

23-2310 SPORTSTER REAR BRAKE LINE KIT

Drain Brake Fluid

1. Remove bleed screw cap on rear brake caliper.
2. Install one end of a length of plastic tubing over caliper bleeder valve. Place free end of the tubing in a suitable container.
3. Open the bleeder valve about one-half turn and pump the brake pedal to drain the brake fluid out of the rear brake system. Do not re-use brake fluid.

CAUTION

Remove brake line components carefully. Damage to seating surfaces can cause leakage.

Remove Existing Rear Brake Line

1. Disconnect wiring harness connectors from brake light switch spade terminals.
2. Remove screws from the three P-clamps and one bracket used to secure brake line to motorcycle.
 - a. Save all screws except bracket screw and save stock P-clamp, located at the right side sprocket cover, for later use.
 - b. Do not mix up the screws. The screws must go back into the same threaded hole in which they were removed.
 - c. Discard remaining two P-clamps.
3. Note brake line routing, then remove existing brake line.

NOTE

This kit contains clamps to replace the original equipment clamps removed, except for the small clamp on the right side sprocket cover.

4. Remove brake light switch from brake line. Save switch for later use.

Rear Brake Line Kit

NOTE

Before installing brake light switch into rear brake line manifold, clean pipe threads and apply Loctite® 565 Thread Sealant to the threads. To prevent brake fluid contamination, be careful not to allow excess sealant to seep into the manifold (do not apply thread sealant too close to end of thread).

1. Install rear brake light switch as follows:

32-0443 Brake Light Switch (stock on 1988-2003 XL models): Install switch (1) into threaded hole in manifold of brake line. Tighten switch to 84-120 in-lbs (9.5- 13.6 Nm).

32-0770 Brake Light Switch (replacement on 1988-2003 XL models): Install switch (2) into threaded hole in manifold of brake line. Tighten switch to 12-15 ft-lbs (16.3-20.3 Nm).

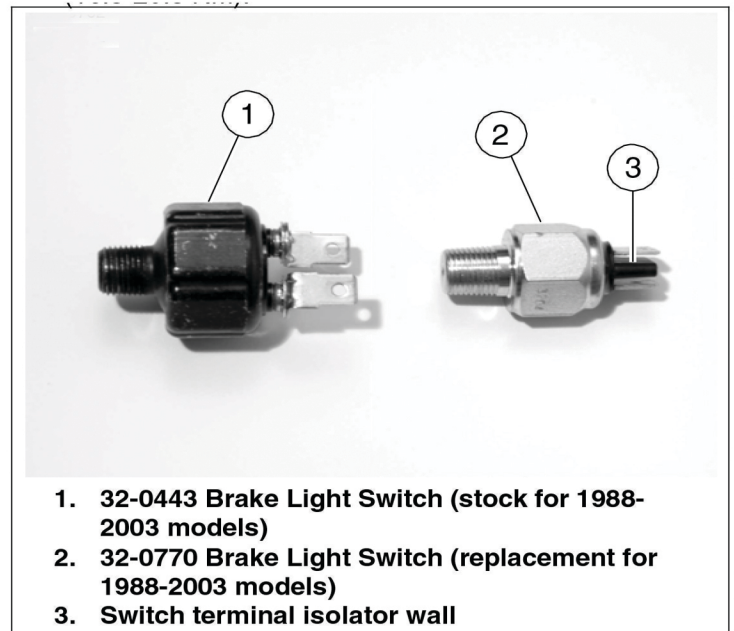


Figure 2. Rear Brake Light Switches

NOTE

Make sure banjo fittings on brake line are oriented the same as fittings on existing brake line.

2. See Figure 6. Run brake line along the same route as existing brake line.
 - a. Lubricate brake line gaskets (steel/rubber washers) (2) from kit with D.O.T. 5 Silicone Brake Fluid.
 - b. Use stock banjo bolts and new gaskets (one gasket on each side of brake line banjo fitting) to fasten rear brake line at rear master cylinder and rear brake caliper.
 - c. Tighten banjo bolts to 17-22 ft-lbs (23-30 Nm).
3. Use cable extension from kit to connect brake light switch to original connector locations.
 - a. Connect male spade connectors on cable extension to female connectors on wiring harness.
 - b. Attach female connectors on other end of cable extension to brake light switch spade terminals.
 - c. Use cable straps in kit to neatly bundle cable extension to brake line.

Cable Extension and Switch Connections:

The cable extension has right angle (90°) female connectors for installation onto the stock 32-0443 and earlier brake light switch terminals. If the stock brake light switch (1) is replaced with a 32-0770 brake light switch (2), the right angle (90°) female connectors must be removed (cut off) from the cable extension and replaced with the straight connectors that are part of the 72023-51D kit. When removed, the wire should be cut as close to the connector body as possible.

If connecting to the 32-0770 rear brake light switch (2) (replacement on 1988-2003 XL models) align female wiring harness connector with brake light switch terminals so the flat side of the metal receptacle inside connector housing faces the isolator wall (3). This will prevent interference with the switch terminal isolator wall.

4. Install P-clamps from kit along with the saved stock P-clamp from sprocket cover location to secure brake line in place.
 - a. P-clamp from kit with larger mounting hole is used at the location specified, along with stock screw previously removed from that location.
 - b. P-clamp from kit with smaller mounting hole is used at the location, along with stock screw previously removed from that location.
 - c. Stock P-clamp and screw removed from the right side sprocket cover is re-used at the sprocket cover location.

Bleed and Test Rear Brake Line

1. Remove rear brake master cylinder cover.
2. Stand motorcycle upright so master cylinder is in a level position.
3. Add D.O.T. 5 Silicone Hydraulic Brake Fluid **only** to master cylinder reservoir until fluid level is 1/8 in (3.2 mm) from the top. Do not re-use brake fluid. Use only brake fluid from a sealed container.

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.

4. Verify proper operation of the master cylinder relief port. Actuate the brake pedal. A slight spurt of fluid will break the fluid surface in the reservoir compartment if all internal components are working properly.

WARNING

5. Depress and hold brake pedal to build up hydraulic pressure.
6. Open bleeder valve about 1/2 turn. Brake fluid will flow from bleeder valve through tubing. Close bleeder valve when brake pedal has moved 1/2 to 3/4 of its full range of travel. Allow brake pedal to return slowly to its released position.
7. Repeat steps 3, 5, and 6 above until all air bubbles are purged.
8. Tighten bleeder valve to 80-100 **in-lbs** (9.0-11.3 Nm), then install bleeder cap.
9. Add brake fluid to master cylinder reservoir until fluid level is about 1/8 in (3.2 mm) from the top.
10. Install master cylinder reservoir gasket, cover and screws. Tighten screws to 6-8 **in-lbs** (0.7-0.9 Nm).

WARNING

Be sure that all lights and switches operate properly before operating motorcycle. Low visibility of rider can result in death or serious injury.

11. Turn the ignition/key switch to IGNITION and apply the rear brake foot pedal to test operation of the brake light.

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.

12. Test ride the motorcycle. If the brake feels spongy, repeat the bleeding procedure.