

# CAM 100

## Setting the timing

### Carbureted Engine

5) Mount the ignition control box on the cockpit side of the firewall. Mount the selector switch in the dashboard. Connect the cables from the ignition control box to the negative side of the coils, marked "15".

6) Route the two cables from the sensors at the front of the engine along the intake side of the engine and through the firewall to the control box. The box and connectors are marked (TDC is "A" BDC is "B")

7) Provide a separate wire and a separate 10 Amp fuse or circuit breaker for power to each of the four ignition coils from the ignition switch (Ref. Wiring Diagram, page 2). This will ensure that the failure of one coil will not prevent the rest from operating.

Use 16 Gauge wire or larger, and keep the wires away from the HT leads. The positive side of the coils are marked "1". After the engine has run and you are sure that all the connections are correct, fix the 1/4" spade terminal connectors to the coils with 5 minute epoxy. Do not get any epoxy on the metal contact portion of the connectors.

8) The black wire from the ignition control box must be attached to a good ground, either the engine block, or the negative battery terminal.

If you must extend the ground wire, use 14 Gauge wire or larger.

9) Connect the red wire (power) from the control box to the ignition switch. Separate fuses are provided in the control box for each circuit. These are 1 Amp fuses, and should **never** be replaced with higher amperage fuses.

10) Change the spark plug gaps to .035" (0.9 mm).

**CAUTION: When the engine is not running, do not leave the ignition turned on, as this may cause the ignition coils to overheat.**

#### Setting the Ignition Timing

11) Connect a timing light to the HT lead for cylinder No.1 or No.4 and start the engine. The correct timing setting is TDC at idle (below 1300 RPM).

12) To adjust the timing stop the engine, and loosen the TDC sensor ("A"), on the port side of the engine. Move the sensor up to advance the timing, down to retard.

Tighten the sensor. Re-start the engine and check the setting. Re-adjust if necessary.

**CAUTION: Do not over-tighten the sensors. They need only be tight enough so that they will not move.**

The sensors are aluminum, and the big locking nuts are steel, so it is very easy to strip the sensors.

13) Connect the timing light to cylinder No. 2 or 3 and adjust the timing with the BDC sensor ("B"), located below the starter motor.

14) Re-check the timing for cylinder No. 1.