Chapter 23

SOLENOID, DE HAVILLAND, TYPE 6CE/1929A

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LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Solenoid, de Havilland, Type 6CE/1929A ...	Stores Ref. 5CW/5871
Rated voltage (intermittent)	20–28 V, d.c.
Minimum pull-in voltage	16 V, d.c.
Coil resistance	8–9 ohm
Weight	$8\frac{1}{2}$ oz.

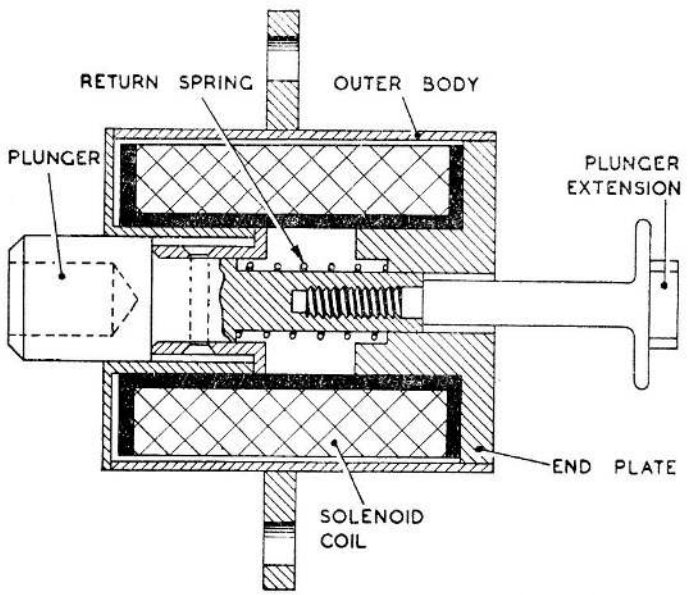

Fig. 1. Sectional view, solenoid, Type 6CE/1929A

Introduction

1. This solenoid was designed primarily for operating the lever lock mechanism of the alighting gear. It is a simple solenoid energized from the aircraft 24 V, d.c. supply.

DESCRIPTION

2. The solenoid (*fig.* 1) comprises an outer cylindrical body, carrying a fixing flange and containing the solenoid coil. The coil fits over the boss of a special end plate; this end plate is attached to the outer body by three countersunk screws screwing into it. The plunger, sliding within the coil, has an extension spindle screwed into it carrying a spring which serves to return the plunger to the normal extended position when the coil is de-energized. In its application as a lever lock the plunger serves as a bolt which locks the selector for the alighting gear in a certain position. On the coil being energized the plunger (or bolt) is withdrawn and the "up" movement of the lever is able to be continued.

INSTALLATION

3. The solenoid is held in position by three bolts fitting in the flange of the outer body. The connections for the coil are brought out as two cables to be attached to a terminal block.

SERVICING

4. When in position on the aircraft the red painted knob protruding through the left hand side of the control pedestal should be checked for freedom of movement by pulling and releasing it. It should return positively under the spring action thus ensuring that the armature has returned. The coil connections must be tight and in good condition but other than this little servicing can be done.

TESTING

5. For the following tests the solenoid should be disconnected from its normal circuit.

(1) Measure the solenoid resistance; it should be between the limits of 8 and 9 ohms.

(2) On a gradually increasing voltage check that the armature pulls in at a voltage not exceeding 16 volts.

(3) Measure the insulation resistance between the coil and the outer casing using a 250 V, d.c. insulation tester. It should be not less than 0·05 megohms.

Note . . .

When testing, the period during which the supply is connected to the coil must not exceed three minutes.

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