

## Chapter 20

# LIMIT SWITCHES, ROTAX, TYPE N99078/2 AND /3

### LIST OF CONTENTS

	<i>Para.</i>		<i>Para.</i>
<i>Introduction</i> ... ..	1	<i>Installation</i> ... ..	5
<b>Description</b> ... ..	2	<i>Servicing</i> ... ..	6

### LIST OF ILLUSTRATIONS

	<i>Fig.</i>
<i>General view of limit switch</i> ... ..	1

### LEADING PARTICULARS

<i>Rating</i> ... ..	<i>5 amperes at 28 volts</i>
<i>Operating pressure</i> ... ..	<i>Not greater than 25 oz.</i>
<i>Release pressure</i> ... ..	<i>Not less than 5 oz.</i>
<i>Contact gap</i> ... ..	<i>Not less than 0.015 in.</i>

#### Introduction

1. Limit switches, Type N99078/2 and /3, are snap action type switches fitted to certain linear actuators to limit the ram travel. Type N99078/2 and /3 supersede the earlier type N90078 (*Ref. No. 5CW/5023*) and N.99078/1 (*Ref. No. 5CW/5024*) respectively; each pair provides for opposite 'handing'. A general view of the switch is given in fig. 1.

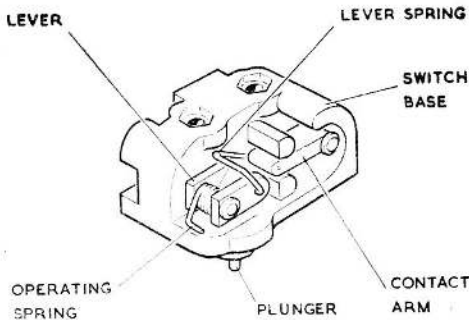


Fig. 1. General view of limit switch

F.S./1

#### DESCRIPTION

2. The bakelite switch base incorporates five moulded-in brass inserts; four have one end tapped 6 B.A. for terminations, and one insert has a finely machined bore, in which a steel plunger operates.

3. Two inserts act as fulcrum pins, one for the bakelite lever and return spring, and the other for the movable elkonite contact arm. Two other inserts act as fixed contacts, and are situated at either side of the moving contact arm. A stainless steel spring, located between the bakelite lever and the movable contact arm, actuates the latter as shown in fig. 1.

4. In the free position the common terminal No. 1 makes with terminal No. 3 and when the plunger is depressed makes with terminal No. 2.

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### **INSTALLATION**

5. The limit switches are normally mounted in pairs to a mounting plate by four 6 B.A. screws, two for each switch. Slots are provided in the mounting plate for adjustment of the switch plunger, when setting the travel of the ram.

### **SERVICING**

6. No servicing is possible on these switches, but it is essential that cleanliness is observed.

It is recommended that a light application of clean, dry compressed air be used to remove any extraneous matter. They should be checked for positive snap action of the contacts, and faulty switches should be renewed. When new switches have to be fitted to an actuator, the actuator should then be tested for correct travel, as laid down in the appropriate chapter A.P.4343D, Vol. 1, Book 3.

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