

B. Testing Voltage Regulation of Generator

1. Connect a voltmeter to the terminal D + (61) and the terminal D —.
2. Remove the cable at the terminal B + (51) of the regulator cutout and insulate it.
3. Start the engine and increase the speed until the voltage indicated by the voltmeter increases no longer. This is the regulated no-load voltage controlled by the regulator cutout (see test data for generators and regulator cutouts).
4. If no voltage is indicated, the generator is not excited.

In order to determine whether the gener-

ator is defective, the generator must be operated as a motor for a short period. For this purpose remove the V-belt. Then connect the terminal DF with the terminal D —, and the terminal B + (51) with the terminal D + (61).

The generator must now run as a motor smoothly and truly in the nominal direction of rotation. At the same time the generator is polarized. After that repeat testing of voltage regulation.

5. If the voltage is too low, the generator and the regulator cutout can be defective. If the voltage is too high, the fault can be found in the regulator cutout.

C. Testing Voltage and Current Regulation of Generator on the Test Stand or with a Tester

The testing of the voltage regulation of the generator described in Section B is a make-shift test which is generally sufficient for practical purposes. If an exact test, especially an output test, has to be conducted, the generator must be tested together with the regulator cutout on a test stand which allows rheostatic braking.

A number of testers have recently appeared on the market, which allow a proper testing of generator with regulator cutout, even if these assemblies are still installed in the vehicle. When using these instruments follow the operating instructions issued by the respective producer.

The specified test values must be reached during the testing. Test Data for Generator and Regulator Cutout see Job No. 15-0.