitting bolt and two new banjo fitting sealing washers from kit. Refer to appropriate Service Manual for detailed installation procedures. Tighten banjo bolt to 17-22 ft-lbs.

- Position and hold speedometer cable so that it does not contact left brake disc. Then, secure speedometer cable in position to lower left hose of new brake line using two double loop cable straps from kit.
- See Figure 1. Connect lower right hose (5) of new brake line to new right front brake caliper (1) using one new banjo fitting bolt (6) and two new banjo fitting sealing washers (7) from kit. Follow same installation procedures specified for left side brake in appropriate Service Manual. Tighten banjo bolt to 17-22 ft-lbs.
- Connect upper end of new brake line to new front brake master cylinder assembly using one new banjo fitting bolt and two new banjo fitting sealing washers from kit. Refer to appropriate Service Manual for detailed installation procedures. Tighten banjo bolt to 17-22 ft-lbs.
- Fill master cylinder reservoir with D.O.T. 5 HYDRAULIC BRAKE FLUID to 1/8 in. of top.

⚠WARNING

Make sure relief port in master cylinder is operating properly. After filling master cylinder, actuate brake lever with reservoir cover removed. A slight spurt of fluid will break through fluid surface if all internal components are working properly. A covered relief port could cause brake drag, possible brake lockup, loss of control and personal injury.

- Install master cylinder reservoir cover.
- Bleed brake system according to procedures in appropriate Service Manual. Bleed both brake calipers, but bleed only one caliper at a time. Final tighten each bleeder valve (8) to 80-100 in-lbs.
- Remove master cylinder reservoir cover. Add D.O.T. 5 HYDRAULIC BRAKE FLUID, if required, to master cylinder reservoir; fill to 1/8 in. of top.
- Install gasket and cover onto master cylinder reservoir using two screws. Tighten screws to 10-15 in-lbs.
- Test operation of rear brake lamp with both the front brake applied and the ignition/light switch turned to "LIGHTS" or "IGNITION" position.

⚠WARNING

Whenever the motorcycle brake system is serviced, always test it on dry, clean pavement at slow speeds before putting the vehicle into regular service.

- Test ride the motorcycle. If brakes feel spongy, repeat bleeding procedure.
- After you determine through testing that the motorcycle brake system is functioning properly, burnish the new brake pads by making several hard stops on smooth, dry pavement.