Chapter 8

IGNITION SWITCHBOX, 2-WAY, TYPE D

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LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Ignition switchbox, 2-way, Type D	*Stores Ref. 5CW/1211*
Dimension of mounting flange	*... 1·5 in. × 2·55 in.*
Overall depth	*... 2·5 in. (approx.)*
Weight	*4 oz.*
Ignition test switch	*Stores Ref. 5CW/1411*
Dimensions of base	*... 3·35 in. × 1·2 in.*
Overall depth	*1·8 in.*
Weight	*8 oz.*

Introduction

1. Ignition in an aero-engine is controlled by switches connected to the primary circuits of the magnetos. Each switch is arranged so that when it is closed it short-circuits the contact breaker of the magnetos, and so prevents the high-tension voltage being generated in the secondary winding.

2. The switches are constructed in the normal manner so that the circuit is closed when the dolly is in the down position, but

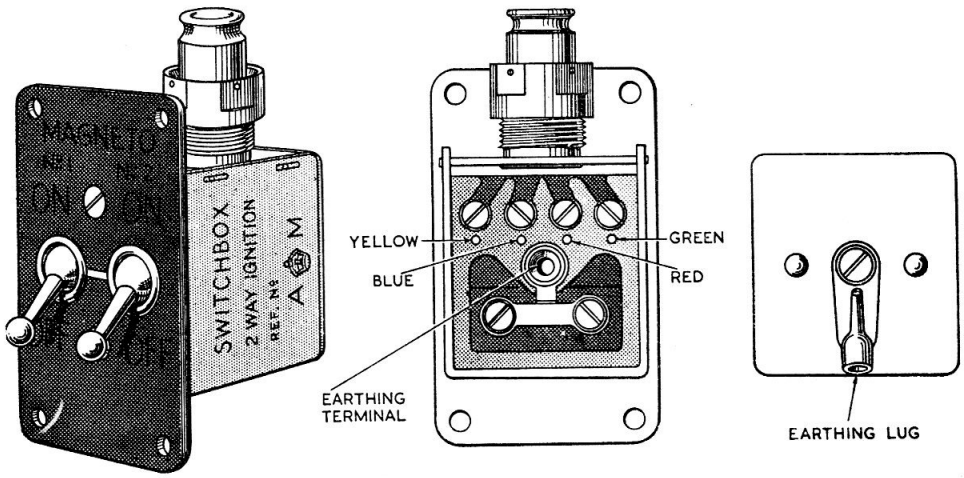

Fig. 1. Ignition switchbox, 2-way, Type D

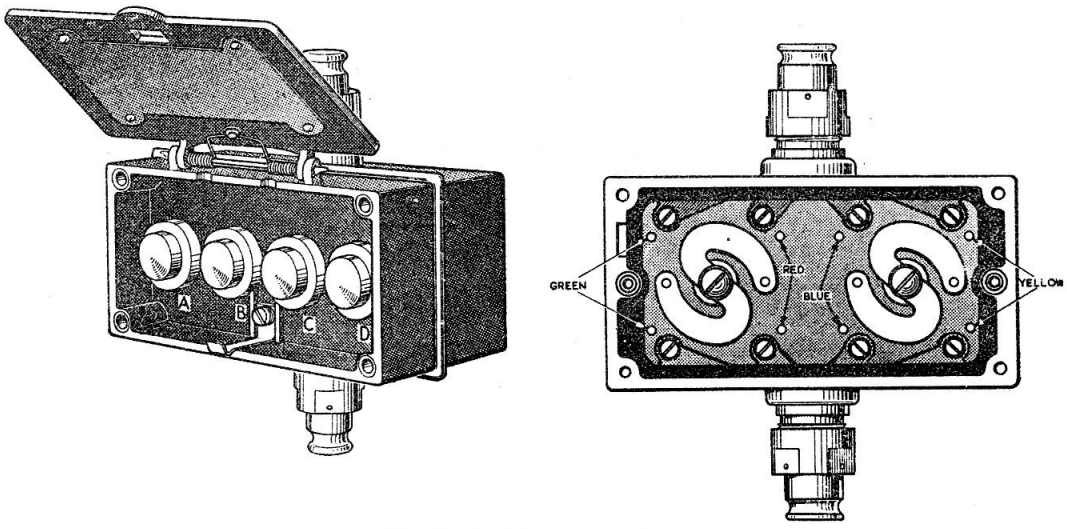

Fig. 2. Ignition test switch

this position is designated OFF. Thus when the dolly is down the magneto is out of action, and when it is up the magneto is on. It should be borne in mind that if the switch is disconnected and the lead left open-circuited the magneto is on, and not off, and it is, therefore, advisable always to earth the lead when an ignition switch is removed.

DESCRIPTION

3. The 2-way ignition switchbox, Type D (*fig.* 1) is for use on certain single-engined aircraft, and incorporates two toggle-type ignition switches which are mounted side by side in a screening case. The four terminals are marked with coloured identification dots, green, red, blue and yellow respectively, and the leads enter the switch at a single cable nipple. An earthing cable lug is fitted to the centre terminal at the rear of the switchbox. As the dolly is moved to the OFF position, the contact stud bridges the two leaf-spring contacts, and completes the circuit to earth, thus short-circuiting the magneto contact breaker, and rendering the magneto inoperative.

4. The ignition test switch (*fig.* 2) is connected in series with the ignition switchbox, Type D, during ground testing, and is used for switching off the magnetos individually. The pairs of terminals are marked with green, red, blue and yellow dots to correspond with the markings on the ignition switchbox, and a common cable entry is fitted at each end. Instructions for use are given inside the lid of the test switch.