

4. After the sender has been adjusted, check for the proper amount of resistance by the following procedure:

- (a) Connect an ohmmeter to the sender unit.
- (b) Position the float arm against its bottom stop and ascertain the ohmmeter indicates 0.00 to 0.50 ohms resistance.
- (c) Slowly move the float arm from the bottom stop to the top stop watching the ohmmeter indicator. The ohmmeter needle should steadily move up, without fluctuation, as the float arm is moved.
- (d) With the float arm against its top stop, the ohmmeter should indicate 29.6 to 31.3 ohms resistance.

If incorrect resistance or fluctuation is found, the sender should be replaced.

c. Wiring Check.

1. Check all ground connections throughout the indicating system for corrosion or loose connections that may cause excessive resistance in the circuit.
2. Check all splices and terminal connections for corrosion and security.
3. Check wiring between connections for excessive resistance due to frayed or broken strands.

d. Gauge Check.

1. Sender Method:

- (a) Position and secure a calibrated sender to the fabricated checking jig.
- (b) Connect the sender directly to the gauge being checked using Number 16 or larger wire. (Refer to Figure 9-6.)

CAUTION

Make certain the sender resistor is connected to the proper side of the gauge.

(c) Connect a 14-volt power supply to the electrical system of the airplane.

(d) Operate the power supply and move the sender float arm through its travel. Ascertain that the empty and full positions of the sender and the gauge correspond. If not, the gauge should be replaced.

2. Resistor Method:

- (a) Connect a 15-ohm resistor to the sender unit terminal of the gauge being checked. (Refer to Figure 9-6.)
- (b) Connect a 14-volt power supply to the electrical system of the airplane.

(c) Operate the power supply and ascertain the gauge indicates one-half full.

(d) Repeat the procedure using a 30-ohm resistor which should cause the gauge to indicate full.

(e) If the gauge does not indicate properly, it should be replaced.

9-16. REMOVAL OF FUEL SENDER.

- a. Remove screws attaching the oval cover plate to the top of the wing.
- b. Disconnect electrical leads from the sender unit.
- c. Remove screws and washers attaching sender to mounting plate and remove sender.

9-17. INSTALLATION OF FUEL SENDER.

- a. Place the sender unit gasket on mounting plate and install sender.
- b. Secure sender to mounting plate with washers and screws.
- c. Connect electrical leads to sender.
- d. Install cover plate and secure with screws.