# GROUP 1—INTRODUCTION

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## ◀LIST OF APPENDICES

*A list of appendices appears at the end of this Group.*▶

**WARNING . . .**

**Voltages in excess of 100 volts either a.c. or d.c. can be dangerous under certain circumstances. Personnel should therefore ensure that the electrical system is electrically safe before any servicing is attempted. Where it is essential that tests or adjustments are to be made with the electrical power switched on, the greatest care must be exercised.**

**1.** This chapter contains descriptive and servicing information for the electrical power supply services and describes the functioning of the circuits. ◀After September, 1961, Modifications are covered by appendices which will be periodically incorporated into the group.▶ Descriptive and servicing information for items of electrical equipment will be found in relevant Air Publications.

**WARNING . . .**

**In the event of an emergency, during the ground testing of any circuits or equipment from an external source, the only way to isolate the ground supplies is by the removal of the ground application socket. Switching off the main switch on the ground supply truck does not shut off the supply to the equipment because the aircraft batteries will be held 'on-line' by the flash back relays.**

## D.C. SUPPLIES

### 112-volt system

**2.** Four 22½ kW d.c. generators provide power, regulated at 112 volts, for the heavy duty services. Each generator is controlled by an associated carbon pile regulator incorporating an equalizing winding for load balancing. The four generator circuits are similar, but completely independent, each generator output being parallelled at the 112-volt heavy duty bus-bar on the main power panel J. In each generator circuit over-load, under-voltage and reverse current protection is provided.

**3.** The various heavy duty services obtain their supplies direct from high-rupturing-capacity fuses connected directly on to the bus-bar on power panel J.

*112-volt generator rating (pre-Mod. A175)*

**4.** Though the generator is rated at 22½kW it must not be operated to supply a continuous load of more than 100 amps. under normal conditions. In cases of emergency the generator may be operated to supply a load of 135 amps. maximum for a period not exceeding 5 hours. Should a generator be operated at the emergency rating it must be inspected immediately after flight for damage to the brush gear, commutator and other internal parts.

*112-volt generator rating (post Mod. A175)*

**5.** Generator Mod. A175 introduces new brushes P.E.G.11 thereby allowing the generator to be operated to supply a continuous load of not more than 150 amps.

**28-volt system**

**6.** Three-3 kW rotary transformers operated by the 112-volt supply provide the power, at 28-volts, for instruments, lighting and relay control lines. The output from each rotary transformer is controlled by a carbon pile regulator incorporating an equalizing line for load balancing. Each rotary-transformer circuit is similar, but completely independent, the output from each rotary transformer being parallelled at the main 28-volt bus-bar on panel Z. In each rotary-transformer circuit over-load, under-voltage and reverse current protection is provided.

**7.** The various services obtain their supplies from their respective fuses in the associated fuse panels on the aircraft. The fuse panels obtain their supplies from the main 28-volt bus-bar, on panel Z, via high-rupturing-capacity feeder fuses connected directly on to the bus-bar.

**Batteries**

**8.** Two batteries are employed in the aircraft electrical system one of 96-volts and the other of 24-volts. The 96-volt battery is charged by the generators and the 24-volt battery is charged by the rotary transformers. Both batteries may also be charged, whilst they are installed in the aircraft, by connecting external supplies to the aircraft external supply connections.

**9.** Engine starting may be carried out using the aircraft batteries. During this function both batteries are connected in series to provide the necessary voltage to operate the engine starter motor.

**10.** Should the aircraft crash, or have to make a crash landing, the batteries will be disconnected from their respective main bus-bars, but the 24-volt battery will still supply the essential services.

## A.C. SUPPLIES

**11.** Five inverters are fitted on the aircraft to provide the necessary a.c. supplies. The Type 350 and 153 inverters, and their associated control panels are mounted in the compartment above the nosewheel bay. The distribution and supply is shown in Group 3, Table 1.

**12.** Two radar inverters Nos. 1 and 2, Type 350 provide the a.c. supplies for the radar and various other installations. In the event of No. 1 or No. 2 inverter failing provision is made for supplying their services from the radar inverter No. 3, Type 350.

**13.** Each of the Type 350 inverters is connected to a control panel Type 16 and a rectifier unit Type CP16 that regulates the inverter output voltage and frequency. Control of the output is effected by means of two control fields, supplied from the control panel, influencing the main fields of the motor and alternator. Over-voltage and over-frequency protection is provided in each of the inverter circuits. The supplies from the inverters are fed to their associated services via the power distribution box, mounted in the radio crate.

**14.** The instruments obtain their a.c. supplies from a Type 100A inverter, mounted on the crew floor behind the radio crate, the output of the inverter being controlled by a control panel Type 12. The inverter and control panel are combined into one unit, with the inverter mounted on the top. A carbon pile, operated by a coil supplied from the control panel is connected in series with the d.c. input to the inverter, to control the speed of the inverter thereby regulating the output voltage and frequency of the inverter. Should the Type 100A inverter fail, the instruments will be automatically supplied from the radar inverter No. 2, Type 350.

**Note . . .**

*Mod. 1573 introduces an inverter Type 153 and associated control equipment, mounted in the rear of the fuselage, in lieu of the inverter Type 100A, for the instrument supplies. Mod. 1573 also introduces a new type of instrument inverter torque switch box and necessary circuit alterations to suit. This torque switch box is standard for all types of aircraft consisting basically of the B. Mk. 1 requirements plus the necessary connections for B/K Mk. 1, B/PR Mk. 1 and B/K/PR Mk. 1 aircraft.*

**15.** A Type 153 inverter provides the a.c. supply to the A.R.I.5851 equipment, the output of the inverter being controlled by control panels, Types 19, CP19 and 25. The a.c. and d.c. sections of the inverter are controlled by means of control fields supplied from the control panel Type 25, thereby regulating the output voltage and frequency of the inverter.

## GENERAL

**Modifications**

**16.** Mod. 2240 fitted retrospectively and superceding ST1/VALIANT/28 deletes Nos. 1, 2 and 3 generators from the generator hold-off relays and deletes Nos. 1 and 2 rotary transformers from the rotary transformer hold-off relays. The control supplies for the generators and rotary transformers, via fuses on panel G, are altered so that the failure of a single fuse on panel Z will not

result in all generators and rotary transformers coming off-line. The supply for the generators and rotary transformers failure warning lamps are now taken individually from fuses on panel Z, in lieu of panel G, and the night screens have been removed from these lamps. The crash field relay for the generators has now been deleted so that until Mod. 2259 is fitted, the field lines are not broken when the crash switches operate. The following procedures must now be adopted:—

(1) Whenever the engines are run, ensure that Nos. 1, 2 and 3 generators are switched OFF before plugging in the 112-volt external supply.

(2) Before the 28-volt supply is plugged in, ensure that Nos. 1 and 2 rotary transformers are switched OFF.

**17.** Mod. 2294 introduces fuse test probes, on all the fuse panels on the aircraft, with associated indicator lamps, in order to avoid removing fuses during routine servicing.

**18.** Mod. 2076 introduces AMP tags 323800, 323801 and 323802 in lieu of PLESSEY tags Z.54994, Z.54995 and Z.54996 or Z.84502, Z.84503 and Z.84504 and appropriate thimbles.

### Wiring system

**19.** A single-pole wiring system is employed, the negative return being the metal structure of the aircraft. Pren cable is used throughout with only a few minor exceptions. Connector blocks of the S.B.A.C. pattern are used for the high-voltage system and the smaller Plessey connector blocks are used for the 28-volt system. Hellerman pressure seals are used for taking the cables through the cabin pressure bulkhead. Cable loom identification is by letters denoting the panels to which the cables connect; e.g., FB denotes a cable from panel F to panel B. Connector blocks are lettered and all terminals numbered. A terminal, referenced A7, on a routing diagram, in a column headed 'panel F', denotes terminal 7 of connector block 'A' mounted on panel F.

**Table 1**

**Circuit breaker ratings (B. Mk. 1)**

| Type and Service | Rating |
|---|---|
| **Starboard distribution panel D** | |
| Type A—Windscreen wipers (pre-Mod. 2361 only) | 25 amp. |
| Type A—Ground ventilation fan (pre-Mod. 2361 only) | 25 amp. |
| **Port distribution panel E** | |
| Type A—Windscreen wipers (pre-Mod. 2361 only) | 25 amp. |
| Type A—R.A.T.O.G. (pre-Mod. 2330 or 2331 only) | 25 amp. |
| **Panel G** | |
| Type A—I.L.S. (pre-Mod. 2362 or 2446 only) | 10 amp. |
| Type A—N.B.C. (pre-Mod. 2362 or 2446 only) | 25 amp. |
| Type A—H.F. (A.R.I.5874) | 45 amp. |
| **Battery compartment** | |
| Type A—Chimney No. 1 | 15 amp. |
| Type A—Chimney No. 2 | 15 amp. |
| Type A—Window launcher, port No. 1 | 15 amp. |
| Type A—Window launcher, port No. 2 | 15 amp. |
| Type A—Window launcher, starboard No. 1 | 15 amp. |
| Type A—Window launcher, starboard No. 2 | 15 amp. |
| Type D—Bomb jettison (pre-Mod. 2484) | 150 amp. |
| Type A—Hood detonation | 45 amp. |
| Type A—Bomb bay servicing lamps | 25 amp. |
| **Starboard console rear door** | |
| Type A—Port u/c extreme emergency | 25 amp. |
| Type A—Starboard u/c extreme emergency | 25 amp. |
| **Above nosewheel bay** | |
| Type D—No. 1 bomb control (Post Mods. 2612, 2645, 2646 or 2725) | 200 amp. |
| **No. 1 Bomb control panel (Mod. 2609)** | |
| Type A—D.C. No. 1 | 35 amp. |
| Type A—D.C. No. 2 | 35 amp. |
| Type A—D.C. No. 3 | 25 amp. |
| Type A—D.C. No. 4 | 45 amp. |
| Type A—D.C. No. 5 | 15 amp. |

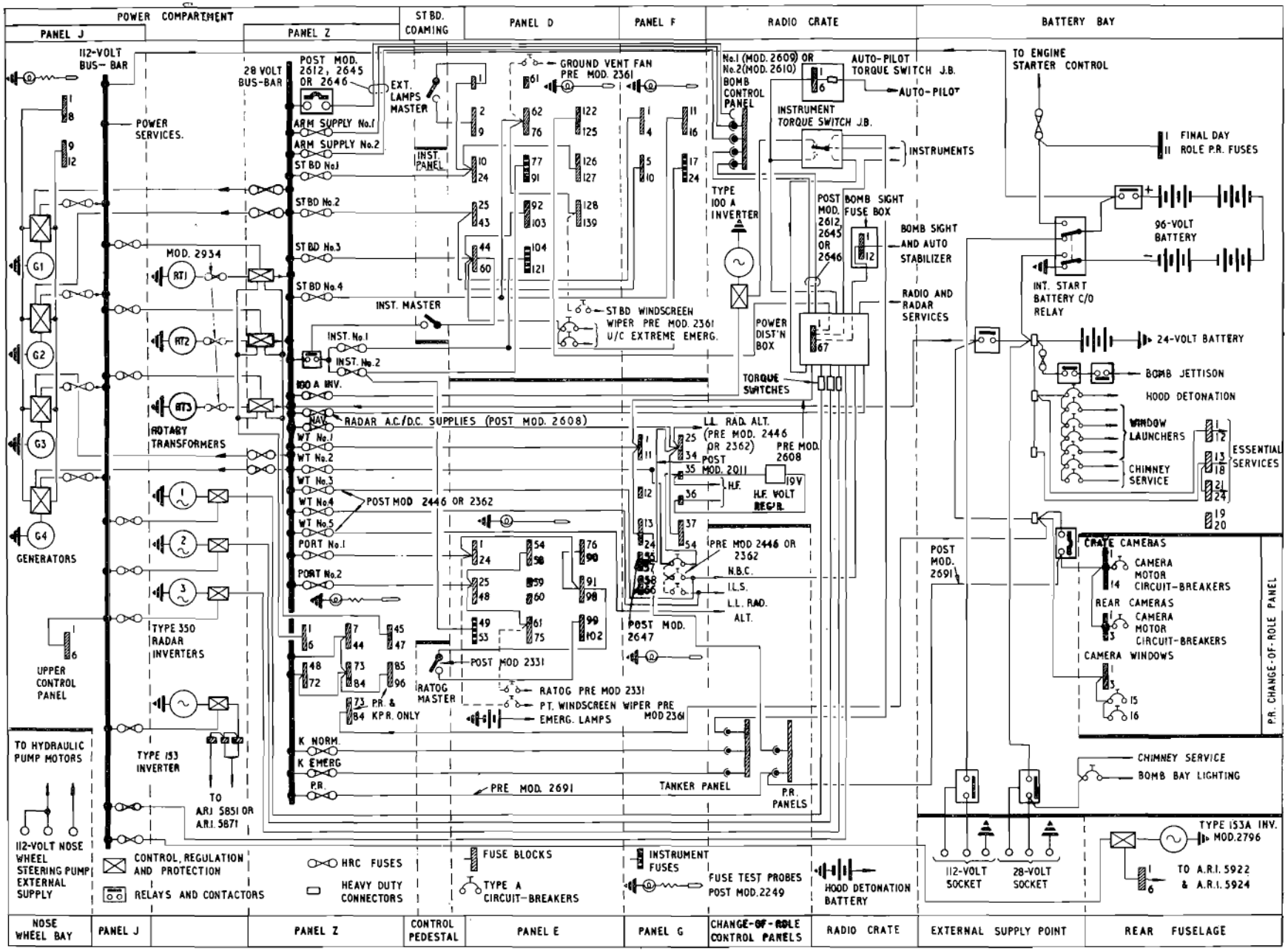


**Fig. 1. Power distribution (pre-Mods. 1648 and 2083)**

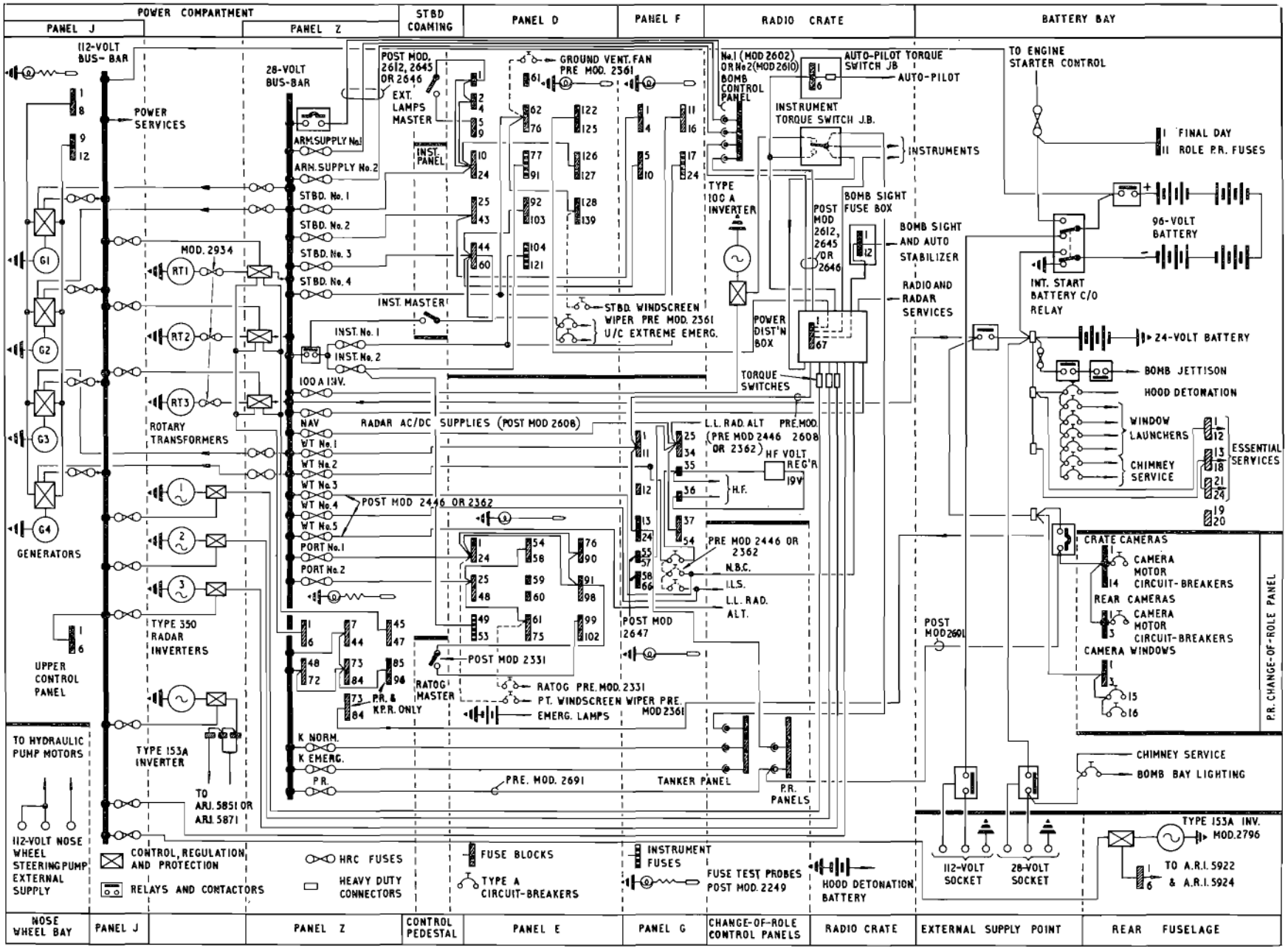


**Fig. 2. Power distribution (post Mods. 1648 and 2083)**

**Table 2**

**Fuse ratings (B. Mk. 1)**

| Fuse | Service | Amps. |
|---|---|---|
| **Starboard distribution panel D** | | |
| 1 | External lamps supply | 30 |
| 2 | Landing lamps supply, port (pre-Mod. 392) | 25 |
| | Panel D lighting (post Mod. 2083) | 2·5 |
| 3 | Landing lamps supply, starboard (pre-Mod. 392) | 25 |
| | Port probe lamp (post Mod. 2586) | 5 |
| 4 | Starboard probe lamp (post Mod. 2586) | 5 |
| 5 | Navigation lamps | 5 |
| 6 | Identification lamps | 10 |
| 7 | Navigation lamps flasher (post Mod. 2232) | 5 |
| 8 | Landing lamp filament control, port (post Mod. 392) | 2·5 |
| | Landing lamp control, port (pre-Mod. 392) | 5 |
| 9 | Landing lamp filament control, starboard (post Mod. 392) | 2·5 |
| | Landing lamp control, starboard (pre-Mod. 392) | 5 |
| 10 | Fuel master cock, No. 1 | 5 |
| 11 | Cross feed cocks | 10 |
| 12 | Emergency increase air supply, ports | 5 |
| 13 | Main air supply, port | 5 |
| 14 | Pressure warning bell | 5 |
| 15 | Undercarriage nose contactor, reset | 10 |
| 16 | Undercarriage operation control, up | 10 |
| 17 | Flap motor contactor, reset | 10 |
| 18 | Airframe de-icing shut-off valve, No. 1 | 5 |
| 19 | Fire warning lamp No. 1 | 5 |
| 20 | Fire extinguisher bottle No. 1 | 20 |
| 21 | Bomb bay heating, port | 5 |
| 22 | Cabin temperature control | 5 |
| 23 | Tailplane incidence, trip, fine (pre-Mod. 2123) | 5 |
| | High intensity cockpit lamps (post Mods. 1965 and 2107) | |
| 24 | Pressure ratio and control switch | 5 |
| 25 | Fuel master cock No. 2 | 5 |
| 26 | Wing tank transfer cock, port | 5 |
| 27 | Emergency increased air supply, starboard | 5 |
| 28 | Main air supply, starboard | 5 |
| 29 | Pressure selector control | 5 |
| 30 | Undercarriage operation, DOWN | 10 |
| 31 | Flap motor contactor, trip | 5 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amp. |
|---|---|---|
| 32 | Bomb door control, normal | 5 |
| 33 | Fire warning lamp No. 2 | 5 |
| 34 | Fire extinguisher bottle No. 2 | 20 |
| 35 | Bomb bay heating, starboard | 5 |
| 36 | Tailplane incidence, reset, coarse (pre-Mod. 2123) | 10 |
| 37 | Tailplane incidence control switch, 2nd pilot | 5 |
| 38 | Flap control, main | 10 |
| 39 | Dive brake, reset | 10 |
| 40 | Windscreen de-icing, No. 1 | 5 |
| 41 | Pressure head heater, starboard | 10 |
| 42 | Airframe de-icing shut-off valve No. 2 | 5 |
| 43 | Tailplane incidence, trip, coarse (pre-Mod. 2123)<br>Tailplane incidence coarse/fine switch (post Mod. 2123) | 5 |
| 44 | Fuel master cock No. 3 | 5 |
| 45 | Wing tank transfer cock, starboard | 5 |
| 46 | Undercarriage control interlock and No. 2 bomb fuzing (post Mods. 2612, 2645, 2646 or 2725) | 5 |
| 47 | Air brake control | 5 |
| 48 | Flight instruments control relays | 5 |
| 49 | Flight instruments circuit breaker, reset | 5 |
| 50 | Flight instruments trip | 10 |
| 51 | Fire warning lamp No. 3 | 5 |
| 52 | Fire extinguisher bottle No. 3 | 20 |
| 53 | Tailplane incidence reset, fine (pre-Mod. 2123)<br>Tailplane incidence selector switch No. 2, 2nd pilot (post Mod. 2123) | 10 |
| 54 | Windscreen de-icing No. 2 | 5 |
| 55 | Ram air shut-off (ground ventilation) | 5 |
| 56 | No. 1 engine de-icing valve | 5 |
| 57 | No. 2 engine de-icing valve | 5 |
| 58 | No. 3 engine de-icing valve | 5 |
| 59 | No. 4 engine de-icing valve | 5 |
| 60 | Emergency (absolute) pressure switch | 5 |
| 61 | Bomb doors open indicator | 5 |
| 62 | Fuel master cock No. 4 | 5 |
| 63 | Fire warning lamp No. 4 | 5 |
| 64 | Fire extinguisher bottle No. 4 | 20 |
| 65 | De-icing master switch, engines | 5 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 66 | De-icing mixing valve, port | 5 |
| 67 | De-icing mixing valve, starboard | 5 |
| 68 | De-icing mixing valve, tail | 5 |
| 69 | De-icing master switch, airframe | 5 |
| 70 | Airframe de-icing valve No. 1 | 5 |
| 71 | Airframe de-icing valve No. 2 | 5 |
| 72 | Airframe de-icing valve No. 3 | 5 |
| 73 | Airframe de-icing valve No. 4 | 5 |
| 74 | Ground ventilation fan (post Mod. 2361) | 20 HRC |
| 75 | Windscreen wiper, starboard (post Mod. 2361) | 20 HRC |
| 76 | Oxygen demand regulator, starboard (Mod. 1604) | 2·5 |
| 77 | De-icing overheat indicator, port wing | 5 |
| 78 | De-icing overheat indicator, tailplane | 5 |
| 79 | De-icing overheat indicator, starboard wing | 5 |
| 80 | Bomb bay temperature indicator | 5 |
| 81 | Cabin temperature indicator | 5 |
| 82 | L.P. fuel indicator, port | 5 |
| 83 | Fuel filter de-icing | 5 |
| 84 | Turn and slip indicator, port No. 2 (pre-Mod. 1186) | 5 |
| | (post Mod. 1186) | 2·5 |
| 85 | Turn and slip indicator, starboard No. 2 (pre-Mod. 1186) | 5 |
| | (post Mod. 1186) | 2·5 |
| 86 | Nosewheel steering control, service No. 1 | 5 |
| 87 | Undercarriage indication | 10 |
| 88 | Tailplane incidence indicator | 5 |
| 89 | Outside air temperature indicator | 5 |
| 90 | Instrument inverter (Type 100A) control (selector relays, coil supply) | 10 |
| 91 | Instrument inverter (Type 100A) control (main and discriminator relays, coils supplies) | 10 |
| 92 | Undercarriage extreme emergency down, starboard | 10 |
| 93 | Undercarriage extreme emergency down, port | 10 |
| 94 | Ration heater switch, No. 1 | 5 |
| 95 | Ration heater switch No. 2 | 5 |
| 96 | Ration heater switch No. 3 | 5 |
| 97 | Tailplane incidence switch box extreme limit switches | 5 |
| 98 | Main undercarriage reset, starboard | 10 |
| 99 | Main undercarriage reset, port | 10 |
| 100 | Underwing tank pump reset, port (Mod. 1471) | 10 |
| 101 | Underwing tank pump reset, starboard (Mod. 1471) | 10 |
| 102 | Airframe de-icing shut-off valve, No. 3 | 5 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 103 | Landing lamp control switch (Mod. 392) | 2·5 |
| 104 | Turn and slip indicator, port No. 1 (pre-Mod. 1186) | 5 |
| | (post Mod. 1186) | 2·5 |
| 105 | Turn and slip indicator, starboard No. 1 (pre-Mod. 1186) | 5 |
| | (post Mod. 1186) | 2·5 |
| 106 | *Not used* | |
| 107 | Dive brake position indicator (Mod. 1608) | 5 |
| 108 | Nosewheel steering control, service No. 2 | 5 |
| 109 | Flap position indicator | 5 |
| 110 | *Not used* | |
| 111 | L.P. fuel indicator, starboard | 5 |
| 112 | Fuel control indicator, rudder | 5 |
| 113 | Elevator trim tab position indicator | 5 |
| 114 | Fuel control indicator, aileron | 5 |
| 115 | Fuel flowmeter control No. 1 | 5 |
| 116 | Fuel flowmeter control No. 2 | 5 |
| 117 | Fuel flowmeter control No. 3 | 5 |
| 118 | Fuel flowmeter control No. 4 | 5 |
| 119 | Instrument inverter (Type 100A) control (Main d.c. and failure lamp supply) | 10 |
| 120 | J.P.T. fuel control isolation (post Mod. 920) | 5 |
| 121 | High intensity cockpit lamps (post Mod. 1965 pre-Mod. 2107) | 5 |
| | Air nitrogen valve heater, starboard (post Mod. 2107) | 5 |
| 122 | Engine oil pressure gauge No. 1 | 2·5 |
| 123 | Engine oil pressure gauge No. 2 | 2·5 |
| 124 | Engine oil pressure gauge No. 3 | 2·5 |
| 125 | Engine oil pressure gauge No. 4 | 2·5 |
| 126 | Underwing tank 6 p.s.i. valve, port (Mod. 1471) | 5 (pre-Mod. 2466) |
| | | 10 (post Mod. 2466) |
| 127 | Underwing tank 6 p.s.i. valve starboard (Mod. 1471) | 5 (pre-Mod. 2466) |
| | | 10 (post Mod. 2466) |
| 128 | Windscreen wiper, starboard | 5 |
| 129 | Calculator flood-lamp | 2·5 |
| 130 | *Not used* | |
| 131 | *Not used* | |
| 132 | *Not used* | |
| 133 | Airframe shut-off valve, No. 4 | 5 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 134 | Ration heater switch, No. 4 | 5 |
| 135 | Ration heater switch, No. 5 | 5 |
| 136 | *Not used* | |
| 137 | *Not used* | |
| 138 | *Not used* | |
| 139 | *Not used* | |
| 140 | *Not used* | |
| **Port distribution Panel E** | | |
| 1 | Bomb aimer's de-icing | 5 |
| 2 | Cabin lamps | 5 |
| 3 | Door position indicator | 5 |
| 4 | Elevator actuator heater | 5 |
| 5 | Pilot's instrument panel side U/V lamps | 5 |
| 6 | Red flood-lamps, pilot's instrument panel | 5 |
| 7 | Red lamps, pilot's instrument panel | 5 |
| 8 | Red lamps, port console | 5 |
| 9 | Red lamps, starboard console | 5 |
| 10 | Pilot's instrument panel centre U/V lamps | 5 |
| 11 | Compass flood-lamp | 5 |
| 12 | Red lamps, fuel panel | 5 |
| 13 | Tailplane incidence switch 1st pilot | 5 |
| 14 | Engine relight No. 1 | 10 |
| 15 | Servicing lamps | 10 |
| 16 | Feel unit control, rudder | 5 |
| 17 | Reserve fuel cock, starboard | 5 |
| 18 | Feel unit control, aileron | 5 |
| 19 | Engine relight, No. 2 | 10 |
| 20 | Windscreen wiper control, port | 5 |
| 21 | Water-methanol air cock solenoid control | 5 |
| 22 | Water-methanol master L.P. control (pre-Mod. 2715) | 5 |
| 23 | Landing and taxi relays, port—landing lamp control | 5 (post Mod. 392) |
| 24 | Landing and taxi relays, starboard—landing lamp control | 5 (post Mod. 392) |
| 25 | *Not used* | |
| 26 | Trim actuator, rudder | 5 |
| 27 | Trim actuator, elevator | 5 |
| 28 | Trim actuator, aileron | 5 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 29 | Bomb door control, jettison | 10 |
| 30 | Bomb door and bomb release control | 10 |
| 31 | Bomb aimer's lamps | 5 |
| 32 | Underwing tank fuel jettison, starboard | 10 |
| 33 | Underwing tank fuel jettison, port | 10 |
| 34 | Engine relight No. 3 | 10 |
| 35 | Windscreen wiper, port (post Mod. 2361) | 20 HRC |
| 36 | Engine relight, No. 4 | 10 |
| 37 | Undercarriage emergency control | 10 |
| 38 | Flap emergency reset | 10 |
| 39 | Flap emergency control | 10 |
| 40 | Power controls, trip, rudder | 5 |
| 41 | Power controls, trip, aileron, No. 1 | 5 |
| 42 | Power controls, trip, elevator | 5 |
| 43 | Power controls, trip, aileron, No. 2 | 5 |
| 44 | Reserve fuel cock, port | 5 |
| 45 | Panel E lighting (post Mod. 2083) | 2·5 |
| 46 | Power controls reset, rudder elevator No. 2 | 10 |
| 47 | Power controls reset, ailerons 1 and 2 | 20 |
| 48 | Power controls reset, rudder elevator No. 1 | 10 |
| 49 | *Not used* | |
| 50 | Trim tab position indicator, rudder | 5 |
| 51 | Elevator nose up/down indicator | 5 |
| 52 | Trim tab position indicator, aileron | 5 |
| 53 | Power controls heaters (pre-Mod. 1626) | 5 |
| | Air/nitrogen valve heater, port (post Mod. 2107) | 5 |
| 54 | Red lamps, port coaming panel | 5 |
| 55 | Red lamps, starboard coaming panel | 5 |
| 56 | Red lamps, pilot's instrument panel | 5 |
| 57 | Red lamps, control pedestal | 5 |
| 58 | Retractable cockpit lamp (post Mod. 1749 or 2071) | 5 |
| 59 | Emergency hood detonation (pre-Mod. 2004) | 20 |
| 60 | Engine starter control | 20 |

**Table 2. Fuse ratings (B. Mk. 1) (*Contd.*)**

| Fuse | Service | Amps. |
|---|---|---|
| 61 | Pressure head heater, port | 10 |
| 62 | R.A.T.O.G. jettison (pre-Mod. 2330 or 2331) | 20 |
| 63 | Fuselage transfer tank fuel pump control | 5 |
| 64 | Fuselage refuelling valve relay, pilot transfer tank switch control | 5 |
| 65 | *Not used* | |
| 66 | *Not used* | |
| 67 | Port fuel panel lamps dimmer switch (post Mod. 1749 or 2071) | 5 |
| 68 | Oxygen demand regulator (Mod. 1604) | 2·5 |
| 69 | Power controls master indicator (Mod. 1617) | 2·5 |
| 70 | Engine No. 1 failure warning (post Mod. 1771, pre-Mod. 2457) | 20 |
| | Refuelling valve control outer wing starboard (post Mod. 2554) | 10 |
| 71 | Engine No. 2 failure warning (post Mod. 1771, pre-Mod. 2457) | 20 |
| | Refuelling valve control fuselage, port and starboard (post Mod. 2554) | 10 |
| 72 | Engine No. 3 failure warning (post Mod. 1771, pre-Mod. 2457) | 20 |
| | Refuelling valve control outer wing, port (post Mod. 2554) | 10 |
| 73 | Engine No. 4 failure warning (post Mod. 1771, pre-Mod. 2457) | 20 |
| 74 | Engine failure warning lamp test (post Mod. 1771, pre-Mod. 2457) | 5 |
| | R.A.T.O.G. emergency release (post Mod. 2854, pre-Mod. 2854) | 10 |
| 75 | Tailplane incidence selector switch No. 2 (1st pilot) (post Mod. 2123) | 5 |
| 76 | Underwing tank pump indicator, port (post Mod. 2784) | 2·5 |
| 77 | Underwing tank pump indicator, starboard (post Mod. 2784) | 2·5 |
| 78 | *Not used* | |
| 79 | R.A.T.O.G. warning lamp test (post Mod. 2330 or 2331, pre-Mod. 3004) | 5 |
| 80 | T4 bomb sight lighting (post Mod. 1648) | 2·5 |
| 81 | *Not used* | |
| 82 | *Not used* | |
| 83 | *Not used* | |
| 84 | *Not used* | |
| 85 | *Not used* | |
| 86 | *Not used* | |
| 87 | *Not used* | |
| 88 | *Not used* | |
| 89 | *Not used* | |
| 90 | *Not used* | |
| 91 | R.A.T.O.G. normal release (post Mod. 2330 or 2331) | 10 |
| 92 | R.A.T.O.G. thrust indicator (post Mod. 2330 or 2331) | 5 |
| 93 | Sprite unit fuel valves (post Mod. 2330 or 2331) | 10 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 94 | Sprite unit firing solenoids | 20 |
| 95 | R.A.T.O.G. release actuator reset, starboard | 10 |
| 96 | R.A.T.O.G. release actuator reset, port | 10 |
| 97 | R.A.T.O.G. emergency release (pre-Mod. 2854) | 10 |
| 98 | R.A.T.O.G. master switch (post Mod. 2330 or 2331) | 20 |
| 99 | R.A.T.O.G. firing relay | 2·5 |
| 100 | R.A.T.O.G. jettison indicator | 2·5 |
| 101 | R.A.T.O.G. pressure switch relay, starboard | 2·5 |
| 102 | R.A.T.O.G. pressure switch relay, port | 2·5 |
| **Distribution panel F** | | |
| 1 | Port wing outer fuel pump control | 5 |
| 2 | Port wing inner fuel pump control | 5 |
| 3 | Underwing tank selector relay control starboard (Mod. 1471) | 5 |
| 4 | Underwing tank main or emergency control starboard (Mod. 1471) | 5 |
| 5 | Fuel pump control fuselage, port 1 | 5 |
| 6 | Fuel pump control fuselage port 2 | 5 |
| 7 | Fuel pump control fuselage, starboard 1 | 5 |
| 8 | Fuel pump control fuselage, starboard 2 | 5 |
| 9 | Wing clearing, extreme emergency (pre-Mod. 2296 or 2762) | 10 |
| 10 | Underwing tank L.P. fuel warning starboard (pre-Mod. 2732) | 5 |
| 11 | Wing outer fuel pump control, starboard | 5 |
| 12 | Wing inner fuel pump control, starboard | 5 |
| 13 | Underwing tank selector relay control, port (Mod. 1471) | 5 |
| 14 | Underwing tank main or emergency control, port (Mod. 1471) | 5 |
| 15 | Wing clearing, emergency (pre-Mod. 2996 or 2762) | 10 |
| 16 | Underwing tank L.P. fuel warning, port (pre-Mod. 2732) | 5 |
| 17 | Underwing tank fuel contents | 5 |
| 18 | Fuel contents oscillator unit change-over switch | 5 |
| 19 | Port fuel contents selector switch | 5 |
| 20 | Starboard fuel contents selector switch | 5 |
| 21 | Fuselage reserve fuel contents supply No. 4 | 5 |
| 22 | Wing fuel contents supply, No. 2 | 5 |
| 23 | Wing fuel contents supply, No. 1 | 5 |
| 24 | Fuselage fuel contents supply, No. 3 | 5 |

**Table 2. Fuse ratings (B Mk. 1) (*Contd.*)**

| Fuse | Service | Amps. |
|---|---|---|
| **Distribution panel G** | | |
| 1 | Bomb control, alternative store No. 1 | 10 |
| 2 | Bomb control, alternative store No. 2 — To replacement 12/24-way bomb control | 10 |
| 3 | Bomb control, alternative store No. 3 | 10 |
| 4 | Bomb control, alternative store, chimney unit (pre-Mod. 2612, 2645, 2646 or 2725) | 5 |
| | No. 2 bomb control (post Mod. 2612, 2645, 2646 or 2725) | 20 |
| 5 | Radio crate stalk lamps | 2·5 |
| | I/C/H/F switch (pre-Mod. 22) | 2·5 |
| 6 | Radio crate angle poise and centre flood-lamps | 5 |
| 7 | Radio crate port and starboard flood-lamps | 5 |
| 8 | Radio crate—rear servicing lamp | 5 |
| 9 | V.G. recorder supply (Mod. 1634) | 5 |
| 10 | G.P.I. Mk. 4 supply | 5 |
| 11 | Window control, starboard | 2·5 |
| 12 | Gee control switch | 5 |
| 13 | 112-volt generator control No. 1 (post Mod. 2240) | 20 |
| 14 | 112-volt generator control No. 2 (post Mod. 2240) | 20 |
| 15 | 28-volt rotary transformer control No. 3 (post Mod. 2240) | 20 |
| 16 | Radio crate servicing lamps (and radio compass lamp, post Mod. 1500 and I.F.F. control unit lamp, post Mod. 2043) | 2·5 |
| 17 | Sextant supply | 5 |
| 18 | *Not used* | |
| 19 | Bomb release | 10 |
| 20 | Bomb release (N.B.S. pulse) | 5 |
| 21 | Bomb fuzing E.M. and V.T. | 10 |
| 22 | A.M.U. supply | 5 |
| 23 | V.H.F. No. 1 supply | 20 |
| 24 | Pitot switch and E.L. fuzing (pre-Mod. 2286) | 5 |
| | I/C relay supply (post Mod. 2286) | 5 |
| 25 | I/C relay supply | 2·5 (post Mod. 2286) |
| 26 | I/C supply via steering hold off relay (post Mod. 22) | 5 |
| 27 | V.H.F. No. 2 supply | 20 |
| 28 | V.H.F. relays | 5 |
| 29 | O-35 volt voltmeter bus-bar supply | 5 |
| 30 | Radio compass (pre-Mod. 1382) simulated bombing V.H.F. tone (Mod. 2746) | 5 |
| 31 | I/C supply via steering hold off relay (pre-Mod. 22) | 5 |
| 32 | Window control, port | 5 (2·5 pre-Mod. 2839) |
| 33 | Aldis lamp supply (pre-Mod. 2403 only) | 5 |
| 34 | Bomb control alternative store chimney emergency supply (pre-Mod. 2612, 2645, 2646 or 2725) | 5 |
| | Bomb door interlock relay No. 2 (post Mod. 2623, 2645, 2646 or 2725) | 10 |

**Table 2. Fuse ratings (B. Mk. 1)**—*cont.*

| Fuse | Service | Amps. |
|---|---|---|
| 35 | S.T.R. 18, voltage regulator supply | 20 |
| 36 | S.T.R. 18, 19-volt supply | 10 |
| 37 | 28-volt rotary transformer control No. 1 | 20 |
| 38 | 28-volt rotary transformer control No. 2 | 20 |
| 39 | High intensity cockpit lamps (post Mod. 1965) | 5 |
| 40 | Oxygen demand regulator indicators (post Mod. 2398) | 5 |
| ◀41 | *Not used* (was T.I. only on Mod. 2385) | ▶ |
| 42 | *Not used* | |
| 43 | Alternative store bomb control unit, Type 1—post Mod. 2240 | 10 |
| 44 | Alternative store bomb control unit, Type 1—post Mod. 2240 | 10 |
| 45 | 112-volt generator control No. 3 | 20 |
| 46 | 112-volt generator control No. 4 | 20 |
| 47 | Bomb release control supply (post Mod. 2249) | 10 |
| 48 | Radio compass A.R.I.23023 (post Mod. 1500) | 10 |
| 49 | Conference I/C amplifier (post Mod. 2874) | 5 |
| 50 | Pitot switch and E.L. fuzing supply (post Mod. 2286) | 5 |
| 51 | Outside air temperature indicator | 5 |
| 52 | E.L. fuzing unit supply | 5 |
| 53 | *Not used* | |
| 54 | Air spoiler control (pre-Mod. 1981) | 5 |
| 55 | U.H.F. aerial change-over (Mod. 2437) | 5 |
| 56 | U.H.F. supply (Mod. 2437) | 20 |
| 57 | *Not used* | |
| 58 | *Not used* | |
| 59 | *Not used* | |
| 60 | *Not used* | |
| 61 | *Not used* | |
| 62 | *Not used* | |
| 63 | *Not used* | |
| 64 | *Not used* | |
| 65 | Cabin overpressure indicator (Mod. 2490) | 5 |
| 66 | *Not used* | |
| **Panel J—Upper generator control panel** | | |
| 1 | Rotary transformer No. 1 start relay (pre-Mod. 733) | 5 |
| | Air/nitrogen reducing valve (post Mod. 2107) | 5 |

**Table 2. Fuse ratings (B. Mk. 1)**—*cont.*

| Fuse | Service | Amps. |
|---|---|---|
| 2 | Rotary transformer No. 2 start relay (pre-mod. 733) | 5 |
| | Air/nitrogen reducing valve (post Mod. 2107) | 5 |
| 3 | Rotary transformer No. 3 start relay (pre-Mod. 733) | 5 |
| 4 | *Not used* | |
| 5 | 112-volt voltmeter | 5 |
| 6 | *Not used* | |
| **Panel J—Upper generator control panel—H.R.C. fuses** | | |
| **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | | |
| No. 1 | Generator reverse current fuse | 200 |
| No. 2 | Generator reverse current fuse | 200 |
| No. 3 | Generator reverse current fuse | 200 |
| No. 4 | Generator reverse current fuse | 200 |
| Underwing tank fuel pump, port (post Mod. 2035) | | 60 |
| Underwing tank fuel pump, starboard (post Mod. 2035) | | 60 |
| **Forward servicing bay** (adjacent to each rotary transformer) **H.R.C. fuses** | | |
| **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | | |
| Rotary transformer No. 1 output | Mod. 2934 | 125 |
| Rotary transformer No. 2 output | Mod. 2934 | 125 |
| Rotary transformer No. 3 output | Mod. 2934 | 125 |
| **Panel J—Generator control panel** | | |
| 1 | No. 1 generator ammeter shunt | 5 |
| 2 | No. 1 generator ammeter shunt | 5 |
| 3 | No. 2 generator ammeter shunt | 5 |
| 4 | No. 2 generator ammeter shunt | 5 |
| 5 | No. 3 generator ammeter shunt | 5 |
| 6 | No. 3 generator ammeter shunt | 5 |
| 7 | No. 4 generator ammeter shunt | 5 |
| 8 | No. 4 generator ammeter shunt | 5 |
| 9 | No. 1 voltmeter test socket | 5 |
| 10 | No. 2 voltmeter test socket | 5 |
| 11 | No. 3 voltmeter test socket | 5 |
| 12 | No. 4 voltmeter test socket | 5 |
| **Panel J—Port bus-bar panel H.R.C. fuses** | | |
| **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | | |
| Tailplane incidence | | 80 |
| Undercarriage emergency, nose | | 20 |
| Wing outer fuel pump, starboard | | 10 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| | Wing inner fuel pump, starboard | 10 |
| | Underwing nacelle starboard, door motor B (pre-Mod. 2762) | 30 |
| | Fuselage 1 fuel pump, starboard | 10 |
| | Fuselage 2 fuel pump, starboard | 10 |
| | Type 153 inverter (A.R.I. 5871) | 40 |
| | Rudder power control heater | 40 |
| | Aileron power control heater | 40 |
| | Underwing nacelle port, door motor B (pre-Mod. 2762) | 30 |
| | Wing inner fuel pump, port | 10 |
| | Wing outer fuel pump, starboard | 10 |
| | A.R.I. 5810 supply | 30 { 40 post Mod. 2162<br>30 post Mod. 2785 |
| | Type 350 inverter No. 1 | 80 |
| | Type 350 inverter No. 2 | 80 |
| | Type 350 inverter No. 3 | 80 |
| | Port undercarriage, emergency | 60 |
| | Port undercarriage, main | 125 |
| **Panel J—Starboard bus-bar panel—H.R.C. fuses** | | |
| | **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | |
| | Flap main motor | 160 |
| | Undercarriage main, starboard | 125 |
| | Power controls, aileron No. 1 | 100 |
| | Power controls, aileron No. 2 | 100 |
| | Power controls, rudder | 100 |
| | Power controls, elevator | 100 |
| | Nosewheel steering, motor A | 100 |
| | Nosewheel steering, motor B | 100 |
| | Undercarriage emergency, starboard | 60 |
| | Tailplane incidence, coarse | 80 |
| | Air brakes | 100 |
| | Undercarriage nose, main motor | 20 (30 post Mod. 2508) |
| | Flap emergency | 40 |
| | Deflector starboard | 30 |
| | Deflector port | 30 |
| | Underwing nacelle starboard, door motor A (pre-Mod. 2762) | 30 |
| | Bomb door motor, starboard front | 20 |

**Table 2. Fuse ratings (B. Mk. 1) (*Contd.*)**

| Fuse | Service | Amps. |
|---|---|---|
| | Bomb door motor, starboard centre | 20 |
| | Bomb door motor, starboard rear | 20 |
| | Bomb door motor, port front | 20 |
| | Bomb door motor, port centre | 20 |
| | Bomb door motor, port rear | 20 |
| | Underwing nacelle port, door motor A (pre-Mod. 2762) | 30 |
| | Rotary transformer No. 1 | 100 |
| | Rotary transformer No. 2 | 100 |
| | Rotary transformer No. 3 | 100 |
| | Eureka-Rebecca inverter supply (Mod. 2796) | 40 |
| **Port and starboard undercarriage control panels—H.R.C. fuses** | | |
| | Undercarriage door control, main | 60 |
| | Undercarriage door control, emergency | 40 |
| **Battery bay** | | |
| | H.R.C. bomb jettison (post Mod. 2484) | 60 |
| | H.R.C. engine starter | 250 (300 pre-Mod. 1124) (200 pre-Mod. 2793) |
| **24-volt battery control panel** (essential services bus-bar) | | |
| 1 | Fuel tanks fire extinguishers, via crash relay (pre-Mod. 2945)<br>Fuel tanks fire extinguishers, port wing and fuselage No. 1–6, via crash relay (post Mod. 2945) | 20 (H.R.C. post Mod. 2945) |
| 2 | Battery switch control and crash switch | 20 |
| 3 | Hood detonation relay (pre-Mod. 2004) | 5 |
| 4 | Engine bay fire extinguisher, via crash relay (pre-Mod. 2945 only) | 20 |
| 5 | *Not used* | |
| 6 | Start control change-over relay | 20 |
| 7 | 96-volt battery switch, reset | 10 |
| 8 | 24-volt battery switch, reset | 10 |
| 9 | Internal start, change-over relay coil | 10 |
| 10 | Towing vehicle hold-off relay | 5 |
| 11 | 96-volt battery indicator (post Mod. 2376) | 5 |
| 12 | Fatigue meter and airspeed contactor (Mod. 2833) | 2·5 |
| 13 | No. 4 generator crash switch (post Mod. 2259) | 5 |
| 14 | No. 3 generator crash switch (post Mod. 2259) | 5 |
| 15 | No. 2 generator crash switch (post Mod. 2259) | 5 |
| 16 | No. 1 generator crash switch (post Mod. 2259) | 5 |
| 17 | Fuel tanks fire extinguisher, starboard wing, via crash relay (Mod. 2945) | 20 H.R.C. |
| 18 | Fuel tanks fire extinguisher, fuselage Nos. 7–12, via crash relay (Mod. 2945) | 20 H.R.C. |
| 19 | 28-volt ammeter (+ve), Mod. 2650 | 5 |
| 20 | 28-volt ammeter (—ve), Mod. 2650 | 5 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 21 | Engine bay fire extinguisher, No. 2 engine | 20 H.R.C. |
| 22 | Engine bay fire extinguisher, No. 4 engine | 20 H.R.C. |
| 23 | Engine bay fire extinguisher, No. 1 engine (Mod. 2945) | 20 H.R.C. |
| 24 | Engine bay fire extinguisher, No. 3 engine | 20 H.R.C. |
| **Panel Z—28-volt control panel** | | |
| 1 | No. 1 rotary transformer ammeter shunt | 5 |
| 2 | No. 1 rotary transformer ammeter shunt | 5 |
| 3 | No. 2 rotary transformer ammeter shunt | 5 |
| 4 | No. 2 rotary transformer ammeter shunt | 5 |
| 5 | No. 3 rotary transformer ammeter shunt | 5 |
| 6 | No. 3 rotary transformer ammeter shunt | 5 |
| 7 | Fuselage tanks fire extinguisher (pre-Mod. 2668 only) | 20 |
| 8 | Wing tanks fire extinguisher, port (pre-Mod. 2668 only) | 20 |
| 9 | Wing tanks fire extinguisher, starboard (pre-Mod. 2668 only) | 20 |
| 10 | Feel unit heater, rudder | 10 |
| 11 | Feel unit heater, elevator | 10 |
| 12 | Feel unit heater, aileron | 10 |
| 13 | Air deflector control, normal | 5 |
| 14 | Air deflector control, normal | 5 |
| 15 | Air deflector control, jettison | 5 |
| 16 | Air deflector control, jettison | 5 |
| 17 | Bomb door control, normal, port and starboard forward | 10 |
| 18 | Bomb door control, normal, port and starboard centre | 10 |
| 19 | Bomb door control, normal, port and starboard rear | 10 |
| 20 | Bomb door control, jettison, port and starboard rear | 10 |
| 21 | Bomb door control, jettison, port and starboard centre | 10 |
| 22 | Bomb door control, jettison, port and starboard forward | 10 |
| 23 | Bomb door brake normal, port open | 10 |
| 24 | Bomb door brake normal, port closed | 10 |
| 25 | Bomb door brake normal, starboard open | 10 |
| 26 | Bomb door brake normal, starboard closed | 10 |
| 27 | Bomb door brake jettison, port closed | 10 |
| 28 | Bomb door brake jettison, port open | 10 |
| 29 | Bomb door brake jettison, starboard open | 10 |
| 30 | Bomb door brake jettison, starboard closed | 10 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 31 | Port wing nacelle door open No. 1 (pre-Mod. 2762 only) | 5 |
| 32 | Port wing nacelle door open No. 2 (pre-Mod. 2762 only) | 5 |
| 33 | Starboard wing nacelle door open No. 1 (pre-Mod. 2762 only) | 5 |
| 34 | Starboard wing nacelle door open No. 2 (pre-Mod. 2762 only) | 5 |
| 35 | Refuelling valve control fuselage, port and starboard (pre-Mod. 2554) | 10 |
| 36 | Refuelling valve control outer wing, starboard (pre-Mod. 2554) | 10 |
| 37 | Refuelling valve control outer wing, port (pre-Mod. 2554) | 10 |
| 38 | Port wing nacelle close No. 1 (pre-Mod. 2762 only) | 5 |
| 39 | Port wing nacelle close No. 2 (pre-Mod. 2762 only) | 5 |
| 40 | Starboard wing nacelle close No. 1 (pre-Mod. 2762 only) | 5 |
| 41 | Starboard wing nacelle close No. 2 (pre-Mod. 2762 only) | 5 |
| 42 | Water-methanol pump operation | 10 |
| 43 | Water-methanol min. speed switch, No. 4 | 5 |
| 44 | Water-methanol min. speed switch, No. 3 | 5 |
| 45 | No. 1 28-volt voltmeter | 5 |
| 46 | No. 2 28-volt voltmeter | 5 |
| 47 | No. 3 28-volt voltmeter | 5 |
| 48 | Port and starboard nacelle door indicators (pre-Mod. 2762) | 5 |
| 49 | Air spoiler supply, starboard | 5 |
| 50 | Air spoiler supply, port | 5 |
| 51 | Undercarriage clutch slip control, starboard | 5 |
| 52 | Undercarriage clutch slip control, port | 5 |
| 53 | Port wing nacelle jettison open No. 1 (pre-Mod. 2762) | 5 |
| 54 | Port wing nacelle jettison open No. 2 (pre-Mod. 2762) | 5 |
| 55 | Starboard wing nacelle jettison open No. 1 (pre-Mod. 2762) | 5 |
| 56 | Starboard wing nacelle jettison open No. 2 (pre-Mod. 2762) | 5 |
| 57 | Port wing nacelle jettison close No. 1 (pre-Mod. 2762) | 5 |
| 58 | Port wing nacelle jettison close No. 2 (pre-Mod. 2762) | 5 |
| 59 | Starboard wing nacelle jettison close No. 1 (pre-Mod. 2762) | 5 |
| 60 | Starboard wing nacelle jettison close No. 2 (pre-Mod. 2762) | 5 |
| 61 | Undercarriage clutch slip control, nose | 5 |
| 62 | Water-methanol min. speed switch, No. 2 | 5 |
| 63 | Water-methanol min. speed switch, No. 1 | 5 |
| 64 | Fuel filter de-icing warning No. 1 | 5 |
| 65 | Fuel filter de-icing warning No. 2 | 5 |
| 66 | Fuel filter de-icing warning No. 3 | 5 |
| 67 | Fuel filter de-icing warning No. 4 | 5 |
| 68 | Fuel filter de-icing solenoid No. 1 | 5 |
| 69 | Fuel filter de-icing solenoid No. 2 | 5 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 70 | Fuel filter de-icing solenoid No. 3 | 5 |
| 71 | Fuel filter de-icing solenoid No. 4 | 5 |
| 72 | *Not used* | |
| 73 | 28-volt rotary transformer warning lamp No. 1 (post Mod. 2240) | 5 |
| 74 | 28-volt rotary transformer warning lamp No. 2 (post Mod. 2240) | 5 |
| 75 | 28-volt rotary transformer warning lamp No. 3 (post Mod. 2240) | 5 |
| 76 | 112-volt generator warning lamp No. 1 (post Mod. 2240) | 5 |
| 77 | 112-volt generator warning lamp No. 2 (post Mod. 2240) | 5 |
| 78 | 112-volt generator warning lamp No. 3 (post Mod. 2240) | 5 |
| 79 | 112-volt generator warning lamp No. 4 (post Mod. 2240) | 5 |
| 80 | No. 3 153 inverter starting (post Mod. 1573) | 10 |
| | Water-methanol pressure indicator, starboard (post Mod. 2715) | 2·5 |
| 81 | Water-methanol pressure indicator, port (post Mod. 2715) | 2·5 |
| 82 | *Not used* (post-Mod. 2240) | |
| 83 | *Not used* (post-Mod. 2240) | |
| 84 | Generator crash relays reset (post Mod. 2680, pre-Mod. 2817) | 10 |

**Panel Z—H.R.C. fuses**

**Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.*

| | |
|---|---|
| Pilot's port feeder, No. 1 | 80 |
| Pilot's port feeder, No. 2 | 80 |
| Pilot's starboard feeder, No. 1 | 80 |
| Pilot's starboard feeder, No. 2 | 80 |
| Pilot's starboard feeder, No. 3 | 80 |
| Pilot's starboard feeder No. 4 | 80 |
| Radio operator's feeder No. 1 | 80 |
| Radio operator's feeder No. 2 | 80 (40 post Mod. 2362 or 2446) |
| Radar a.c./d.c. supplies (post Mod. 2608) | 60 (30 pre-Mod. 2925) |
| Radio operator's feeder, No. 3 (post Mod. 2362 or 2446) | 20 |
| Radio operator's feeder, No. 4 (post Mod. 2362 or 2446) | 30 |
| Radio operator's feeder, No. 5 (post Mod. 2362 or 2446) | 20 |
| Flight instruments feeder No. 1 | 80 |
| Flight instruments feeder No. 2 | 80 |
| Navigator's feeder | 80 |
| Instrument inverter, Type 100A, supply | 30 |
| Bomb jettison, wing nacelle port (pre-Mod. 2762) | 100 |
| Bomb jettison, wing nacelle starboard (pre-Mod. 2762) | 100 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| | Landing lamp filament, port (pre-Mod. 392) | 15 |
| | (post Mod. 392) | 30 |
| | Landing lamp filament, starboard (pre-Mod. 392) | 15 |
| | (post Mod. 392) | 30 |
| | No. 2 bomb control panel role store control No. 1 (post Mod. 2612, 2645, 2646 or 2725) | 40 |
| | No. 2 bomb control panel role store control No. 2 (post Mod. 2612, 2645, 2646 or 2725) | 40 |
| **A.C. power distribution box (pre-Mod. 988)** | | |
| 1 | A.R.I.5810, 400 c/s (H2S) | 5 |
| 2 | A.R.I.5810, 400 c/s (H2S) | 5 |
| 3 | A.R.I.5810, 400 c/s (NBC) | 5 |
| 4 | A.R.I.5810, 400 c/s (NBC) | 5 |
| 5 | *Not used* | |
| 6 | A.R.I.5810, 1,600 c/s (H2S) | 5 |
| 7 | A.R.I.5810, 24-volt+ (H2S) | 5 |
| 8 | A.R.I.5810, 24-volt+ (H2S) | 5 |
| 9 | A.R.I.5800, 400 c/s | 5 |
| 10 | A.R.I.5800, 400 c/s | 5 |
| 11 | A.R.I.5800, 1,600 c/s | 10 |
| 12 | A.R.I.5829, 1,600 c/s | 10 |
| 13 | A.R.I.5829, 24-volt+ | 5 |
| 14 | A.R.I.5800, 24-volt+ | 5 |
| 15 | 400 c/s (Special radar services) | 5 |
| 16 | 400 c/s (Special radar services) | 5 |
| 17 | 1,600 c/s (Special radar services) | 10 |
| 18 | Zero reader junction box, 24-volts +ve | 2·5 |
| 19 | Zero reader flight computor, 24-volts +ve | 2·5 |
| 20 | 1,600 c/s special radar service | 10 |
| 21 | High level radio altimeter, 1,600 c/s | 10 |
| 22 | High level radio altimeter, 24-volt+ | 5 |
| 23 | E.L. fuzing, 400 c/s | 2·5 |
| 24 | E.L. fuzing, 400 c/s (Post Mod. 845) | 2·5 |
| 25 | Inverter No. 1, 400 c/s test (Post Mod. 845) | 2·5 |
| 26 | Inverter No. 1, 400 c/s test (Post Mod. 845) | 2·5 |
| 27 | Inverter No. 1, 1,600 c/s test (Post Mod. 845) | 2·5 |
| 28 | Inverter No. 2, 400 c/s test (Post Mod. 845) | 2·5 |
| 29 | Inverter No. 2, 400 c/s test (Post Mod. 845) | 2·5 |
| 30 | Inverter No. 2, 1,600 c/s test (Post Mod. 845) | 2·5 |
| 31 | Inverter No. 3, 400 c/s test (Post Mod. 845) | 2·5 |
| 32 | Inverter No. 3, 400 c/s test (Post Mod. 845) | 2·5 |
| 33 | Inverter No. 3, 1,600 c/s test (Post Mod. 845) | 2·5 |
| 34 | 24-volt +ve test (Post Mod. 845) | 2·5 |
| 35 | 112-volt +ve test (Post Mod. 845) | 2·5 |

**Table 2. Fuse ratings (B. Mk. 1)** *(Contd.)*

| Fuse | Service | Amps. |
|---|---|---|
| 36 | A.R.I.5810 (H2S), 1,600 c/s (post Mod. 1504) | 10 |
| 37 | Automatic Pilot 24-volt +ve test | 5 |
| 38 | Gyro compass 24-volt +ve test | 2·5 |
| 39 | Gyro compass, 400 c/s | 2·5 |
| 40 | Artificial horizon, port, 400 c/s (pre-Mod. 2218) | 2·5 |
| | Zero reader junction box, 400 c/s red phase (Mod. 2218) | 2·5 |
| 41 | Artificial horizon, starboard, 400 c/s (pre-Mod. 2218) | 2·5 |
| | Zero reader flight computor, 400 c/s red phase (Mod. 2218) | 2·5 |
| 42 | Gyro compass, 400 c.p.s. | 2·5 |
| 43 | Artificial horizon, port, 400 c/s (pre-Mod. 2218) | 2·5 |
| | Zero reader junction box, 400 c/s blue phase (Mod. 2218) | 2·5 |
| 44 | Artificial horizon, starboard, 400 c/s (pre-Mod. 2218) | 2·5 |
| | Zero reader flight computor, 400 c/s blue phase (Mod. 2218) | 2·5 |
| 45 | A.R.I.5848, 1,600 c/s | 5 |
| 46 | A.R.I.5854, 24-volt +ve | 5 |
| 47 | A.R.I. 5810, H2S power unit, 1,600 c/s | 5 |
| 48 | A.R.I.5810, H2S power unit, 1,600 c/s | 10 |
| 49 | Control emergency, 24-volt +ve (pre-Mod. 2216) | 5 |
| | H2S 24-volt +ve (post Mod. 2597) | 10 |
| 50 | Inverter No. 3, 24-volt +ve | 10 |
| 51 | Inverter No. 2, 24-volt +ve | 10 |
| 52 | Emergency 24-volt +ve | 10 |
| 53 | Inverter No. 1, 24-volt +ve | 10 |
| 54 | Inverter No. 1, indicator lamp | 2·5 |
| 55 | Inverter No. 2, indicator lamp | 2·5 |
| 56 | Inverter No. 3, indicator lamp | 2·5 |
| 57 | A.R.I.5871, 24-volt +ve | 5 |
| 58 | Alternative bomb installation, 24-volt +ve | 5 |
| 59 | Alternative bomb installation, 400 c/s | 2·5 |
| 60 | Alternative bomb installation, 400 c/s | 2·5 |
| 61 | *Not used* | |
| 62 | Artificial horizon, port 400 c/s red phase (post Mod. 2218) | 2·5 |
| 63 | Artificial horizon, port 400 c/s blue phase (post Mod. 2218) | 2·5 |
| 64 | A.R.I.5810 24-volt+ (N.B.C. J.B.343) | 30 |
| 65 | Radio compass A.R.I.23023 400 c.p.s. (post Mod. 1500) | 2·5 |
| 66 | *Not used* | |
| 67 | *Not used* | |

**Table 2. Fuse ratings (B. Mk. 1)** *(Contd.)*

| Fuse | Service | Amps. |
|---|---|---|
| **Jet pipe temperature fuel control junction box** | | |
| 1 | No. 1 magnetic amplifier, Pin C | 2·5 |
| 2 | No. 2 magnetic amplifier, pin C | 2·5 |
| 3 | No. 3 magnetic amplifier, pin C | 2·5 |
| 4 | No. 4 magnetic amplifier, pin C | 2·5 |
| 5 | No. 1 magnetic amplifier, pin A | 2·5 |
| 6 | No. 2 magnetic amplifier, pin A | 2·5 |
| 7 | No. 3 magnetic amplifier, pin A | 2·5 |
| 8 | No. 4 magnetic amplifier, pin A | 2·5 |
| **A.C. power distribution box (post Mod. 988)** | | |
| 1 | A.R.I.5810 (H2S), 400 c/s | 5 |
| 2 | A.R.I.5810 (H2S), 400 c/s | 5 |
| 3 | A.R.I.5810 (NBC), 400 c/s | 5 |
| 4 | A.R.I.5810 (NBC), 400 c/s | 5 |
| 5 | A.R.I. 5810 (H2S), 1,600 c/s | 5 |
| 6 | G4B compass, 400 c/s, red phase | 2·5 |
| 7 | Artificial horizon, port, 400 c/s (pre-Mod. 2218) | 2·5 |
| | Zero reader junction box, 400 c/s red phase (Mod. 2218) | 2·5 |
| 8 | Artificial horizon, starboard, 400 c/s (pre-Mod. 2218) | 2·5 |
| | Zero reader flight computor, 400 c/s red phase (Mod. 2218) | 2·5 |
| 9 | A.R.I.5800, 400 c/s (Post Mod. 1034) | 5 |
| 10 | A.R.I.5800, 400 c/s (Post Mod. 1034) | 5 |
| 11 | A.R.I.5800, 1,600 c/s (Post Mod. 1034) | 10 |
| 12 | A.R.I.5829, 1,600 c/s | 10 |
| 13 | G4B compass 400 c/s | 2·5 |
| 14 | Artificial horizon, port, 400 c/s | 2·5 |
| | Zero reader junction box, 400 c/s blue phase (Mod. 2218) | 2·5 |
| 15 | Artificial horizon, starboard, 400 c/s | 2·5 |
| | Zero reader flight computor, 400 c/s blue phase (Mod. 2218) | 2·5 |
| 16 | Special service A, 400 c/s, (Equipment not yet fitted) | 5 |
| 17 | Special service A, 1,600 c/s, (Equipment not yet fitted) | 10 |
| | A.R.I.5910, B/K/PR Mk. 1 only (S.R.I.M.1896) | 10 |
| 18 | Zero reader junction box 24-volt +ve (Mod. 2218) | 2·5 |
| 19 | Zero reader flight computor 24-volt +ve (Mod. 2218) | 2·5 |
| 20 | Special service B, 1,600 c/s (equipment not yet fitted) | 10 |
| 21 | A.R.I.5380, 1,600 c/s or A.R.I.18090 (post Mod. 2037) | 5 |
| 22 | Special service A, 400 c/s (equipment not yet fitted) | 5 |
| 23 | E.L. bomb fuzing, 400 c/s | 2·5 |
| 24 | E.L. bomb fuzing, 400 c/s | 2·5 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 25 | Inverter No. 1, 400 c/s test, red phase | 2·5 |
| 26 | Inverter No. 1, 400 c/s test, blue phase | 2·5 |
| 27 | Inverter No. 1, 1,600 c/s test | 2·5 |
| 28 | Inverter No. 2, 400 c/s test, red phase | 2·5 |
| 29 | Inverter No. 2, 400 c/s test, blue phase | 2·5 |
| 30 | Inverter No. 2, 1,600 c/s test | 2·5 |
| 31 | Inverter No. 3, 400 c/s test, red phase | 2·5 |
| 32 | Inverter No. 3, 400 c/s test, blue phase | 2·5 |
| 33 | Inverter No. 3, 1,600 c/s test | 2·5 |
| 34 | A.R.I.5810 power unit (H2S), 1,600 c/s | 5 |
| 35 | A.R.I. 5810 (N.B.C.), 1,600 c/s (post Mod. 1504) | 10 |
| 36 | A.R.I.5810 control unit (H2S), 1,600 c/s | 10 |
| 37 | Automatic pilot, 24-volt +ve | 5 |
| 38 | G4B compass, 24-volt +ve | 2·5 |
| 39 | 24-volt +ve, test | 2·5 |
| | A.R.I.5910, B/K/PR Mk. 1 only (S.R.I.M.1896) | 2·5 |
| 40 | A.R.I.5829, 24-volt +ve | 10 |
| 41 | A.R.I.5380, 24-volt +ve or A.R.I.18090 (post Mod. 2037) | 5 |
| 42 | A.R.I.5800, 24-volt +ve | 5 |
| 43 | A.R.I.5848, 24-volt +ve | 5 |
| 44 | Artificial horizon, port 400 c/s, red phase (post Mod. 2218) | 2·5 |
| 45 | Artificial horizon, port 400 c/s, blue phase (post Mod. 2218) | 2·5 |
| 46 | 112-volts, +ve test | 2·5 |
| 47 | *Not used* | |
| 48 | *Not used* | |
| 49 | A.R.I.5810 control emergency (NBC) 24-volt +ve | 5 |
| 50 | No. 3 inverter, 24-volt +ve | 10 |
| 51 | No. 2 inverter, 24-volt +ve | 10 |
| 52 | Emergency 24-volt +ve | 10 |
| 53 | No. 1 inverter, 24-volt +ve | 10 |
| 54 | No. 1 inverter, indicator lamp 24-volt +ve | 2·5 |
| 55 | No. 2 inverter, indicator lamp 24-volt +ve | 2·5 |
| 56 | No. 3 inverter, indicator lamp 24-volt +ve | 2·5 |
| 57 | A.R.I.5851 or A.R.I. 5871, 24-volt +ve | 5 |
| 58 | Alternative bomb installation 24-volt +ve | 5 |
| 59 | A.R.I.5810 (H2S), 24-volt +ve | 5 |
| 60 | A.R.I.5810 (H2S), 24-volt +ve | 5 |

**Table 2. Fuse ratings (B. Mk. 1) (*Contd.*)**

| Fuse | Service | Amps. |
|---|---|---|
| 61 | Alternative bomb installation, 400 c/s | 2·5 |
| 62 | Alternative bomb installation, 400 c/s | 2·5 |
| 63 | A.R.I. 5848, 1,600 c/s | 5 |
| 64 | A.R.I.5810, 24-volt +ve | 30 |
| 65 | Radio compass, A.R.I.23023, 400 c/s (post Mod. 1500 or 2958) | 2·5 |
| 66 | *Not used* | |
| 67 | *Not used* | |
| **Auto-pilot torque switch box (label introduced by Mod. 1639)** | | |
| 1 | Auto-pilot, a.c. supply, blue phase | 5 |
| 2 | Auto-pilot, a.c. supply, red phase | 5 |
| 3 | Auto-pilot, a.c. supply, white phase | 5 |
| 4 | *Not used* | |
| 5 | *Not used* | |
| 6 | Auto-pilot, d.c. supply, 24-volt +ve | 5 |
| **T4 bomb sight fuse box (Mod. 1648)** | | |
| 1 | Auto-stabilizer, 400 c.p.s., phase A | 5 |
| 2 | T4 bomb sight control unit, 400 c/s, phase A | 5 |
| 3 | Auto-stabilizer, 400 c.p.s., phase C | 5 |
| 4 | T4 bomb sight control unit, 400 c/s, phase C | 5 |
| 5 | *Not used* | |
| 6 | T4 bomb sight amplifier, 1,600 c/s | 5 |
| 7 | Auto-stabilizer, 28-volt +ve | 5 |
| 8 | T4 bomb sight control unit, 28-volt +ve | 5 |
| 9 | T4 bomb sight sighting head, 28-volt +ve | 5 |
| 10 | T4 bomb sight computor, 28-volt +ve | 5 |
| 11 | *Not used* | |
| 12 | *Not used* | |
| **A.R.I. 5851 Type 153 inverter mounting (pre-Mod. 2399)** | | |
| In port 2-way fuse block | Special supply, 400 c/s, blue phase | 10 |
| | Special supply, 400 c/s, red phase | 10 |
| In starboard 2-way fuse block | Special supply, 400 c/s, white phase | 10 |
| | Normal supply, 400 c/s, blue phase | 10 |
| In single-way fuse block | Normal supply, 400 c/s red phase | 10 |
| **A.R.I.5851, Type 153 inverter mounting (post Mod. 2399)** | | |
| In 2-way fuse block | Inverter output, 400 c/s, red phase | 10 |
| | Inverter output, 400 c/s, blue phase | 10 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| **Hood detonation relay panel (post Mod. 2004)** | | |
| | Relay B and C control (port lever) | 10 |
| | Relay B and C control (starboard lever) | 10 |
| **No. 1 Bomb Control Panel (Mod. 2609)** | | |
| *D.C. fuses* | | |
| 1 | *Not used* | |
| 2 | Bomb slip heaters | 20 |
| 3 | Indicators supply test | 5 |
| 4 | Interlock pin indicator supply | 5 |
| 5 | Door interlock | 10 |
| 6 | Panel lamps | 5 |
| *A.C. fuses* | | |
| 1 | Armament supply No. 1, 115-volts, 400 c/s, phase A | 5 |
| 2 | Armament supply No. 2, 115-volts, 400 c/s, phase A | 5 |
| **No. 2 Bomb Control Panel (Mod. 2610)** | | |
| *D.C. fuses* | | |
| 1 | *Not used* | |
| 2 | Door interlock No. 1 | 10 |
| 3 | N.B.C. No. 1 release | 5 |
| 4 | Nose undercarriage uplock interlock | 5 |
| 5 | No. 1 firing relay | 5 |
| 6 | No. 1 fuzing supply A | 10 |
| 7 | No. 1 fuzing supply B | 10 |
| 8 | No. 1 fuzing control unit supply | 10 |
| 9 | *Not used* | |
| 10 | *Not used* | |
| 11 | *Not used* | |
| 12 | *Not used* | |
| 13 | Door interlock No. 2 | 10 |
| 14 | Bomb release No. 2 | 5 |
| 15 | No. 2 firing relay | 5 |
| 16 | Warning lamp test | 5 |
| 17 | Lighting | 5 |
| 18 | No. 2 fuzing supply | 10 |
| 19 | N.B.C. No. 2 release | 5 |

**Table 2. Fuse ratings (B. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 20 | Panel lamps | 5 |
| 21 | Undercarriage uplock interlock | 5 |
| 22 | No. 2 fuzing control unit supply | 10 |
| 23 | *Not used* | |
| 24 | *Not used* | |
| *A.C. fuses* | | |
| 1 | Protective relay unit, 115-volts, 1,600 c/s, single phase | 5 |
| 2 | Protective relay unit, 115-volts, 400 c/s, phase A | 5 |

### Table 3. Circuit breaker ratings (B/PR Mk. 1)

**Note.**—*The list of circuit-breakers is as in Table* 1 *with the following additions.*

| Circuit Breaker | Type of service | Amps. | |
|---|---|---|---|
| **Change-of-role panel—crate cameras** | | | |
| 1 | Type A No. 4 camera, night role | 10 | |
| 2 | Type A No. 2 camera, night role | 10 | |
| 3 | Type A No. 3 camera, night role | 10 | |
| 4 | Type A No. 1 camera, night role | 10 | |
| 5 | Type A No. 5 camera, night role | 10 | |
| 6 | Type A Centre tri-camera, day role No. 6 camera, night role | 10 | |
| 7 | Type A No. 9 camera, day role | 5 | On change-of-role bus-bar |
| 8 | Type A No. 8 camera, day role | 5 | |
| 9 | Type A No. 2 camera, day role | 5 | |
| 10 | Type A No. 7 camera. day role | 5 | |
| 11 | Type A No. 3 camera, day role | 5 | |
| 12 | Type A No. 6 camera, day role | 5 | |
| 13 | Type A No. 4 camera, day role | 5 | |
| 14 | Type A No. 5 camera, day role | 5 | |
| 15 | Type A Starboard camera window doors control | 5 | |
| 16 | Type A Port camera window doors control | 5 | |
| **Battery bay** | | | |
| | Type D Camera supply circuit-breaker | 150 | |
| **Change-of-role panel—rear cameras** | | | |
| 1 | Type A Starboard tri-camera, day role | 5 | On change-of-role bus-bar |
| 2 | Type A Survey camera, day role | 5 | |
| 3 | Type A Port tri-camera, day role | 5 | |
| **Interim day role camera panel** | | | |
| | Type A Type 35, controller | 5 | |
| | Type A Uniselector supply | 5 | |
| | Type A Tri-cameras and survey supply hold-off | 5 | |
| | Type A Type 80, mounting controllers | 5 | |

## Table 4. Fuse ratings (B/PR Mk. 1)

**Note.**—*The list of fuses are as in Table 2 with the following additions:—*

| Fuse | Service | Amps. |
|---|---|---|
| **Starboard distribution panel D** | | |
| 136 | Fuel contents supply bomb bay | 5 |
| **Port distribution panel E** | | |
| 65 | Forward bomb bay tank pump control | 10 |
| 66 | Fuselage refuelling relay control (by pilots' bomb bay tank switch) | 5 |
| **Distribution panel G** | | |
| 18 | Camera door control and<br>Camera supply circuit-breaker control (post Mod. 2691) | 10 (pre-Mod. 2691)<br>20 (post Mod. 2691) |
| 31 | Fuel contents gauge oscillator unit No. 6 | 5 |
| 33 | Night role cameras I.M.C. control, panel lighting and bomb aimer's camera window door control (post Mod. 2691) | 10 |
| **Panel Z—28-volt control panel** | | |
| 73 | *Not used* | |
| 74 | *Not used* | |
| 75 | Camera bay doors control | 10 |
| 76 | *Not used* | |
| 77 | *Not used* | |
| 78 | Flash crate door motor A reversing relays, normal | 5 |
| 79 | Flash crate door motor B reversing relays, normal | 5 |
| 80 | Flash crate door motor B reversing relays, jettison | 5 |
| 81 | Flash crate door motor A reversing relays, jettison | 5 |
| 82 | 16-in. photoflash distributors, wing nacelles | 5 |
| 83 | *Not used* | |
| 84 | Generators crash contactors reset (post Mod. 2680, pre-Mod. 2817) | 10 |
| 85 | 28-volt rotary transformer warning lamp No. 1 (post Mod. 2240) | 5 |
| 86 | 28-volt rotary transformer warning lamp No. 2 (post Mod. 2240) | 5 |
| 87 | 28-volt rotary transformer warning lamp No. 3 (post Mod. 2240) | 5 |
| 88 | 112-volt generator warning lamp No. 1 (post Mod. 2240) | 5 |
| 89 | 112-volt generator warning lamp No. 2 (post Mod. 2240) | 5 |
| 90 | 112-volt generator warning lamp No. 3 (post Mod. 2240) | 5 |
| 91 | 112-volt generator warning lamp No. 4 (post Mod. 2240) | 5 |
| 92 | Water-methanol pressure indicator, starboard (post Mod. 2715) | 2·5 |
| 93 | Water-methanol pressure indicator, port (post Mod. 2715) | 2·5 |

**Table 4. Fuse ratings (B/PR Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 94 | *Not used* | |
| 95 | *Not used* | |
| 96 | *Not used* | |
| **Panel Z—H.R.C. fuses** | | |
| | **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | |
| | Starboard camera window door motor | 30 |
| | Port camera window door motor | 30 |
| | Day role control panel supply (pre-Mod. 2691 only) | 80 |
| **Panel J—Port bus-bar panel H.R.C. fuses** | | |
| | **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | |
| | Flash crate doors, motor A | 30 |
| | Flash crate doors, motor B | 30 |
| **Change-of-role panel** | | |
| 1 | Starboard oblique camera window door | 10 |
| 2 | Survey camera window door | 10 |
| 3 | Port oblique camera window door | 10 |
| **Visual bomb aimer's P.R. panel (pre-Mod. 2573) or Connector panel in bomb aimer's compartment (post Mod. 2573)** | | |
| 1 | Camera sight a.c. supply, phase A (red) | 2·5 |
| 2 | Camera sight a.c. supply, phase B (white) | 2·5 |
| 3 | Camera sight a.c. supply, phase C (blue) | 2·5 |
| **Day role control panel** | | |
| 1 | No. 5 camera | 5 |
| 2 | No. 4 camera | 5 |
| 3 | No. 6 camera | 5 |
| 4 | No. 3 camera | 5 |
| 5 | No. 7 camera | 5 |
| 6 | No. 2 camera | 5 |
| 7 | No. 8 camera | 5 |
| 8 | No. 9 camera | 5 |
| 9 | Bomb aimer's camera pulsing indicators | 2·5 |
| 10 | Camera pulsing indicator lamps | 2·5 |
| 11 | Camera master supply contactor control | 10 |
| 12 | Bomb aimer's camera window door control switch | 5 |

**Table 4. Fuse ratings (B/PR Mk. 1) (*Contd.*)**

| Fuse | Service | Amps. |
|---|---|---|
| **Night role control panel** | | |
| 1 | P.E. cells | 20 |
| 2 | Camera No. 1 film drive | 5 |
| 3 | Camera No. 2 film drive | 5 |
| 4 | Camera No. 3 film drive | 5 |
| 5 | Camera No. 4 film drive | 5 |
| 6 | Camera No. 5 film drive | 5 |
| 7 | Camera No. 6 film drive | 5 |
| 8 | Camera start, flash release, main panel, and camera stop switches | 5 |
| 9 | I.M.C. and film indicator lamps | 5 |
| 10 | Frame wind switch | 5 |
| 11 | Flash stop switch, main panel | 5 |
| 12 | Exposure counter | 5 |
| 13 | Camera start and flash release, bomb aimer | 5 |
| 14 | Flashes all gone indicator | 2·5 |
| 15 | Flashes pulsed counter | 5 |
| 16 | Camera window door control switch, bomb aimer | 2·5 |
| 17 | Control panel lighting | 5 |
| 18 | I.M.C. control test | 5 |
| 19 | Flashes remaining counter | 5 |
| 20 | *Not used* | |
| 21 | Flash release distributor supply | 2·5 |
| 22 | Flash crate doors closed indicator | 2·5 |
| 23 | Flash crate interlock (relay G) and flash fuzing relay | 2·5 |
| 24 | *Not used* | |
| **Starboard camera bay door** | | |
| | Door lock actuator | 5 |
| **Battery compartment PR-112-volt H.R.C. fuses** | | |
| | **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operation* | |
| No. 1 | Final day role | 5 |
| No. 2 | Final day role | 5 |
| No. 3 | Final day role | 5 |
| No. 4 | Final day role | 5 |
| No. 5 | Final day role | 5 |
| No. 6 | Final day role | 5 |

**Table 4. Fuse ratings (B/PR Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| No. 7 | Final day role | 5 |
| No. 8 | Final day role | 5 |
| No. 9 | Final day role | 5 |
| No. 10 | Final day role | 5 |
| No. 11 | Final day role | 5 |

**Table 5. Fuse ratings (B/K/PR Mk. 1)**

**Note.**—*The list of fuses is as in Table* 2 *with the following exceptions* (*P.R. fuses and circuit breakers are as in Tables* 2 *and* 3)

| Fuse | Service | Amps. |
|---|---|---|
| **Panel D** | | |
| 74 | *Not used* (Mod. 197) | |
| 75 | *Not used* (Mod. 197) | |
| 106 | Underwing tank control and pressure switch, port | 5 (10 post Mod. 2446) |
| 110 | Underwing tank control and pressure switch, starboard | 5 (10 post Mod. 2446) |
| 130 | Starboard fuselage No. 3 cell shut-off cock | 5 |
| 131 | Port fuselage No. 3 cells shut-off cock | 5 |
| 132 | Fuselage No. 3 cells shut-off cock control | 5 |
| 136 | Probe de-icing control | 10 |
| 137 | Air-to-air refuelling switches, port wing | 10 |
| 138 | Air-to-air refuelling switches, starboard | 10 |
| 139 | Air-to-air refuelling switches, fuselage | 10 |
| **Panel E** | | |
| 65 | As P.R. Table 4 | |
| 66 | As P.R. Table 4 | |
| 73 | Probe fuel pressure gauge (Mod. 2684) | 5 |

**Table 5. Fuse ratings (B/K/PR Mk. 1) (*Contd.*)**

| Fuse | Service | Amps. |
|---|---|---|
| **Panel F** | | |
| 9 | *Not used* (post Mod. 2296 or 2762) | |
| 10 | *Not used* | |
| 15 | *Not used* (post Mod. 2296 or 2762) | |
| 16 | Fuel contents gauge oscillator unit No. 6 (post Mod. 2296) | 5 |
| **Panel G** | | |
| 18 | As P.R. Table 4 | |
| 39 | Fuel contents gauge oscillator unit No. 6 (pre-Mod. 2296) | 5 (post Mod. 2240) |
| 42 | Tanker control panel, No. 3 cell contents gauge change-over supply (post Mod. 2251) | 5 (post Mod. 2240) |
| 33 | Night role cameras I.M.C. control panel lighting and bomb aimer's camera window door control (post Mod. 2691) | 10 |
| 57 | Rebecca/Eureka inverter, magnetic relay Type 9A coil (Mod. 2796) | 5 |
| 58 | Rebecca/Eureka inverter failure indicator (Mod. 2796) | 2·5 |
| 59 | Eureka Rec./T.X. 24-volt +ve (Mod. 2742) (Mod. 2796) | 2·5 |
| 60 | Rebecca 24-volt +ve (Mod. 2742) | 2·5 |
| ◀ 61 | Rebecca/Eureka a.c. supply emerg. change-over relay (Mod. 2796) | 2·5 ▶ |
| **Panel J—Starboard bus-bar panel—H.R.C. fuses** | | |
| **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | | |
| | Hose drum unit supply | 160 |
| **Panel J—Port bus-bar panel—H.R.C. fuses** | | |
| **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | | |
| | Type 153A inverter for A.R.I.5922 and A.R.I.5924 (Mod. 2796) | 40 |
| **Panel Z—28-volt control panel fuses** | | |
| | 73 to 96 as P.R. Table 4 | |
| **Panel Z—H.R.C. fuses** | | |
| **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | | |
| | Tanker control panel supply, normal | 40 (30 pre-Mod. 2588) |
| | Tanker control panel supply, emergency | 30 |
| **A.C. power distribution box (post Mod. 988)** | | |
| 47 | Rebecca Mk. 10, emergency 400 c/s, white phase (Mod. 2742) | 5 |
| 48 | Eureka Mk. 10, emergency 400 c/s, red phase (Mod. 2741) | 5 |
| 66 | Rebecca Mk. 10, emergency 400 c/s, red phase (Mod. 2742) | 5 |
| 67 | Eureka Mk. 10, emergency 400 c/s, blue phase (Mod. 2741) | 5 |

**Table 5. Fuse ratings (B/K/PR Mk. 1)** (*Contd.*)

| Fuse | Service | Amps |
|---|---|---|
| **Rebecca/Eureka fuse and relay box (Mod. 2796)** | | |
| 1 | Torque switch phase A (Mod. 2796) | 2·5 |
| 2 | A.R.I.5922 (Eureka Mk. 10), 400 c/s, phase A (Mod. 2741) | 5 |
| 3 | A.R.I.5924 (Rebecca Mk. 10), 400 c/s, phase A (Mod. 2742) | 5 |
| 4 | Torque switch phase C (Mod. 2796) | 2·5 |
| 5 | A.R.I.5922 (Eureka Mk. 10), 400 c/s, phase C (Mod. 2741) | 5 |
| 6 | A.R.I.5924 (Rebecca Mk. 10), 400 c/s, phase C (Mod. 2742) | 5 |
| 7 | *Not used* | |
| 8 | *Not used* | |
| 9 | *Not used* | |
| 10 | *Not used* | |
| 11 | *Not used* | |
| 12 | *Not used* | |

**Table 6. Fuse ratings (B/K Mk. 1)**

**Note.**—*The list of fuses is as in Table* 2 *with the following exceptions*

| Fuse | Service | Amps. |
|---|---|---|
| **Panel D** | | |
| 74 | *Not used* (Mod. 197) | |
| 75 | *Not used* (Mod. 197) | |
| 106 | Underwing tank control and pressure switch, port | 5 (10 post Mod. 2446) |
| 110 | Underwing tank control and pressure switch, starboard | 5 (10 post Mod. 2446) |
| 130 | Starboard fuselage, No. 3 cell shut-off cock | 5 |
| 131 | Port fuselage No. 3 cell shut-off cock | 5 |
| 132 | Fuselage No. 3 cells shut-off cock control | 5 |
| 136 | Probe de-icing control | 10 |
| 137 | Air-to-air refuelling switches, port wing | 10 |
| 138 | Air-to-air refuelling switches, starboard wing | 10 |
| 139 | Air-to-air refuelling switches, fuselage wing | 10 |
| **Panel E** | | |
| 73 | Probe fuel pressure gauge (Mod. 2684) | 5 |

**Table 6. Fuse ratings (B./K. Mk. 1) (*Contd.*)**

| Fuse | Service | Amps. |
|---|---|---|
| **Panel F** | | |
| 9 | *Not used* (post Mod. 2296 or 2762) | |
| 10 | *Not used* | |
| 15 | *Not used* (post Mod. 2296 or 2762) | |
| 16 | Fuel contents gauge oscillator unit No. 6 (post Mod. 2296) | 5 |
| **Panel G** | | |
| 39 | Contents gauge oscillator unit No. 6 | 5 } Post Mod. 2240 |
| 42 | Tanker control panel, No. 3 cell contents gauge change-over supply (post Mod. 2251) | 5 } Post Mod. 2240 |
| 57, 58, 59, 60, 61, 62 | Rebecca/Eureka fuses as Table 5 | |
| **Panel J—Starboard bus-bar panel—H.R.C. fuses** | | |
| **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | | |
| | Hose drum unit supply | 160 |
| **Panel J—Port bus-bar panel—H.R.C. fuses** | | |
| **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | | |
| | Type 153A inverter for A.R.I.5922 and A.R.I.5924 (Mod. 2796) | 40 |
| **Panel Z—H.R.C. fuses** | | |
| **Note.**—*Non-tropical ratings quoted; these are suitable for world-wide operations.* | | |
| | Tanker control panel, normal | 30 |
| | Tanker control panel supply, emergency | 30 |
| **A.C. power distribution box (post Mod. 988)** | | |
| 47 | Rebecca Mk. 10, emergency, 400 c.p.s., white phase (Mod. 2742) | 5 |
| 48 | Eureka Mk. 10, emergency, 400 c.p.s., red phase (Mod. 2741) | 5 |
| 66 | Rebecca Mk. 10, emergency, 400 c.p.s., red phase (Mod. 2742) | 5 |
| 67 | Eureka Mk. 10, emergency, 400 c.p.s., blue phase (Mod. 2741) | 5 |
| **Rebecca/Eureka fuse and relay box (Mod. 2796)** | | |
| 1 | Torque switch phase A (Mod. 2796) | 2·5 |
| 2 | A.R.I.5922 (Eureka Mk. 10), 400 c.p.s., phase A (Mod. 2741) | 5 |
| 3 | A.R.I.5924 (Rebecca Mk. 10), 400 c.p.s., phase A (Mod. 2742) | 5 |
| 4 | Torque switch phase C (Mod. 2796) | 2·5 |

**Table 6. Fuse ratings (B./K. Mk. 1)** (*Contd.*)

| Fuse | Service | Amps. |
|---|---|---|
| 5 | A.R.I.5922 (Eureka Mk. 10), 400 c.p.s., phase C (Mod. 2741) | 5 |
| 6 | A.R.I.5924 (Rebecca Mk. 10), 400 c.p.s., phase C (Mod. 2742) | 5 |
| 7 | *Not used* | |
| 8 | *Not used* | |
| 9 | *Not used* | |
| 10 | *Not used* | |
| 11 | *Not used* | |
| 12 | *Not used* | |

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## LIST OF APPENDICES

# Appendix 1

# FUSE RATINGS (POST MOD. 2599, 2708 and 2939)

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## LIST OF TABLES



**Introduction**

**1.** This Appendix contains a table of fuse ratings for the fuses applicable to the de-icing equipment (post Mod. 2599, 2708 and 2939) see Chap. 5, Group 1.

**TABLE 1**

Fuse ratings (post Mod. 2599, 2708 and 2939)

| Fuse | Service | Amps. |
|---|---|---|
| **Panel J—Starboard Bus-bar Panel—H.R.C. fuses** | | |
| | Engine de-icing, port spraymat (post Mod. 2939) | 30 |
| | Engine de-icing, starboard spraymat (post Mod. 2939) | 30 |
| **Starboard Distribution Panel D** | | |
| 41 | Starboard pressure head heater (post Mod. 2599) | 15 |
| **Port distribution panel E** | | |
| 84 | De-icing temperature indication | 2·5 |
| 87 | Engine de-icing, spraymat contactors | 5 |
| **A.C. Power Distribution Box (post Mod. 988)** | | |
| 22 | Engine de-icing spraymat thermal controller (B Mk. 1, B/PR Mk. 1 and B/K Mk. 1) | 5 |
| 47 | Engine de-icing spraymat thermal controller (B/K/PR Mk. 1) | 5 |

# Appendix 2 FUSE RATINGS (POST MOD. 1669 AND 3019)

1. This appendix contains a table of the fuses introduced by Mods. 1669 and 3019 (*Chap.* 4, *Group* 3, *App.* 1.)

**TABLE 1**

**Fuse ratings (all Valiant types)**

| Fuse | Service | Amps. |
|---|---|---|
| **Panel Z** | | |
| 34 | Forward servicing bay fire extinguisher system relay | 2·5 |
| 35 | Forward bomb bay fire extinguisher system relay | 2·5 |
| 36 | Rear bomb bay fire extinguisher system relay | 2·5 |
| 82 | Forward servicing bay fire extinguisher system | 20 (Type AS) |
| 83 | Forward bomb bay fire extinguisher system | 20 (Type AS) |
| 84 | Rear bomb bay fire extinguisher system | 20 (Type AS) |
| **Essential services bus bar** | | |
| 1 | Port and starboard wing fuel tanks crash fire extinguisher bottles via crash relay | 20 (Type AS) |
| 17 | Fuselage fuel tanks crash fire extinguisher bottles, via crash relay | 20 (Type AS) |
| 18 | Fuselage fire extinguisher crash relay and fire bottles, via tanks crash relay | 20 (Type AS) |
| **Firewire fuse box** | | |
| 1 | Forward servicing bay fire extinguisher system | 2·5 (Type AS) |
| 2 | Forward bomb bay fire extinguisher system | 2·5 (Type AS) |
| 3 | Unused | |
| 4 | Rear bomb bay fire extinguisher system | 2·5 (Type AS) |

# Appendix 3 FUSE RATINGS (POST MOD. 3039)

**1.** This appendix contains a table of fuses for the No. 2A control panel introducted by Mod. 3039 (*Chap.* 3, *Group* 3, *App.* 1).

**TABLE 1**

**Fuse ratings (B. Mk. 1)**

| Fuse | Service | Amps. |
|---|---|---|
| **D.C. Fuses** | | |
| 1 | Not used | — |
| 2 | No. 1 release circuit and protective relay unit | 10 |
| 3 | N.B.C. No. 1 release circuit | 5 |
| 4 | Protective relay unit | 5 |
| 5 | Not used | — |
| 6 | Protective relay unit | 10 |
| 7 | Protective relay unit | 10 |
| 8 | Fuzing unit, Type A | 10 |
| 9 | Not used | — |
| 10 | Not used | — |
| 11 | Not used | — |
| 12 | Not used | — |
| 13 | No. 2 release circuit and protective relay unit | 10 |
| 14 | Bomb release No. 2 | 5 |
| 15 | Not used | — |
| 16 | Not used | — |
| 17 | Lighting | 5 |
| 18 | Protective relay unit | 10 |
| 19 | N.B.C. No. 2 release circuit | 5 |
| 20 | Lighting | 10 |
| 21 | Protective relay unit | 5 |
| 22 | Fuzing unit, Type A | 10 |
| 23 | Not used | — |
| 24 | Not used | — |
| **A.C. Fuses** | | |
| 1 | Protective relay unit | 5 |
| 2 | Protective relay unit | 5 |

# Appendix 4

## FUSE RATINGS (post Mod. 2650)

**Introduction**

**1.** Fuse ratings at the essential services bus-bar are altered by Mod. 2650 as shown in Table 1.

**TABLE 1**

**Fuse ratings (all Valiant types)**

| *Fuse* | *Service* | *Amps.* |
|---|---|---|
| **Essential services bus-bar** | | |
| 19 | Not used | — |
| 20 | Not used | — |

# Appendix 5

## FUSE RATINGS (post Mod. 3094)

**Introduction**

**1.** This appendix contains a table of the fuses altered by Mod. 3094 (Chap. 4, Group 1, App. 1).

**TABLE 1**

**Fuse ratings (all Valiant types)**

| *Fuse* | *Service* | *Amps* |
|---|---|---|
| **Panel E** | | |
| 91 | No. 1 engine rear bearing overheat warning | 10 |
| 92 | No. 2 engine rear bearing overheat warning | 10 |
| 93 | No. 3 engine rear bearing overheat warning | 10 |
| 94 | No. 4 engine rear bearing overheat warning | 10 |
| 95 | Engine rear bearing overheat warning test | 5 |

# Appendix 6

## FUSE RATINGS (post Mod. 3088, 3089 and 3132)

**Introduction**

**1.** This Appendix contains a table of fuse ratings for fuses applicable to Mod. 3088, Standby supplies (Chap. 4, Group 1, App. 5): Mod. 3089, Telebriefing (Sect. 6, Chap. 1, App. 2): Mod. 3132, Pressure relief valves and warning lights (Sect. 5, Chap. 5, Group 1, App. 2).

**TABLE 1**

**Fuse ratings (post Mod. 3088, 3089 and 3132)**

| Fuse | Service | Amps |
|---|---|---|
| Panel Z 28V | Standby services supply (Mod. 3088) | 100 |
| Panel G 63 | Telebriefing (Mod. 3089) | 5 |
| Panel E 97 | De-icing relief (Mod.3132) | 2·5 |
| 98 | De-icing relief (Mod.3132) | 2·5 |

# Appendix 7

## FUSE RATINGS (post Mod. 3173)

**1.** Mod. 3173 introduces the No. 2B Control panel. Table 1 of this Appendix shows the additional fuse introduced by that modification.

**Table 1**

| Fuse | Service | Amps |
|---|---|---|
| 5 | Firing relay No. 1 | 5 |

# Appendix 8

## FUSE RATINGS (post Mod. 3058)

**1.** Mod. 3058 introduces switches in the feel unit heaters circuit, and moves the fuses from panel Z to panel E. Due to the increased load on panel E the pilots port feeder, No. 1, H.R.C. fuse on panel Z is uprated from 80 to 100 amps. This appendix shows the fuse alterations.

**Panel Z H.R.C. Fuses—Table 1**

| Fuse | Service | Amps |
|---|---|---|
| | Pilots port feeder No. 1 | 100 |

**Panel Z—Table 2**

| | | |
|---|---|---|
| 10 | Not used | |
| 11 | Not used | |
| 12 | Not used | |

**Panel E—Table 3**

| | | |
|---|---|---|
| 88 | Rudder feel unit heater | 10 |
| 89 | Elevator feel unit heater | 10 |
| 90 | Aileron feel unit heater | 10 |

# Appendix 9

## FUSE RATINGS (Post Mod. 3072)

**Introduction**

**1.** Mod.3072 alters and introduces fuses as shown in Tables 1 and 2.

**TABLE 1**

**Fuse ratings (all Valiant types) panel E**

| Fuse | Service | Amps |
|---|---|---|
| 61 | Pressure head heater, port | 5 |

**TABLE 2**

**Fuse ratings (all Valiant types) panel Z**

| Fuse | Service | Amps |
|---|---|---|
| 53 | Pressure head heater supply—port | 10 |
| 54 | Pressure head heater supply—starboard | 10 |

# Appendix 10

## FUSE RATINGS (Post Mod. 3144)

**Introduction**

**1.** Mod.3144 alters fuse ratings as shown in Table 1.

**TABLE 1**
**Fuse ratings (all Valiant types) panel G**

| Fuse | Service | Amps |
|---|---|---|
| 41 | Radio test socket | 10 |

# Appendix 11

# FUSE RATINGS (Post Mods. 3165, 3166 and 3168)

## LIST OF TABLES



### Introduction

**1.** This appendix contains tables of the fuses introduced by Mod.3166, (Sect.6, Chap. 2, Group 1, App. 3) and Mod.3168 (Sect. 5, Chap. 1, Group 3, App. 3).

**2.** Table 5 shows the alteration to the title and fuses of the Rebecca/Eureka fuse and relay box (Mod.2796).

**3.** Table 6 shows the fuses contained in the T.A.C.A.N. junction box introduced by Mod. 3166.

### TABLE 1

**Fuse ratings (post Mod.3168) all Valiant types**

| Fuse | Service | Amps |
|---|---|---|
| Panel G | | |
| 57 | Inverter start | 5 Type AS |
| 58 | Inverter warning lamp | 2·5 Type AS |
| 59 | T.A.C.A.N. | 7·5 Type AS |
| 61 | Emergency relay | 2·5 Type AS |
| Panel J—port bus-bar panel | | |
| | Type 153A Inverter for T.A.C.A.N. (and Collins D.F. system Mod.3166) | 40 |

### TABLE 2

**Fuse ratings (post Mod.3166) B/K Mk. 1 and B/K/PR Mk. 1**

| Fuse | Service | Amps |
|---|---|---|
| Panel G | | |
| 64 | UHF/DF relay | 2·5 |

### TABLE 3

**Fuse ratings (post Mod.3168) B/K/PR Mk. 1**

| Fuse | Service | Amps |
|---|---|---|
| A.C. power distribution box (post Mod.988) | | |
| 12 | T.A.C.A.N. | 10 |
| 40 | T.A.C.A.N. | 10 |
| 66 | Not used | |

### TABLE 4

**Fuse rating (post Mod.3168) B Mk. 1 and B/K Mk. 1**

| Fuse | Service | Amps |
|---|---|---|
| A.C. power distribution box (post Mod.988) | | |
| 48 | T.A.C.A.N. | 10 |
| 67 | T.A.C.A.N. | 10 |
| 12 | Not used | |
| 40 | Not used | |

### TABLE 5

**T.A.C.A.N. (and Collins D.F. system Mod. 3166) fuse and relay box (Mod.3168) all Valiant types**

Fuse ratings

| Fuse | Service | Amps |
|---|---|---|
| 1 | Torque switch 400 c/s red | 2·5 |
| 2 | T.A.C.A.N. | 10 |
| 4 | Torque switch 400 c/s blue | 2·5 |
| 5 | T.A.C.A.N. | 10 |

### TABLE 6

**T.A.C.A.N. junction box (Mod.3166) B/K Mk. 1 and B/K/PR Mk. 1**

Fuse ratings

| Fuse | Service | Amps |
|---|---|---|
| 1 | T.A.C.A.N. | 2·5 |
| 2 | Amplifier | 2·5 |
| 3 | T.A.C.A.N. | 5 |
| 4 | Test | 2·5 |
| 5 | Coupling unit | 2·5 |
| 6 | Amplifier | 2·5 |
| 7 | Transformer | 2·5 |