

LIST OF CONTENTS - Book 3

roduction

ading Particulars

ction 7 - Instrument installations

- Chapter 1 - General information
- " 2 - Flight instruments
- " 3 - Navigation instruments
- " 4 - Engine and fuel system instruments
- ◀ " 4A - Viper engine instruments ▶
- " 5 - Armament instruments
- " 5A - Cameras
- " 6 - Miscellaneous instruments
- " 7 - Automatic controls
- " 8 - Pitot-static system
- " 9 - Autolycus installation

ction 8 - Wireless installations

- Chapter 1 - General information
- " 2 - A.R.I.18089
- " 3 - A.R.I.5874
- " 4 - A.R.I.23126
- " 5 - A.R.I.23117/2
- " 6 - A.R.I.18124/1 and A.R.I.18120/4
- " 7 - A.R.I.23084
- " 8 - A.R.I.18011
- " 9 - A.R.I.18215/1
- " 10 - A.R.I.5876
- " 11 - A.R.I.18107/4
- " 12 - A.R.I.18208/1
- " 13 - A.R.I.18108/1 and A.R.I.18103 (Master and Second)
- " 13A - A.R.I.18101 and A.R.I.18157

ction 9 - Radar installations

- Chapter 1 - General information
- " 2 - A.R.I.5878
- " 3 - A.R.I.5843
- " 4 - A.R.I.5835
- " 5 - A.R.I.18144
- " 6 - A.R.I.5816
- " 7 - A.R.I.5771

AMENDMENT RECORD SHEET

A.P.4267E, Vol.1, Book 3

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

L. No.	Amended by	Date
1		
2		
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6	A.L. 1013	
7	INCORPORATED BY	
8	REPRINT	
9	SEPT. 19	
10	HAWKER JET ENGINE	
11	AVIATION LIMITED	
12	MANCHESTER.	
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46		
47		
48		

A.L. No.	Amended by	Date
25		12.3.67
26		19.1.70
27		19.1.70
28		12.1.71
29		12.1.71
30		17.6.71
31		22.11.71
32		
33		
34		
35		
36		
37		
38		
39		
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43		
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46		
47		
48		

A.L. No.	Amended by	Date
49		
50		
51		
52		
53		
54		
55		
56		
57		
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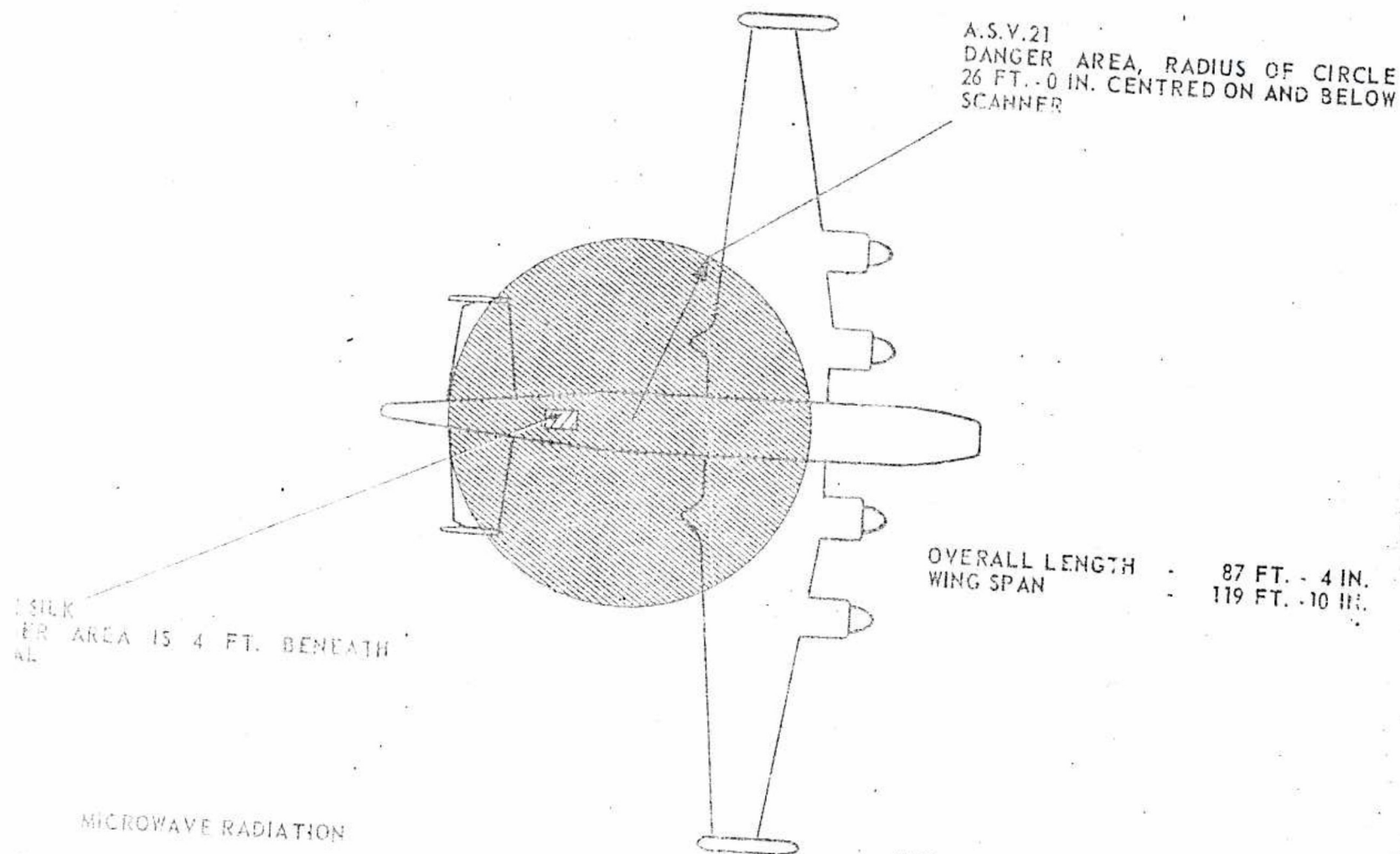
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73		
74		
75		
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78		
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80		
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86		
87		
88		
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90		
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92		
93		
94		
95		
96		
97		
98		
99		
100		

A.L. No.	Amended by	Date
101		
102		
103		
104		
105		
106		
107		
108		
109		
110		
111		
112		
113		
114		
115		
116		
117		
118		
119		
120		
121		
122		
123		
124		
125		
126		
127		
128		

A.L. No.	Amended by	Date
129		
130		
132		
133		
134		
135		
136		
137		
138		
139		
140		
141		
142		
143		
144		
145		
146		
147		
148		
149		
150		
151		
152		
153		
154		
155		
156		

RESTRICTED

LETHAL WARNING



MICROWAVE RADIATION

MICROWAVE RADIATION HAZARD from certain aircraft. To avoid injury to health, all personnel should avoid the areas indicated on the diagram. Read off and notices displayed warning

HIGH-ENERGY IGNITION UNITS

The energy stored in the capacitors of the high-energy ignition units can, under certain circumstances be of a lethal nature. No servicing is to be attempted, on the Viper engines, until at least one minute has elapsed from the disconnection of the L.T. input plug.

RESTRICTED

SHACKLETON MR. MK.3, PHASE 3 AIRCRAFT

Code No.	Title	Previous designation
101B-1703-1B	Aircraft servicing manual	A.P.4267E, Vol.1
<i>Issued in three books as follows:-</i>		
101B-1703-1B1	Sect.1 to 5	A.P.4267E, Vol.1, Book 1
101B-1703-1B2	Sect.6	A.P.4267E, Vol.1, Book 2
101B-1703-1B3	Sect.7 to 9	A.P.3267E, Vol.1, Book 3
101B-1703-2	General orders	A.P.4267E, Vol.2
101B-1703-3A2	Illustrated parts catalogue	A.P.4267E, Vol.3, Part 1
101B-1703-3B2	Appendix 'A'	A.P.4267E, Vol.3, Part 2
101B-1703-3C2	Scales of unit equipment	A.P.4267E, Vol.5, Part 3
101B-1703-3D2	Scales of servicing spares	A.P.4267E, Vol.3, Part 4
101B-1703-4B	Not applicable	A.P.4267E, Vol.4
101B-1703-5B	Basic servicing schedule	A.P.4267E, Vol.5
101B-1700-6A	Aircraft repair manual	A.P.4267, Vol.6
101B-1700-7	Modifications list	A.P.4267, M.L.
101B-1703-12B	Ground handling notes	A.P.4267E, G.H.N.
101B-1703-15B	Pilot's notes	A.P.4267E, P.N.
101B-1703-16B	Operating data manual	A.P.4267E, O.D.

NOTE . . .

Until notice of the changeover is promulgated in D.C.I's the required A.P. should be requisitioned under the old A.P. number.

RESTRICTED

SECT
7

NOTE TO READERS

The subjectmatter of this publication may be affected by Defence Council Instructions, or by Servicing schedules (Vol.5), or General Orders and Modifications leaflets in this A.P., in the associated publications listed below, or even in some others. If possible, Amendment Lists are issued to correct this publication accordingly, but it is not always practicable to do so. When an Instruction, Servicing schedule or leaflet contradicts any portion of this publication, the Instruction, Servicing schedule or leaflet is to be taken as the overriding authority.

The inclusion of references to items of equipment does not constitute authority for demanding the items.

Each leaf, except the original issue of preliminaries, bears the date of issue and the number of the Amendment List with which

it was issued. New or amended technical matter indicated by triangles in the text thus: - ◀...▶ to show where amended text, and thus: - ▶▶ to show where deleted. When a Section or Chapter is issued in revised form, the triangles will not appear.

If more than one copy of this publication is held covers should be given an identifying number and together.

◀ The reference number of this publication was A.P.4267E to A.P.101B-1703 in May 1967. revision of page captions has been undertaken, number appears in place of the earlier A.P. new or amended leaves issued subsequent to that date

LIST OF ASSOCIATED PUBLICATIONS

Aircraft fuel and oil tanks	4117A
Aircraft pneumatic equipment	4303
Aircraft pressurizing and air conditioning	4340
Aircraft undercarriage equipment - Dowty	1803E
Aircraft undercarriage equipment - Electro Hydraulics	1803F
Automatic pilot Mk.10	1469E
Bomb carriers	1664
Dunlop equipment fitted to Shackleton aircraft	4515C
Electrical manual	4343
Engine Griffon Mk.58	2234E & F
Gun, nose mounting, B.P., Type N, Mk.1	2796N
Hydraulic equipment - Dowty	1803D
Instrument manual	1 275
Missile storage, preparation, transportation, loading and off-loading procedures	2852B
Power plant Griffon Mk.58	4275A
Rotol accessory gearboxes and drives	2240A
Servicing of aircraft and associated equipment in low temperature conditions	1441B
Servicing of aircraft and associated equipment in tropical conditions	1441C
Servicing trolleys	2306
Viper Mk.20301 engine change unit	102C-0804-1
Wheels, tyres and brakes	2337

LIST OF AIR DIAGRAMS

Access panels	
Electrical installation circuits	
Electrical installation location	
Flying controls	
Flying controls lubrication	
Fuel and nitrogen system	
Hydraulic system	

RESTRICTED

LIST OF CONTENTS - Book 3

A.P.4267E, Vol.1, Book 3
A.L.14, Sept.65

CONTENTS

SECT
7

Introduction

Leading Particulars

Section 7 - Instrument installations

- Chapter 1 - General information
- " 2 - Flight instruments
- " 3 - Navigation instruments
- " 4 - Engine and fuel system instruments
- ◀ " 4A - Viper engine instruments ▶
- " 5 - Armament instruments
- " 5A - Cameras
- " 6 - Miscellaneous instruments
- " 7 - Automatic controls
- " 8 - Pitot-static system
- " 9 - Autolycus installation

Section 8 - Wireless installations

- Chapter 1 - General information
- " 2 - A.R.I.18089
- " 3 - A.R.I.5874
- " 4 - A.R.I.23126
- " 5 - A.R.I.23117/2
- " 6 - A.R.I.18124/1 and A.R.I.18120/4
- " 7 - A.R.I.23084
- " ⑧ - A.R.I.18011
- " 9 - A.R.I.18215/1
- " 10 - A.R.I.5876
- " 11 - A.R.I.18107/4
- " 12 - A.R.I.18208/1
- " 13 - A.R.I.18108/1 and A.R.I.18103 (Master and Second)
- " 13A - A.R.I.18101 and A.R.I.18157

Section 9 - Radar installations

- Chapter 1 - General information
- " 2 - A.R.I.5878
- " 3 - A.R.I.5848
- " 4 - A.R.I.5885
- " 5 - A.R.I.18144
- " 6 - A.R.I.5816
- " 7 - A.R.I.5771

LIST OF CONTENTS - Book 3

roduction

ading Particulars

ction 7 - Instrument installations

- Chapter 1 - General information
- " 2 - Flight instruments
- " 3 - Navigation instruments
- " 4 - Engine and fuel system instruments
- ◀ " 4A - Viper engine instruments ▶
- " 5 - Armament instruments
- " 5A - Cameras
- " 6 - Miscellaneous instruments
- " 7 - Automatic controls
- " 8 - Pitot-static system
- " 9 - Autolycus installation

ction 8 - Wireless installations

- Chapter 1 - General information
- " 2 - A.R.I.18089
- " 3 - A.R.I.5874
- " 4 - A.R.I.23126
- " 5 - A.R.I.23117/2
- " 6 - A.R.I.18124/1 and A.R.I.18120/4
- " 7 - A.R.I.23084
- " 8 - A.R.I.18011
- " 9 - A.R.I.18215/1
- " 10 - A.R.I.5876
- " 11 - A.R.I.18107/4
- " 12 - A.R.I.18208/1
- " 13 - A.R.I.18108/1 and A.R.I.18103 (Master and Second)
- " 13A - A.R.I.18101 and A.R.I.18157

ction 9 - Radar installations

- Chapter 1 - General information
- " 2 - A.R.I.5878
- " 3 - A.R.I.5843
- " 4 - A.R.I.5885
- " 5 - A.R.I.18144
- " 6 - A.R.I.5816
- " 7 - A.R.I.5771

CONTENTS LIST

SECT
7

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Type		A.C. 14058 (Ref.No. 27VA/4959)
Number		Two
Air charging pressure		1,550 p.s.i.

Storage cylinder						
Number	..	..	..	..	..	0
Type	..	..	..	..	Mk.5D (Ref.No.	6D/94298)
Capacity	..	..	..	..	..	750 lit
Charging pressure	..	..	..	..	..	1,800 p.s.i.

Shock-absorber strut

Type	...	...	...	...	Liquid spring
Charge pressure (no load)	...	...	...	...	1,500 p.s.i.
Static load deflection	...	...	...	...	Refer to Sect.2, Chap.2
Oil	...	...	...	...	OM-15 (Ref.No. 34B/9100572)
					N.A.T.O. Code No. H-515
Wheels (two)	...	...	...	...	A.H. 9527 (Ref.No. 27A/3548)
Tyres	...	...	...	...	D.C. 4983, 30 x 9.00-15
					(Ref.No. 27A/3588)
				or	FE-EN-59N, 30 x 9.00-15
					(Ref.No. 27A/3755)
Tubes	...	...	...	...	F.E.3, 30 x 9.00-15
					(Ref.No. 27A/3527)
Inflation	...	...	...	...	Refer to Vol.5 of this A.P.

POWER UNITS

Type	...	...	...	...	Griffon Mk.58 power plant
------	-----	-----	-----	-----	---------------------------

ENGINES

Type	...	...	...	...	Griffon Mk.58
					12 cylinder, 60 deg.Vee, pressure-liquid
					cooled with two-speed single stage
					supercharger (Ref.No. 57A/50).
Number	...	...	...	...	Four

ACCESSORIES GEARBOXES

Number	...	...	...	...	Four
No.1	...	...	...	...	6.0214.0001 (Ref.No. 37L/5060)
No.2	...	...	...	...	6.0214.0003 (Ref.No. 37L/5063)
No.3	...	...	...	...	6.0214.0004 (Ref.No. 37L/5061)
No.4	...	...	...	...	6.0214.0005 (Ref.No. 37L/5062)
	...	...	...	...	OM-270 (Ref.No. 34A/9100554)
					N.A.T.O. Code No. 0-117
Capacity	...	...	...	...	4 pints
After engine run	...	...	...	...	4.3 pints

ENGINE TACHOMETER GENERATOR

One to each gearbox	...	...	...	...	Ref.No. 6A/2237
---------------------	-----	-----	-----	-----	-----------------

PROPELLERS

Type	...	...	...	...	D.F. 178/334/1 (Ref.No. 25A/748)
Front	...	...	...	...	

Rear	...	...	...	...	D.B. 229/336/1 (Ref.No. 25A/772)
Control	...	...	...	...	Hydromatic, constant speed and feathering
Diameter (front half)	...	...	...	...	13 ft.

PITCH SETTINGS

Front propeller					
Basic	...	...	...	...	23 deg.
Fine	...	...	...	...	23 deg.
Feathered	...	...	...	...	90 deg.
Rear propeller					
Basic	...	...	...	...	24 deg.
Fine	...	...	...	...	24 deg.
Feathered	...	...	...	...	91 deg.
Direction of rotation					
Front propeller	...	...	...	...	Right-hand tractor
Rear propeller	...	...	...	...	Left-hand tractor

TRANSLATION UNIT

Type	...	...	...	...	P.36674 (Ref.No. 27L/6943)
Oil	...	...	...	...	OEP-70 (Ref.No. 34B/9100539)
					N.A.T.O. Code No. 0-155
Tank capacity (each tank)	...	...	...	...	750 c.c.

FUEL SYSTEM

FUEL

Type	...	...	...	...	Aviation gasoline 100/130 grade
					(Ref.No. 34A/9100444)
					N.A.T.O. Code No. F-18

Fuel pumps

Main tanks	...	...	...	...	S.P.E. 418, Mk.3
Auxiliary tank	...	...	...	...	B.P.1, Mk.3, (Ref.No. 5UE/3751)
			or		F.B.6, Mk.3, (Ref.No. 5UE/4986)

Fuel tank capacities

◀ No.1 tanks (each)	...	...	...	...	539 gall.	▶
No.2 tanks (each)	...	...	...	...	573 gall.	▶
No.3 tanks (each)	...	...	...	...	297 gall.	▶
No.4 tanks (each)	...	...	...	...	311 gall.	▶
No.5 tanks (each)	...	...	...	...	185 gall.	▶
◀ No.6 tanks (wing tip) (each)	...	...	...	...	253 gall.	▶
Total fuel capacity (normal)	...	...	...	...	4,316 gall.	▶
Auxiliary fuel tank	...	...	...	...	400 gall.	▶
◀ Maximum total fuel capacity	...	...	...	...	4,716 gall.	▶

WATER/METHANOL

Type	...	...	...	...	A.L.-24 (Ref.No.34B/9440428)
------	-----	-----	-----	-----	------------------------------

RESTRICTED

CONTENTS

SECT
7

SUBSIDIARY SYSTEM

Storage cylinders

Number Two
 Type Mk.10A (Ref.No. 6D/9429900)
 Capacity 2,250 litres
 Charging pressure 1,800 p.s.i.

FIRE PROTECTION SYSTEMS

GRIFFON ENGINES

Extinguishers

Type Mk.12A, methyl bromide, 6lb.
 (Ref.No. 27N/100)
 Mk.13A, methyl bromide, 12lb.
 (Ref.No. 27N/99)
 Number One Mk.12A and one Mk.13A
 for each engine
 Flame selector switches Ref.No. 27N/72

FUEL AND WATER/METHANOL SYSTEMS

Extinguishers

Type Mk.12A, methyl bromide, 6lb, (Ref.No. 27N/100)
 Number Eighteen

AIR CONDITIONING SYSTEM

Extinguishers

Type Mk.12A, methyl bromide, 6lb.
 (Ref.No. 27N/100)
 Number Four - one to each heater compartment

VIPER ENGINES

Extinguishers

Type Mk.12A, methyl bromide, 6lb. (Ref.No. 27N/100)
 Number One for each engine

HAND OPERATED EXTINGUISHERS

Type 34H, B.C.F., (Ref.No. 27N/299)
 Number Five

ARMAMENT

BOMBING GEAR

Main carrier positions Twelve
 Number of carriers fitted (maximum) Four

Normal system

Preselector unit Type B
 Bomb distributor Type 6
 Auto-selector, 4.5 in. flares Ref.No. 5D/1769
 Auto-selector, marine marker Ref.No. 5D/1297
 A.S. bombs
 Stores controller (two off) D.C.U. 77A

Carriers

Heavy carrier AV.210 (Ref.No. 11A/4130)
 A.S. bombs and torpedo carrier AV.270 (Ref.No. 11A/6368)
 Medium carrier AV.211 (Ref.No. 11A/4131)
 Torpedo and sonobuoy carrier AV.271 (Ref.No. 11A/6369)
 Sonobuoy carrier AV.272 (Ref.No. 11A/6370)
 Marine marker adapter carrier AV.275 (Ref.No. 11A/6371)
 Practice bomb carrier AV.247 (Ref.No. 11A/4128)
 Marine marker adapter AV.193 (Ref.No. 11A/3875)

GUNS

Mounting Type I
 Guns (two) Hispano 20 mm., No.4, Mk.5 (Ref.No. 7G/783)
 Rounds 30
 Power operation Electro-hydraulic

PYROTECHNICS

Flare chute

Number On
 Type AV.21
 Flame float ejector Ref.No. 26FP/401

CARTRIDGE DISCHARGERS

Illuminator flare dischargers

Number Fo
 Type 1.75 in. (Ref.No. 7B/140)
 Distributor Mk.1 (Ref.No. 5D/155)
 Photoflash discharger
 Number 0
 Type 1.75 in. (Ref.No. 7B/140)
 Distributor (Ref.No. 5D/171)

ELECTRICAL SYSTEM

Wiring system Earth return, single-p
 Type S.B.A.C. (Modifi
 Generators 24-volt, 12 k
 Number F

RESTRICTED

ERVE AIR SYSTEM

age cylinders
Number Two
Type 26 767B (Ref.No. 6D/2776)
Capacity (each) 4,260 litres
Charging pressure 3,500 p.s.i.

VACUUM SYSTEM

p Pesco B3X, Mk.2 (Ref.No. 37J/6)

NITROGEN SYSTEM

INDERS

ber Six
e Mk.10A (Ref.No. 6D/9429892)
acity (each) 2,250 litres
rging pressure 1,800 p.s.i.

DUING VALVES

h pressure (1,800/400 p.s.i.) A.C.M.16390 (Ref.No. 27VA/4816)
ium pressure and relief valve (400/25 p.s.i.) ... P.A.S.264-001
w pressure (50/5.5 p.s.i.) ... A.C.M.20156 (Ref.No. 27VA/5760)

DE-ICING SYSTEMS

ROFOIL SURFACES

tem Modified T.K.S.
np X.A.9500/120 TYPF B (Ref. No.5UE/6216) ▶
tributors Porous panels
nk capacity - Fluid 23 gall.
Air space 4 gall.
id A.L.- 7 (Ref.No. 34B/9100474)

ANSFER SYSTEM

np Type 28000/11 (Ref. No.5UE/6859) ▶
nk capacity - Fluid 33 gall.
Air space 3 gall.
id A.L.- 7 (Ref.No. 34B/9100474)

WINDSCREENS

Tank capacity - Fluid 9 gall.
Air space 0.5 gall.
Fluid A.L.- 8 (Ref.No. 34B/9100475)
N.A.T.O. Code No.S-738
Delivery pressure 7 p.s.i.

WINDSCREEN WATER-SPRAY SYSTEM

Tank capacity - Water 6 gall.
Air space 0.5 gall.
Delivery pressure 7 p.s.i.

FRESH WATER SYSTEMS

Tank capacity (galley) 15 gall.
Tank capacity (toilet compartment) 5 gall.

AIR CONDITIONING SYSTEM

Heater
Name Dragonair
Type D.Y.A.100 (Ref.No. 27U/539)
Number Four
Fan units (two) Type 55A0141
Fuel controller Ref.No. 27U/553
Fuel pumps Ref.No. 5UE/5648

OXYGEN SYSTEM

MAIN SYSTEM

Storage cylinders
Number Eight
Type Mk.10A (Ref.No. 6D/9429900)
Capacity 2,250 litres
Charging pressure 1,800 p.s.i.
Regulator Mk.10A (Ref.No. 6D/1395)

Type English Electric 327, A.E.2500/5 (Ref.No.5UC/7601)
Voltage control panel (four) Type A.E.7307/2
(Ref.No.5UC/7601)

Batteries
Number Two
Type K, 24-volt, 40 amp./hr. (Ref.No.5J/3364)

Emergency batteries
Turn and slip indicator (two) 24-volt, 0.4 amp./hr.
Lighting 2.4-volt, 3 amp./hr. Connected
2.4-volt, 1.3 amp./hr. in parallel

Alternator 200-volt, 7.3 k.V.A.
Type N-0504

Voltage regulator Type 23/4784

Transformer/rectifier unit Type U/1801

Alternator protection unit Type V/12524

Inverters (rotary)
Type (four) 103C (Ref.No.5UB/8397)
(one) 103D (Ref.No.5UB/9290)
(two) 201B (Ref.No.5UB/6475)
(one) 108 (Ref.No.5UB/5953)

Inverter (static) Plessey (509/1/01230)
(Ref.No.5UB/8462)

ENGINE

Name Viper Mk.20301
Type Straight-flow turbo-jet
Number Two

Oil system
Type Integral with engine
Oil OX-38 (Ref.No.34A/9100591)
N.A.T.O. Code No.0-149

Tank capacity 6.5 pints oil, 3.5 pints air
Engine capacity 1 pint oil
Total oil capacity 7.5 pints

Starting system
Type Electrical
Starter Rotax Type C.13102
Starter panel Rotax Type U.1110

RESTRICTED