



INSTRUCTIONS

-J01704

REV.4-21-04

Kit Number 44090-00

DUAL DISC FRONT BRAKE KIT

General

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

- 2000 - 2003 XLH 883, XLH 883 Hugger and XLH 1200
- 2000 - 2003 FXD (Super Glide)

This kit can also be installed on the above XLH and FXD 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. 43629-00), (sold 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. 43579-00), (sold separately) which has a **double-flange** hub designed to accept the second brake disc.

See the *Service Parts Illustration* for a list of the contents included in this kit.

This kit does not include the front brake line required for a dual disc system; the brake line must be purchased separately as follows:

- For XLH 883 motorcycle equipped with low-rise (flat) handlebars, order dual disc brake line H-D Part No. 45148-96.
- For XLH 883 Hugger, XLH 1200, and FXD Super Glide models with "buckhorn" (pull-back) handlebars, order dual disc brake line H-D Part No. 45111-96.

WARNING

The rider's safety depends upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333a)

WARNING

Brakes are a critical safety component. Contact a Harley-Davidson dealer for brake repair or replacement. Improperly serviced brakes can adversely affect brake performance, which could result in death or serious injury. (00054a)

Removal and Disassembly - Front Brake System

NOTE

A Service Manual for your motorcycle is available at your Harley-Davidson Dealer.

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.

NOTE

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 socket head screw which secures a clamp (retains front brake line) to underside of front fork lower bracket (lower triple clamp). Discard clamp and screw.
4. 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.
5. 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.

CAUTION

Do not remove or install the master cylinder assembly without first positioning a 5/32-inch (4 mm) thick insert between the brake lever and lever bracket. Removing or installing the master cylinder assembly without the insert in place may result in damage to the rubber boot and plunger on the front stoplight switch. (00324a)

NOTE

Use the eyelet of an ordinary cable strap if the cardboard insert is not available.

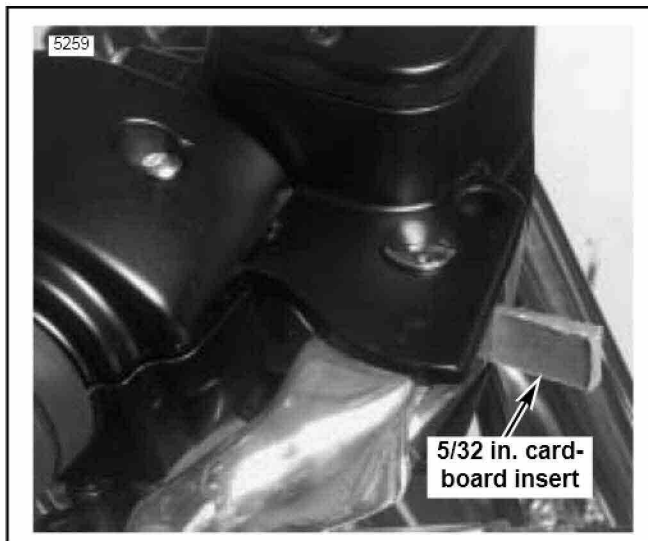


Figure 1. Install Insert Before Removing Master Cylinder

6. See Figure 1. Squeeze the brake lever and place the cardboard insert between the brake lever and lever bracket.
7. Using a T27 TORX drive head, remove the two screws with flat washers securing the handlebar clamp to the master cylinder housing. Remove the brake lever/master cylinder assembly and clamp from the handlebar.
8. Save screws and clamp for reinstallation.
9. Lift assembly of master cylinder, brake line, and left caliper away from motorcycle. Disconnect front brake line from left 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 of Removal/Disassembly Steps on page 1. 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 - Right Front Disc, Wheel and Calipers

1. Verify that new front brake disc from kit is clean. With counterbored 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 (21.7-32.5 Nm).
2. Place wheel into position between forks with the valve stem on the right side of the vehicle.
3. Coat the axle with ANTI-SIEZE LUBRICANT.
4. Supporting wheel, insert threaded end of axle through right fork leg. See Figure 2. Push axle through fork, short external spacer and wheel hub until it begins to emerge from left side.
5. Push axle through long external spacer and left fork leg until axle shoulder contacts external spacer on right fork side.
6. Install flat washer, lock washer and nut over threaded end of axle.
7. Insert screwdriver or steel rod through hole in axle on right side of vehicle. While holding axle stationary, tighten axle nut to 50-55 ft-lbs (68-75 Nm).
8. See Figure 2. Insert 7/16 inch drill bit (2) into hole in axle (1).
9. Pull fork leg so that it just contacts drill bit (3), then tighten axle pinch bolt nut to 25-30 ft-lbs (33.9-40.7 Nm)
10. Remove drill bit from axle hole.
11. Install brake caliper as follows:
 - a. With the bleeder valve topside, position caliper so that brake disc is situated between friction pads. Pry inner and outer brake pads back for additional clearance, if necessary.
 - b. Align upper mounting hole in caliper with upper mounting lug on fork leg. Loosely install long caliper mounting bolt into upper lug of fork leg.
 - c. Install short caliper mounting bolt into lower lug of fork leg. Tighten lower mounting bolt to 28-38 ft-lbs (37.9-51.5 Nm)
12. Tighten upper caliper mounting bolt to 28-38 ft-lbs (37.9-51.5) Nm.
13. Repeat Steps 11 and 12 for left front brake caliper

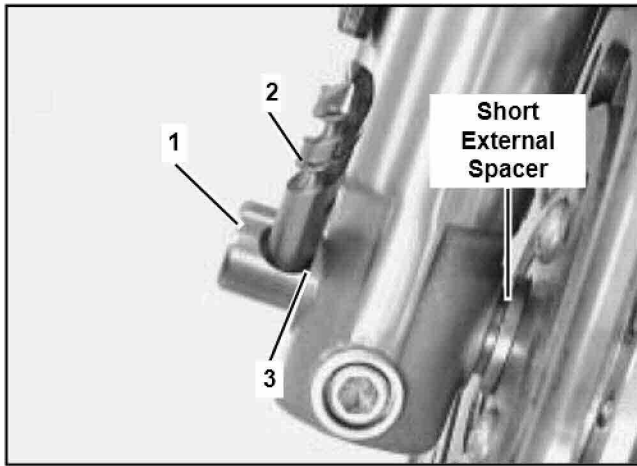
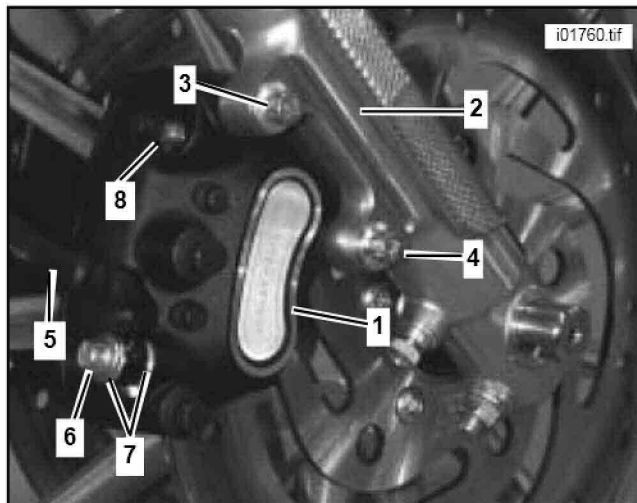


Figure 2. Wheel Installation (Right side shown)



1. Right front brake caliper
2. Front fork right slider
3. Bolt, Upper caliper mounting
4. Bolt, Lower caliper mounting
5. Lower right hose of dual disc front brake line
6. Banjo fitting bolt
7. Banjo fitting sealing washer (2)
8. Bleeder valve

Figure 3. New Right Front Brake Disc and Caliper

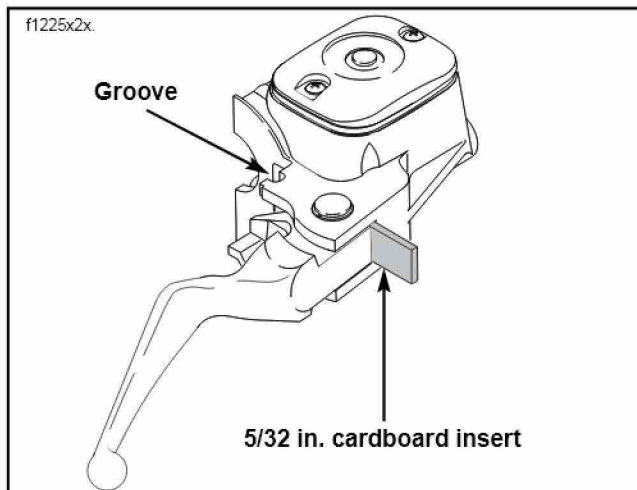


Figure 4. Install Cardboard Insert Before Installing Master Cylinder Assembly

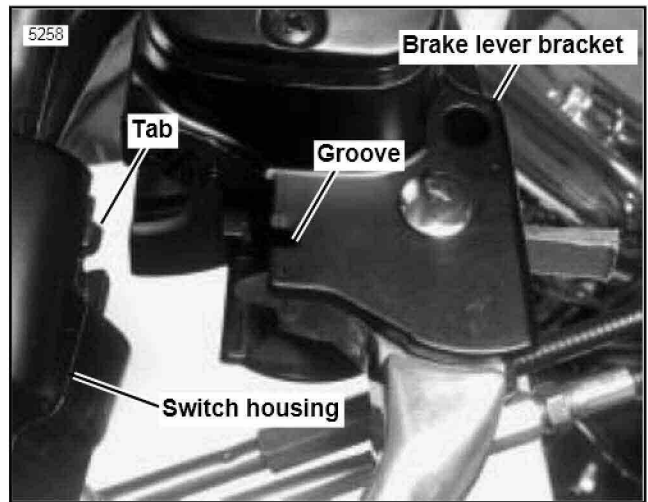


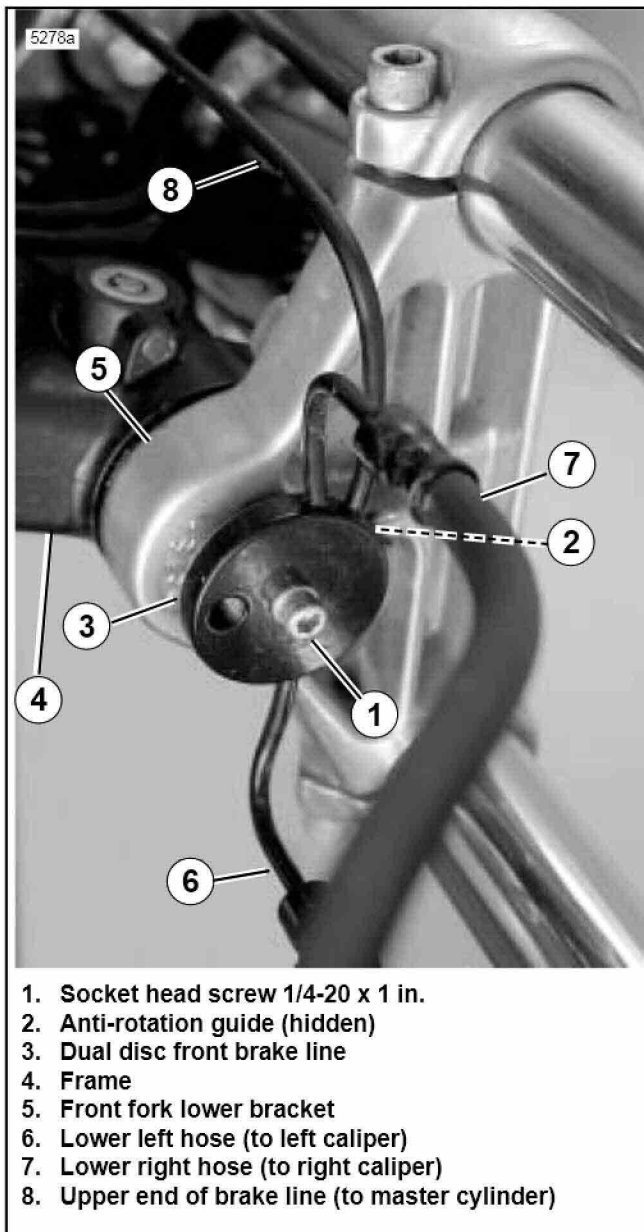
Figure 5. Fitting Master Cylinder To Switch Housing

Assembly and Installation-Front Brake Controls

CAUTION

Do not remove or install the master cylinder assembly without first positioning a 5/32-inch (4 mm) thick insert between the brake lever and lever bracket. Removing or installing the master cylinder assembly without the insert in place may result in damage to the rubber boot and plunger on the front stoplight switch. (00324a)

1. See Figure 5. Position the brake lever/master cylinder assembly inboard of the switch housing assembly engaging the tab on the lower switch housing in the groove at the top of the brake lever bracket.
2. Align the holes in the handlebar clamp with those in the master cylinder housing and start the two screws (with flat washers). Position for rider comfort. Beginning with the top screw, tighten the screws to 70-80 in-lbs (7.9-9.0 Nm) using a T27 TORX drive head.
3. 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.
4. See Figure 6 and Service Parts Illustration. Insert new 1/4 - 20 x 1 in. hex socket head screw (1) from kit through central mounting hole in manifold section of new front brake line (specified in NOTE of GENERAL Section) and anti-rotation guide (16). Install assembly of screw, anti-rotation guide, and brake line onto underside of front fork lower bracket (3 of Figure 6). Make certain forked end of anti-rotation guide engages center rib of front fork lower bracket.
5. Secure front brake line to right rear side of front fork upper bracket using original screw, lockwasher, and clamp (previously removed in Step 4 of REMOVAL AND DISASSEMBLY - FRONT BRAKE SYSTEM).



1. Socket head screw 1/4-20 x 1 in.
2. Anti-rotation guide (hidden)
3. Dual disc front brake line
4. Frame
5. Front fork lower bracket
6. Lower left hose (to left caliper)
7. Lower right hose (to right caliper)
8. Upper end of brake line (to master cylinder)

Figure 6. New Dual Disc Front Brake Line

6. See Figure 6. 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.
7. See Figure 3. 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.
8. 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.

9. Fill master cylinder reservoir with D.O.T. 5 HYDRAULIC BRAKE FLUID to 1/8 in. of top.

CAUTION

Direct contact of D.O.T. 5 brake fluid with eyes can cause eye irritation, swelling, and redness. Avoid eye contact. In case of eye contact flush with large amounts of water and get medical attention. Swallowing large amounts of D.O.T. 5 brake fluid can cause digestive discomfort. If swallowed, obtain medical attention. Use in well ventilated area. KEEP OUT OF REACH OF CHILDREN. (00144a)

WARNING

Be sure the master cylinder relief port is not plugged. A plugged relief port can cause brake drag or lockup and loss of vehicle control, which could result in death or serious injury. (00317a)

10. Install master cylinder reservoir cover.
11. 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 torque.
12. 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.
13. Install gasket and cover onto master cylinder reservoir using two screws. Tighten screws to 10-15 in-lbs.
14. Test operation of rear brake lamp with both the front brake applied and the ignition/light switch turned to "LIGHTS" or "IGNITION" position.

WARNING

After repairing the brake system, test brakes at low speed. If brakes are not operating properly, testing at high speeds can cause loss of control, which could result in death or serious injury. (00289a)

15. Test ride the motorcycle. If brakes feel spongy, repeat bleeding procedure.
16. After you determine through testing that the motorcycle brake system is functioning properly, allow the new brake pads to "wear in" by avoiding hard stops for the first 100 miles.



Service Parts

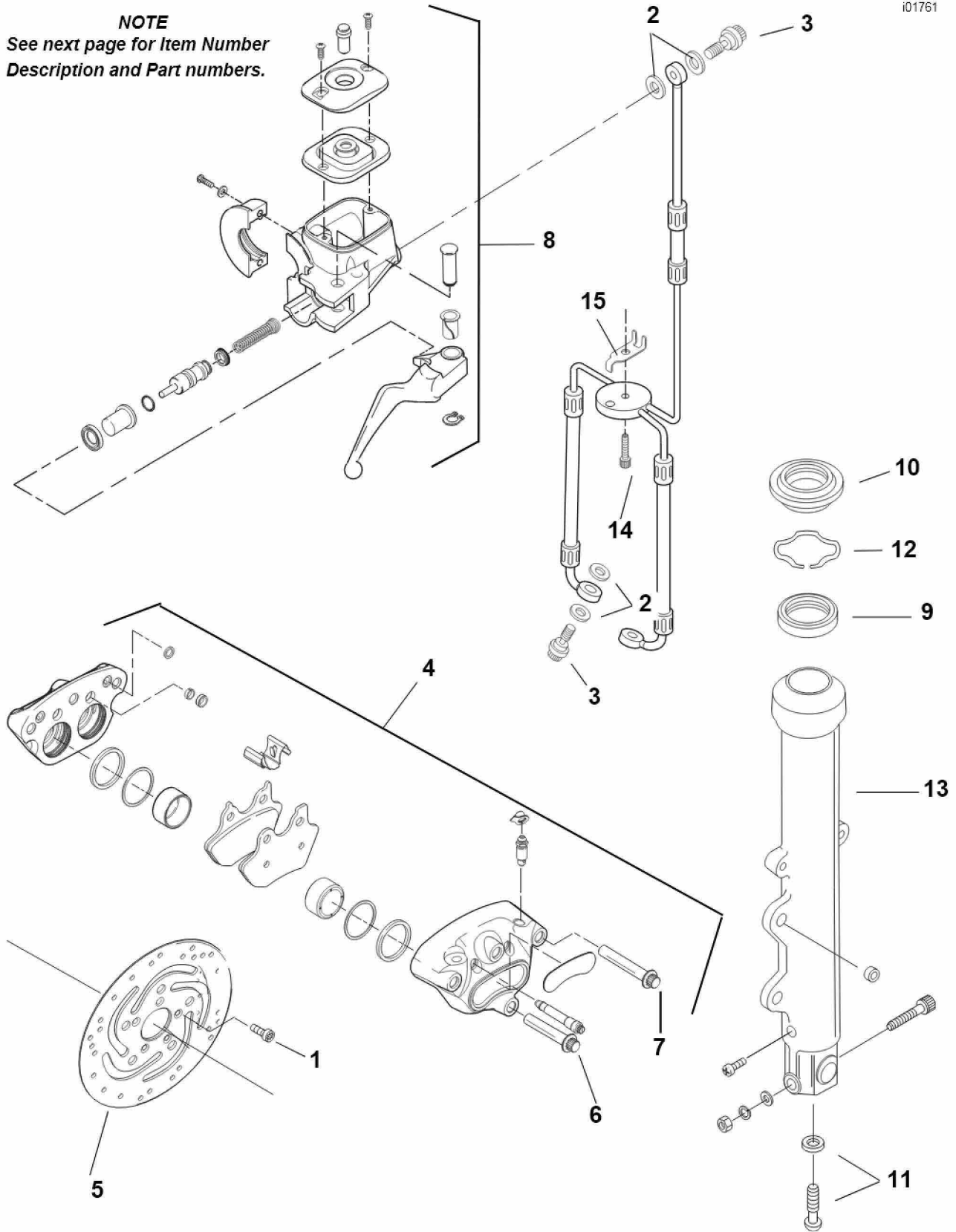
Part No. 44090-00

Date 4/04

Dual Disc Front Brake Kit

i01761

NOTE
See next page for Item Number
Description and Part numbers.





Service Parts

Part No. 44090-00

Date 4/04

Dual Disc Front Brake Kit

Item	Description	Part No.	Item	Description	Part No.
1	Screw, TORX (5)	3655A	10	Dust seal	45401-87
2	Gasket, brake line (6)	41731-88A	11	Screw SEMS	45405-75A
3	Bolt, banjo (2)	41747-82A	12	Stopper ring	45905-87
4	Caliper assembly, front – right	44023-00B	13	Slider complete, right	45922-00
5	Disc, front brake	44136-00	14	Screw, SEMS hex socket	4741A
6	Bolt, lower caliper mounting	44160-00	15	Anti-rotation guide	45074-95
7	Bolt, upper caliper mounting	44163-00			
8	Master cylinder assembly, front	45013-96B			
9	Oil seal	45378-87			

NOTE

Refer to Sportster Parts Catalog for Service Parts for:

Caliper assembly: Part No. 44023-00B

Master cylinder assembly: Part No. 45013-96B