



J2 TECHNICAL ARTICLE

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CONVERSION OF THIRD BRUSH DYNAMO -NB

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By Bob Brassington

When putting my NB back on the road last year I decided to fit a later type control box for the dynamo, discarding the third brush. There were two reasons for this, -first, I like the battery to dictate to dynamo what it requires rather than vice-versa, and secondly I feel certain that the third brush method of regulation causes a bit of armature reaction and may contribute to heat generation. I decided to wait until a reasonable mileage had been covered before letting other Triple M people try this system, - armature re-winds are not to be encouraged!

I went about it as follows;

Voltage Control Unit

Obtain a working unit of the twin bobbin type, 12 volt version in my case, and check it over for cleanliness and points condition and general adjustment. Some units have alternative connections for a boost charge rate (an extra turn or two on the vibrating contact bobbin) --this I disconnected, thus giving the dynamo less stress.

The Dynamo

Remove third brush assembly, connecting the lead that used to go to the third brush to the EARTHED main brush. - Now connect F A D E of the new unit in the conventional manner, -F to the field terminal on the dynamo and D to the larger dynamo terminal.

Start up the engine and you should get a charge. I was lucky and did not need to touch the regulator settings, --all works well, but I suggest if you are in doubt you leave the headlights on for a few minutes (only), then start up, switch on headlights and rev engine until the unit regulates (flickering of ammeter) noting the current at which this occurs. For safety, restrict this to 10 amps less the load already applied calculated from the items consuming current i.e. - Headlamps 50 watts, sidelamps 10 watts, rear lamps 10w. Ignit. 15 watts = Total 85 watts. This leaves 3 amps for charging when fully loaded.

To decrease charge, release spring pressure on vibrating contact. Increase spring pressure to increase charge, i.e. "increase to increase, reduce to reduce"

My own car has now covered over 3500 miles, and the dynamo solder has not been thrown and the field coils, ancient though they are, have so far survived. This includes night driving.

Now all I have to do is to find a method of avoiding dazzle to oncoming traffic, - the double-dipping arrangements give scattered light all over the place and precious little change from "main" to "dip".

---Of course, if Murphie's law is on form, I shall have a wrecked, burnt-out dynamo by the next time I see you!

Bob Brassington.