DISASSEMBLY OF ALTERNATOR/IGNITION

Unscrew the three screws of the flywheel cover, the two screws of the sprocket cover and remove the covers.
If the stator is going to be dismounted disconnect the wiring harness of the alternator/ignition from the main wiring harness and the ignition coil.
Insert the flywheel holder (Fig. 5A-1, Art. 270009-01) into the flywheel (Fig. 5A-2) and the center of the output shaft (Fig. 5A-3).
Unscrew the flywheel nut, clockwise (Fig. 5A-4), and remove the nut.

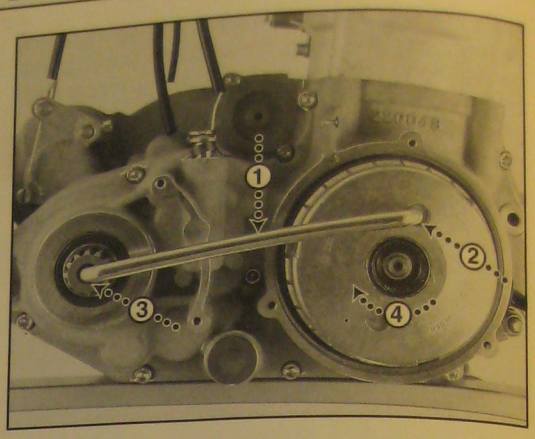

Fig. 5A

Release the flywheel from the crankshaft by using the flywheel puller (Fig. 5B-1, Art. No. 270002-01). Be careful not to lose the woodruff key (Fig. 5D-3).

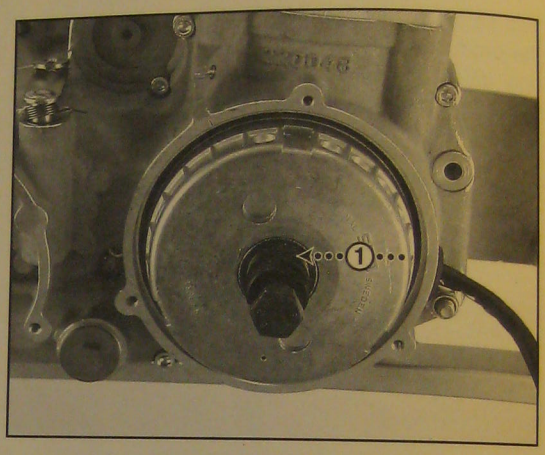

Fig. 5B

Unscrew the three screws of the stator (Fig. 5C-1), the two screws of the wiring clamp (Fig. 5C-2) and remove the clamp, the stator (Fig. 5C-3) and the guide bushing (Fig. 5D-6).

If the stator is presumed to be of malfunction check each wire of the stator with an ohmmeter:

Plus (+)	Minus (-)	Value
Red	Black	1,7 kOhm ±10%
Green	Black	27 Ohm ±10%
Yellow/Yellow*	Blue	<1,0 Ohm

* The two yellow wires to be connected in parallel

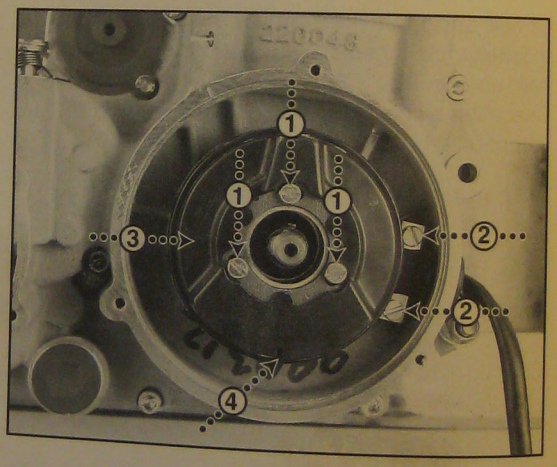

Fig. 5C

Check the inside of the flywheel (Fig. 5D-2), the woodruff key (Fig. 5D-3), the stator (Fig. 5D-4), the guide bushing (Fig 5D-6) and the oil seal of the crankshaft (Fig. 5E-1) for any damages or deterioration. Thoroughly clean the inside of the flywheel and the outer of the stator.
Check the condition of the spark plug (Fig. 5D-10) and set the gap to 0,7mm.
Check the condition of the spark plug cap (Fig. 5D-7), look especially for any cracks.
Black, Red and Green cables from the stator should be connected to the cables of the same colour on the ignition coil (Fig. 5D-9).
Each Yellow cable from the alternator provides 70W of output attached to the main electrical system.

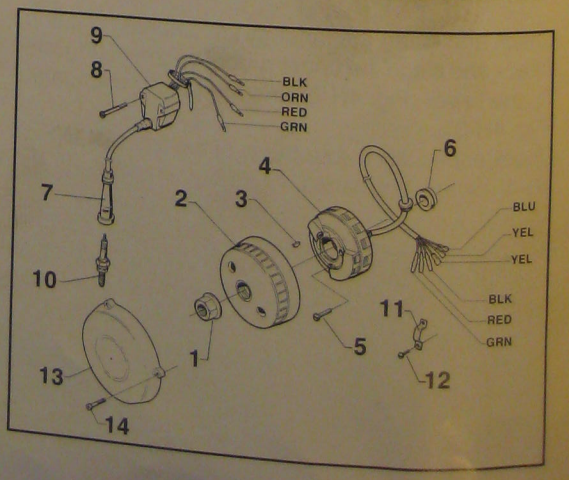

Fig. 5D

ASSEMBLY OF ALTERNATOR/IGNITION

Install the woodruff key (Fig. 5E-2) with the flat surface of the key in alignment with the crankshaft cone. Install the wiring of the alternator and igntion through the conduit entry and crankcase (Fig. 5E-3).
Put the guide bushing into the center of the stator as shown (Fig. 5E-4). Center the stator including the guide bushing carefully within the inner surfaces of the stator attachment knobs as shown (Fig. 5E-5).
Screw on the wiring and the stator (Fig. 5C). Use a threadlock liquid onto all five screws, torque 8 Nm.

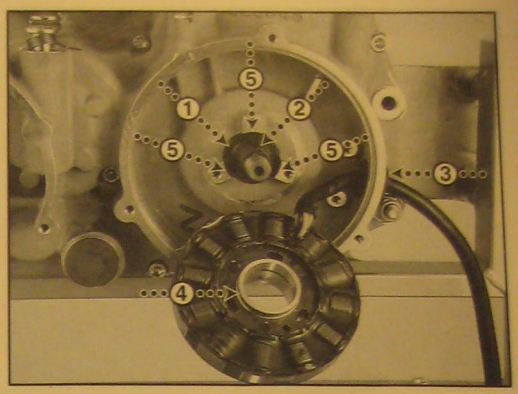

Fig. 5E

Install the flywheel, screw on the flywheel nut, counter-clockwise (Fig. 5F-1), torque 50 Nm. Use the flywheel holder (Fig. 5F-2) while tightening the flywheel nut.
Thoroughly clean the inside of the flywheel cover. Check the labyrinth sealing for any damages or deterioration before putting it onto the crankcase.
Install the flywheel cover with the three screws.

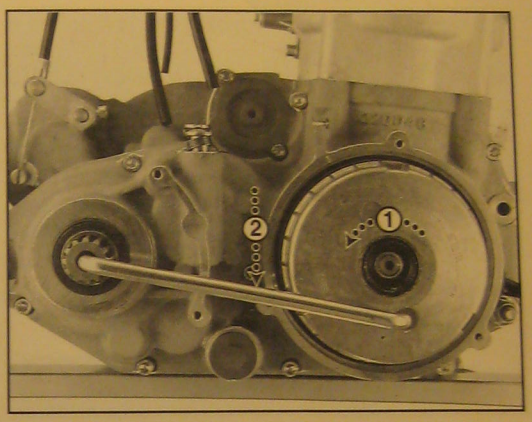

Fig. 5F

5

IGNITION TIMING

<u>If the original flywheel and stator are being used:</u>
Insert a suitable metal pin, or likewise, into the machined hole of the flywheel (Fig. 5G-1). By gently moving the flywheel back and forth find the corresponding slot of the stator (Fig. 5C-4) and push the pin into this.
The ignition mark (Fig. 5G-2) should align with the corresponding mark on the crankcase (Fig. 10G-3). The ignition mark is 33° before the TDC mark (Fig. 5G-4). Measured with a metal measuring tape this is equal to 33,6 mm of the outer diameter of the flywheel.

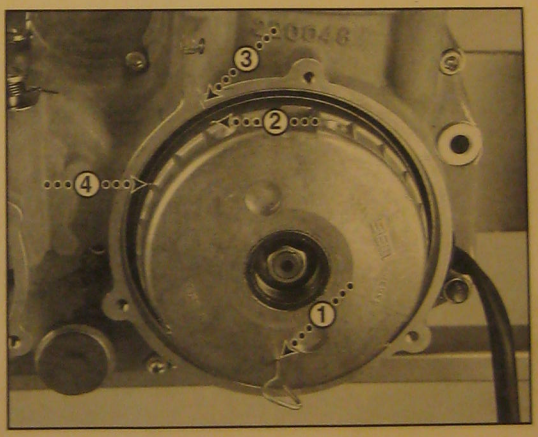

Fig. 5G

<u>If the stator and/or the flywheel have been changed:</u>
The stator just very slightly released and the flywheel positioned onto the crankshaft and the woodruff key. Put the piston in the TDC position by using a dial indicator (Fig. 5H-1). Make a TDC mark on the flywheel exactly aligned with the mark on the crankcase (Fig. 5H-2).
Measure a distance, clockwise, of 33°, on the flywheel and make an ignition mark onto the flywheel. Put in a metal pin, or likewise, into the flywheel and find the corresponding slot in the stator. Turn the flywheel and the stator with the pin in the fixed position. Pull the flywheel out when the ignition mark aligns with the crankcase mark. Tighten the parts. Use a timing light at 5000 rpm for a precise check.

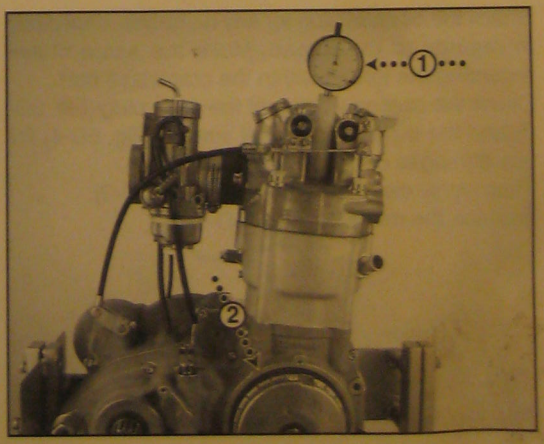

Fig. 5H