

## Chapter 19

### SWITCH, MAGNETIC, TYPE 7A, No. 1 (ROTAX D9301)

#### LIST OF CONTENTS

	Para.		Para.
Introduction	1	Inspection	4
Description	2	Operational test	7
Servicing	3		

#### LIST OF ILLUSTRATIONS

	Fig.		Fig.
General view of Type 7A switch	1	Internal connections	2

#### LEADING PARTICULARS

Switch, magnetic, Type 7A, No. 1	...	...	Stores Ref. 5CW/4384
Weight	...	...	7 lb. 9 oz.
<b>Current rating</b>			
Main contacts	...	...	150 amp.
Shunt field contacts	...	...	2.5 amp.
Auxiliary contacts	...	...	5.0 amp.
<b>Voltage</b>			
Main and shunt field contacts	...	...	112V d.c.
Operating coil	...	...	29V d.c.
Coil resistance at 20 deg. C.	...	...	12.35 to 13.65 ohm
Operating temperature range	...	...	+40 to -70 deg. C.

#### Introduction

1. This magnetic switch, in common with others in the D9300 series, is designed for use in 112-volt d.c. installations where a double-pole reversing contactor is required for a short rated duty, e.g., to reverse the direction of rotation of an actuator motor.

#### DESCRIPTION

2. The Type 7A, No. 1 switch (*fig. 1*) is identical to that described in A.P.4343, Vol. 1, Sect. 11, Chap. 13. Its auxiliary contacts (terminals 1, 2, 3 and 4) are normally open, as shown in *fig. 2*.

#### SERVICING

3. Assuming that the unit has been correctly installed and operated, servicing will normally be restricted to visual inspection; if the unit is functioning satisfactorily, it should be assumed to be serviceable for continued use.

#### Inspection

4. Remove the covers and inspect the contact surfaces for signs of excessive pitting due to arcing. The unit must be removed from service and a new one fitted, if the degree of pitting warrants it.

5. Inspect all the terminal points and ensure that the cables are securely connected and show no signs of damage due to vibration.

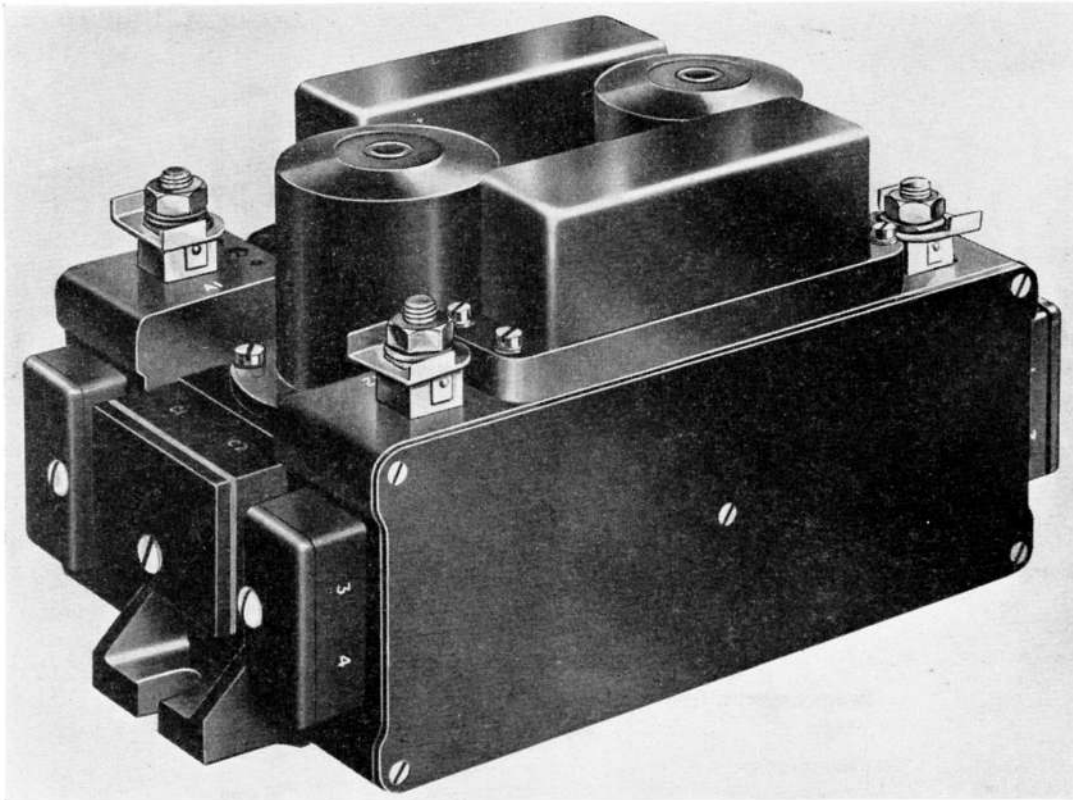


Fig. 1. General view of Type 7A switch

6. Inspect the mouldings and casing for signs of physical damage or distortion and ensure that the mounting bolts are securely locked. Finally replace all covers and fasten them securely.

**Operational test**

7. After installing the unit in the aircraft, a test must be carried out to ensure satisfactory functioning. The equipment controlled by the unit should be operated to ensure that a complete operation is not restricted and that current consumption is within the stated limits.

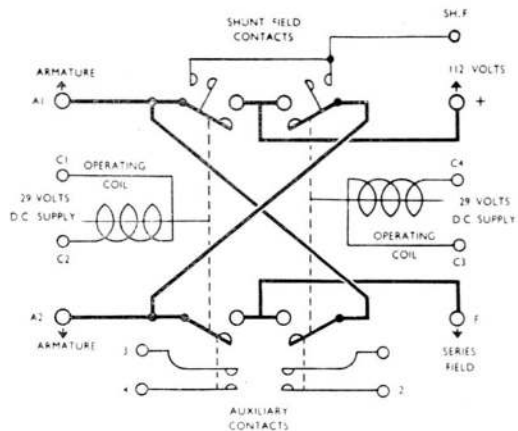


Fig. 2. Internal connections

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