# SERVICE BULLETIN

AUTOMATIC TRANSMISSION

No.<sub>218</sub>

December 30, 1960

IMPORTANT

### TO ALL ROOTES GROUP DEALERS

#### COLD WEATHER STARTING

## HILLMAN AND SINGER AUTOMATIC TRANSMISSION

Should difficult cold weather starting be encountered with the above models due to low battery conditions the procedure outlined in our Bulletin No. 217 dated December 28, 1960 referring to the subject should be followed and in addition the following automatic transmission points must be carefully checked.

#### A. THROTTLE LINKAGE ADJUSTMENT

- 1. This controls the charge obtained in low gear, and economises on battery current.
  - a) Adjust Throttle linkage as outlined in Section 7 WSM 125/2 and set "lost motion" to 110.
  - b) Road test on level ground with engine at normal operating temperature making certain that choke control is pushed fully home. Operate vehicle using "light" throttle pedal which will enable the vehicle to accelerate gently from the low to intermediate change point, which should be between 11 to 13-1/2 m.p.h.

If the lost motion adjustment is correct, a charge will be indicated on the ammeter up to approximately 9 m.p.h. and then cease as the Governor Throttle Switch 3 opens.

If no charge is indicated on the ammeter or the charge ceases before 9 - 10 m.p.h. is reached, this condition is an indication of excessive "lost motion" in which case check adjustment made to linkage and correct as necessary.

- B. CURRENT/VOLTAGE REGULATOR ADJUSTMENT (3 Bobbin Type)
  - Note: Before altering any control box settings, it is important to check that the battery, generator and all charging circuit connections are in order.

Checking and adjustment should be completed as rapidly as possible to avoid heat rise in the regulator unit.

- 1. Disconnect white lead in Easidrive harness from Terminal A 3 on fuse unit. The Easidrive lead can easily be identified as the other connections to A 3 are plastic coated.
- 2. Disconnect wires from Regulator Terminal "B".

  Note: There are two wires to the "B" Terminal, they should both be removed and joined together, to supply ignition, etc.
- 3. Connect voltmeter between Regulator Terminal D and a good ground. Start engine and run at a moderate speed (about 1500/2000 engine RPM). Voltmeter reading should be 14.8 to 15 volts. Adjust if necessary: Sec. 14 WSM 125/2.
- 4. Current Regulator adjustment: The voltage regulator must be rendered inoperative by placing a crocodile clip between the insulated fixed contact bracket of the voltage regulator and the regulator frame (See Fig. 2, Sec. 14 WSM 125/2).
- 5. Connect a 0-40 ammeter between regulator terminal B and the wires already removed from this terminal. Switch on all lamps and accessories, start engine and run at moderate speed. Ammeter should read 30 amps. adjust if required.
- 6. Refit two wires to "B" terminal, and white Easidrive lead to A 3. Be certain Easidrive lead is on A 3 as in other positions the battery could become discharged as the transmission circuit would not be controlled by the ignition switch. The Easidrive Control Unit should emit an audible "click" as the ignition switch is turned on and off.

It is also recommended that the Generator commutator and brushes, at approximately 10,000 mile intervals, are inspected. Brushes in Easidrive generators should be renewed when work to 11/32" in length.

Kindly bring the foregoing to the attention of all concerned at your location.

ROOTES MOTORS INCORPORATED

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Manager

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