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12450 WHITTIER BLVD.
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The purpose of the SharpEye™ kick start assembly is to provide kick start capabilities to 5 and 6 speed Big Twin transmissions. This is accomplished by removing the stock transmission clutch release cover and installing your new Rivera Primo® SharpEye™ kick start assembly.

Tools Needed:

- 1/8", 3/16", 5/16" socket head wrenches
- (2) 9/16" open / box wrenches
- 1 1/2" socket, (We recommend Jim's Machine socket p/n 1030-TS)
- 1 1/16" socket

Assembly Procedure:

1. Disconnect battery ground wire.
2. Remove transmission drain plug and drain oil.
3. Remove clutch release cover and gasket.
4. Remove clutch cable from original cover.
5. Place the Sharpeye cover on the transmission trapdoor and check the clutch cable the clutch cable routing and adjust as necessary.

Disassembling Kickstart Mechanism For Clutch Cable Installation.

1. Remove the 14 tooth pinion gear (1216-0100), by turning the drive gear (1216-0101). Accomplish this by using the kick arm or wrench and turning the square end of the kick shaft (1219-0001) about 1/8 turn. This releases the pinion gear (1216-0100). Place the pinion gear (1216-0100) and the spring (1217-0014) aside.
2. Remove the flathead screw (1100-0049) and retainer washer (1217-0015) that holds the drive gear (1216-0101) to the shaft (1219-0001).

NOTE: Mark the shaft (1219-0001) and the gear (1216-0101) so you can return them to the same relative position. The return spring slot, on the shaft (1219-0001), is 90 degrees clockwise to the stop pin on the 19 tooth drive gear (1216-0101), as viewed from the outside to the inside.

3. Using the kicker arm or a wrench, release the return spring pressure that is against the 19 tooth drive gear (2016-0101) and remove the drive gear (2016-0101).
4. Allow the kicker arm return spring (1217-0011) to unwind by allowing the cover to rotate slowly.

NOTE: Under the 19 tooth drive gear (1216-0101), sandwiched between thrust washers is a radial bearing (1018-0011), The thin thrust washer (1100-0047) goes in first, then the radial bearing (1018-0011), with the thicker thrust washer (1100-0048) next to the 19 tooth drive gear (1216-0101).

5. Remove the three flathead socket screws (1100-0049) flanged pinion gear bushing (1217-0006) and remove the flanged pinion gear bushing.
6. Remove the clutch release lever (1217-0007) and cable connector (1217-0009).

NOTE: Do not lose or misplace the three 3/8" chrome balls (1217-0010).

ASSEMBLY

1. Install the cable in the per your OE service manual.
2. Re-assemble in the reverse order of the disassembly instructions.

NOTE: Use the red thread locker on the flathead socket screws (1100-0049) that are on the flanged pinion gear bushing (1217-0006) and 19 tooth drive gear (1216-0101) and torque them to 8 -10 foot lbs.

3. Remove the 3/4-16 nylock nut (35078-79) and washer (35076-79) from the mainshaft. The mainshaft is the rear most and longest shaft of the two on the trapdoor.
4. Carefully and thoroughly clean the threads of the mainshaft and the sprage nut (1217-0102) with thread primer.
5. Apply three drops of 680 green thread locker to the threads of the mainshaft, apply two drops of 680 green thread locker to the leading edge of the threads in the sprage nut.
6. Install the sprage nut onto the mainshaft and torque to 55 – 65 foot pounds. Wipe away any excess thread locker .

NOTE: Make sure the pinion gear (1216-0100) and the wave spring (1217-0014) are in place in the cover. Also check the cable connector (1217-0009) to ensure that it is able to swing freely on the clutch release lever (1217-0007).

7. Install the push rod end, right, (37089-84) into the mainshaft. The OE push rod end, (37069-90) uses an oil slinger that will not fit in the cover.
8. Install a new .030" end cover gasket (1094-0016) on a Rivera Primo Powerdrive, Jim's & Baker six speed.

NOTE: The five speed version uses a special thicker gasket (1094-0017).

9. Install the kicker cover onto the trapdoor with the hardware provided.
10. Torque the cover screws to 10 foot pounds.

DO NOT USE THE KICKSTART MECHANISM FOR 24 HOURS!

The 680 thread locker **MUST** cure properly and be able to do its job of holding the nut to the shaft without turning. You can however, disengage the clutch with the clutch lever and cycle the kick arm freely with no torque.

REFILL THE TRANSMISSION WITH GEAR LUBE.

Use approximately 20-24 oz. The oil level check plug is a 1/4-27 NPT pipe plug in the rear of the cover.

CHECK FOR PROPER CLUTCH ADJUSTMENT

And check that the clutch operates correctly before operating the motorcycle on the road.

Finally, reconnect the battery cable and go enjoy your new **Rivera Primo® Sharpeye™** kicker.

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