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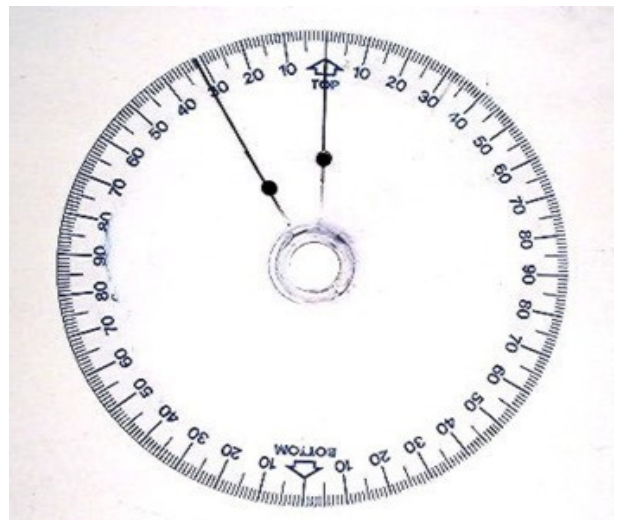
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# **ELECTRONIC IGNITION**

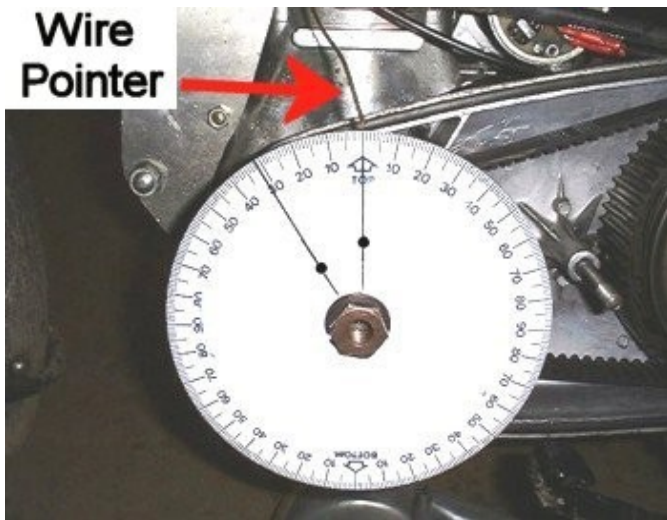


The popular Boyer electronic ignition conversion replaces the mechanical points and advance/retard bobweights with a magnetic trigger. Although a lot of owners will manage without, to set the timing accurately you will need a strobe light, top dead centre tool and timing disc. The majority of this article shows you how to create the timing marks on a Bullet and this will be the same for points as well as electronic ignition. As most of the running of your Bullet is with the ignition advanced, then it is essential to check the fully advanced timing, more so than the retarded position.

The correct advanced timing for both the 350 and 500 Bullet is 32 degrees before Top Dead Centre (TDC). Drill a small hole in the timing disc to coincide with 32 degrees before TDC at 32mm from the centre and also one hole on the TDC line 40mm from the centre. This is needed to enable you to mark the alternator with the correct timing marks. NB. With Boyer ignition there is approximately a 30 degree range from full retard to full advance.



Remove the outer chaincase cover, using a container to catch the oil. The Bullet alternator is not marked with the necessary timing marks, so you will need to find TDC and mark the alternator accordingly. Remove the alternator rotor nut and attach the timing disc and refit the nut. Set the engine at top dead centre by removing the spark plug and fitting a top dead centre tool, part E0003 (or in emergency a home made substitute,



but beware of dropping or jamming this in the cylinder). Using this tool find what you think is TDC and make a wire pointer attached to the engine pointing on to the timing disc at the TDC mark. To give you an accurate TDC reading, now turn the engine back 5mm as shown by the TDC tool and note the degrees of the timing disc as indicated by the pointer. Now turn the engine in the opposite direction so that the TDC tool rises again, and then drops to 5mm, and again note the degrees from TDC. You will now know that TDC is exactly half way between these 2 marks. If your timing disc is not indicating this, then reposition your wire

pointer and check again. Turn the engine so that TDC is lined up with the pointer. Now mark the stator and rotor with a fine black line through the 2 holes that you have pre-drilled and remove the disc and replace the rotor nut. You now have your timing marks. (N.B. The Boyer ignition sparks on every stroke, this is known as a “wasted spark” on the exhaust stroke, unlike a coil or magneto equipped Bullet, you do not need to find the compression stroke).

Connect up your strobe light, and as the engine revs increase, the mark on the rotor should move towards the top dead centre mark on the stator. Full advance should be reached at approximately 3500 rpm, and at this time the two marks should line up with each other. If not, to adjust the timing, remove the distributor cover, loosen the 2 stator plate fixing screws and rotate the plate as necessary, (to retard the ignition rotate the plate clockwise and to advance the ignition, rotate the plate anti-clockwise). Retighten the screws when correct and replace the distributor cover. Replace the primary cover and



top up to the level plug with the recommended oil, (we use Automatic Transmission Fluid, “ATF”). Your ignition is now set and should require no further adjustment.

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