



INSTRUCTIONS

-J03183

REV. 01-23-04

Kit Number 44531-04

DUAL DISC FRONT BRAKE KIT FOR DYNA

General

This kit is designed for installation on the following 2004 and later DYNA FXD/I and FXDL/I model motorcycles which have original equipment 39 mm front fork tubes (including chromed tubes), handlebar and risers, and 19-in. cast-aluminum front wheels:

- 2004 - Later FXD/I (Super Glide)
- 2004 - Later FXDL/I (Low Rider)

This kit can also be installed on the above FXD/I and FXDL/I 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 number **43976-04**), (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 number **43591-04**), (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.

⚠ 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). Service Manuals are available at your Harley-Davidson dealer. 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. Failure to follow instructions could result in death or serious injury.

⚠ 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 any Harley-Davidson Dealer.

1. Block motorcycle underneath frame so that front wheel is raised off the ground slightly.
2. Refer to Service Manual procedures to remove the original front brake caliper from left side of front fork. 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. See Figure 1. Remove screw, lockwasher, and clamp (1) which secure front brake line to right rear side of front fork upper bracket (2) (upper triple clamp). Save all components for reinstallation.

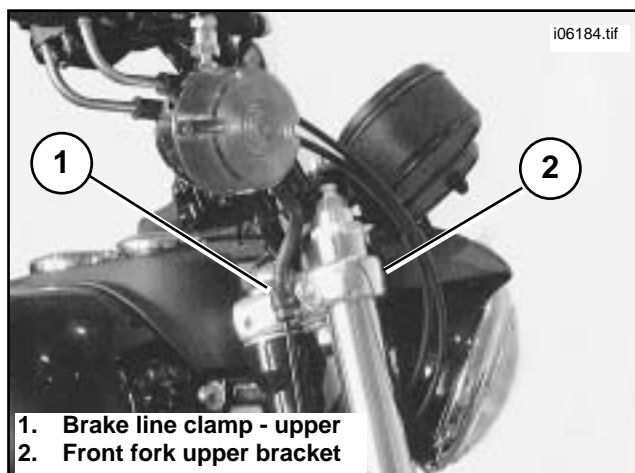


Figure 1. Upper brake cable clamp

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

See Figure 2. Do not remove or install the master cylinder assembly without first positioning a 5/32-inch (4mm) thick cardboard 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.

6. See Figure 2. Squeeze the brake lever and place the cardboard insert between the brake lever and lever bracket.



Figure 2. Install Insert Before Removing Master Cylinder

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 and drain screw 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-SEIZE LUBRICANT.
4. See Figure 3. Supporting wheel, insert threaded end of axle (1) through right fork leg. Push axle through fork, **short** external spacer (not shown) and wheel hub until it begins to emerge from left side.
5. Push axle (1) through **long** external spacer (not shown) and left fork leg until axle (1) 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 3. 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. See Figure 4. 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 (38-51.5 Nm)

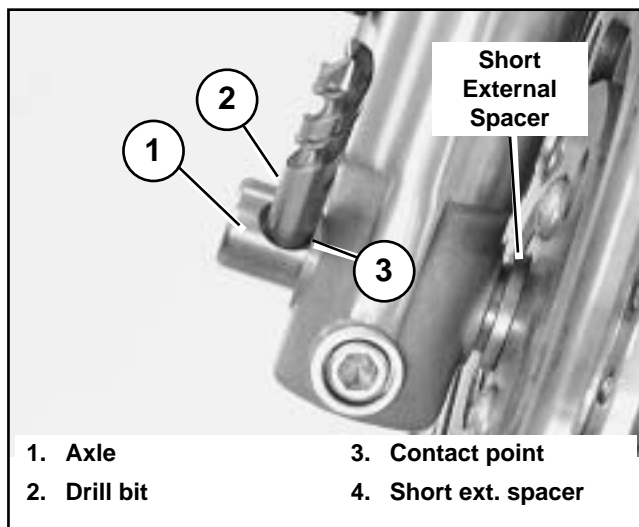


Figure 3. Wheel Installation (Right side shown)

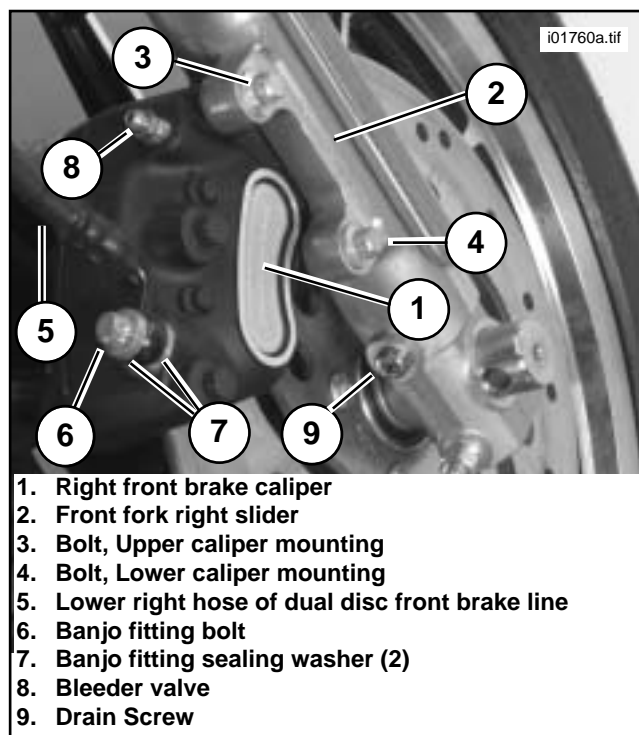


Figure 4. New Right Front Brake Disc and Caliper

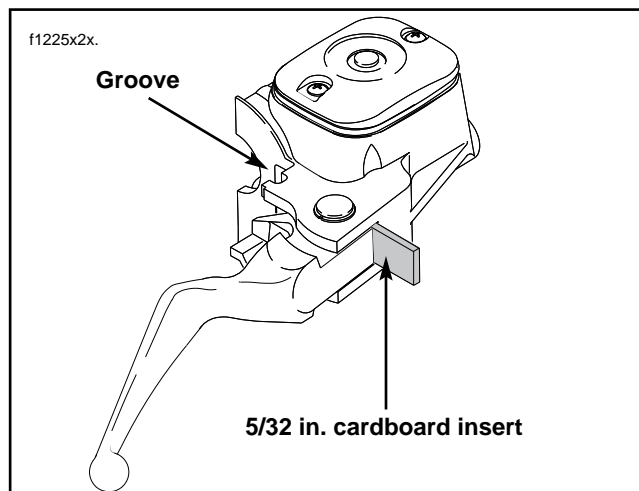


Figure 5. Install Cardboard Insert Before Installing Master Cylinder Assembly

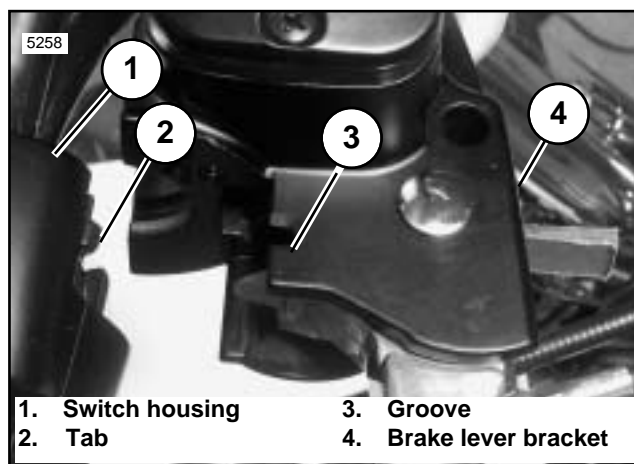


Figure 6. Fitting Master Cylinder To Switch Housing

12. Tighten upper caliper mounting bolt to 28-38 ft-lbs (38-51.5) Nm.
13. Repeat Steps 11 and 12 for left front brake caliper

Assembly and Installation-Front Brake Controls

⚠ WARNING

See Figure 5. Do not remove or install the master cylinder assembly without first positioning a 5/32-inch (4mm) thick cardboard 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 6. 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 7 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). Make certain forked end of anti-rotation guide engages center rib of front fork lower bracket.
5. See Figure 1. Secure front brake line to right rear side of front fork upper bracket (2) using original screw, lockwasher, and clamp (1) (previously removed in Step 4 of REMOVAL AND DISASSEMBLY - FRONT BRAKE SYSTEM).

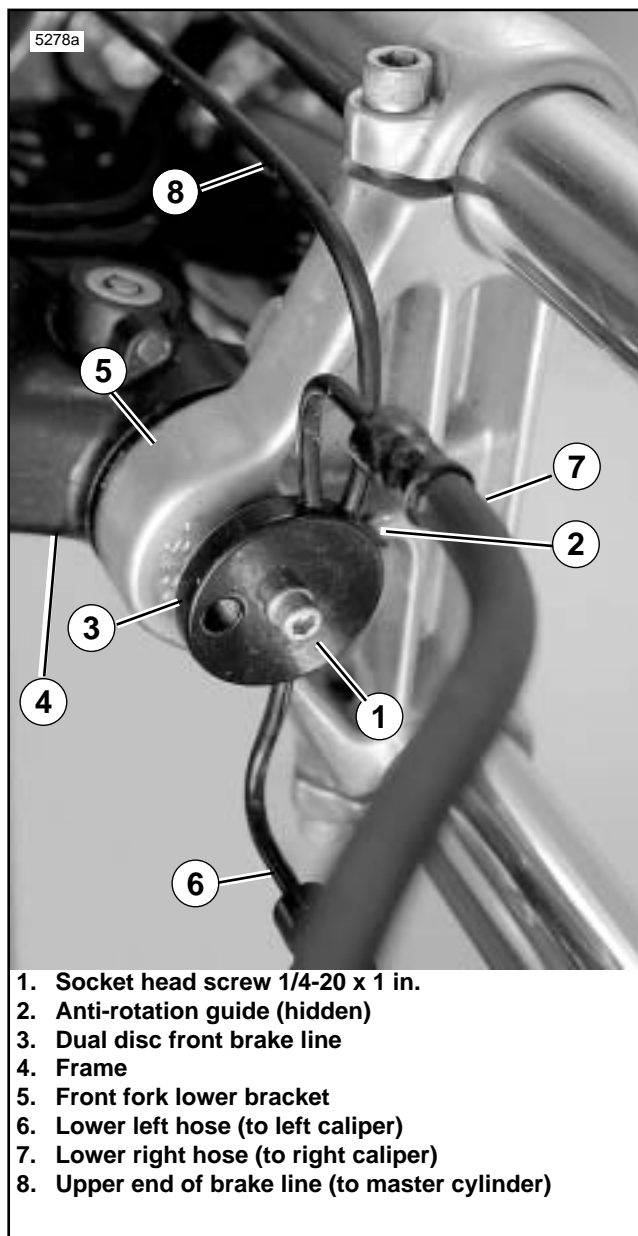


Figure 7. New Dual Disc Front Brake Line

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 (23-29.8 Nm).
7. See Figure 4. 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 (23-29.8 Nm).
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 (23-29.8 Nm).

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

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, and/or loss of control which could result in death or serious injury.

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** (9.0-11.3 Nm) 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 6-8 **in-lbs** (0.7-0.9 Nm).
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 servicing brakes and before moving motorcycle, **pump brakes to build brake system pressure. Insufficient pressure can adversely affect brake performance, which could result in death or serious injury.** (00279a)

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

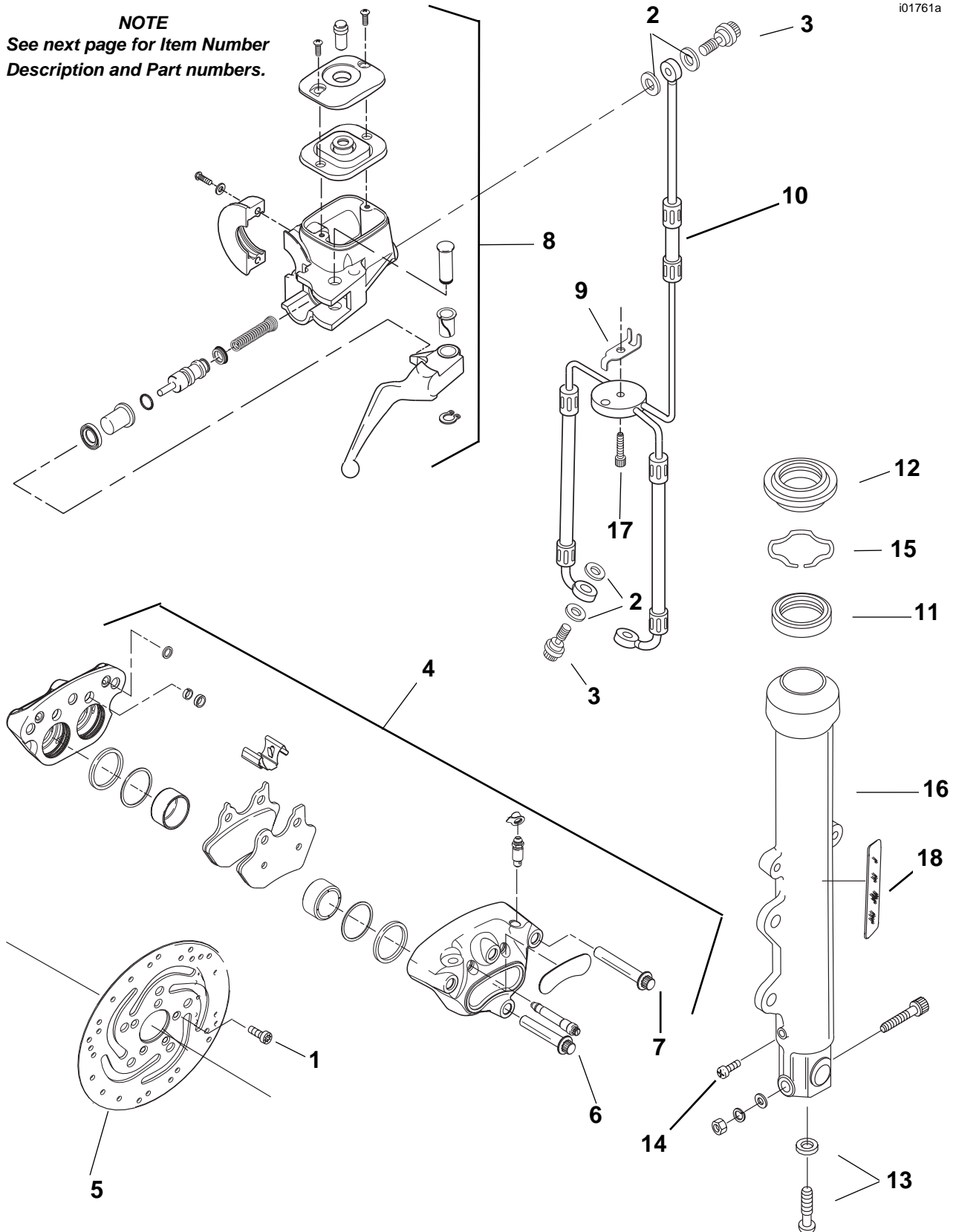
Part No. 44531-04

Date 01/04

Dual Disc Front Brake Kit

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





Service Parts

Part No. 44531-04

Date 01/04

Dual Disc Front Brake Kit

Item	Description	Part No.	Item	Description	Part No.
1	Screw, TORX (5)	3655A	11	Oil seal	45378-87
2	Gasket, brake line (6)	41731-01	12	Dust seal	45401-87
3	Bolt, banjo (2)	41747-82A	13	Screw SEMS hex socket	45405-75A
4	Caliper assembly, right-front/black	44023-00B	14	Screw SEMS hex socket	45858-77
5	Disc, right-front brake	44136-00	15	Stopper ring	45905-87
6	Bolt, lower caliper mounting	44160-00	16	Forkslider, right-front	46077-04
7	Bolt, upper caliper mounting	44163-00	17	Screw, SEMS hex socket	4741A
8	Master cylinder assy. right-front/black	45013-96B	18	Reflector, RH amber	59481-00
9	Anti-rotation guide	45074-95			
10	Brakeline, front - dual	45194-99			

NOTE

Refer to DYNA Parts Catalog for Service Parts for:

Caliper assembly: Part No. 44023-00B

Master cylinder assembly: Part No. 45013-96B