

## 18D2/18D1; upgrade.

There is a question on some peoples faces-what is this? It is a Lucas manufactured housing/shaft used as a distributor/points housing. Made in the late 50s and early 60s and used on the Norton Dominator's, Mod 50s, AJS twins and BSA singles. The distributor gets well worn over the years especially the shaft/body fit (more anon) and the capacitor in these things (little tub thing) was also not very reliable in the long run. (fit a car one on the outside of the Dizzy) so the question keeps coming up 'can we fit electronic?' yes-reasonable easy but there is a little bit of fiddling.

On the electrical side fitting a Boyer amplifier (or even a Pazon) and twin 6V coils is easy enough. But consideration must be made as regards the pick-up. The Commando/Triumph type pick-up plate is too big for the dizzy body. So A O Services has made one that will fit. We have made a smaller pick-up plate from some Boyer parts and we have adapted one of the Boyer magnetic rotors to fit the 18D2 shaft. (but not made a pick-up for the Pazon)

The 'fiddling' comes in at this point. Any side play in the shaft body should be dealt with by replacing the phosphor bronze bush in the body, now unfortunately sometimes the shaft is also worn such that you get a 'waisted' effect. The best you can do in this case is seek the help of a decent tool maker who can often improve things.

The second 'fiddle' is with the end float, but this is very easy as it is taken care off with a fatter washer between the dizzy body and the drive sprocket, I consider end float should be about 5thou..

At this point we can consider fitting the pick-up parts. The advance retard mechanism cam/springs/weights are removed (via a 4BA screw) and the modified Boyer rotor is dropped on the shafts (centre shaft and two spring posts). Check that the nylon washer is still underneath the advance retard plate.

The points plate having been removed is now replaced with the pick-up plate (2X4BA screws). Fiddle no 3 now comes into play, sometimes the pick-up plate pole pieces stick down into the rotor area and touch the magnets/screws so a little careful measuring with a vernier and a little careful filing might be called for. At this point the end float needs to be considered as you refit the drive gear/sprocket. All done, then refit to bike. Ignition timing? As with all the electronic systems, there is instructions for basic ignition timing which allows you to start the engine, you then have to strobe it. Yes you have to fit some strobe marks for the fully advanced ignition point at the alternator (but this is now a one time only job)

If you have a twin then you will see that as you now have twin 6V coils then the 'distributor function is done away with'. I have seen one 18D2 system converting to using Boyer, but with one coil, and retaining the rotor and dizzy cap function but I think you are keeping some of the poorer parts of the old system. No dizzy cap needed-what to do? You can fit the old cap, even fit HT leads up under the tank to make it look original!! I had an 18D2 on the Domie \*\*\*\* years ago I always hated the look of it! What to do? You can fit the 18D1 cap, which is very neat and tidy (what do you mean you can't buy them? I have had them made)

Finally the big question that will have been sorted before you started all this-6V or 12V? No question really. There is an electronic 6V system, but you are advised to use

two 3V coils (hens teeth) Most electronic systems are susceptible to supply/battery voltage variations and the original 6V alternator regulation control is less than good. (High voltage kills ignitions) My advice forget 6V certainly on twins.

12V is easy enough from the original alternator, change bulbs and battery, and fit a Zener or regulator/rectifier.