AIR PUBLICATION
101B-0402-1A

(Formerly A.P. 4326B, Vol. 1 and
A.P. 101B-0402-1, Sect. 1, 2, 3 and 4)

CANBERRA B. MK. 2 AIRCRAFT
GENERAL AND TECHNICAL INFORMATION

BY COMMAND OF THE DEFENCE COUNCIL

Ministry of Defence

Sponsored for use in the

ROYAL AIR FORCE by D.Air.Eng.(RAF)

Prepared by British Aerospace, Aircraft Group, Warton Division

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A.P.101B-0402-1A
A.L.207, Dec.77

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

A.L. No.	Amended by	Date
1-206	INCORPORATED	DEC.77
207	[signature]	3.1.78
208	[signature]	15.4.78
209	[signature]	4.7.78
210	[signature]	10.7.78
211	[signature]	31.8.78
212	[signature]	25.1.78
213	[signature]	13.4.79
214	E. Billington	19.9.79
215	E. Billington	11.2.80
216	E. Billington	18.2.80
217	E. Billington	18.3.80
218	E. Billington	28.5.80
219	E. Billington	17.7.80
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223	E. Billington	13.4.81
224	E. Billington	3.6.81
225	E. Billington	12.10.81
226	E. Billington	12.10.81
227	E. Billington	16.11.81
228	E. Billington	24.2.82
229	E. Billington	24.3.82

A.L. No.	Amended by	Date
230	E Billington	26.4.82
231	[signature]	3.8.82
232	[signature]	29.9.82
233	[signature]	4.1.83
234	[signature]	21.2.83
235	[signature]	
236	[signature]	28/2/83
237	[signature]	27/4/83
238	[signature]	27/4/83
239	[signature]	3/5/83
240	[signature]	27/6/83
241	[signature]	27/6/83
242	[signature]	21/7/83
243	[signature]	29/8/83
244	[signature]	5/9/83
245	[signature]	19/10/83
246	[signature]	19/10/83
247	M. Dewhurst	15/11/83
248	A. Wood	23/12/83
249	[signature]	26/3/84
250	[signature]	26/3/84
251	M. Dewhurst	11/5/84
252	M. Dewhurst	2/1/85
253	[signature]	24/6/85

A.L. No.	Amended by	Date
254		
255	[signature]	24/6/85
256	[signature]	25/10/85
257	[signature]	1-4-86
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259	[signature]	29-7-86
260	[signature]	1-8-86
261		
262	[signature]	5-5-88
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(Continued overleaf)

LETHAL WARNINGS

ENTRY INTO CABIN

Before entering the cabin, personnel must report to the N.C.O. i/c the aircraft, who will ensure that all the relevant safety precautions have been taken.

ASSISTED ESCAPE SYSTEM

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 detailing the responsibilities and positioning of the assisted escape system safety devices are to be strictly adhered to:

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

R.A.F. Lethal Warnings contained in the A.P.101B-0400-5A2, Safety and Servicing Notes.

3. Additional information concerning assisted escape system safety device positioning is to be found in the Aircraft Servicing Schedules and A.D.5037 series of Air Diagrams.

GENERAL

CANOPY JETTISON : EXPLOSIVE BOLTS
CREW HATCH JETTISON : EXPLOSIVE BOLTS
CONTROL COLUMN RELEASE : EXPLOSIVE COLLAR
WING TIP TANKS JETTISON : EXPLOSIVE BOLTS

Personnel are warned not to interfere with the controls associated with this equipment unless the following precautions have been carried out:-

(a) The internal service batteries and the detonator-circuit emergency batteries are disconnected and no ground electrical supply is connected to the external supply socket.

(b) The detonator leads are disconnected where necessary.

(c) The detonators are removed where necessary.

Note . . .

Detonators are not to be held in the hand. During all operations, detonators must be supported by their electrical leads. Hold the leads near the detonator base. THIS IS MOST IMPORTANT.

HIGH ENERGY IGNITERS

4. The energy stored in the capacitors of high energy igniter units can be of a lethal nature. No servicing should be attempted until at least one minute has elapsed after disconnection of the L.T. supply to the input plug.

HIGH VOLTAGE ELECTRICAL SYSTEMS

5. Voltages in excess of 30 volts (R.M.S.) a.c. or 50 volts d.c. can in certain circumstances be lethal. When working on such systems requiring the exposure of live terminals, a second tradesman is always to be in attendance.

NOTE TO READERS

Concurrent with the introduction of A.L.207, this publication has been divided into two covers. A.P.101B-0402-1A containing Sections 1, 2, 3 and 4 and A.P.101B-0402-1B containing Sections 5 and 6.

Subsequent Amendment Lists will be issued separately for each cover.

The subject matter of this publication may be affected by Defence Council Instructions, by Servicing schedules 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 bears the date of issue and the number of the Amendment List with which it was issued. New or amended technical matter 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. When a Section or Chapter is issued in a completely revised form, the triangles will not appear.

LIST OF ASSOCIATED AIR PUBLICATIONS AND DIAGRAMS

	A.P.
Accessories gearboxes and drives, Rotol	*103C-0107-16*
Aero engine, Avon Mk.1	*102C-1522-1*
Aircraft painting	*119A-0601-1 series*
Aircraft wheels tyres and brakes	*104 series and 2337*
Aircraft rigid tanks	*106B series*
Aircraft flexible tanks	*106B series*
A.R.I.5851 (Green Satin)	*114E-0300-1*
A.R.I.18011 (I.L.S.)	*116B-0408-1*
A.R.I.18089 (Intercomm.)	*116N-0105-1*
A.R.I.18107 (Tacan)	*116B-0304-1*
A.R.I.23023 (Radio compass)	*116B-0107-1*
A.R.I.23118 (V.O.R./I.L.S.)	*116B-0407-1*
A.R.I.23134 (I.F.F./S.S.R.)	*114J-0101-16*
A.R.I.23143 (P.T.R.175) - Pre Mod.5409	*116D-0116-1*
A.R.I.23159 (Standby U.H.F.)	*116D-0107-1*
A.R.I.23300 - Post Mod.5409	*116D-0154-1*
◂ *A.R.I.23329/1*	*to be issued later* ▸
Cartridges, power and miscellaneous explosive devices	*110N series*
Ejection seats, Type 2CA	*109B-0107-1*
Electrical manual	*113D series and 4343 series*
Hydraulic weighing units and ancillary equipment	*119W-0301-1*
Hydraulic equipment	*104B/105B series and 1803 series*
Instrument manuals general instruments	*112G series and 1275A series*
Navigation instruments	*112B series and 1275B series*
Oxygen equipment	*112G series and 1275G series*
Prefabricated constructional equipment (Basic) - Canberra access structures	*119F-2100 series and 4549A Book 3*
Pressurizing and air conditioning equipment	*107B series*
Principles of aircraft weighing	*119W-0001-1*
Pyrotechnics	*11OE series and 1661E*
Starting systems for aero engines	*103D-0106-13*

	A.D.
Canberra B Mk.2 lubrication	*5113*
Canberra B Mk.2 electrical installation	*5105*
Canberra B Mk.2 emergency equipment	*5114*
Canberra B Mk.2 hydraulic system	*5115*
Avon Mk.1 servicing	*4880*
Avon Mk.1 fuel system	*4881*
Avon Mk.1 cut-away view and oil flow	*5093*
Avon Mk.1 Canberra installation connections	*5285*

LAYOUT OF A.P.101B-0402

CANBERRA B MK.2 AIRCRAFT

MODIFICATION STANDARD

This Air Publication has been written to the Canberra B.Mk.2 modification standard 2Y1 and the modifications listed below. Modifications added subsequent to this standard are listed separately.

13	418	541	750	1033	1435	2148	2585	3521	4152	4781	5061
53	419	542	851	1039	1442	2151	2586	3522	4158	4783	5072
57	420	543	852	1040	1450	2154	2594	3593	4160	4797	5078
79	424	545	853	1151	1454	2158	2614	3701	4220	4855	5081
90	427	546	857	1152	1464	2159	2621	3702	4222	4858	5087
95	428	547	858	1160	1465	2183	2670	3703	4270	4859	5091
154	433	550	860	1165	1466	2186	2690	3728	4271	4868	5093
169	434	606	862	1169	1470	2301	2701	3745	4286	4922	5097
250	440	612	863	1170	1477	2306	2704	3749	4303	4924	5103
255	441	616	864	1171	1493	2317	2705	3773	4309	4925	5105
258	442	617	868	1176	1498	2334	2712	3792	4333	4928	5111
261	443	618	871	1189	1703	2335	2740	3797	4335	4933	5112
262	445	620	874	1196	1705	2347	3156	3881	4337	4936	5120
263	447	621	878	1197	1707	2348	3225	3883	4351	4937	5180
269	450	628	880	1199	1714	2353	3258	3906	4412	4939	
270	502	632	883	1254	1716	2379	3274	3911	4420	4949	
272	504	636	886	1266	1720	2380	3282	3937	4427	4956	
279	505	641	887	1271	1721	2386	3299	3948	4435	4958	
295	508	643	888	1272	1728	2392	3330	3949	4437	4959	
310	509	644	894	1277	1734	2394	3333	3955	4448	4960	
311	512	706	895	1294	1744	2395	3352	3960	4449	5015	
315	513	710	899	1401	1750	2511	3367	3962	4454	5027	
322	519	711	1001	1407	1769	2517	3368	4005	4465	5028	
325	523	713	1002	1413	1924	2531	3390	4006	4468	5035	
327	531	721	1008	1421	1925	2535	3391	4045	4469	5045	
333	533	724	1009	1425	1932	2541	3396	4058	4491	5046	
337	535	731	1016	1427	1960	2555	3423	4063	4704	5048	
346	536	733	1021	1431	1968	2564	3428	4077	4706	5050	
409	537	739	1022	1432	2107	2571	3429	4080	4707	5051	
410	538	745	1023	1433	2121	2578	3481	4107	4723	5056	
411	540	749	1024	1434	2133	2580	3487	4151	4726	5058	

MODIFICATIONS INCLUDED SUBSEQUENT TO STANDARD

Modification Number	Effect on Publication	Incorporated by A.L. Number
4868 5091	Adds Appendix 2 to Sect.2, Chap.3	220
5118	Amends Sect.3, Chap.6	233
5442	Amends Sect.3, Chap.11	238
5409	Amends Prelims and Sect.1, Chap.1	239
5209	Amends Leading Particulars	240
5224	Amends Sect.2, Chap.4	240
	Amends Sect.3, Chap.2	240
5238	Amends. Sect.3, Chap.8C	240
5335	Adds new Chap.4A to Sect.2	242
5441	Amends Sect.1, Chap.3	246
	Amends Sect.3, Chap.11	246
5510	Amends Sect.1, Chap.2 and Chap.3	255
5408	Amends Sect.1, Chap.1	257

CONTENTS

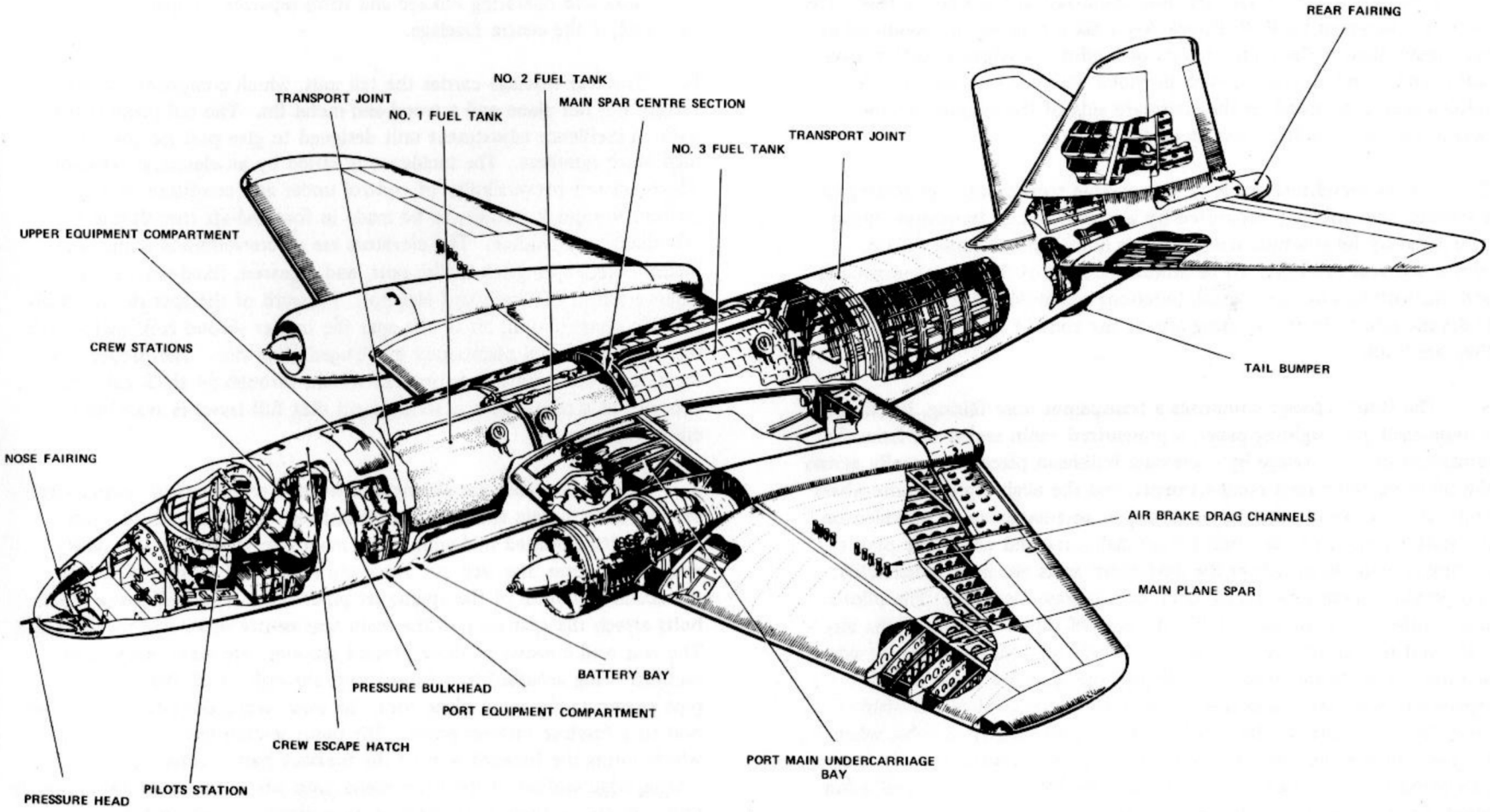
LUBRICATION – OILS AND GREASES

THE LUBRICATION DIAGRAMS THROUGHOUT THIS PUBLICATION REFER TO OILS AND GREASES BY SYMBOLS. REFERENCE MUST ALWAYS BE MADE TO THIS MARKER CARD FOR INTERPRETATION OF THE LUBRICANT REQUIRED AND THE METHOD OF APPLICATION.

SYMBOL	NOMENCLATURE	REFERENCE NO.	N.A.T.O. CODE NO.
◓	Oil OEP-71	34B/9100540	O-136
⊗	Oil OM-15	(1 gall.) 34B/9100572 (45 gall.) 34B/2202291	H-515
◎	Oil OM-150	34B/9100550	O-140
○	Oil OX-14	(2 oz) 34B/9100589 (½ pint) 34B/9100590	O-147
●	Oil OX-38	(1 gall.) 34B/9100591 (45 gall.) 34B/2201941	O-149
	Grease XG-235	34B/9440585	G-363
◪	Grease XG-271	34B/9100510	G-382
◣	Grease XG-273	34B/9423151	G-357
■	Grease XG-276	34B/9425139	G-353
□	Grease XG-287	(2 oz.) 34B/2241973 (28 lb.) 34B/2241861	G-354
⊟	Grease XG-293	34B/2241797	G-395
⧓	Grease XG-315	(4 oz.) 34B/2201438 (225 grm.) 34B 2204466	G-394
	Grease SP-5	34B/2247686	
▣	Grease ZX-38	34B/9437518	S-722
◬	Grease ZX-32	34B/2202430	S-717

METHOD OF APPLICATION SYMBOLS

GUN OILCAN HAND LUBRICATED ON ASSEMBLY ONLY



CANBERRA B MK2

INTRODUCTION

1. The Canberra B Mk.2 aircraft is a twin engined jet propelled mid-wing monoplane fitted with a retractable tricycle alighting gear. Formerly tactical bombers, the aircraft are now employed in the training role. The aircraft is powered by Rolls-Royce Avon Mk.1 engines, one mounted in each main plane. The crew consists of a pilot, a navigator (or 1st. navigator) and a 2nd. navigator, each provided with an ejection seat. A folding seat is provided on the starboard side of the cockpit for the occasional use by a 4th. crew member.

2. The all-metal fuselage is of monocoque construction, consisting of a stressed skin covering supported by a framework of transverse frames connected by longitudinal stringers; it is built in three units - front, centre and rear fuselage. To facilitate assembly of the complete aircraft and dismantling into main units, junctions are provided in all controls, hydraulic pipes, electrical wiring etc. at the ends of the units into which they are built.

3. The front fuselage comprises a transparent nose fairing, fitted with a toughened glass sighting-panel, a pressurized cabin sealed off from the remainder of the fuselage by a pressure bulkhead placed diagonally across the fuselage, equipment compartments, and the alighting gear nose-wheel unit. A door, which may be jettisoned in an emergency, is provided on the starboard side of the cabin for normal entry and exit. The pilot's canopy and the hatch above the navigators' seats are both jettisonable, and provide emergency escape exits for the crew members. The pilot's seat is offset, to improve visibility, to port of the centre-line of the aircraft, and the navigators' seats are at the rear of the cabin, side by side and backed on to the pressure bulkhead; the seats are mounted on separate support structures raising them above the level of the main cabin floor. A curtain, fitted to the canopy coaming cross tube, when lowered, divides the crew station from the pilot's station; curtains are also fitted to the navigator's window and the hatch windows, and a sun blind is positioned above the pilot's seat.

4. A metal floor, supported by arched diaphragm members, divides the centre fuselage into fuel and bomb bays. Three fireproof tanks are carried in the fuel bay, the forward and centre tanks are self-sealing and rigidly supported by internal bracing structures, the rear tank is a crash-proof collapsible fuel bag. The main plane centre section frame is an integral part of the fuselage and, passing through the fuel bay, forms a bulkhead between the centre and rear tanks. Aft of the rear tank the fuel bay is sealed by a removable bulkhead. The bomb bay is of full fuselage width and is closed by two hydraulically-operated bomb-bay doors. Bulkheads at each end of the bomb bay carry the bomb-bay door jacks and operating linkage and form separate compartments at each end of the centre fuselage.

5. The rear fuselage carries the tail unit, which comprises a metal rudder and tail plane and a wood-and-metal fin. The tail plane is fitted with an incidence adjustment unit designed to give positive control at high Mach numbers. The incidence is varied by an electrical actuator which ensures irreversibility of control under any condition of flight and enables quick changes to be made in fore-and-aft trim during take-off, flight, and landing. The elevators are of conventional design and incorporate a spring tab in the port, and a geared, fixed-movement balance tab in the starboard elevator. Forward of the spar the fin is of wooden construction, aft of the spar the rudder shroud is of metal with the aerofoil section maintained by flanged plate ribs. The rudder is all-metal and incorporates a spring tab which, through an electrical actuator, acts also as a trim tab; it is so arranged that full travel is available for either function.

6. The main planes are all-metal cantilever structures of symmetrical section, with a main spar and a sectional rear wall, and carrying the power units mounted mid-wing. The main spar is a single web with machined booms, the web cut away and reinforced by ring plates for the accommodation of the engine jet pipe. Four main and seven shear bolts attach the spar root to the main spar centre section in the fuselage. The rear wall consists of three pressed sections, the inner and centre sections being attached to a forged ring, through which the engine jet-pipe passes; at the main plane root, the inner section is attached by one bolt to a fuselage pick-up point. The outer section has a curved web which forms the forward wall of the pressure balance-box. The inner leading edge section of the main plane, into which the main undercarriage unit retracts, is divided transversely by a diaphragm which forms the front wall of the wheel well; extending from the inboard engine-rib to the fuselage, the diaphragm is attached by one bolt to the fuselage. The main plane and fuselage skins intersect smoothly without fillet, the skin at the main plane root fitting over a joint angle riveted to the fuselage. Each main plane is fitted with air-brakes, aileron, and split flaps. Provision is made for fitting jettisonable fuel tanks to the wing tips.

7. The flying controls are conventional, rudder pedals operating the rudder, and a horn-type control operating the ailerons and elevators. All control runs consist of push-pull rods and levers.

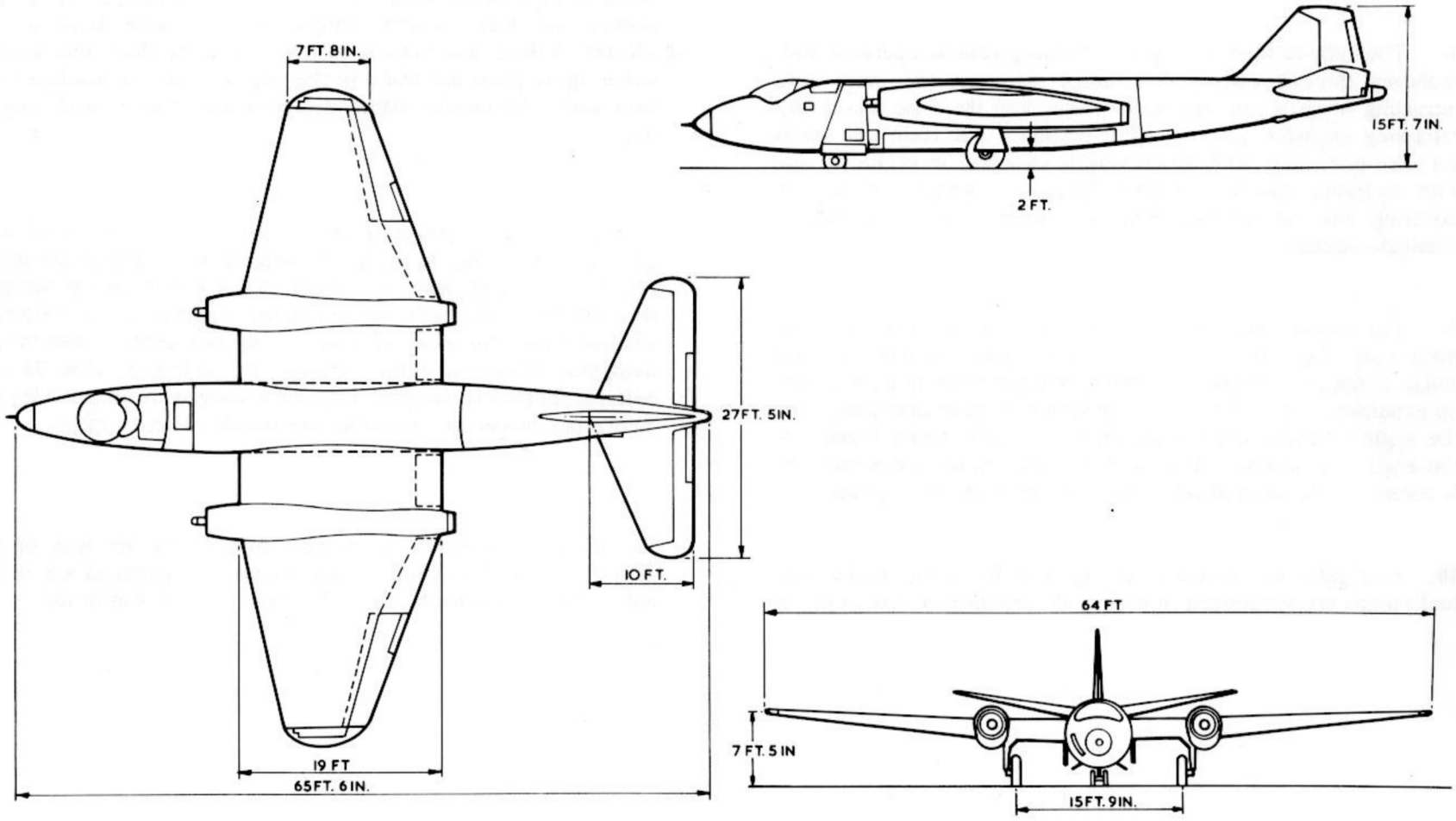
8. The fully-retractable tricycle alighting gear is operated hydraulically through electrically-actuated selectors, the main units retracting inwards into the main planes and the nose wheel unit retracting rearward into the front fuselage. The main unit struts are oleo-pneumatic with single wheels mounted in cantilever and with hydraulic disc-type brakes. The nose wheel unit is fully castering and self-centring with twin wheels keyed together to eliminate shimmy.

9. The engines are attached to engine ribs just forward of the main spar. Each is slung on four self-aligning attachments, the collar of the rear outboard mounting being allowed to float to take up expansion. All auxiliaries are mounted on gearboxes inboard of the engines. Turbo-starters are fitted, the units being faired into the engine air-intakes. Oil is carried in the engine sumps only and is cooled by fuel-cooled oil coolers mounted on the engines.

10. Fuel galleries connect each engine with the fuel tanks. Two fuel pumps are submerged in each tank; separate switches operate each pump together with its associated low-pressure cock. Fuel from the wing-tip tanks is transferred to No.3 tank by air pressure ducted from the engine compressor casings. Smith-Waymouth capacitor-type gauge units are fitted in all fuselage fuel tanks and operate the fuel contents gauges on the engine panel in the cockpit. A fuel tank venting system is also installed. Fire extinguisher spray pipes are fitted in the engine bays and fuselage tank bays and, additionally, flame detectors are fitted in each engine bay.

11. All electrical power is drawn from two 24 volt, 6 kilowatt generators and from four 12 volt batteries with appropriate inverters for radio and radar equipment. A 2.4 volt battery is installed for emergency instrument panel lighting; and two 12 volt batteries, situated under the pilot's console, supply emergency power for the detonator circuits and the turn-and-slip indicator. One 24 volt battery, situated in the port equipment compartment, provides the emergency power for operating the standby U.H.F. radio.

12. Radio and radar equipment, suitable to the role of the aircraft, is installed; controls and associated equipment are installed in positions convenient to the crew member concerned.



GENERAL ARRANGEMENT

LEADING PARTICULARS

NAME ..... CANBERRA B MK.2
TYPE ..... TWIN ENGINED, JET-PROPELLED MID-WING MONOPLANE
DUTY ..... TRAINING
CREW ..... THREE

PRINCIPAL DIMENSIONS

Note . . .

For the main dimensions of the aircraft refer to the General Arrangement illustration. For the settings and ranges of movement of the main control surfaces refer to Section 3, Chapter 4.

MAIN PLANE

Aerofoil section ..... R.A.E./D
Chord
At root ..... 19 ft
At tip ..... 7 ft 8 in.
Incidence ..... 2 deg
Dihedral
Measured on top surface of wing ..... 2 deg ± 10 min
Sweep back (at leading edge) ..... 13 deg 33 min
Sweep forward (at trailing edge) ..... 19 deg 53 min

TAIL PLANE

Aerofoil section ..... R.A.E./D
Chord
At root (leading edge extended to aircraft centre line) ..... 10 ft
At tip ..... 4 ft
Incidence (as measured at starboard inboard rigging gauge position)
Take-off position ..... 3 deg 15 min ± 2 min
Range between electrical stops ..... 2 deg 12 min. +5 −4 min. to 3 deg 59 min. +4 −5 min.
Dihedral (measured at inboard rigging gauge position) ..... 7 deg 57 min ± 15 min
Tail plane stub incidence ..... 1 deg

FIN AND RUDDER

Aerofoil section ..... R.A.E./D
Chord
At root ..... 12 ft 8½ in.
At tip ..... 5 ft 0½ in.

AREAS

Main plane, including aileron (gross) ..... 960 ft²
Main plane, including aileron (nett) ..... 836.5 ft²
Ailerons (total) ..... 72 ft²
Aileron trim tabs (total, aft of hinge) ..... 3.65 ft²
Flaps (total) ..... 64.2 ft²
Tail plane, including elevators (gross) projected ..... 190.8 ft²
Tail plane, including elevators (nett) projected ..... 166.8 ft²
Elevators, including horn ..... 56.8 ft²
Elevator trim tabs (total), aft of hinge ..... 5.44 ft²
Fin, including rudder and tab ..... 66.53 ft²
Rudder, including horn ..... 28.06 ft²
Rudder trim tab ..... 2.577 ft²

EXTERNAL FINISH

Matt acrylic finishing scheme D.T.D.5599A

ALIGHTING GEAR

MAIN UNDERCARRIAGE

Type ..... Two single-wheel units, retracting inwards, English Electric, EA3.40.233-234
Shock absorber
Type ..... Oleo pneumatic
Air pressure (with wheels off ground)
A.U.W. up to 51,000 lb ..... 545 ± 25 lb/in²
Fluid OM-15
Capacity — fluid ..... 12 pints (approx.)

MAIN UNDERCARRIAGE – *continued*

Wheels
- *Type* . . . . . *Dunlop AH.50439*
- *Tyres* . . . . . *Dunlop KJ-N-16N or DR.4521*
- *Tubes* . . . . . *Dunlop K.J.9*
- *Tyre pressure* . . . . . *Refer to A.P.101B-0400-5A2*

Brakes . . . . . *Dunlop hydraulic*

NOSE UNDERCARRIAGE

Type . . . . . *Twin wheel, non-steerable, castering, rearward retracting, Dowty 2.0039.7042 (pre-mod.5209) or 2.0039.6040 (post-mod. 5209)*

Shock absorber . . . . *Levered suspension, liquid spring, Dowty A.7306Y*
- *Pressure (with wheels off ground)* . . . . . *1500 lb/in²*
- *Fluid* *OM-15*
- *Capacity – fluid* . . . . . *1¼ pints*

Wheels
- *Type* . . . . . *Dunlop AH.9590*
- *Tyres* . . . . . *Dunlop DR.2565*
- *Tubes* *K.K.2*
- *Tyre pressure* . . . . . *Refer to A.P.101B-0400-5A2*

HYDRAULIC SYSTEM

Pumps . . . . . *Lockheed Mk.9 (Ref.No.37J/266)*

Fluid *OM-15*

Capacity of system . . . . . *31 pints approx.*

Pressure settings
- *Cut-out valve* . . . . . *Cut-out, 2500 $^{+0}_{-100}$ lb/in²*
  Cut-in, 2000 lb/in² (min)
- *Thermal relief valves* . . . . . *Open, 3450 ± 100 lb/in²*
  Re-seat, 3100 lb/in² (min)
- *Flaps relief valve* . . . . . *Open, 2850 ± 50 lb/in²*
- *Reservoir pressure relief valve* . . . . . *Open, 12-17 lb/in²*
  Re-seat, 8 lb/in²

Accumulator inflation pressure
- *(main and wheel brakes)* . . . . . *At 40 deg F, 1300 $^{+50}_{-0}$ lb/in²*
  At 60 deg F, 1350 $^{+50}_{-0}$ lb/in²
  At 80 deg F, 1400 $^{+50}_{-0}$ lb/in²
  when exhausted of hydraulic pressure

ELECTRICAL SYSTEM

Wiring . . . . . *Plessey*

Voltage *28*

Generators . . . . . *Two 6kW, Type P3 (Ref.No.5UA/4751)*

Batteries . . . . . *Four 12V, 40 amp hr., Type C, connected in series parallel*

Voltage regulators . . . . . *Two Type 23 and one Type 32*

Emergency batteries . . . . . *Two 12 volt, 4 amp hr.*
One 2.4 volt, 3 amp hr.
One 24 volt, 7 amp hr.

ENGINES

Name . . . . . *Avon Mk.1*

Type . . . . . *Pure jet, gas turbine*

Starter . . . . . *Rolls Royce turbo-starter, Type S.B.S.720 Mk.1 (Ref.No.37F/11000)*

Cartridge . . . . . *No.9 Mk.1 (720 grammes)*

◀ *Fuel* . . . . . *Avtur with F.S.I.I. D.E.R.D. 2453 (Ref.No.34A/2201036) - N.A.T.O. Code F-34*
Avtag with F.S.I.I. D.E.R.D. 2454 (Ref.No.34A/2201037) - N.A.T.O. Code F-40
In case of emergency, only the following alternative fuels may be used
** Avtur without F.S.I.I. D.E.R.D. 2494 (Ref.No.34A/9431771) - N.A.T.O. Code F-35*
** Avcat without F.S.I.I. D.E.R.D. 2498 (Ref.No.0722/2202148) - N.A.T.O. Code F-43*
Avcat with F.S.I.I. D.E.R.D. 2452 NATO Code F-44
French Navy Fuel A.I.R. 3404A similar to Avcat D.E.R.D. 2498 with F.S.I.I.
**If these fuels are used FSII must be added in concentrations of between 0.10 and 0.15 per cent by volume*
F.S.I.I. AL31 D.Eng.R.D. 2451 NATO Code S748 ▶

Fuel pressure warning lamps . . . . . *illuminated when pressure falls below 6 $^{+½}_{-0}$ lb/in²*

Oil *OM-11*

Accessories gearboxes
- *Port engine* . . . . . *Rotol, Type PTG3/1 (Ref.No.37L/158) or Type PTG3/3 (Ref.No.37L/160)*
- *Starboard engine* . . . . . *Rotol, Type PTG3/2 (Ref.No.37L/159) or Type PTG3/4 (Ref.No.37L/161)*
- *Oil* *OEP-71*
- *Two-speed gearbox (post Mod.714)* . . . . . *Type D9*
- *Oil* *OEP-71*

PRESSURE HEAD

Type . . . . . *Mk.8M (Ref.No.6A/2176) or Mk.8W (Ref.No.6A/4333460)*

Position . . . . . *On nose tip*

PRESSURE HEAD — *continued*

Angular setting . . . . . *Parallel with fore and aft datum lines ± 1 deg*

TANK CAPACITIES

Fuel tanks		*Weight (lb)*	
		Avtur	*Avtag*
No.1	*520 gal*	*4160*	*4056*
No.2	*317 gal*	*2536*	*2473*
No.3	*540 gal*	*4320*	*4212*
Wing tip jettisonable tanks (two)	*488 gal*	*3904*	*3806*
Total fuel	*1865 gal*	*14920*	*14547*

Note . . .

◀ *1. Post Mod.1490 and 432 or 3757 an auxiliary fuel tank (contents 300 gal; Avtur 2400 lb, Avtag 2340 lb) may be fitted in the bomb bay if required.*

2. The fuel tank capacities given above are nominal; individual aircraft capacities may vary slightly.

Oil

In engine sumps (each engine) . . . . . *16 pints*
Total oil (each engine) . . . . . *19 pints*
Accessories gearboxes (each gearbox) . . . . . *3.125 pints*
Hydraulic tank . . . . . *2 gal*
2-speed accessories gearbox (each gearbox) . . . . . *0.875 pints*

Note . . .

The lubricant Reference and N.A.T.O. code numbers are printed on the reverse of the List of Contents marker card.

OXYGEN SYSTEM

Cylinders

Two . . . . . *2250 litres (Ref.No.6D/9429900)*
Five . . . . . *750 litres (Ref.No.6D/9429896)*

Emergency oxygen

Forward station . . . . . *One Mk.2A set*
Ejection seats . . . . . *One Mk.7J set each* ▶