FITTING AN AMMETER .(Excelsior Engine Models)

The object of fitting an ammeter is to indicate the Charge and Discharge of current to and from the battery. If you are like me and have a number of extra electrical bobs and gadgets eating up the battery, then an Ammeter is a must. So if you want to fit an Ammeter to your Berkeley, the following data will be of interest.

An Ammeter is normally fitted into the lead connecting the battery to the Control or Regulator box, but in Berkeley's using the 'Siba Dynastart' this is not possible, because this lead passes a heavy current when the starter is operated, which would damage the Ammeter. I have come across a few Berkeley's with an Ammeter fitted into the lead from the Dynastart to the DF tag on the Control box, but this will only indicate the Charge, not the Discharge.

To overcome this problem it is necessary to fit a separate Starter or Solenoid. A 12-volt Solenoid can be obtained from most garages, the one I fitted was a Lucas type, which cost about £1.75, or you could scrounge one from a breakers yard for a few pence.

The Solenoid can be fitted in any convenient position in the engine compartment. I fitted mine on just below the top engine tray on the Dynastart side.

1. Referring to fig 1, it will be seen that there are three connections on the Solenoid A, B and C.

2. Remove the lead from tag A on the Control Box and connect it to tag A on the Solenoid.

3. Disconnect tile main battery cable from the '30/51 tag on the Control Box and reconnect it to tag B on the Solenoid.

4. Next disconnect the lead from tag 50 on the Control Box and connect it to tag C on the Solenoid.

5. The next job is to wire up the Ammeter, most Ammeters read 30 -0 -30 Amps, but if a meter is obtainable that reads 15 -0 -15 Amps, then this would give a better indication of the current flowing.

6. The Ammeter should be connected using a fairly thick wire to one of the terminals on the rear of the Ammeter and connect the other end to tag B on the Solenoid. Connect another wire to the other terminal on the Ammeter and connect the other end to the connection on the Ignition switch which has a wire connecting it to tag '30/50' on the Control Box.

7. The circu1t shown in Fig.2 can be compared with the one at the back of the Excelsior Handbook.

8. All being well, your Ammeter should now work. Switch on the Ignition Switch, the Ammeter needle should move into the Discharge position, (if it moves into the Charge position, then reverse the connections to the Ammeter). Press the Starter button, the needle should kick a degree or so, but no more. When the engine is ticking over the Ammeter should read Discharge, as you accelerate, the needle should swing over to Charge as the Ignition lamp goes out. If your Battery is low, your Ammeter will read about 6 Amps or so, as the Battery reaches full charge the needle will fall back towards zero. If your Ammeter works as described, "Bob's yer Uncle:" If it doesn't, (!!!!!?) and your Berkeley blows up then please tear up this article and forget who wrote it!

One point worth mentioning is -when fiddling about under the dashboard, remove all rings and watches, because if your ring does short across the battery it can get hot, and give you a nasty burn.

One last word of warning, DON'T forget to disconnect your Battery before making any alteration to your wiring, if you accidentally short out your wiring you can easily burn out your wiring harness - a costly item!

BRIAN L. MUNDY.

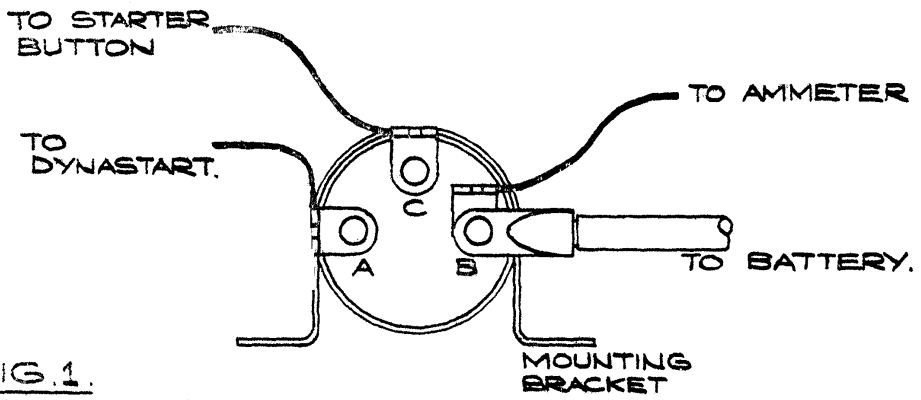
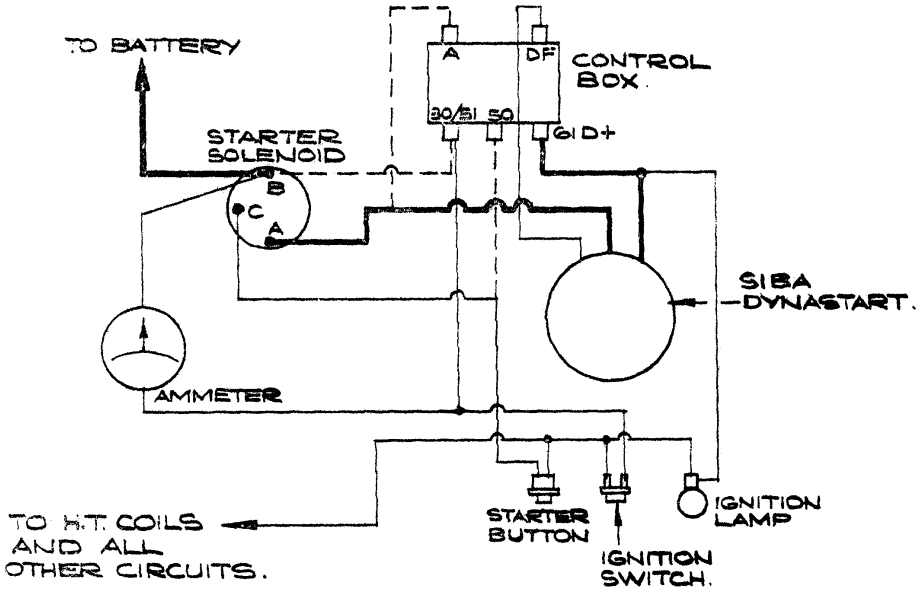


FIG.1.
END VIEW OF SOLENOID.



NOTE
DOTTED LINES INDICATE CONNECTIONS REMOVED FROM ORIGINAL CIRCUIT.

FIG.2.