Chapter 4

PEDESTAL TEST SET

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LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Pedestal test set	**Ref. No. 26DM/95119**
Dimensions (in.)	
Test box	$6 \times 4 \times 4\frac{1}{2}$
Setting plate	$8 \times 4\frac{1}{2} \times 2$ *approx.*

Introduction

1. This test set enables the throttle lever settings in relation to the throttle drum switch to be checked. The test set consists of two components: a test box GE2306 and a throttle setting plate GE2302.

DESCRIPTION (*fig.* 1)

2. Rectangular and of sheet metal construction the test box has mounted on it six lamps suitably marked to correspond with certain positions on the aircraft throttle quadrant. The lamp holders are designed so that they are pressed to connect an electrical supply across the filament for test purposes.

3. A twelve-pole plug is provided at one end of the box to permit connection to the aircraft and on the opposite end is fitted a flex terminated in a two-pole plug for connection to a 28V d.c. supply.

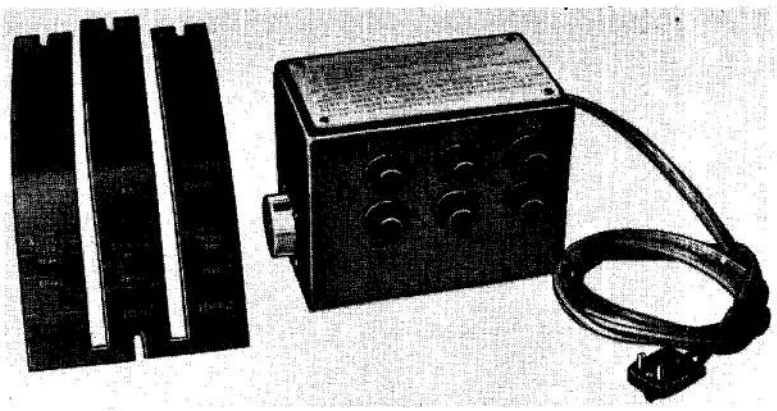

Fig. 1. Test set

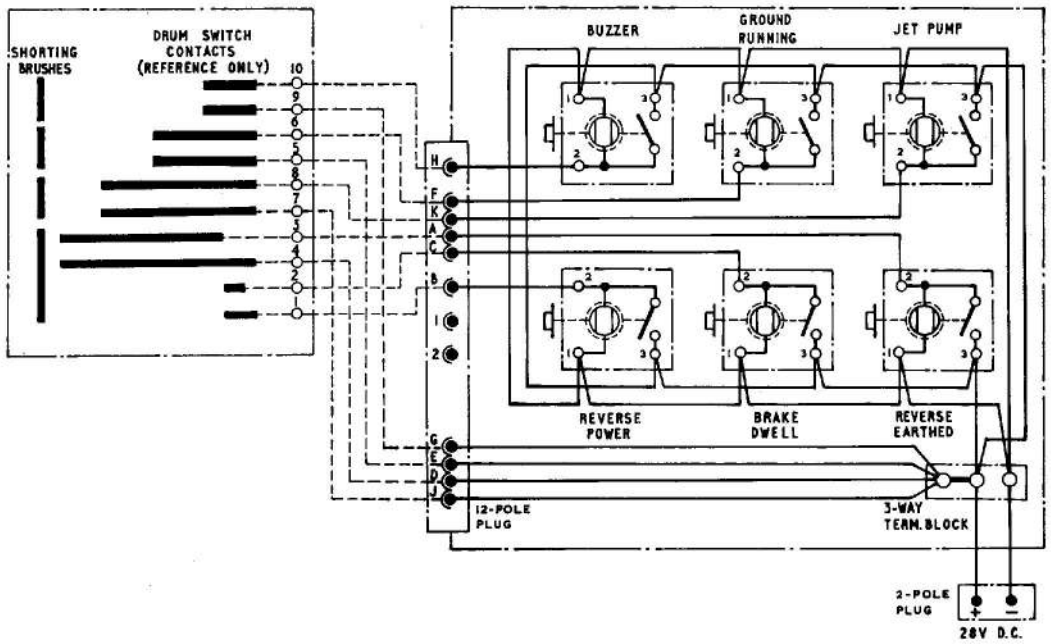

Fig. 2. Circuit diagram

4. The throttle setting plate is a metal plate slotted and curved to suit the shape of the aircraft pedestal. On the face of the plate are engraved various throttle positions against which the throttles can be set.

OPERATION (*fig.* 2)

5. When connected into the aircraft system ten poles of the twelve-pole plug are connected one to each contact strip in the throttle drum switch. A 28V d.c. positive supply is connected to four of the contact strips via pins D, E, G and J.

6. Movement of the throttle moves shorting brushes in the drum switch over the contacts and according to the position of the throttle will connect the positive supply to one or more of the other strips; each of which is connected through the twelve-pole plug to an indicator light. Hence the position of the throttle and consequently that of the shorting brushes in the drum switch, will illuminate a certain sequence of lights on the test box.

OPERATING INSTRUCTIONS

7. (1) Remove the pedestal top plate fixing screws. With the control levers in the idling position mount the setting plate GE2302 with IDLING DATUM LINE coinciding with the indicator line on the control lever. Hold the setting plate in position with the top plate fixing screws.

(2) Connect the test box GE2306 to a 28V supply, test all the filaments by pressing on the lamp holders.

(3) Connect the aircraft socket PB56 to the test box.

(4) With control lever 1 in the IDLING position, check that the BUZZER, GROUND RUNNING, JET PUMP and REVERSE EARTH lights are on.

(5) Move the lever through the REVERSE EARTHED position to REVERSE INITIATION DATUM. Check that the REVERSE EARTH light is off.

(6) Move the lever to the BRAKE DWELL position and check that the BRAKE DWELL light is

(a) before mod. 2065 on or

(b) after mod. 2065 off.

(7) Move the lever towards the FULL POWER REVERSE position, after two degrees of travel check that the BRAKE DWELL light is off and the REVERSE POWER light is on, in the FULL POWER REVERSE position check that the following lights are on, REVERSE POWER, BUZZER, GROUND RUNNING and JET PUMP.

(8) Put the lever in the IDLING position and re-check the position of the setting plate, also that the BUZZER, GROUND RUNNING, JET PUMP and REVERSE EARTH lights are on.

(9) Move the lever to the

(a) BUZZER CUT-OFF
(b) GROUND RUNNING CUT-OFF
(c) JET PUMP CUT-OFF

positions; check that the appropriate light goes off within the tolerances of the setting plate for each position.

(10) Put the lever to FULL TRAVEL; check that the REVERSE EARTH light remains on.

(11) Repeat sub-paragraphs 4-10 with each control lever, connecting aircraft sockets PB57, PB58 and PB59 to the test box for levers II, III and IV respectively.

(12) Adjust the FULL TRAVEL stops at the FULL POWER FORWARD position so that the throttle lever total travel coincides with the appropriate marks on the setting plate GE2302; these stops should be locked in this position and sealed with red paint. The final position of the FULL POWER REVERSE stop is fixed by the engine power necessary for maximum permissible propeller speed. It may therefore be necessary to adjust the reverse stop during initial engine runs, after which the stops should be locked and sealed with red paint. Consequently the FULL POWER REVERSE position in service may not coincide with the appropriate mark on the setting plate GE2302.

Note . . .

All readings must be taken from one side of the lever only.

8. At the FULL TRAVEL FORWARD position it is important that the throttle levers engage the physical stops in the pedestal before the internal stop point of the Ultra transmitters is reached. After adjustment of stops as in para. 7 (12), connect up the link arms to the Ultra transmitters in the following manner. Rotate the Ultra transmitter shaft to the maximum FULL TRAVEL FORWARD position, adjust the length of the connecting arms to suit this position and the throttle lever position then adjust the link length back half a turn; this ensures that the Ultra stops are beyond the pedestal stops. Final adjustment may be carried out on an engine run.

Note . . .

The internal pedestal throttle link arms should not be altered in length.

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