



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 dealer perform the installation. Improper installation of this kit could result in death or serious injury.

Note: Kit requires re-use of original inner pushrod tubes, pushrod tubes spring cup and pushrod tube spring.

INSTALLATION WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect battery cables (negative (-) cable first) before proceeding.

WARNING

Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury.

NOTE

When removing the stock pushrods as described in step 1 below, do not cut pushrods using a method that creates metal debris, which may end up in the engine (such as using a hacksaw or die grinder) and cause severe damage.

1. Remove stock pushrods using a bolt cutter.
2. Place the motorcycle on a hydraulic center stand with the rear wheel raised off the ground. Remove spark plugs.
3. With transmission in gear use rear wheel to turn engine over until both front cylinder tappets are at their lowest point.
4. See Figure 1. Loosen locknut on all of the pushrods and adjust them to their shortest length.
5. See Figure 2 and Figure 3. Install the intake pushrods into the pushrod covers. Replace O-rings, lower pushrod cover and spring cover keeper with new components supplied in kit. Be sure adjuster end of pushrod is down.
6. Insert the pushrod (within the pushrod tube) into the front cylinder head intake pushrod hole (hole closest to the cylinder) then slip the adjuster end of the pushrod into the tappet block.
7. Follow Adjusting Procedure below to adjust the pushrod.

NOTE: Pushrod adjustment must be made with engine cold.

ADJUSTING PROCEDURE

1. Adjust pushrod length to zero clearance by hand.
 2. See Figure 1. With the pushrod adjusting screw kept from rotating with a 5/16 in. wrench, slowly turn the pushrod tube with a 1/2 in. wrench, 2-1/2 complete turns clockwise (lengthening the pushrod) as viewed from the bottom. (There is a dot on the flats of the pushrod tube that can be used as a reference.)
 3. Hold adjusting screw and tighten locknut with 1/2 in. open end wrench against the pushrod tube. If pushrod turns with locknut use three open end wrenches, one to hold the pushrod tube, one to hold adjusting screw and one to turn locknut.
 4. Repeat Installation steps 4 through Adjusting Procedure step 3 for the exhaust pushrod.
- NOTE:** Wait ten minutes before turning engine over after adjusting front or rear cylinder pushrods. This wait allows tappets to bleed down and prevents bending pushrods or valves. Pushrods should turn freely and valves must be on their seats (closed) before turning over engine.
5. Wait ten minutes. With transmission in gear, use rear wheel to turn engine over until both rear cylinder tappets are at their lowest position.
 6. Repeat steps Installation step 4 through Adjusting Procedure step 4 for the rear cylinder.
 7. Install pushrod spring cap retainers on pushrod covers. Install spark plugs and return transmission to neutral.
 8. Connect battery cables.

WARNING

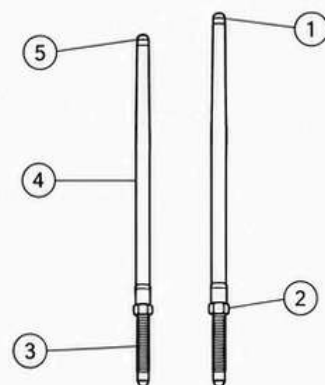
Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury.

Service Parts

Figure 3. Service Parts Table 1. Service Parts Table

Item	Description (Quantity)
1	Pushrod assembly (Intake) (2)
1	Pushrod assembly (Exhaust) (2)
2	Pushrod cover, lower (4)
3	Keeper, pushrod spring cover (4)
4	O-ring, pushrod cover, upper (4)
5	O-ring, pushrod cover, lower (4)
6	O-ring, pushrod cover, middle (4)
7	Washer

A, B, C are not included in kit. Kit requires re-use of original parts from disassembly.



Exhaust Pushrod Tube is labeled Exhaust
Locknut
Adjusting screw
Pushrod tube
Intake Pushrod Tube is labeled Intake

Figure 1. Adjustable Push Rod



Figure 2. Pushrod Installed into Pushrod Cover

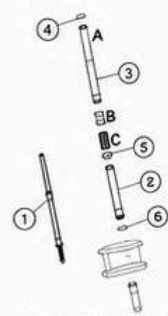


Figure 3. Pushrod Installed into Pushrod Cover