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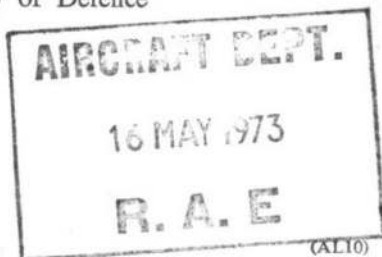
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CANBERRA T Mk 4 PILOT'S NOTES

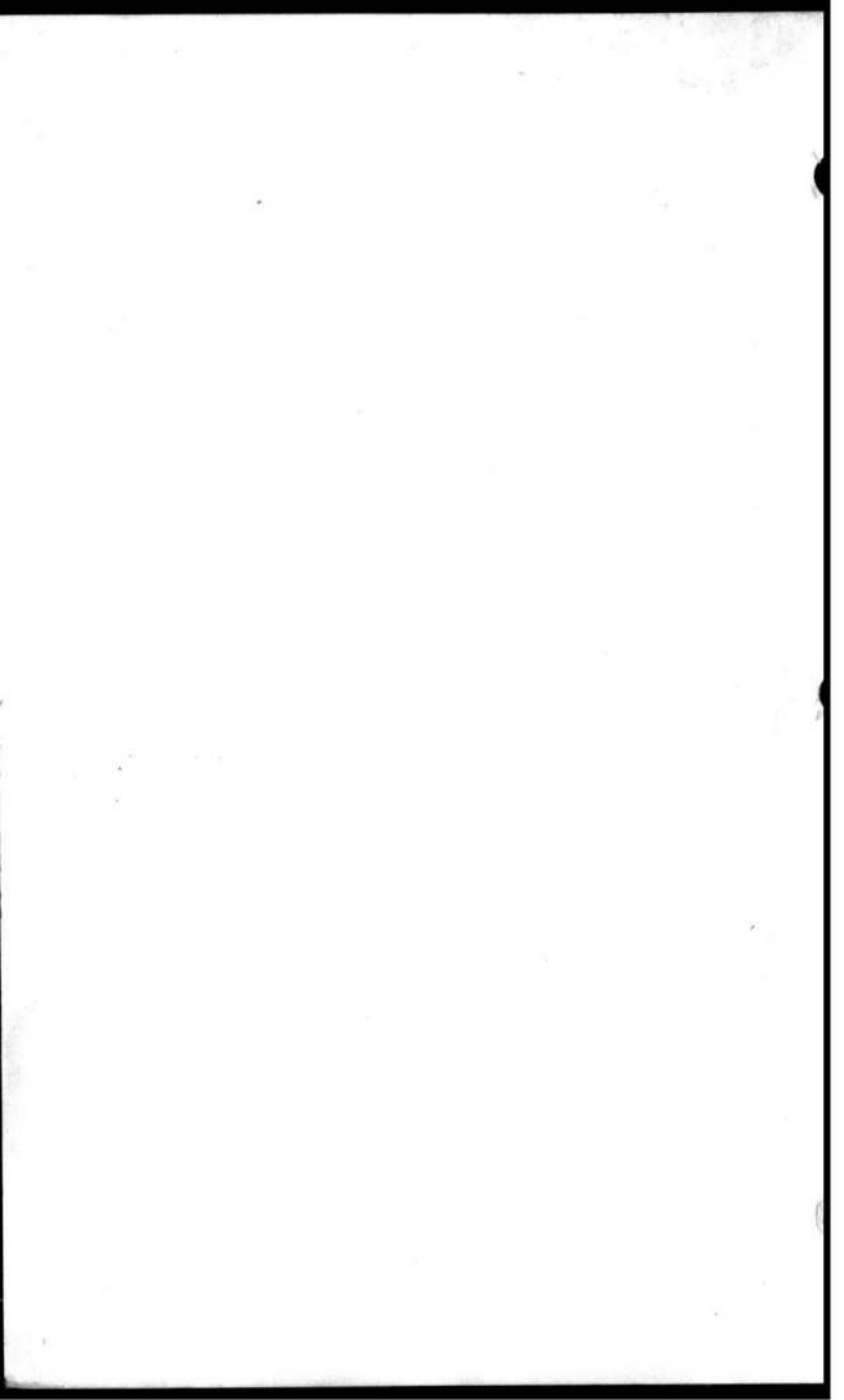
BY COMMAND OF THE DEFENCE COUNCIL

L. T. Dunnett

Prepared by Procurement Executive,
Ministry of Defence



(AL10)



AMENDMENT RECORD SHEET

To record the incorporation of an Amendment List in this publication, sign against the appropriate A.L. No. and insert the date of incorporation.

A.L. No.	AMENDED BY	DATE
1	Incorporated	
2	Incorporated	
3	Incorporated	
4	Incorporated	
5	Incorporated	
6	Incorporated	
7	Incorporated	
8	Incorporated	
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10	J.R. Sadler	18 May 73
11	W. H. H.	18 Sep 75
12	IE Frost	19 Oct 75
13	W. H. H.	Nov 76
14	W. H. H.	SEPT. 77
15	W. H. H.	DEC 79
16	W. H. H.	NOV 80
17	W. H. H.	JAN 81
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DATE 23.3.67

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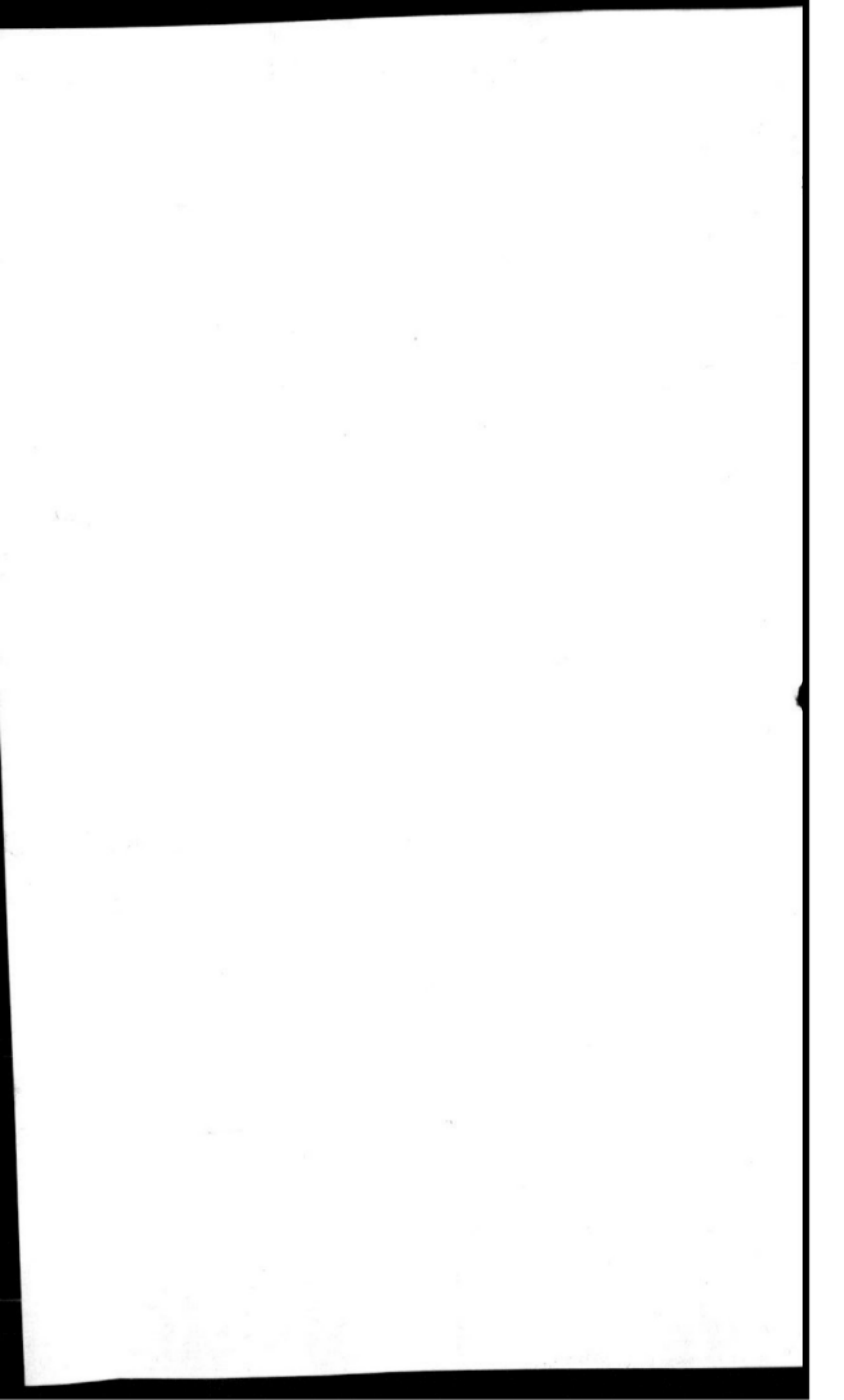
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NOTES TO USERS

1 This book is divided by marker cards, as follows:

Preliminary Matter	Part 3 Handling
Part 1 Description and Management of Systems	Part 4 Emergencies
	◀ Part 5 (Withdrawn) ▶
Part 2 Limitations	Part 6 Illustrations

Where applicable, the Parts are divided into Chapters as listed on the marker cards. Each page is identified by a Part, Chapter, Page reference at the foot of the page. Thus, a page bearing the reference: 1—4 Page 3 is Page 3 of Part 1, Chapter 4.

2 The limitations quoted in Part 2 are mandatory and are not to be exceeded except in an emergency. Instructions containing the word 'must' are also mandatory.

◀ 3 This book and its associated Flight Reference Cards aim to provide the best operating instructions and advice currently available. Although they provide guidance for most eventualities, they are not substitutes for sound judgement and good airmanship; moreover, they assume an adequate knowledge of the pertinent volumes of AP 3456 Series (Flying). Furthermore, circumstances might require aircrew to depart from or modify the prescribed procedures and drills. Consequently the Pilot's Notes and Flight Reference Cards should not be regarded as documents which are to be adhered to inflexibly at all times — other than as explained in para 2 above. ▶

4 Amendment Lists will be issued as necessary and each amendment list instruction sheet will state the main purpose of the amendment and will include a list of modifications covered in the text. New or amended matter of importance will be indicated by triangles positioned in the text thus ◀.....▶ to show the extent of amended text and thus ▶◀ to show where text has been deleted. The number of the amendment list by which a sheet was initially issued, or re-issued, will appear at the bottom of the odd-numbered pages and any amendment marks on either page forming a sheet will relate to that amendment. However, when a new chapter is issued with an amendment list or an existing chapter is completely revised, the fact will be indicated within the heading of the chapter and the amendment marks will not appear on the pages.

5 The following conventions are observed throughout this Book:

- (a) The actual markings on controls are indicated in the text by capital letters.
- (b) Unless otherwise stated all airspeeds, mach numbers, accelerations, temperatures and altitudes quoted are indicated values.
- (c) **WARNINGS** are inserted only when the serious consequences of not following a certain procedure might otherwise be overlooked.
- (d) Information which requires to be emphasised is printed in italics.
- (e) Notes are inserted to clarify the reason for a procedure or to give information which, while not essential to the understanding of the subject, is useful to the reader.
- (f) Cross references given in the text refer to chapters in the same part unless otherwise stated.

6 Modification numbers are only referred to in the text when it is necessary to differentiate between pre- and post-mod states. For ease of reference, a list of the modifications mentioned in the text is included in these preliminary pages, with a cross reference to the location in the text of the modification details.

7 This book is complementary to the Flight Reference Cards (AP 101B-0404-14) and the Operating Data Manual (AP 101B-^{0402}/_{0404} -16) for the aircraft.

IMPORTANT

Comments and suggestions should be forwarded to the Officer Commanding, Royal Air Force, Handling Squadron, Boscombe Down, Salisbury, SP4 0JF.

ANA INCORPORATED

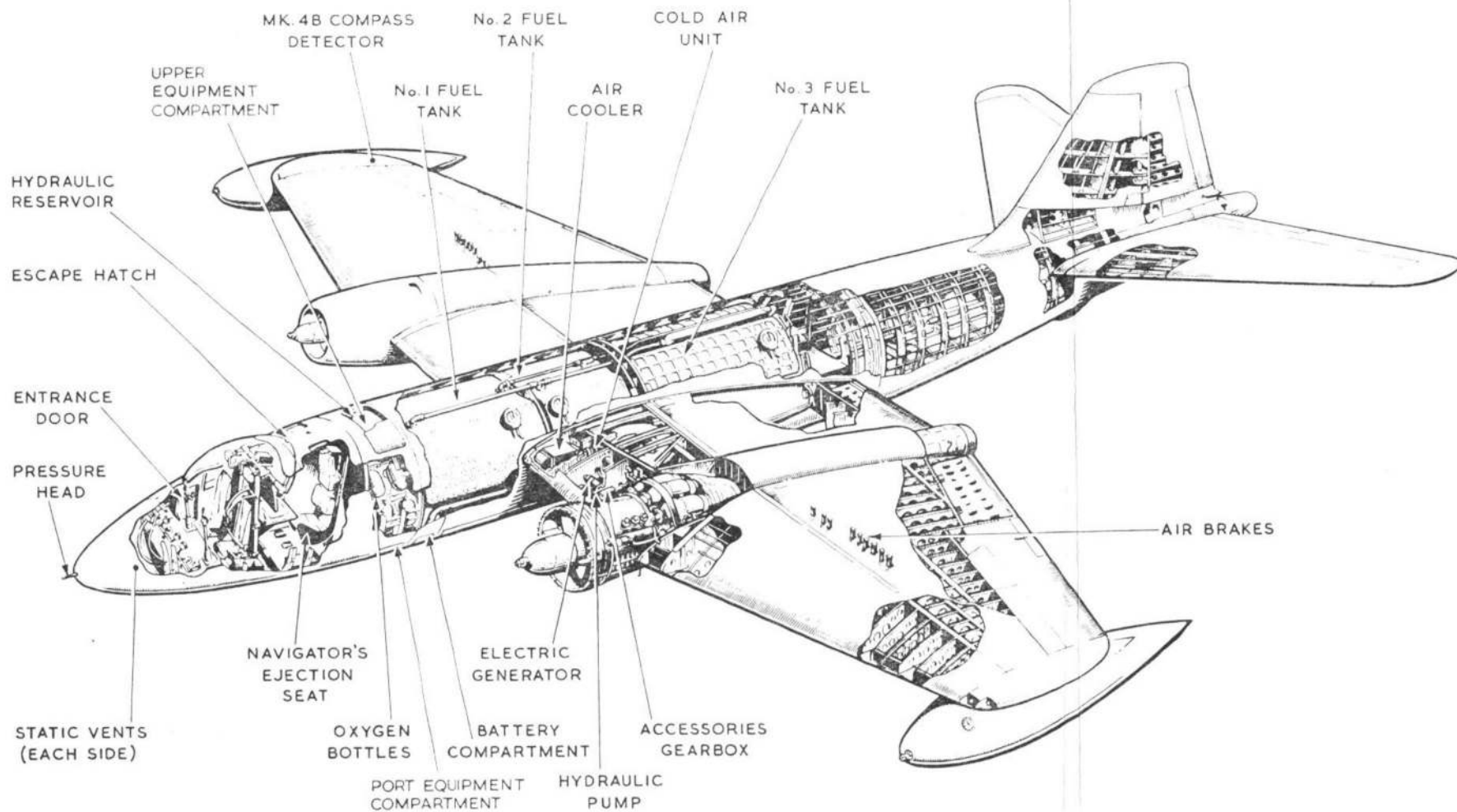
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LIST OF PAGES

This list shows all the pages which should be present in this Book when AL17 is incorporated. Pages which should have manuscript amendments are marked with an asterisk.

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Canberra T Mk 4

◀ (Rebecca and VHF aeriels Deleted) ▶

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MODIFICATION NUMBERS MENTIONED IN THE TEXT

<i>Mod No</i>	<i>Title</i>	<i>Location in Text</i>		
		<i>Pt</i>	<i>Ch</i>	<i>Para</i>
CANBERRA MOD				
1178	To introduce a main hydraulic pressure gauge	1	3	1
3850	To introduce fuel recuperators ...	1	2	3
▶▶				
◀ 5098	To introduce refurbished aircraft (Alteration R60/63. 9000 series switches)	1	1	10
		1	5	6(c)(i)
		1	6	5
		1	6	12(b)
		1	7	7(b)
		1	10	5(a)
				(ii)▶
COMMAND MOD				
0561/STC	Relocation of pupil's canopy jet-tison switch	1	10	5(a)
▶▶				
SEM				
06/STC	Introduction of press-to-test facility in canopy and hatch detonator systems	1	10	10(c)

<i>Mod No</i>	<i>Title</i>	<i>Location in Text</i>		
		<i>Pt</i>	<i>Ch</i>	<i>Para</i>
011/STC	To introduce an 'attention getter' Betelight marker adjacent to the emergency lamps control switch	1	7	7(b)
◀ 052/STC	To introduce a red floodlamp to illuminate the navigator's hatch switch unit	1	7	7(c)(i)
055/STC	To relocate the landing lamp con- trol switch to position now taken by the identification light morse switch	1	7	6(b)
057/STC	To introduce red rotating anti- collision lights	1	7	6(c) ▶
AVON MOD				
857	Introduction of larger diameter interconnectors	3	4	3(b)
5278	Introduction of lower rate IGV ram piston spring. To increase engine speed at which the ram leaves max incidence position (40°) on ac- celeration	1	4	3(c) &(d)
		3	2	6&7(b)
◀▶				
NAVAL SERVICE MOD				
◀ NSM 3004	To introduce Projector Sonar (ARI 23240/1)	1	6	15 ▶



INTRODUCTION

1 General

The Canberra T Mk 4 is a dual-controlled trainer powered by two Avon Mk 1 engines, each of 6500 lb static thrust. The cabin is pressurised and provides accommodation for a pupil and instructor seated side by side in the cockpit and a navigator at the rear of the cabin. Ejection seats are provided at all three stations.

2 Entrance Door and Emergency Exits

Entrance to the cabin is through a door on the starboard side. This door is jettisonable and provides an emergency exit. The cockpit canopy above the pilots' stations and the hatch above the navigator's station are both jettisonable and also provide emergency exits.

3 Equipment Compartments

Three bays for various items of aircraft equipment are aft of the cabin rear pressure bulkhead. The upper equipment bay is above the nose undercarriage wall and access to it is by means of a hinged hatch on top of the fuselage. The port and starboard equipment bays are on either side of the nose undercarriage well, with access doors in the fuselage wall. A battery compartment is immediately aft of the lower equipment bays; a hinged access door is on the port side. There is a bomb bay in the belly of the fuselage although no provision is made to carry bombs.

4 Flying Controls

Dual control is provided. The ailerons, elevators and rudder are all manually operated. The variable-incidence tailplane, aileron trim and rudder trim are all electrically operated.

5 Layout of Controls and Instruments

Throughout these Notes the term 'pupil' refers to the pilot in the left-hand seat and the term 'instructor' to the

pilot in the right-hand seat. Controls and instruments are grouped as follows:

(a) *Pilots' Stations*

(i) In front of the pupil and instructor on the main instrument panel. This panel is divided into three sections; from left to right, the flight instrument panel, the engine instrument panel, and the miscellaneous instrument panel. Various controls are on the coaming panel above the main instrument panel and on the engine starter panel below it.

(ii) To the left of the pupil on the cockpit port wall, on the port console and forward of the port console on the port front panel.

(iii) To the right of the instructor on the cockpit starboard wall.

(b) *Navigator's Station*

(i) On the cabin starboard wall which includes the electrical control panel (ECP).

(ii) On the navigator's forward instrument panel.

(iii) On the cabin port wall.

6 LABS Equipment

Training facilities for LABS, introduced by mods 3816 and 3817, are no longer required, but the fixed LABS equipment may still be fitted in some aircraft. Details of the equipment have been deleted from the book.

LEADING PARTICULARS

PRINCIPAL DIMENSIONS

					feet	inch
Span without wing-tip tanks	...	...	...	...	64	0
Span with wing-tip tanks	...	...	...	...	65	6
Length overall	...	...	...	...	65	6
Height to top of fin	...	...	...	...	15	7
Height to top of canopy (Unladen aircraft)	...	...	...	...	8	8

UNDERCARRIAGE

Mainwheel Units (two)

Type	...	...	...	Single wheel, inwards retracting
Shock absorber	...	...	...	Oleo pneumatic
Air pressure	...	...	...	Refer to AP 101B-0404-1A
Fluid	...	...	...	OM-15 (NATO H515)
Capacity	...	...	...	12 pints
Tyre pressure	...	...	...	Refer to Servicing Schedules AP 101B-0404-5

Brakes

Pressure at reducing valve inlet	...	...	...	2500 $\begin{matrix} +0 \\ -100 \end{matrix}$ PSI
Pressure at brakes	...	...	...	1500 $\begin{matrix} +150 \\ -0 \end{matrix}$ PSI

Nosewheel Unit

Type	...	...	...	Twin wheel non-steerable, casting, rearward retracting
Shock absorber	...	...	...	Levered suspension, liquid spring
Pressure (wheels off ground)	...	...	...	1500 PSI
Fluid	...	...	...	OM-15 (NATO H515)
Capacity	...	...	...	1½ pints
Tyre pressure	...	...	...	Refer to Servicing Schedules 101B-0404-5

HYDRAULIC SYSTEM

Fluid	...	...	...	OM-15 (NATO H515)
Pumps (two)	...	...	...	Lockheed Mk 7 or Mk 9
Accumulator, charging gas	...	...	...	Air
Thermal relief valve setting	...	...	...	3450 ± 100 PSI (See Part 1, Chapter 3, para 3 (b))
Capacity of system	...	...	...	31 pints (approx)
Capacity of tank	...	...	...	2 gallons
Accumulator inflation pressures, main and wheel-brakes	...	...	...	1300 } +50 PSI at + 5°C
	...	...	...	1350 } -0 PSI at + 15°C
	...	...	...	1400 } -0 PSI at + 25°C

Automatic cut-out valve:

Cut-out	...	...	...	2500 \pm $\frac{0}{100}$ PSI
Cut-in	...	...	...	2000 PSI (min)
Flaps relief valve setting	...	...	...	2850 \pm 50 PSI
Header tank relief valve setting	...	...	...	12 to 17 PSI

POWER UNITS

Engines (two)

Name	...	...	...	Avon Mk 1
Type	...	...	...	Straight flow turbojet
Fuel	}	...	...	Refer to Part 2, Chapter 1, para 3
Oil				
Oil system capacity	...	...	...	19 pints each engine including —
Oil sump capacity	...	...	...	16 pints each engine

Starting System

Type	...	...	...	Rolls Royce turbo, type SBS 720 Mk 5
Cartridge	...	...	...	No 9 Mk 2 (720 grammes)

Accessories Gearboxes

Oil	...	...	...	OEP 71
Oil sump capacity	...	...	...	3½ pints

ELECTRICAL SYSTEM

Voltage	...	...	...	28 volts
Generators (two)	...	...	...	6 kW, Type P3
Aircraft battery	...	...	...	4 × 12 volt, 40 ampere hour (lead acid), connected in series parallel
Emergency battery	...	...	...	2 × 12 volt, 4 ampere hour (lead acid), connected in series
Emergency lighting battery	...	...	...	1 × 2.4 volt (alkaline)
Standby UHF emergency battery	...	...	...	1 × 24 volt, 7 ampere hour (alkaline)

FUEL SYSTEM

Types of fuel	See Part 2, Chapter 1, para 3
Fuel tank capacities	See Part 1, Chapter 2, para 2

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