

GROUND TEST INSTRUCTIONS

**SECTION 14**

INSTRUMENTS

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PART 1 – INSTRUMENTS GENERAL

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**INSTRUMENTS GENERAL**

Before commencing any work or tests (other than functioning tests) on aircraft instruments the aircraft must be rendered 'Electrically Safe' (see Sect.6, Part 1, Para.1).

1. SMITH-WAYMOUTH FUEL CONTENTS GAUGES – 'ZERO' SETTING

The Smith-Waymouth fuel contents gauges must be set to give correct 'Zero' reading by the following operations, which must be made in the sequence given.

- (i) Fill and drain (to 'unusable' level) the complete fuel system ( to 'wet' all tank units).
- (ii) Allow 15 minutes to elapse after draining system to ensure all tank units fully drained off (or units will have higher capacitance than required for test).
- (iii) Connect external power supply (or battery master switch 'ON'); allow 15 minutes for amplifier to warm up (coincide this 15 minutes with (ii)).
- (iv) Pressurise fuel system (all tanks empty) to approx. 5 p.s.i. (to inflate tanks to 'filled' size).
- (v) Ensure power supply is 28 volts (plus or minus 0.5 volts).
- (vi) Set fuel gauges to 'Zero' by adjusting trimmers marked 'TRIM SUM' (located in cable connector boxes).

Note . . .

If 'Zero' reading cannot be obtained on this adjustment, additional trimming must be made on relay boxes.

- (vii) Release pressure in fuel system.
- (viii) Set wing and centre matching circuits to 'Zero' by adjusting trimmers marked 'CHANGE-OVER' (located in relay boxes).

2. A.C. INVERTERS

Test with Sperry test rig A.S.T.2 (Sk.9002-37).

3. COMPASS G.4.F.

Test as detailed in R.A.E. Leaflet I.A.P.545.

4. COMPASS G.4.F. WIRING

Test wiring with a 250 Volt megger.

An 'infinity' reading must be obtained.

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