

## Group C CONTROL SURFACES

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## INTRODUCTION

1. This group contains information relating to the aileron tab control circuit; for details of individual items of equipment refer to the appropriate specialist Air Publication listed below. The associated aileron tab neutral position warning lamp circuit is described in group D.

Equipment	Air Publication
Actuator, linear, Type A0903	A.P. 4343, Vol. 1, Sect. 17
Pressure switch Type 5216 (Thermo controls)	A.P. 1803P, Vol. 1.

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## AILERON TAB CONTROL (CA)

## OPERATION

2. Under normal flight conditions the ailerons are operated from the control column via the hydraulically-energized servodyne units, and both aileron balance tabs perform their normal function.

3. In the event of hydraulic pump failure, a pressure closes when the system pressure falls below, 1,400 lb. per sq. in. This action completes the circuit to light the aileron power failure blue warning lamp on panel G and places a supply through the circuit cut-out switch to the selector switch; both switches being located on panel AV on the port side of the cabin. The supply to the pressure switch is through a circuit breaker (AF) mounted on panel A. If the ailerons become difficult to operate at high speed, power-off conditions (the assistance previously derived from the servodyne units no longer being available),

the pilot can operate the two-way selector switch to energize the actuator for the port aileron balance tab. This will move the tab up or down as required, independently of aileron movement.

4. Whenever the aileron servo tab is out of its neutral position, an amber warning lamp on the port panel G will light. This circuit is described in Group D.

## SERVICING

5. As this circuit normally only functions under emergency conditions, particular attention should be given to the security and condition of all cable connections. Details of the adjustment to the micro switch controlling the neutral position warning lamp are given in Group D.

## REMOVAL AND INSTALLATION

6. The electrical actuator is attached to the port balance tab and is mounted

on a bracket in the port wing. Access is gained through a panel on the wing surface. To remove the bolts securing the actuator to its mounting it is necessary to remove the complete port aileron assembly. Small access panels on the upper and lower wing surfaces give access to the actuator arm linkage. The micro switch controlling the tab neutral position warning lamp is located adjacent to the actuator. The pressure switch in the hydraulic system is located in the front end of the gun bay and it is recommended that the removal of this component, and any others connected with flying controls, should be carried out in conjunction with an airframe specialist tradesman, as certain special checks are necessary after changing components on control surfaces or hydraulic systems.

## WARNING

Personnel must take special care to keep their hands clear of the ailerons when the ailerons are being power-operated.

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