

AVON.ANTI-ICING SYSTEM.GENERAL.

This system is selected by means of a cockpit switch to prevent the formation of ice on the aircraft wings and in the engine intake by the circulation of hot air from the engine.

The air supply is obtained from the compressor outlet via two control valves on the compressor outlet casing, one for the aircraft system and one for the engine intake system.

To obtain the air supply evenly from around the complete annulus of the compressor it is taken via slots in the hollow struts of the compressor outlet casing to a cored manifold formed around the hub of this casing. It is then tapped off from the manifold via the control valves to supply the respective systems.

ENGINE INTAKE SYSTEM.

The air for this system is ducted forward through an external pipe to a manifold which surrounds the intake casing. From this manifold it circulates through the hollow intake guide vanes, the drilled webs of the intake casing and around the starter fairing and it then re-enters the compressor.

CONTROL VALVES.

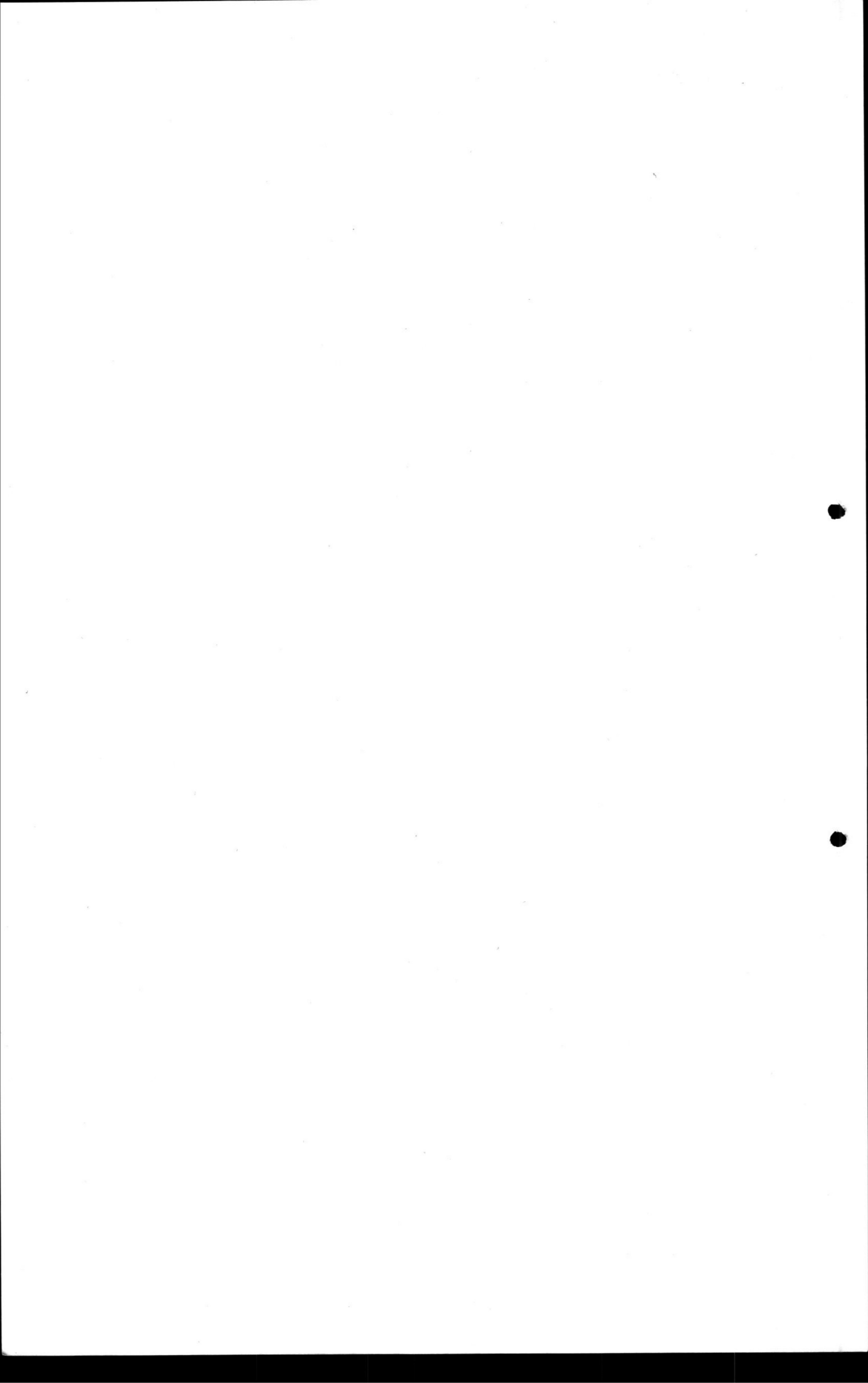
The two control valves are identical, each comprises a carbon slide plate, with rectangular ports, which slides across a ported duralumin plate fixed to the valve housing. Surface contact is maintained by light springs and the differential air pressure across the plate when in the closed position.

The carbon slide plate is moved by an electric actuator which, via an 8000:1 reduction gear, rotates an off-set pin engaging with a vertical slot in the slide valve, thus causing the slide movement which controls the air-flow.

SERVICING.

To check the satisfactory operation of the control valves, 'soak' the engines at 7,500 R.P.M. for one minute. Select the top temperature control 'ON' and operate the anti-icing control switch. The J.P.T. should rise approximately 15 to 20°C and the R.P.M. change slightly.

19.12.57.

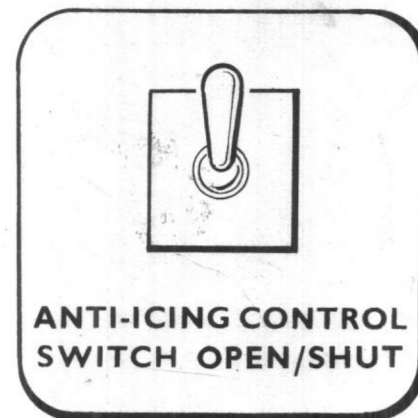


# AVON 200 SERIES

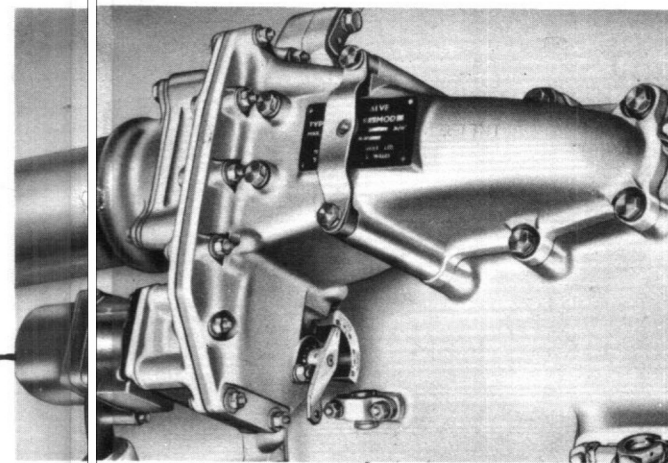
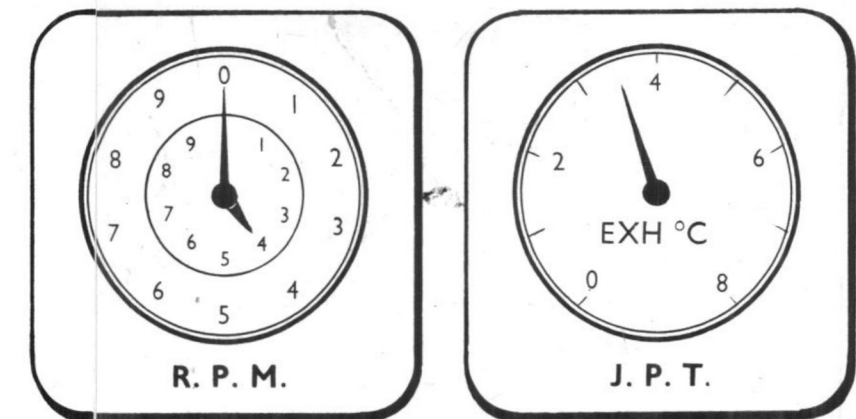
## ENGINE ANTI-ICING SYSTEM — OPERATING SUMMARY

Operation of gate valve allowing hot air to intake components.

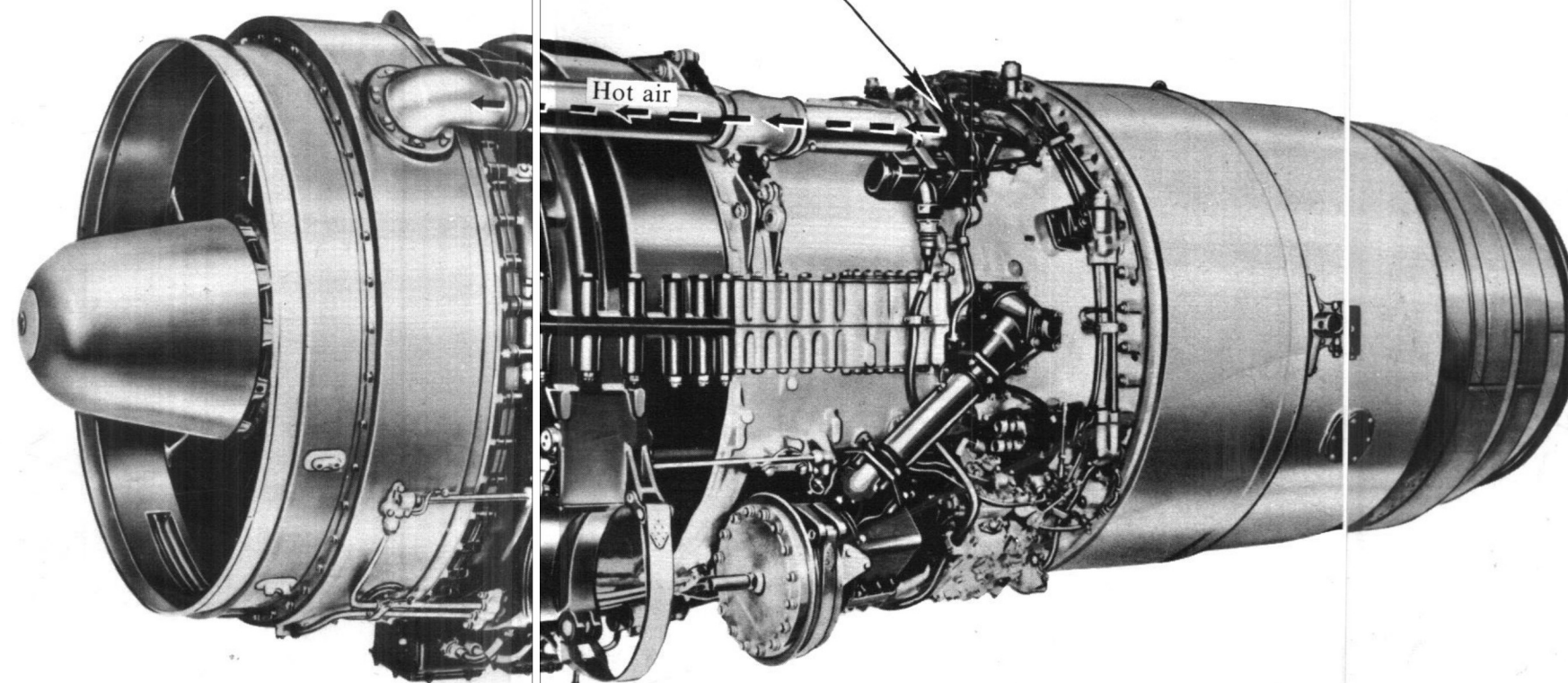
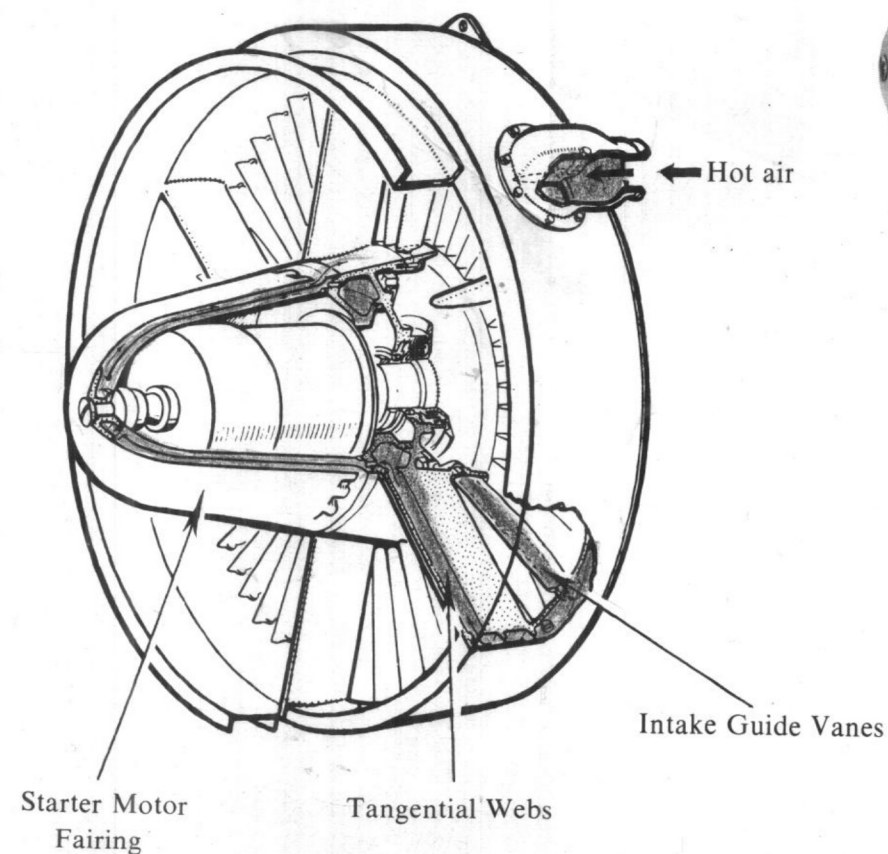
### CONTROLS



### INSTRUMENTS



ENGINE COMPONENTS SUPPLIED WITH HOT AIR



### OPERATING INSTRUCTIONS

#### LEVEL FLIGHT

If icing conditions are met in level flight, climb or descend out of icing level.

#### CLIMB

Select not less than 7200 r.p.m. Set switch to OPEN.  
 Climb at maximum practicable rate.

#### DESCENT

Throttle back to not less than 5,500 r.p.m. Set switch to OPEN.  
 Descend at maximum practicable rate.

**NOTE:** If conditions persist down to airfield level, keep switch OPEN. Maintain engine speed above 5,500 r.p.m. until committed to a landing.

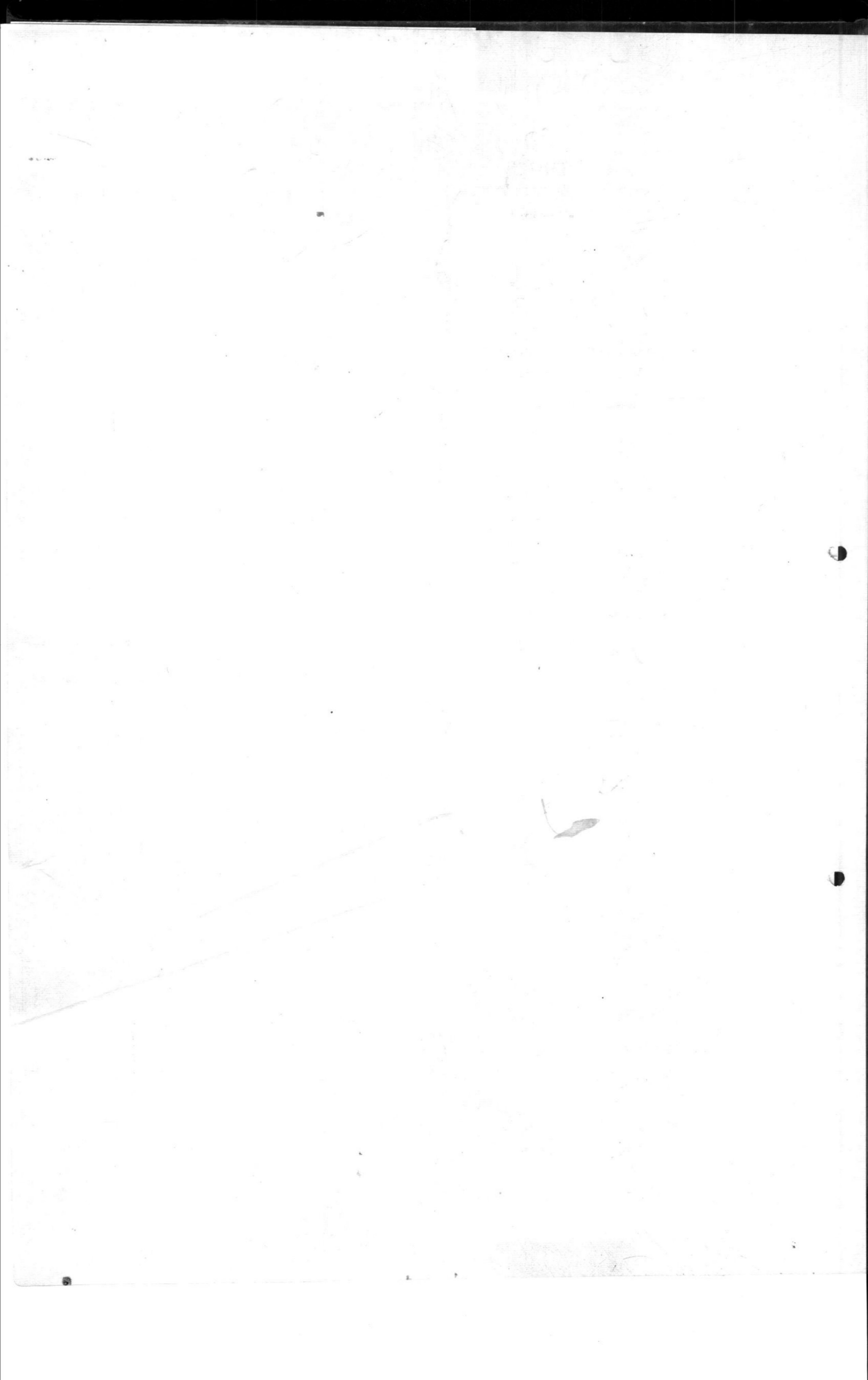
**NOTE:** When clear of icing conditions, set switch to SHUT. Wait 10 seconds before making any rapid throttle movement.

**WARNING**

This system is not intended for de-icing

**WARNING**

Avoid violent throttle movement when system is selected.



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