VT No. 22-0453

Additional Parts Required

Separate purchase of LOCTITE® 243 Threadlocker and Sealant - Blue.

WARNING

The rider's safety depends upon the correct installation of this kit. Use the appropriate service manual procedures. Improper installation of this kit could result in death or serious injury.

NOTE

This instruction sheet references service manual information. A service manual for your model motorcycle is required for this installation and is available from a dealer.

INSTALLATION

Shifter Assembly

- 1. See service manual and disconnect main fuse.
- 2. See service manual and remove the left side rider footrest assembly. Discard the footrest and fasteners.
- 3. Remove plugs from forward frame footboard mount and discard plugs.
- 4. Remove the foot shifter lever and shifter peg. Save the foot shifter lever and shifter peg and hardware for future installation.
- 5. See service manual and remove the outer primary cover assembly and inner primary cover assembly.
- 6. Before removing the gear shifter lever:
 - a. Using a marking tool, draw a location marking on the end of the splined shaft across from the casting split. This will allow the new gear shifter lever to be installed in the same orientation as the old lever.
 - b. After marking the gear shifter lever orientation, loosen the lever bolt and remove the gear shifter lever.
 - c. Discard the gear shifter lever and lever bolt.
 - d. From the kit, install the new gear shifter lever and bolt onto the splined shaft in the same orientation as the old shifter lever.
 - e. Tighten the lever bolt to $24.4-29.8 \text{ N}\cdot\text{m}(18-22 \text{ ft-lbs})$.
- 7. Install the front and rear footrest brackets to the frame using the buttonhead TORX® screws . Tighten screws to $33.9-47.5 \text{ N}\cdot\text{m}(25-35 \text{ ft-lbs})$.
- 8. Install the front inner gear shifter and washer to inside of the front footboard bracket.
- 9. Install the previously saved gear shifter with a coat of light lubricant. Install washer, screw, and shifter peg to the gear shifter. Tighten screw to $9.5-12.2 \text{ N} \cdot \text{m} (7-9 \text{ ft-lbs})$.
- 10. Using a small amount of Loctite 243, install the new shifter rod assembly onto the gear shifter lever. Also install washer and acorn nut to inner gear shift assembly. Tighten acorn nut and rear of shift linkage to 10.8–16.3 N·m(8–12 ft-lbs).
- 11. Tighten rear gear shifter lever threaded swivel stud. After all shifter components are installed, move shifter through entire range of motion and check for interference with other components.
- 12. Put inner primary cover and primary cover in position and check for proper clearance with shifter linkage components.
- 13. Clean the area around primary cover hole, removing all dirt, oil and grease. Apply Loctite 243 around opening. Insert primary hole plug into opening. Remove any excess adhesive from surface. Allow Loctite to cure for 24 hours before operating vehicle.
- 14. Moisten four rubber anchors on bottom of new footboard pad with soapy water.
- 15. Place pad into position on footboards. From bottom of footboards, use pliers to pull rubber anchors through holes in footboards.
- 16. See service manual. Install primary cover using new gaskets from the kit.
- 17. Install footboards to brackets using shoulder bolts and flange nuts. Tighten screws to 20–27 N·m(15–20 ft-lbs).

Rear Brake and Footboard Assemblies

NOTE

It may be helpful to remove the exhaust to access the rear brake components. Refer to the service manual for the exhaust removal.

- 1. Remove the right side rider footrest fasteners. Discard the fasteners.
- 2. Loosen the brake rod jam nut at the rear brake master cylinder.

NOTE

The master cylinder piston has flats for a wrench. Turn the flats on the piston to unscrew the brake rod from the master cylinder.

- 3. Unscrew the master cylinder piston from the stock brake rod.
- 4. Remove and discard the stock brake rod, footrest and brake pedal assembly.
- 5. Remove the rear bracket footrest hole plugs and discard.
- 6. Fasten the new front and rear footboard supports to the frame using TORX screws. Tighten screws to 43–50 N·m(32–37 ft-lbs).
- 7. Install the jam nut all the way onto the new brake rod.
- 8. Fasten the brake rod to the master cylinder piston.

NOTE

When installing the brake rod make sure that brake rod does not have any interference from the clamps on the exhaust. The clamps could scrape the paint on the brake rod.

- 9. Coat the pivot shaft with a light coating of lubricant. Install the brake pedal to the front footboard support with long TORX screw, foot brake lever cap, pivot shaft, clevis pin and circular cotter.
- 10. With a wrench on the master cylinder piston flats, turn the piston onto the brake rod until the brake pedal is elevated to an effective rider angle, using at least half the threads available on the brake rod. Tighten the jam nut against the master cylinder piston.
- 11. Install brake pedal pad. Verify brake pedal and rod travel through entire range of motion without binding or interference.
- 12. Place the footboard into position between brackets and install shoulder bolts, so that the flange locknuts will be on the inboard side.
- 13. Install flange locknuts onto shoulder bolts and tighten to 6.8–9 N·m(60–80 in-lbs).

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.

- 14. Return the motorcycle to service:
 - a. Refer to service manual and install main fuse.
 - b. Test lights and brakes. If the brakes feel spongy, bleed the system.