Chapter 27

ACTUATOR, PLESSEY, TYPE CZ72256

LIST OF CONTENTS

LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Actuator, Type CZ72256	Stores Ref. 5W/330
Operating voltage (nominal 24V d.c.)	18-29
Output (normal rating)	50 lb./in.
Output (emergency maixmum)	80 lb./in.
Angular travel	70 deg.
Time taken for travel	1·2 sec.
Rating of motor	1·5 min.
Brush spring pressure	3·5—4·5 oz.
Weight	2 lb. 8 oz.
Length (approx.)	7 in.

Introduction

1. The actuator, Type CZ72256, belongs to the Panther series as described in A.P.4343, Vol. 1, Sect. 17. It is a variant of the basic Type CZ54709/5 with modified gear train to give increased operating speed.

2. A sectional view of the actuator, Type CZ72256, is given in fig. 2. The general construction is as described in the Appendix on Panther actuators, to which reference should be made for further information.

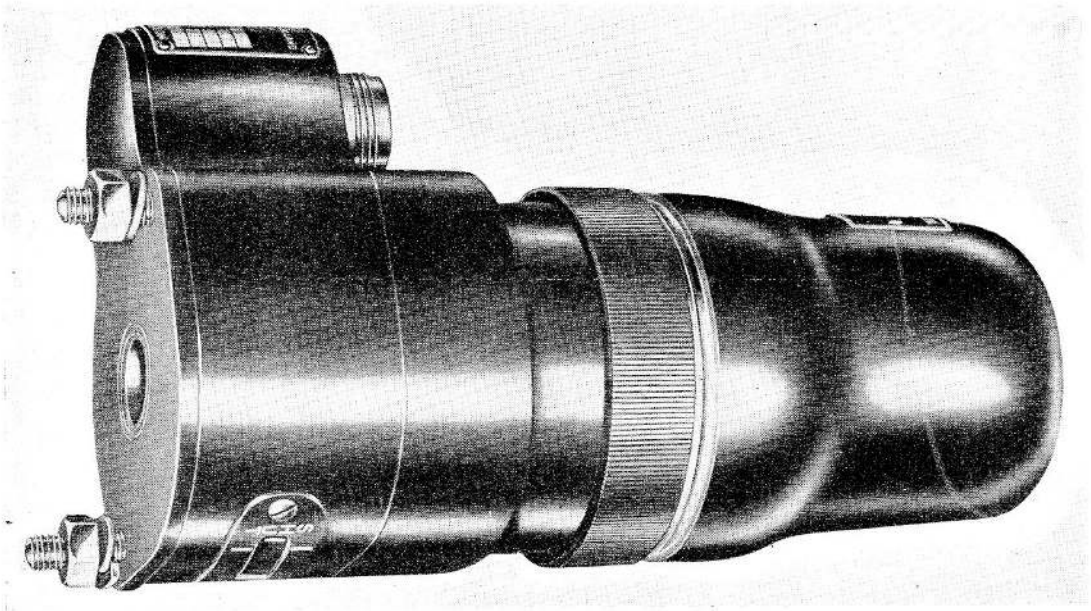


Fig. 1. General view of actuator

DESCRIPTION

3. The actuator employs a low power "Yellow Spot" motor which is a split-field, series wound type. The gearbox is of a modified design to provide increased operating speed.

Limit switches

4. The switch housing contains the two limit switches, the visual indicator, and switch adjustment mechanism. Half of the electrical plug, together with its associated wiring, also protrudes into the housing.

5. The switches are of the single-pole, change-over, snap-action type and are wired to enable warning lights to be incorporated in the external circuit. The circuit diagram (*fig.* 3) is a typical aircraft installation arrangement and shows the switches connected to a remote indicator.

Visual indicator

6. The indicator forms part of the switch assembly. A white line is painted on the end of the trip cam and may be viewed through a window in the switch housing (*fig.* 1). The words OPEN and SHUT are engraved on the frame of the window, at the appropriate ends. As the actuator operates, the white line moves across the window and comes to rest against the word indicating the position of the load, i.e., OPEN or SHUT.

Electrical connections

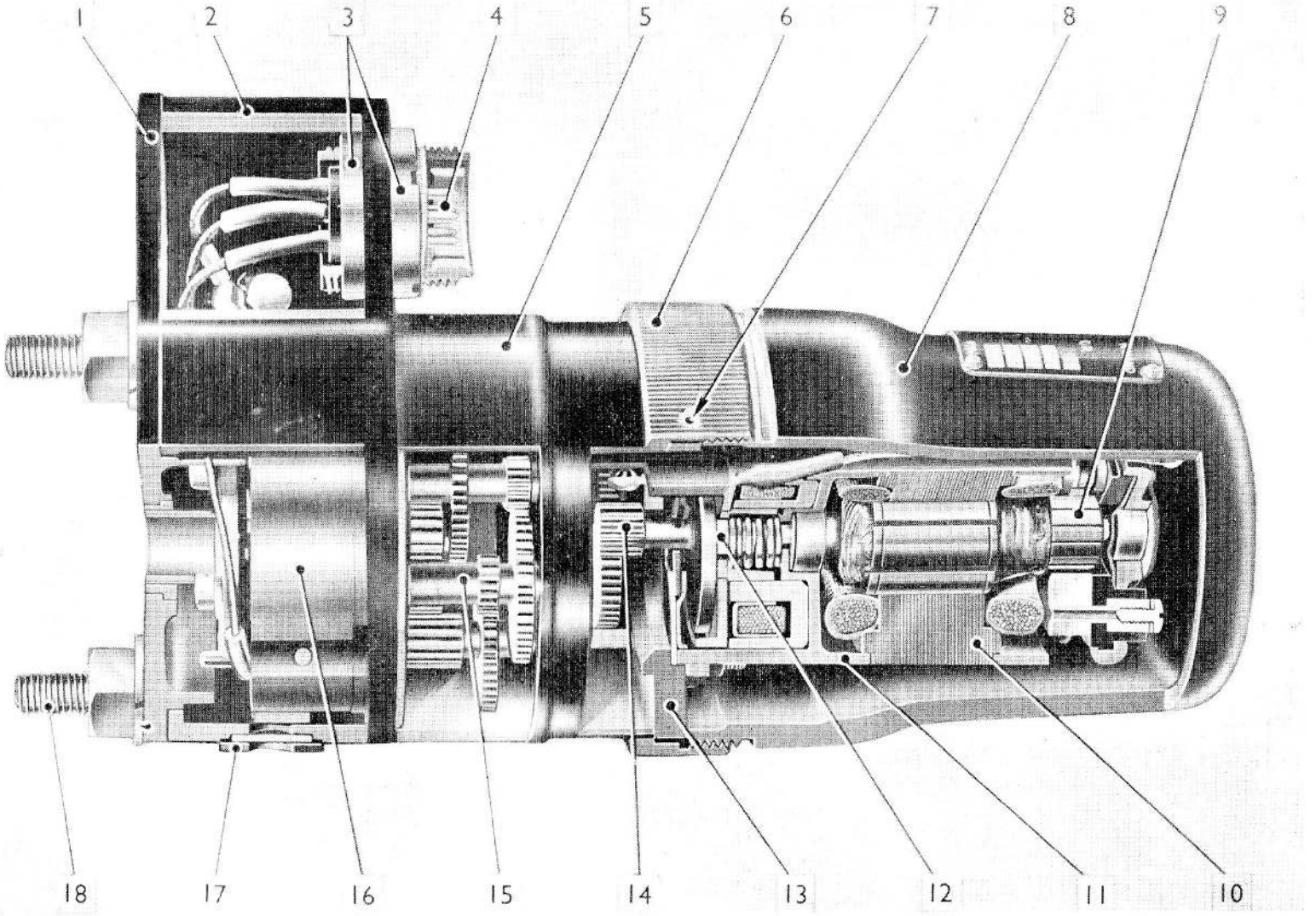
7. A diagram of the internal connections of the actuator appears in fig. 3. Connections from the actuator are made at a 6-pole plug and socket, the plug of which is mounted ou the actuator. An insulated 4 B.A. terminal, fixed in the side of the switch housing, serves as an alternative point of connection for the negative lead. When this terminal is used, pin E in the plug and socket remains unconnected.

INSTALLATION

8. The instructions given in A.P.4343, Vol. 1 for Panther actuators are applicable to this actuator.

SERVICING

9. The servicing of this actuator is as given for Panther actuators.



1 FLANGE PLATE
2 SWITCH HOUSING
3 LOCKING RING NUT
4 PLUG
5 GEARBOX HOUSING
6 COVER RETAINING NUT
7 LOCKING SCREW
8 COVER
9 COMMUTATOR
10 YOKE ASSEMBLY
11 MOTOR HOUSING
12 BRAKE ASSEMBLY
13 SPIGOT MOUNTING PLATE
14 MOTOR PINION GEAR
15 GEAR BOX
16 LIMIT SWITCH ASSEMBLY
17 WINDOW AND BEZEL
18 MOUNTING STUD

Fig. 2. Sectional view of actuator

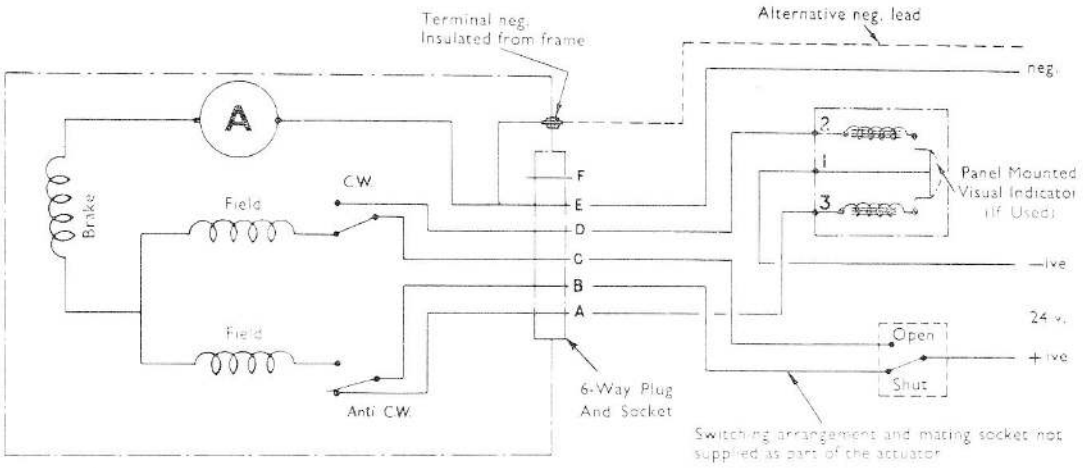


Fig. 3. Circuit diagram

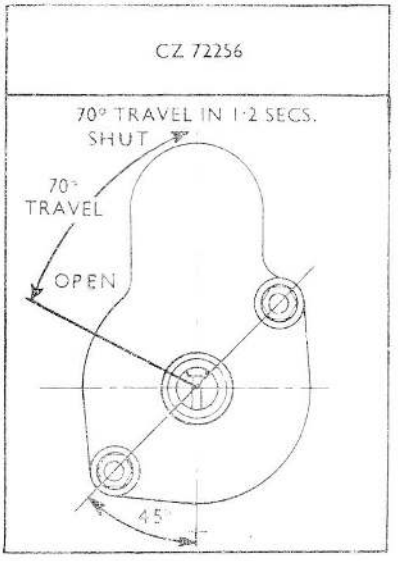


Fig. 4. Operation and installation details

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