Testing Voltage

4 LI

Note:

The regulator cover must remain on during the tests since the regulator elements are temperature sensitive.

a) **Regulator voltage under no load**

1. Connect leads as in Fig. 8.

2. Start engine and increase generator speed to 3500–4000 rpm, at which time the voltmeter should register the correct no-load voltage.

b) **Regulator voltage under load**

1. Connect leads as in Fig. 8 and connect ammeter to terminal "51 B+" and ground as in Fig. 9.

2. Start engine and increase speed to generator test rpm and hold constant. Increase resistance load until the ammeter indicates the correct test current. At this setting the voltmeter must indicate at least 6 volts for a generator in good working order. If the generator has become warm during the test an increase of 100 rpm is permissible to obtain rated output.

3. If the generator fails to produce current during this test the generator must be removed and checked for internal shorts in the armature and field windings. If the current does not reach the required values the regulator is at fault and must be adjusted by an auto electric shop or be replaced.

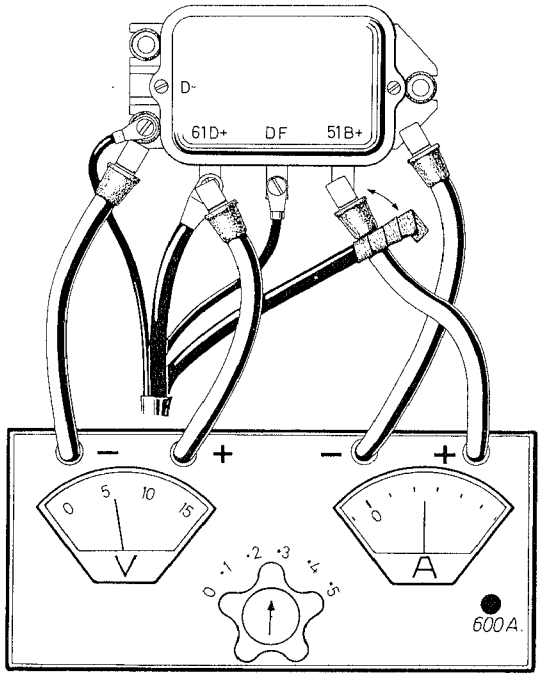

Fig. 9

c) **Current Regulator Test**

1. Connection as in Fig. 9, generator running at test rpm.

2. Gradually reduce the circuit resistance at the variable resistance, the reading on the ammeter will increase correspondingly until the current regulator starts to operate. Further reduction in the resistance will cause the voltage to fall sharply without affecting the current reading. For maximum permissible current values see page L 85.

3. If the current does not remain within the prescribed limits the regulator must be adjusted by an auto electric shop or be replaced.