PROBABLE CAUSE: Load control burned out or defective.

PROBABLE REMEDY: Assuming the wire and other parts in the electrical circuit ARE NORMAL, the load control can be checked on the job as follows:

1. Connect ammeter in line as shown on page *11* .
2. Hold controller in fully applied position.
3. Turn load control counter-clockwise as far as possible and observe ammeter reading.
4. Slowly turn load control knob clockwise as far as possible.
5. Amperage should increase as load control knob is turned clockwise.
6. If ammeter fails to indicate a flow of current AT ALL TIMES during the changing of position of knob, load control is defective and must be replaced or repaired.

NOTE: The method of checking load control as shown on page *13* - is desirable for a final check or when the condition of other parts in the circuit are questionable.

PROBABLE CAUSE: Magnet shorted.

PROBABLE REMEDY: With magnet removed from backing plate, check as shown on page *13* .

PROBABLE CAUSE: Magnet burned out.

PROBABLE REMEDY: Check the magnet as shown on page *13*

PROBABLE CAUSE: Resistor burned out.

PROBABLE REMEDY: Inspect resistance coil. Replace the coil if it is broken or burned out.

WEAK BRAKES

PROBABLE CAUSE: Improper lining.

PROBABLE REMEDY: Replace with lining recommended by factory.

PROBABLE CAUSE: Worn out lining.

PROBABLE REMEDY: The brake lining may be worn to the full extent of the magnet travel. Reline brake bands with factory approved lining.

PROBABLE CAUSE: Worn brake drums.

PROBABLE REMEDY: Reline brake bands using shim stock, so there will be approximately 1/32" clearance between lining and drum. If the band is made round with a lining grinder that attaches to the axle, as little as ten thousandths of an inch clearance is allowable between lining and drum.

NOTE: Above clearances apply to drums that are concentric. If condition of drum is questionable, it should be checked as shown on page *20* or on a drum lathe.

DO NOT WELD ON BAND ENDS OR CAMS TO COMPENSATE FOR DRUM WEAR.

PROBABLE CAUSE: Glazed magnet facing.

PROBABLE REMEDY: Machine magnet as indicated on page *19* .

PROBABLE CAUSE: Greasy magnet facing.

PROBABLE REMEDY: If magnet insert is greasy use a new magnet. If there is a small amount of grease on insert, remachine as indicated on page *19* .

PROBABLE CAUSE: Greasy brake lining.

PROBABLE REMEDY: Replace with lining recommended by the factory.

PROBABLE CAUSE: Stop lights connected in brake circuit.

PROBABLE REMEDY: Wire a separate circuit for stop lights. Stop lights must not be connected into the brake circuit. This changes the graduation of the circuit as it passes through the controller resulting in weak or grabbing brakes.

PROBABLE CAUSE: Tow vehicle equipped with foot control and the foot control is out of adjustment.

PROBABLE REMEDY: When tractor brakes are adjusted the pedal travel is shortened. This throws the controller out of adjustment. Reset controller according to new pedal travel to cover full range of the controller as indicated on page *20*

PROBABLE CAUSE: Wire broken in insulation.

PROBABLE REMEDY: Check entire wiring system for defective parts. Replace wire that is found defective. All splices MUST BE SOLDERED.

PROBABLE CAUSE: Incorrect armature depression.

PROBABLE REMEDY: The correct armature depression is from 1/8" to 3/16" inclusive. Instructions for checking armature depression will be found on pages *18* .

PROBABLE CAUSE: Insufficient current.

PROBABLE REMEDY: Insufficient current may be due to poor connections as the brake, sockets, plugs, controller, load control, starter motor or ground connections. Check, clean and tighten all connections.

PROBABLE CAUSE: Poor wiring.

PROBABLE REMEDY: Rewire, following diagrams on pages *24* - and *26* .

NOTE: Brakes not having sufficient capacity for the trailer size, weight, etc., will appear weak although they may be operating correctly.

BRAKES GRABBING

PROBABLE CAUSE: Loose wheel bearing.

PROBABLE REMEDY: A loose wheel bearing is the most common cause of "Grabby" brakes. It is very important that bearings be tightened properly. Common practice is to draw the axle nut tight enough to make the bearings bind slightly when wheel is rotated. Then back the nut off from one-sixth to one-quarter turn and lock it in place.

PROBABLE CAUSE: Worn or damaged wheel bearings.

PROBABLE REMEDY: Examine the bearings. If they are worn or damaged, it will be necessary to replace the damaged bearing and its matching cup. Check the hub to see if bearing cups fit snugly and that there are no cracks in hub.

PROBABLE CAUSE: Sticky or grease coated lining.

PROBABLE REMEDY: Replace with new lining recommended by factory. Refer to page *16* . Check the concentricity of drums. One method of checking drums is shown on page *20* .

PROBABLE CAUSE: Drums out of round.

PROBABLE REMEDY: Bore out the drum concentric with axle.

NOTE: It is necessary to use shim stock under lining when drums are rebored.