

NAMDU

SEA VAMPIRE T Mk.22 AIRCRAFT

ADVANCE INFORMATION LEAFLETS

This marker card is to be inserted immediately in front of the Amendment Record Sheet at the beginning of the book. Advance Information Leaflets are to be inserted, as received, in numerical order following this card.

The information contained in Advance Information Leaflets will be incorporated by normal amendment list action in due course. In the meantime, appropriate action is to be taken in accordance with any instruction contained therein.

If, after the receipt of a leaflet, an Amendment List with a prior date and conflicting information is received, the information in the leaflet is to take precedence.

ADVANCE INFORMATION LEAFLET NO 1/55
HAS BEEN INSERTED IN SECT 3 CHAP 8, PARA 12(S)

(Oct. 55)

May, 1957

ADMIRALTY



Air Publication 4269C
Volume 1

SEA VAMPIRE T MK. 22 AIRCRAFT

ADVANCE INFORMATION LEAFLET NO. 1/57

Note.- This leaflet is to be inserted in its correct numerical order following the Marker Card for Advance Information Leaflets at the beginning of the book.

FUEL CONTENTS SYSTEM

1. Cases have been reported where the ingress of fuel and moisture into the Pacitor unit has caused the incorrect reading of the fuel gauge.
2. Where an incorrect reading has been observed it is advisable to check all tank units for the serviceability of the seal between the unit and the tank flange.
3. Where any sign of fuel leakage or delamination of the gasket is found, renew the gasket using material Hallite Aero D.T.D. 368A, Stores Ref. 32B/689, plain. No sealant is necessary.
4. Before the tank unit is replaced, the unit should be checked for insulation resistance and capacity.

The insulation resistance, when using a 250-volt insulation resistance tester, should not be less than 3 megohms.

The capacity test of the tank unit should be carried out using a Pacitor test set, Stores Ref. 6C/962, and the following capacity values obtained.

Sea Vampire Aircraft - Tank units

Part No.	G.P. 352-059	Capacity (pFs)	159-147
Part No.	G.P. 352-058	Capacity (pFs)	106-98
Part No.	G.P. 352-057	Capacity (pFs)	86-80

5. Seal the tank connector cable after connection, using Boscoprene No. 2100 (without hardner) around the milled nut and replace the rubber sleeve.
6. When replacing the access panel to the wing, use Boscoprene No. 2100 (without hardner).

AMENDMENT RECORD SHEET

Incorporation of an Amendment List in this publication is to be recorded by signing in the appropriate column and inserting the date of making the amendments

NAVAL
AIRCRAFT MAINTENANCE

14 MAR 1955

DEVELOPMENT UNIT

A.L. No.	Amended by	Date
1		
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12	<i>L. R. Blake</i>	<i>9/1/55</i>
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25		
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28	<i>L. R. Blake</i>	<i>9/1/55</i>
29		
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31		
32	<i>R. Sanders M¹</i>	<i>19/8/55</i>
33	<i>R. Sanders M²</i>	<i>18/1/55</i>
34	<i>Cummings</i>	<i>8/10/55</i>
35	<i>Cummings</i>	<i>5/12/55</i>
36	<i>Cummings</i>	<i>30/4/55</i>
37	<i>Cummings</i>	<i>6-3-56</i>
38	NA <i>Cummings</i>	<i>4-9-56</i>
39	NA <i>Cummings</i>	<i>4-9-56</i>
40	<i>Cummings</i>	<i>27/6/56</i>
41	<i>Cummings</i>	<i>4/9/56</i>
42	<i>Cummings</i>	<i>21/9/56</i>
43	NA <i>Cummings</i>	<i>14/1/57</i>
44	<i>Cummings</i>	<i>17-12-56</i>
45	<i>R. Stanford</i>	<i>18-25/57</i>
46	<i>R. Stanford</i>	<i>28/5/57</i>
47		<i>1/5/57</i>
48		

A.L. No.	Amended by	Date
49	<i>Cummings</i>	<i>15/5/57</i>
50	<i>Cummings</i>	<i>21/8/57</i>
51	<i>G. Scott</i>	<i>6/5/58</i>
52	<i>G. Scott</i>	<i>4/12/58</i>
53	<i>Inserted</i>	<i>29/10/57</i>
54	<i>G. Scott</i>	<i>17/1/58</i>
55	<i>G. Scott</i>	<i>2/1/58</i>
56	<i>G. Scott</i>	<i>11-3-58</i>
57	<i>G. Scott</i>	<i>1/7/58</i>
58	<i>O. J. Smith</i>	<i>26-2-59</i>
59	<i>G. Scott</i>	<i>22/9/58</i>
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61	<i>O. J. Smith</i>	<i>21/4/59</i>
62	<i>R. K. Kaw</i>	<i>28/10/59</i>
63	<i>R. K. Kaw</i>	<i>29/9/59</i>
64	<i>Mallory</i>	<i>14/9/59</i>
65	<i>G. Scott</i>	<i>4/3/60</i>
66	<i>G. Scott</i>	<i>6/4/60</i>
67	<i>G. Scott</i>	<i>11/4/60</i>
68	<i>G. Scott</i>	<i>11/4/60</i>
69	<i>G. Scott</i>	<i>19/5/60</i>
70	<i>G. Scott</i>	<i>24/5/60</i>
71	<i>Salwell</i>	<i>23/6/61</i>
72	<i>Hemming</i>	<i>12/2/62</i>

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A.L. No.	Amended by	Date
73	JR. Coates	17/7/62
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75	JR. Coates	31/7/62
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LETHAL WARNING

EJECTION SEATS AND CANOPY JETTISON MECHANISMS

1. Ejection seats and canopy jettison mechanisms are sources of potential danger to personnel and of damage to the aircraft. Serious injury (possibly fatal) may result if any firing mechanisms are inadvertently operated whilst the aircraft is on the ground.

2. The following instructions are to be obeyed:—

R.N. Safety precautions contained in A.P.(N.)140—Naval Aircraft Maintenance Manual.

R.A.F. ALL PERSONNEL before entering the cockpit or cabin of an aircraft fitted with an ejection seat are to report to the N.C.O. immediately in charge of air-frame servicing who is to ensure that all safety pins (or other safety devices) are correctly positioned to render the seat and canopy jettison firing mechanisms safe. On completion of servicing, tradesmen are to report to the N.C.O.

3. Full instructions for rendering the firing mechanisms safe are contained in the A.P.4288 and A.P.(N.)1023 series, in Aircraft Servicing Schedules and in the A.D.5037 series.

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Jan. 58

N. A. M. D. U.
1 1 APR 1960
R.N.A.S.
LEE-ON-SOLENT

NOTE TO READERS

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

LIST OF ASSOCIATED PUBLICATIONS

	<i>A.P.</i>
<i>Aircraft operation and servicing under low-temperature conditions</i>	1441A
<i>Dinghies and associated equipment</i>	1182C
<i>Ejection seats</i>	4288C
<i>Electrical equipment, aircraft</i>	{ 1095 Series 4343 Series
<i>External and internal finish of aircraft</i>	2656A
<i>Flying clothing and survival equipment</i>	1182E
<i>Goblin Mk. 2 and 3 aero-engine</i>	4121B & C
<i>Gun sights</i>	1275E
<i>Hispano 20 mm. guns</i>	1641F
<i>Hydraulic equipment, Lockheed</i>	1803B & C
<i>Instrument manual</i>	1275 Series
<i>Miscellaneous power cartridges</i>	1161F
<i>Parachutes and parachute harness</i>	1182A
<i>Pneumatic equipment, aircraft, Hymatic</i>	4303C
<i>Pressure-cabin testing trolleys</i>	2306G
<i>Safety harness</i>	1182B

LAYOUT OF A.P.4269C

SEA VAMPIRE T Mk.22 AIRCRAFT

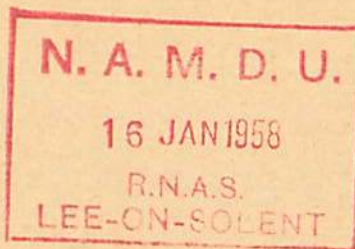
*Volumes and Parts printed below in heavy type are being issued as separate books
and, when issued, will be listed in A.P.113*

VOLUME 1	...	...	...	...	...	...	General and technical information
VOLUME 2, Part 1	...	...	...	...	...	...	General orders and modifications
Part 2	...	...	...	...	...	...	Inapplicable (refer to Vol. 4)
Part 3	...	...	...	...	...	...	User unit repairs
Part 4	...	...	...	...	...	...	Major repair scheme
							} A.P.4099 & 4269
VOLUME 3, Part 1	...	...	...	...	...	...	Schedule of spare parts
Part 2	...	...	...	...	...	...	Appendix "A"
Part 3	...	...	...	...	...	...	Scales of unit equipment
Part 4	...	...	...	...	...	...	Scales of servicing spares
VOLUME 4, Part 3	...	...	...	...	...	...	Minor servicing |
VOLUME 5, Part 2	Before flight and daily servicing

Ground Handling
Notes
A.P.4269C-G.H.N.

Pilot's Notes
A.P.4269C-P.N.

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CONTENTS

Leading particulars

Introduction

<p>Section 1—Controls and exits </p>	<p>Chapter 1—Pilot's controls and equipment 2—Not applicable 3—Emergency controls, equipment and exit</p>
<p>Section 2—Ground handling and preparation for Flight </p>	<p>Chapter 1—Ground handling 2—Preparation for flight 3—Loading and C.G. data 4—General servicing</p>
<p>Section 3—Airframe </p>	<p>Chapter 1—Fuselage 2—Main planes 3—Tail unit 4—Flying controls 5—Landing gear 6—Hydraulic system 7—Pneumatic system 8—Air conditioning system 9—De-icing system 10—Oxygen system 11—Emergency equipment</p>
<p>Section 4—Power unit installation </p>	<p>Chapter 1—Power unit 2—Fuel system 3—Not applicable 4—Not applicable 5—Fire extinguishing system</p>
<p>Section 5—Electrical system and instrument installation </p>	<p>Chapter 1—Electrical system 2—Instrument installation</p>
<p>Section 6—Radio installation </p>	<p>Chapter 1—Wireless installation 2—Radar installation</p>
<p>Section 7—Armament installation </p>	<p>Chapter 1—Not applicable 2—R.P. equipment 3—Guns 4—Bombing equipment</p>

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LUBRICATION DETAILS

In order to avoid repeating Stores References and N.A.T.O. Code Numbers throughout the book, details of the lubricants used in routine servicing are given below.

<i>Nomenclature</i>	<i>Stores Ref.</i>	<i>N.A.T.O. Code No.</i>
Grease, XG - 270	34B/9100509	—
Grease, XG - 273	34B/9423151	—
Grease, XG - 275	34B/9100512 (4 oz.)	G - 350
	34B/9100513 (1 lb.)	G - 350
Grease, ZX - 13	34B/9100528	S - 720
Oil, OM - 150	34B/9100550	O - 140

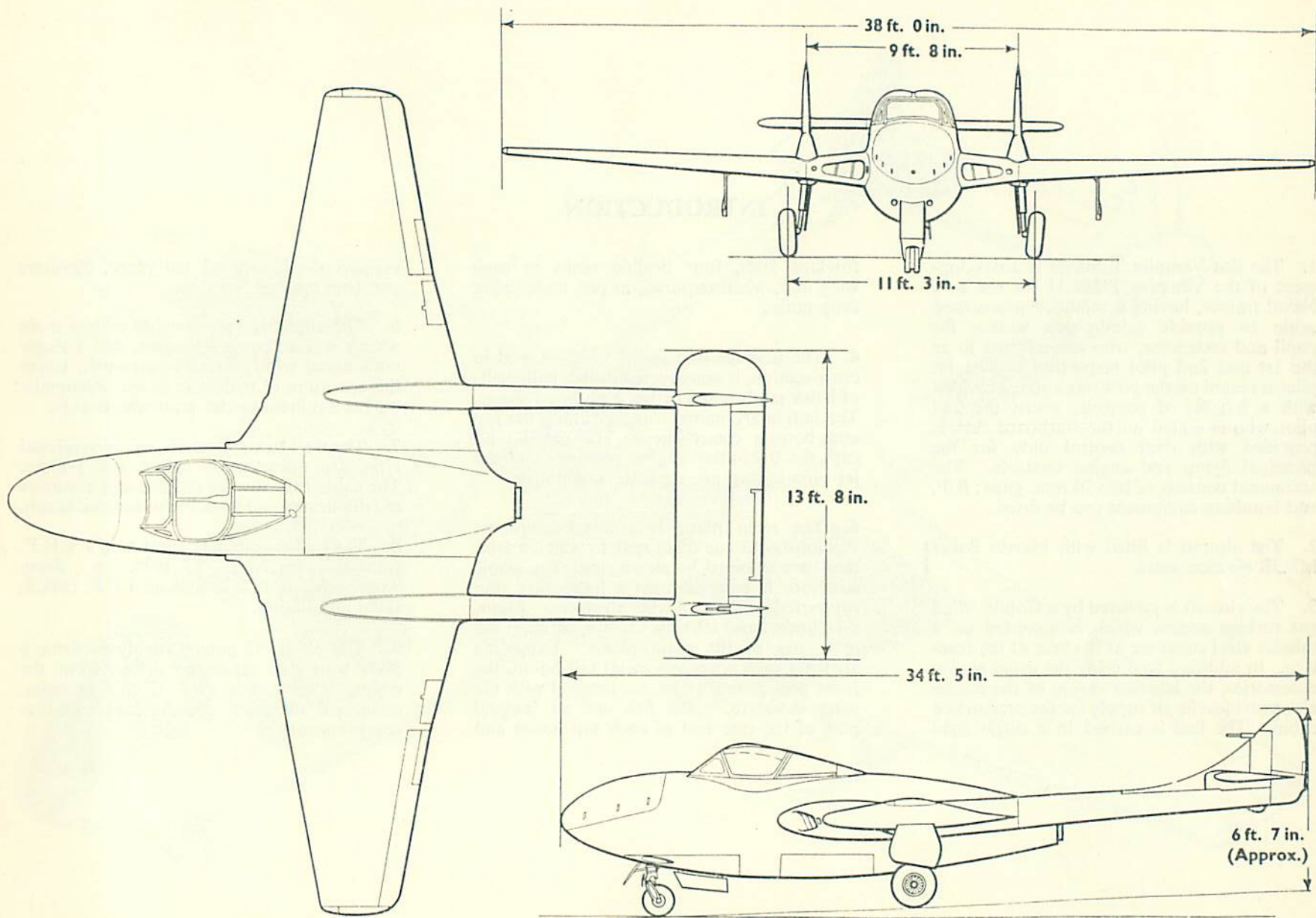
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N. A. M. D. U.
14 SEP 1959
R.N.A.S.
LEE-ON-SOLENT

A.P.4269C, Vol. 1
A.L.64, Mar. 59

(Continued overleaf)

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General arrangement

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LEADING PARTICULARS

Name	Sea Vampire T Mk. 22
Type	Two-seater, single-engined, jet-propelled, mid-wing, monoplane
Duty	...	...	...	...	...	Conversion trainer
Note.	For principal dimensions refer to the General Arrangement illustration on opposite page.					

Main Plane Data

Aerofoil section	...	...	Thickness grading EC 1240 series camberline. Constant load up to 0.4 chord, linear decrease to zero at T.E. Thickness to chord ratio 14%
Incidence	...	...	Zero to fuselage datum ± 10 min.
Dihedral (measured on top skin at front spar)	...	...	1 deg. 15 min. ± 10 min.
Sweep back (48 in. in 240 in.)	...	...	11 deg. 19 min.
Chord at 56 in. from C/L of aircraft	...	...	102 in.
Chord at 216 in. from C/L of aircraft	...	...	42.8 in.

Tail plane data

Chord	...	...	...	...	...	34 in.
Incidence	...	...	...	...	...	Zero to fuselage datum ± 10 min.

Areas

Total wing area	...	...	...	...	261 sq. ft.
Main plane, each	...	...	...	...	109 sq. ft.
Aileron with tab, each	...	...	...	...	7.7 sq. ft.
Aileron balance tab, each	...	...	...	...	1.0 sq. ft.
Flaps, total	...	...	...	...	15.6 sq. ft.
Dive brake, each	...	...	...	...	3.05 sq. ft.
Tail plane, including extensions	...	...	...	...	39.7 sq. ft.
Elevator and trim tab	...	...	...	...	10.5 sq. ft.
Elevator trim tab	...	...	...	...	0.66 sq. ft.
Fin, each	...	...	...	...	7.1 sq. ft.
Rudder and tab, each	...	...	...	...	3.9 sq. ft.
Rudder tab, each	...	...	...	...	0.175 sq. ft.

ALIGHTING GEAR

Main undercarriage

Type	...	Two, interchangeable single-wheel units, sideways retraction
Shock-absorber struts	...	Lockheed oleo-pneumatic, AIR 53560 and 53561
Fluid	...	OF-4 (Ref. No. 34B/9100565, N.A.T.O. Code No. H-534)
Note.	This fluid differs from that used in the hydraulic system.	
Air pressure	...	See Sect. 2, Chap. 2

Wheels	...	Dunlop AH.9139, (Ref. No. 27A/2785)
Tyres	...	Dunlop FC-R17N, size 26x7.75-13, (Ref. No. 27A/2087)
Tubes	...	Dunlop FC-7, (Ref. No. 27A/2786)
Pressure	...	Refer to Vol. 5
Brakes	...	Dunlop AH.9140, (Ref. No. 27G/4067)

Nose undercarriage

Type	...	Single-wheel, fully castering, self-centring, rearward retraction
Shock-absorber strut	...	Lockheed oleo-pneumatic AIR 101814
Air pressure	...	See Sect. 2, Chap. 2
Fluid	...	As for main undercarriage
Wheel	...	Dunlop AHO.17219, (Ref. No. 27A/2069)
Tyre	...	Dunlop NF-R-31, size 6.50x5.5, (Ref. No. 27A/2433)
Tube	...	Dunlop NF-2, (Ref. No. 27A/2071)
Pressure	...	Refer to Vol. 5

ENGINE

Name	...	Goblin Mk. 3
Note.	When ordering a replacement engine, it is essential to specify that it is to be installed in a Sea Vampire T Mk.22 aircraft.	
Type	...	Single-stage centrifugal compressor, straight-flow combustion, single-stage, axial-flow turbine
Starter motor	...	Rotax Type C 3804/1 (Ref. No. 37F/4503)
Fuel	...	Aviation turbine fuel, AVTUR (Ref. No. 34A/9100449, N.A.T.O. Code No. F-30) or Aviation turbine gasoline, AVTAG (Ref. No. 34A/9100448, N.A.T.O. Code No. F-40) or Aviation carrier turbine fuel, AVCAT (N.A.T.O. Code No. F-42)
Oil	...	OEP-71 (Ref. No. 34A/9100540, N.A.T.O. Code No. O-136) OX-38 (Ref. No. 34A/9100591, N.A.T.O. Code No. O-149) Refer to A.P.4121B & C, Vol. 1

TANK CAPACITIES

Fuel tanks	...	...
Fuselage tanks	...	96 gall.
Inner wing tanks (2x53 gall.)	...	106 gall.
Leading edge and outer wing tanks (2x64 gall.)	...	128 gall.
Wing drop tanks (2x100 gall.)	...	200 gall.
Oil (in engine sump only)	...	1 1/2 gall.

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HYDRAULIC SYSTEM

Pump (engine-driven)	Lockheed Mk. 7, (Ref. No. 37J/264)
Fluid	OM-15 (Ref. No. 34B/9100572, N.A.T.O. Code No. H-515)
Note. This fluid differs from that used in the shock-absorber struts.	
Reservoir capacity	1 gall.
Accumulator initial air pressure	1250—1300 p.s.i.
Operating pressure (cut-out valve)	2400—2500 p.s.i.
Thermal relief valve	3000 p.s.i.

PNEUMATIC SYSTEM

Compressor	Hymatic, SH.6/2A, (Ref. No. 37G/505)
Pressure regulator	AR.5/450-2, (Ref. No. 27VB/3247)
Oil-and-water trap	OWT.46/1, (Ref. No. 27VB/3168)
Pressure maintaining valve	Teddington EV/A/135/155, (Ref. No. 27V/2147)
Reducing valve (hatch seal)	Hymatic, PS.26/2 or PS.29
Pressure reducing valve (brakes)	Dunlop AHO.5712 (Ref. No. 27G/2022)
Electro-magnetic air valve (hatch strut)	Teddington FKF/A/5 (Ref. No. 27V/4862)

Pressures

Air reservoir	450 p.s.i.
Reducing valve (brakes)	200 p.s.i.
At brakes (max.)	150 p.s.i.
At pressure maintaining valve	180 p.s.i. (opening pressure) 150—160 p.s.i. (closing pressure)
After pressure reducing valve (hatch seal)	10—12 p.s.i.
After pressure reducing valve (hatch strut)	170 p.s.i.

DE-ICING SYSTEM

Fluid 3 pints, AL-8 (Ref. No. 34B/9100475, N.A.T.O. Code No. S-738)	
Pump (hand-operated)	Rotax M.2601

OXYGEN SYSTEM

Cylinders... ..	Mk.5C (Ref. No. 6D/1383)
Regulators	1st Pilot, Mk.11D (Fluorescent) (Ref. No. 6D/1276) 2nd Pilot, Mk. 11E (Ref. No. 6D/1277)

PRESSURE CABIN

Control valve	Normalair No. 503180E
Cold air unit	ACRE 8, Mk.1A (Ref. No. 27UA/272)
Differential pressure (max.)	3 p.s.i.

SEATS

Ejection type	Martin Baker Mk.3B
Cartridge, seat ejection, primary	No. 1 Mk.1 (Ref. No. 12K/1170)
Cartridge, seat ejection, drogue	No. 1 Mk.1 (Ref. No. 12K/1171)

ELECTRICAL INSTALLATION

Generator 24-v, 3,000 watt, Type 02 (anti-clock) (Ref. No. 5UA/3619)	
Voltage	24
Voltage regulator	Type B (Ref. No. 5UC/3880)
Batteries (two) Lead acid, Type C, 12-v, 40 amp/hr. (Ref. No. 5J/3253)	

RADIO INSTALLATION

T.R. 1936—V.H.F.	A.R.I.5489
Z.B.X.—Beam approach	A.R.I.5307
I.F.F. Mk.3 G.R.	A.R.I.5131

ARMAMENT INSTALLATION

Guns, two inboard	Hispano 20 mm. Mk.5 (Ref. No. 7G/786)
Belt feed mechanism (Mk.5)	Left-hand (Ref. No. 7G/924) Right-hand (Ref. No. 7G/925)
Firing unit	Maxiflux 24-v. (Ref. No. 5D/1489)
Ammunition (300 rounds)	20 mm. Hispano (Ref. No. 12C/-)
Rocket Projectiles	Mk.8
Bombs (short tails)	Two 1000 lb. or two 500 lb.
Gun sight	Mk.5
Cine-camera	G.45

PRESSURE HEAD SETTINGS

Position	Port fin leading edge
Incidence	Zero to fuselage datum
Distance from C/L of aircraft	58 in.
Distance ahead of leading edge	11.9 in.
Tolerance on angular setting	±2 deg.

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<i>Hydraulic equipment, Lockheed</i>	1803B & C
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<i>Pressure-cabin testing, servicing trolley</i>	2306G
<i>Pneumatic equipment, aircraft, Hymatic</i>	4303C

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VOLUME 5, Part 2	Before flight and daily servicing
Part 3	Basic minor servicing
Part 4	Planned minor servicing

**Ground Handling
Notes
A.P.4269C-G.H.N.**

**Pilot's Notes
A.P.4269C-P.N.**

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