

Fig. 92 Step 7

7. Mark the relative positions of the stator and pulser assemblies to the powerhead before removal. Marking their positions will enable each to be installed in same location around the crankshaft from which they were removed. Remove the three bolts securing the stator assembly, and then lift it off the powerhead. The charge and lighting coils are considered the stator assembly and are replaced as a set. Next remove the four magneto base retainers and the pulser assembly attaching hardware. Lift off the pulser assembly, and remove the retaining collar from the pulser assembly.

CLEANING & INSPECTION

◆ See Figure 93



Inspect the flywheel for cracks or other damage, especially around the inside of the center hub. Check to be sure metal parts have not become attached to the magnets. Verify each magnet has good magnetism by using a screwdriver or other suitable tool.

Thoroughly clean the inside taper of the flywheel and the taper on the crankshaft to prevent the flywheel from walking on the crankshaft during operation.

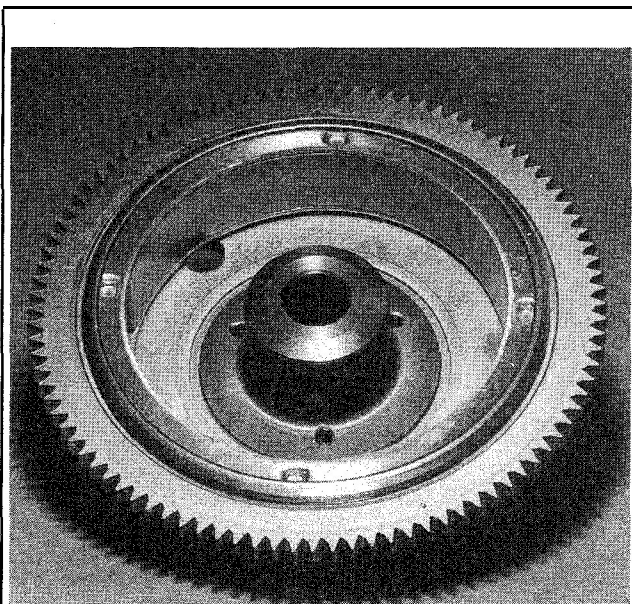


Fig. 93 Always check the flywheel carefully to be sure particles of metal have not stuck to the magnets

Check the top seal around the crankshaft to be sure no oil has been leaking onto the stator plate. If there is any evidence the seal has been leaking, it must be replaced.

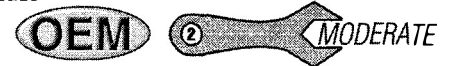
Test the stator assembly to verify it is not loose. Attempt to lift each side of the plate. There should be little or no evidence of movement.

Inspect the stator plate oil seal and the O-ring on the underside of the plate.

Some models have a retainer, a retainer ring, and a friction plate located under the stator. The retainer ring is a guard around the retainer, subject to cracking and wear. Inspect the condition of this guard and replace if it is damaged.

ASSEMBLY & INSTALLATION

1 & 2-Cylinder Powerheads



◆ See Figures 94 thru 100

1. On most 6 hp and larger motors, the stator is bolted to a friction plate beneath a retainer. For these models, place the friction plate down over the crankshaft. Rotate the plate until the hump on the outer edge is aligned with the mark scribed on the powerhead prior to removal. Install the retainer on top of the friction plate and secure it in place with the attaching bolts. Stretch the retainer ring around the retainer with the outer edge of the retainer indexed into the ring groove.

■ On the models with the friction plate/retainer set up, when the stator plate is installed, the mounting bolts thread into the friction plate instead of into the powerhead, as on the other models.

Make a final check to be sure the hump on the friction plate is still aligned with the scribed mark on the powerhead.

2. Position the stator plate in place over the crankshaft. Secure the plate with the attaching bolts. Tighten the bolts alternately and evenly to 5.9 ft. lbs. (8 Nm). Connect the stator wire harness wire by wire, color to color.

3. Place a tiny dab of thick lubricant on the curved surface of the Woodruff key to hold it in place while the flywheel is being installed. Press the Woodruff key into place in the crankshaft recess. Wipe away any excess lubricant to prevent the flywheel from walking during powerhead operation.

4. Check the flywheel magnets to ensure they are free of any metal particles. Double check the taper in the flywheel hub and the taper on the crankshaft to verify they are clean and contain no oil.

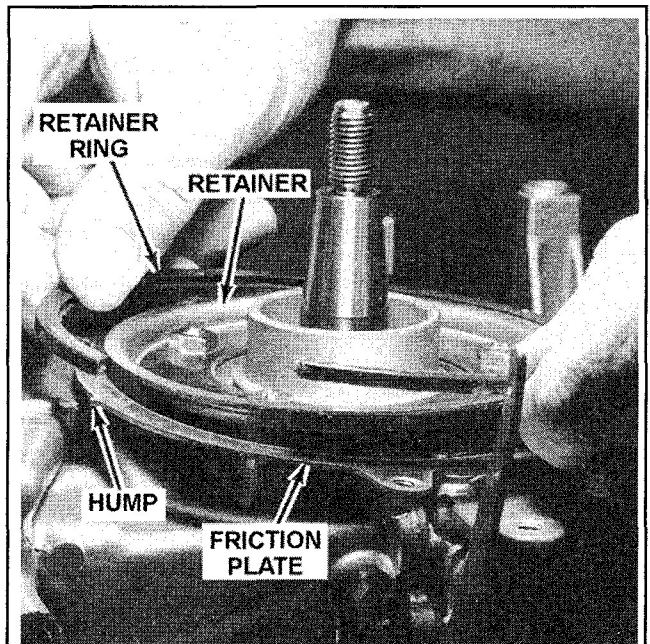


Fig. 94 Step 1

4-28 IGNITION AND ELECTRICAL SYSTEMS

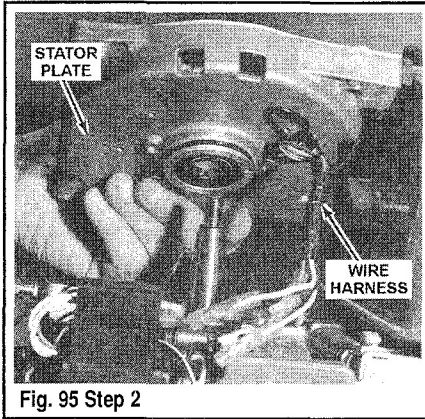


Fig. 95 Step 2

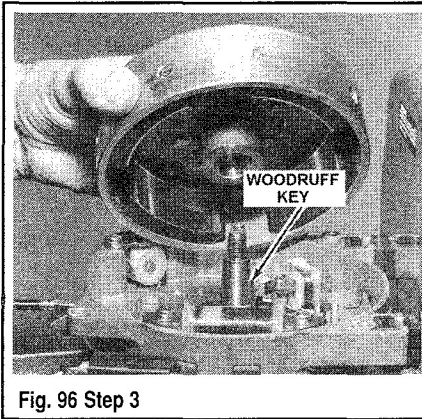


Fig. 96 Step 3

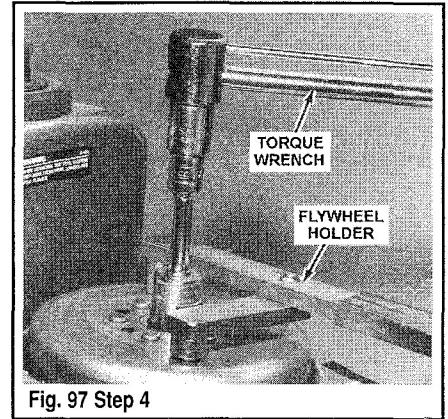


Fig. 97 Step 4

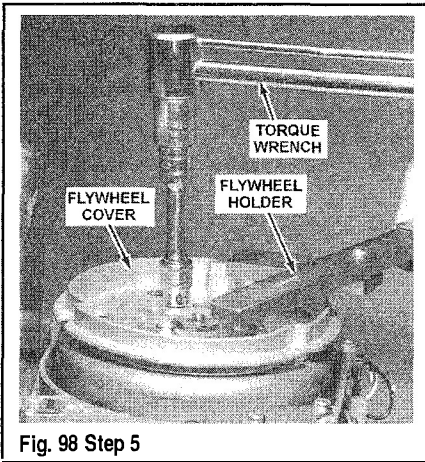


Fig. 98 Step 5

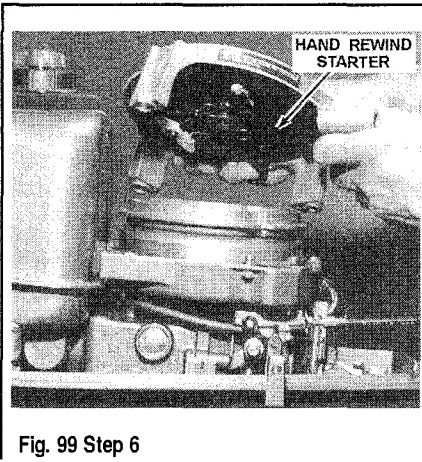


Fig. 99 Step 6

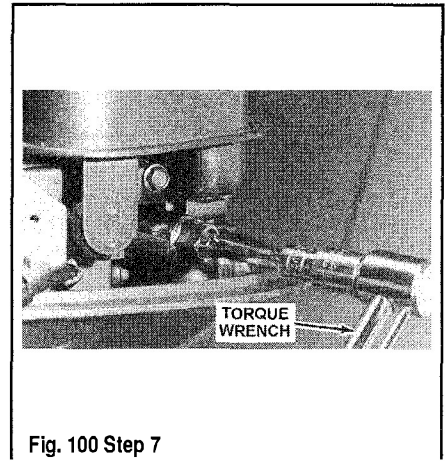


Fig. 100 Step 7

5. Now, slide the flywheel down over the crankshaft with the keyway in the flywheel aligned with the Woodruff key in place on the crankshaft. Rotate the flywheel counterclockwise to be sure it does not contact any part of the stator plate or wiring.

6. Slide the washer onto the crankshaft, and then thread the flywheel nut onto the crankshaft. Obtain a flywheel holding tool. With the pins on the ends of the holder arms indexed into the flywheel holes, tighten the flywheel nut to the following torque value for the models listed.

- Model 2, 3, 4/5 and 6/8 hp - 32 ft. lbs. (44 Nm)
- Model 9.9 (2- and 4-stroke models) & 15 hp - 70 ft. lbs. (96 Nm)
- Model 20/25 - 100 ft. lbs. (140 Nm)
- Model 25/30 hp - 115 ft. lbs. (160 Nm)
- Model 40 and 48/55 hp - 81 ft. lbs. (110 Nm)

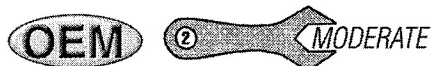
7. Position the flywheel cover in place over the flywheel with the three holes in the cover aligned with the three holes in the flywheel. Install and tighten the three bolts to 5.8 ft. lbs. (8 Nm).

8. Install the hand rewind starter to the powerhead. Tighten the three attaching bolts to 5.8 ft. lbs. (8 Nm).

9. Install and tighten the spark plugs to 14 ft. lbs. (20 Nm). Secure the spark plug leads to the spark plugs.

Install the cowl to the powerhead.

3-Cylinder Powerheads



◆ See Figures 101 thru 110

The following procedures pick up the work after the flywheel and stator assembly have been cleaned, inspected, serviced, and assembled.

1. Place the nylon spacer around the pulser assembly or the stator plate, depending on the model being serviced.

If applicable on 65J-90 hp (1140cc) models, place the pulser assembly over the crankshaft. Secure the assembly with the three small angled retainers and the three attaching screws.

Place the stator plate down over the crankshaft.

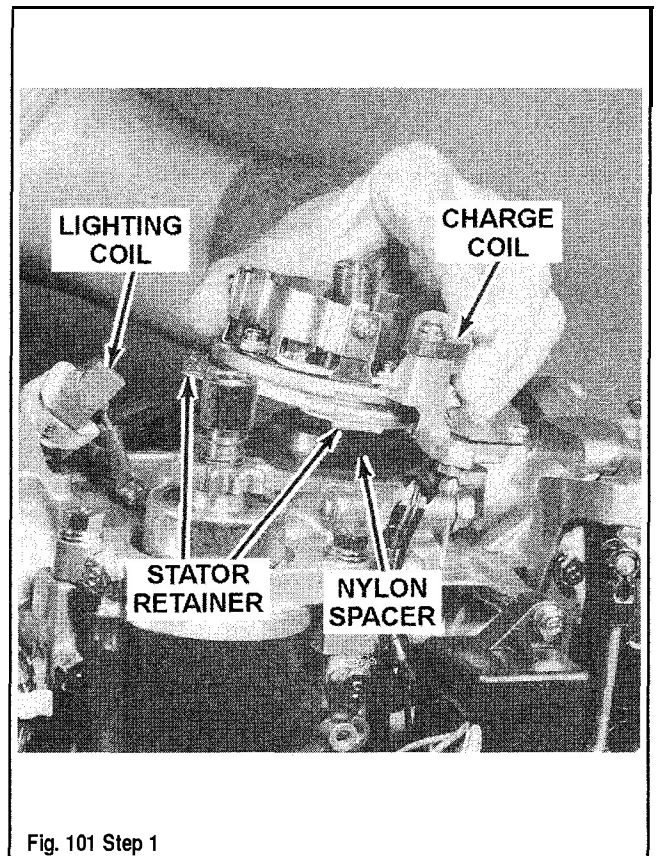


Fig. 101 Step 1