

My BLIC magneto was causing irregular running, and I changed it for a coil conversion. I had to set the timing. The distributor is a copy of the Bosch 009, mounted vertically, so that it does not obstruct the oil filler.

- i) Disconnect the battery
- ii) Remove Number 1 spark plug (the one nearest the front)
- iii) Rotate engine on starting handle. There are two revolutions to complete the 4 stroke cycle, and on one of the up-strokes of the piston you will feel the compression building up if you put your thumb over the plug hole.
- iv) On the compression stroke, get the piston as high as possible, without starting to go down (top dead centre, TDC). You could use the end of a vernier gauge depth-finder to find this top point. This point could be marked with typex on the bottom pulley against a mark on the crankcase for future use with a strobe for testing the timing (**timing mark, see next page**).
- v) Turn on battery. Use a 6V bulb test light connecting one end to earth and the other to the negative terminal of the coil.
- vi) Set the distributor body so that the number one distributor point is just about to contact the rotor arm. Now slowly rotate the distributor body until the test light just comes on. Tighten everything up. You have set the spark on Number one cylinder to fire at TDC.
- vii) Try a road test. If the engine is noisy and rattling, it is too far advanced (i.e the spark is coming too far before TDC). Mark the distributor body and drive casing with a typex line, so that you know your initial timing. Now turn the distributor body about 1° clockwise (when looking down from above) to retard it. If the engine sounds nice and quiet, apart from backfire on the overrun, but lacks power, then it needs to be slightly advanced by turning the body slightly anti-clockwise. The difference between fully advanced and fully retarded is only a couple of degrees, or a mm or so at the distributor body outer surface. If in doubt, it is safer to be too retarded than too advanced, because when too much advanced the premature firing puts excessive force on the big ends, making them rattle and wear out.

Alternative Method, as described by Eddie Loader

- 1 warm up engine to working temperature .
- 2 slowly turn the distributor anti-clockwise (i.e advance) until the engine starts to increase in speed
- 3 now slowly retard by turning the distributor clockwise until the engine revs start to drop down.
- 4 slowly turn the distributor from the slow revs position until you reach the point where the revs just start to pick up, which is the correct timing position.