

Fig. 16

ness in ten steps as controller lever is moved through its full arc of application.

3. The small controller used with house trailer brakes can be tested in same manner except with this controller the bulb will light to a glow and increase in brightness in seven steps.

If controller does not check as indicated, clean contactor arm and blades with fine emery cloth. If contactor blades are bent, straighten them with thin flat nose pliers. If in rechecking the controller the proper results are not obtained the complete controller should be sent to the factory for reconditioning.

METHOD OF CHECKING AMPERAGE AT BRAKES

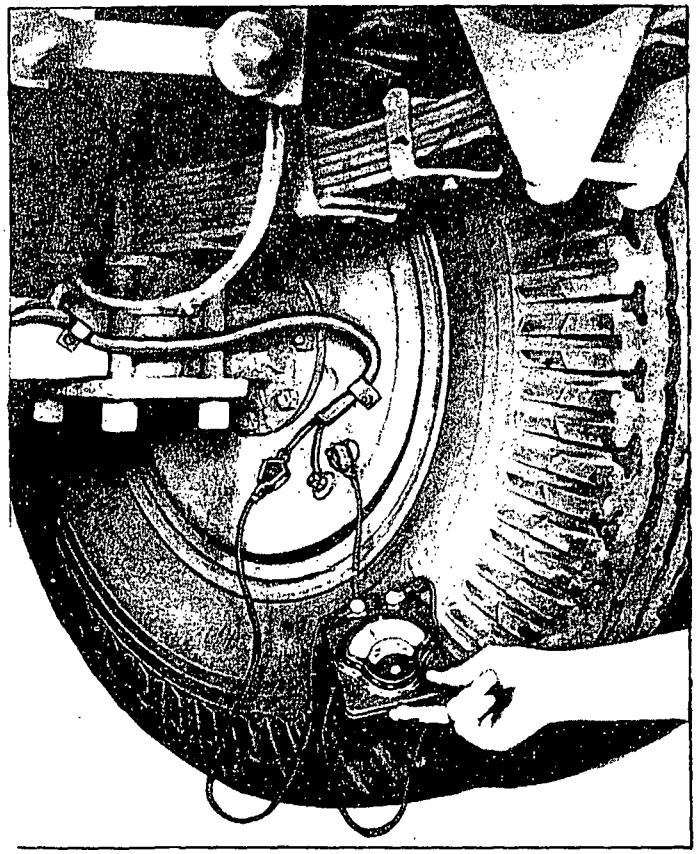

Fig. 17

Disconnect either wire from brake and connect to ammeter. Connect other lead of ammeter to brake terminal from which wire was disconnected. (TWO WIRE SYSTEM.)

AMPERAGE CHARTS

The braking power of the brakes is in direct proportion to the amount of current used by the brakes. A BROKEN WIRE, LOOSE CONNECTIONS OR POOR CONTACTS reduce the amount of current that passes through the brakes. If tow vehicle is equipped with load control, be sure it is on full capacity when making test.

NOTE: Each brake should draw no less nor more than the minimum and maximum amperes as follows:

Brake Size	Minimum Amperes	*Maximum Amperes
12 x1¾	2.5	3
14 x2	2.8	3.7
16 x2½	2.8	3.7
17¼x3	2.6	3.4
17¼x4	2.6	3.4
17¼x5	3	4.2
17¼x6	3	4.2

*Maximum amperes represent the magnet capacity when magnet is connected directly across a 6-volt battery. Due to circuit resistance, these values are not obtainable when checking the current at the controller or at the brake.

NOTE: The above values are for a two brake system. For systems having more than two brakes, the above values will be slightly less, due to line loss.

At controller, the amperage reading must be the sum of the amperages for each brake in the system. For example, a two brake system having 12x2½ brakes should not read less than 5.6 amperes nor more than 7.4 amperes. If current consumption is less than 5/6 amperes, find the defect in circuit which may include defective controller, defective load control, defective magnet, poor wiring or ground connections. If current consumption is more than 7.4 amperes, it is possible stop light is in brake circuit, controller, load control, magnet or wiring may have a short. If current consumption is within these limits and brakes are still not effective, the trouble will be found in the brake mechanism.

TESTING MAGNET FOR SHORT

Connect magnet as shown in Fig. 18. If any amperage is indicated on ammeter the magnet is shorted.

Connect second magnet wire to ammeter and touch the battery wire to magnet shell. If any amperage is indicated, the magnet is shorted. The short may be in the magnet contact wire assembly or coil may be shorted in the magnet shell. A short in the magnet wire contact assembly may be corrected by replacing magnet wire contact assembly as shown on page *19* If with a new magnet wire contact assembly, the magnet is still shorted, the short is in magnet coil and the complete magnet assembly MUST be replaced.