# Chapter 4 GENERAL SERVICING

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**WARNING**

AN AIRCREW EJECTION SEAT IS FITTED TO THIS AIRCRAFT.

Before attempting to enter the cabin ensure that the instructions detailed on the LETHAL WARNING marker card at the front of this Handbook have been complied with.

**THIS IS VERY IMPORTANT**

ENGINE

When the aircraft is being manoeuvred on the ground with the engine running, or when the engine is being run for any purpose it is essential that all personnel keep well clear of the air intakes and jet exhausts. **To remain in proximity is hazardous to safety.**

The air intake safety guards must be fitted at all times when the engine is being ground run.

**Introduction**

1. This chapter contains information on the general servicing of the complete aircraft, together with tables listing the Standard and Special Ground Equipment and the Special Tools required for the operations described. This special equipment has been designed to eliminate any possibility of damage and distortion occurring during servicing and should, therefore, be used in preference to other types

of similar equipment, as otherwise the efficiency of the aircraft may be seriously impaired. When carrying out servicing operations, ensure that the air intake and jet pipe blanking boards are in position. Other covers or protective devices should also be fitted, provided they do not impede the progress of the work in hand. Servicing, dismantling and lubricating information applicable to particular assemblies and installations is covered in the appropriate chapters of Sections 3, 4, 5, 6 and 7. The servicing procedure for the standard components installed in this aircraft will be found in the relevant Air Publication mentioned in the text.

**Standard and special ground equipment**

**2.** The ground equipment provided for use when servicing this aircraft is given in Table 1:—

**TABLE 1**

**Standard and special ground equipment**

| Subject | Ref. No. | Part No. | Description | No. off | Application |
|---|---|---|---|---|---|
| Towing and Steering Equipment | 4GB/4175 | — | Arm, towing, short, Mk. 1 | 1 | *Towing from spools on nose wheel* |
| | 4GB/4138 | | Bridle towing, 35 ft. | 1 | *Backward towing from main undercarriage* |
| | 4GB/5612 | | Fork unit, adjustable, Mk. 3 | 2 | *Used with 4GB/3070 and 4GB/4175* |
| | 4GB/3070 | — | Unit, steering short | 1 | *Steering from spools on nose wheel* |
| Jacking and Trestling Equipment | 4Q/2021 | — | Adapter head, Mk. 2 (Mod. 241) | 1 | *For use with 4Q/2604* |
| | 4Q/2594 | — | Adapter head, Mk. 42 (Pre-mod. 241) | 1 | *For use with 4Q/2604* |
| | 4Q/2807 | — | Adapter head, Mk. 113 | 1 | *For use with 4Q/2667* |
| | 4Q/2655 | — | Adapter head, Mk. 102 | 3 | *For use with 4Q/2617* |
| | 26FX/95019 | C.189917 | Beam, aft trestle, centre fuselage | 1 | *For use with U.J. trestle No. 1* |
| | 26FX/95052 | A.189921 | Clip at nose wheel leg | 1 | — |
| | 26FX/95022 | D.194044 | Cradle, inboard | 2 | *Wing trestling for use with U.J. trestle No. 6* |
| | 26FX/95023 | D.194045 | Cradle, outboard | 2 | *Wing trestling for use with U.J. trestle No. 6* |
| | 26FX/95020 | C.190377 | Cradle, centre fuselage | 2 | *For use with U.J. trestle No. 1* |
| | 26FX/95041 | C.190878 | Cradle, forward | 1 | *Rear fuselage* |
| | 26FX/20087 | C.232866 | Cradle, aft | 1 | *Rear fuselage for use with U.J. trestle No. 1* |
| | — | C.233561 | Cradle, forward | 1 | *Front fuselage. Use with U.J. trestle No. 1* |
| | 26FX/95609 | B.205914 | Extension jacking (Mod. 241) | 1 | *Main wheel changing* |
| | 26FX/95004 | F.191165 | Extension jacking (Pre-mod. 241) | 1 | *Main wheel changing* |
| | 4Q/2604 | — | Jack, pillar, 4-ton, hydraulic | 1 | *Wheel changing, main and nose. (Alt. to 4Q/2667)* |
| | 4Q/2667 | — | Jack, pillar, 8-ton, hydraulic | 1 | *Wheel changing, main and nose. (Alt. to 4Q/2604)* |
| | 4Q/2617 | — | Jack, body, 5-ton, hydraulic | 3 | — |
| | 26FX/95053 | A.189922 | Link, nosewheel anchorage clip | 1 | — |
| | — | B.205907 | Pad, jacking, at frame 11 (Mod. 241) | 1 | — |
| | 26FX/95002 | B.191156 | Pad, jacking, at frame 11 (Pre-mod. 241) | 1 | — |
| | 26FX/95606 | B.205909 | Pad, jacking, at wing (Mod. 241) | 2 | — |
| | 26FX/95300 | B.206725 | Pad, jacking, at wing (Pre-mod. 241) | 2 | — |
| | 26FX/95608 | A.205912 | Pad, jacking, nose undercarriage (Mod. 241) | 1 | *Nose wheel changing* |
| | 26FX/95003 | A.188133 | Pad, jacking, nose undercarriage (Pre-mod. 241) | 1 | *Nose wheel changing* |
| | 26FX/95050 | B.189929 | Strut, bracing | 2 | *Front fuselage cradles* |
| | 26FX/95368 | B.206954 | Strut, bracing | 2 | *Rear fuselage cradles* |
| | 26FX/95234 | B.199253 | Strut, bracing | 1 | *For use when bomb pack and ejection seat are removed* |
| | 4Q/2618 | — | Trestle, Mk. 1 | 1 | *Main jacking under nose. Use with 4Q/2617* |
| | 4Q/2620 | — | Trestle, Mk. 3 | 2 | *Main jacking under wing. Use with 4Q/2617* |
| | 4GB/ | — | Trestle, U.J. No. 1 | 6 | *Component trestling* |
| | 4GB/ | — | Trestle, U.J. No. 6 | 4 | *Component trestling* |

**TABLE 1**

**Standard and special ground equipment** (*Contd.*)

| Subject | Ref. No. | Part No. | Description | No. off | Application |
|---|---|---|---|---|---|
| Slinging Equipment | 26FX/95011 | D.188575 | Sling, complete aircraft | 1 | — |
| | 26FX/95369 | D.206951 | Sling, fuselage | 1 | *Without engine* |
| | 26FX/95370 | D.206952 | Sling, fuselage | 1 | *With engine* |
| | 26FX/95049 | C.190378 | Sling, centre fuselage | 1 | — |
| | 26FX/95015 | C.189918 | Sling, front fuselage | 1 | — |
| | 26FX/95366 | C.206953 | Sling, rear fuselage | 1 | *Without tail unit* |
| | 26FX/95367 | B.207188 | Sling, rear fuselage | 1 | *With tail unit* |
| | 26FX/95014 | C.188900 | Sling, outer wing | 1 | — |
| | 26FX/95222 | C.199388 | Sling, outer wing | 1 | *Lifting with chord vertical* |
| | 26FX/95016 | B.190526 | Sling, tailplane, fin and rudder | 1 | — |
| | 4GC/5377 | — | Sling, engine | 1 | *Avon E.C.U. and stand* |
| | 26FX/95037 | C.177141 | Sling, for bomb pack | 1 | |
| | 26FX/95036 | B.177142 | Spigot assembly for hoist attachment | 2 | *For bomb pack* |
| Engine Removal and Replacement | 26FX/95046 | B.191737 | Rail, engine, detachable | 1 | — |
| | 26FX/95216 | C.200213 | Trolley, engine | 1 | — |
| | | G.E.6004–Sht. 1 | Stand, Avon engine type B | 1 | |
| | | G.E.6004–Sht. 2 | Adapter, for Avon engine stand | 1 | |
| Rigging Equipment | 26FX/95220 | A.201222 | Bar, levelling, longitudinal | 1 | — |
| | 26FX/95142 | B.199011 | Bar, levelling, transverse | 1 | — |
| | 26FX/95736 | D.231154 | Base, clinometer for tailplane | 1 | — |
| | 26FX/95633 | D.228419 | Board, elevator movement checking | 1 | *For aircraft with Mod. 390 embodied* |
| | 26FX/95144 | D.199059 | Fixture, rigging | 1 | *For retaining controls in the neutral position* |
| | 26FX/95644 | C.224263 | Gauge, incidence, mainplane | 1 | — |
| | 26FX/95007 | B.201624 | Gauge, incidence, tail plane | 1 | — |
| | 26FX/95006 | A.192534 | Gauge, dihedral, mainplane and tailplane | 1 | — |
| | 26FX/95306 | A.201030 | Lock, rigging | 1 | *For elevator control tube* |
| | 26FX/95307 | A.201031 | Lock, rigging | 2 | *For aileron and rudder control tubes* |
| | 26FX/95143 | F.198704 | Spigot levelling | 2 | — |
| Miscellaneous Special Equipment ◀ | 26FX/ | B.274018 | Cover, ground, for airstream direction detector probe | 1 | *Mod. 1301* ▶ |
| | 26FX/95413 | D.211231 | Guard, safety for air intake, port | 1 | — |
| | 26FX/95414 | D.211232 | Guard, safety for air intake, starboard | 1 | — |
| | 26FX/95136 | D.202713 | Ladder, pilot's | 1 | *Access to cabin* |
| | 26FX/95839 | C.207507 | Pipe, defuelling, wheels up | 1 | — |
| | 26FX/95427 | C.208502 | Test equipment for fuel system | 1 | — |
| | 26FX/95215 | C.200058 | Trolley for tail unit removal | 1 | — |
| | 26FX/95741 | C.229925 | Trolley, rear fuselage handling | 1 | |
| | 26FX/20337 | B.252863 | Hoist lifting for tacan A.C. supply panel | 1 | |
| | 26FX/95161 | B.192253 | Bar, front gun sight alignment | 1 | *Complete in box Pt. No. D.232488* |
| | 26FX/95162 | B.192254 | Bar, rear gun sight alignment | 1 | |
| | 26FX/9598 | E.234625 | Stand, for nose piece | 1 | *PR Mk. 11 only* |
| Miscellaneous Standard Equipment | 105G/11 | — | Adapter | 1 | *For use with type 37 Rectifier* |
| | 4G/3966 | — | Mats, mainplane, type B | 2 | — |
| | 5P/2908 | — | Rectifier, type 37 | 1 | — |
| | 4F/1685 | — | Trolley, servicing, hydraulic, Mk. 2 | 1 | — |
| | 4F/1913 | — | Trolley, servicing, electrical, Mk. 4 | 1 | — |
| | 4F/1714 | — | Trolley, servicing, cabin pressure testing, Mk. 1C | 1 | — |

**TABLE 1**

**Standard and special ground equipment** (*Contd.*)

| Subject | Ref. No. | Part No. | Description | No. off | Application |
|---|---|---|---|---|---|
| | 4G/4220 | — | Trolley, oxygen charging, Mk. 2 | 1 | — |
| | 4G/4221 | — | Trolley, H.P. air charging, Mk. 2 | 1 | — |
| | 4GC/3360 | — | Hoist, type C | 3 | *For bomb pack* |
| | 4GC/4233 | — | No. 4 attachment | 3 | *For use with hoist, type C* |
| | 4GC/3363 | — | Tube assemblies | 3 | |
| | 4G/5584 | — | Cradle (4G/5584 modified) | 1 | *For bomb pack* |
| | ◀ 4G/2051053 | — | Ladder, flat top | 2 | — ▶ |
| Picketing Equipment | 26FX/95428 | B.214194 | Cover blanking, air intake | 1 set | — |
| | 26FX/95552 | C.218417 | Cover, sealing, for jet pipe | 1 | — |
| | 27D/3022 | B.214258 | Cover, cabin canopy | 1 | — |
| | 27D/2999 | — | Cover, centre fuselage | 1 | — |
| | 27D/2917 | — | Cover, gun package | 1 | — |
| | 27D/3177 | — | Cover, pressure head | 1 | — |
| | 26FX/95217 | C.200177 | Cover, centre fuselage ducts, port | 1 | — |
| | 26FX/95218 | C.200178 | Cover, centre fuselage ducts, starboard | 1 | — |
| | 26FX/95203 | F.159908 | Fitting, picketing, rear fuselage | 1 | — |
| | 26FX/ | A.191716 | Fitting, picketing, nose undercarriage | 1 | *Embalmed aircraft only* |
| | 26FX/ | B.191910 | Fitting, main undercarriage | 2 | *Picketing and rearward towing. Embalmed aircraft only* |
| | 26FX/95030 | B.188480 | Ground lock for nosewheel | 1 | — |
| | 26FX/95135 | B.188483 | Ground locking gear, cabin flying controls | 1 | — |
| | 26FX/95137 | C.189263 | Ground locking gear, aileron | 2 | — |
| | 26FX/95138 | C.192836 | Ground locking gear, elevator | 2 | — |
| | 26FX/95139 | B.189267 | Ground locking gear, rudder | 1 | — |
| | 26FX/95204 | A.176434 | Shackle, picketing, nose undercarriage | 1 | — |
| | 26FX/95205 | A.176437 | Shackle, picketing, main undercarriage | 2 | *and for rearward towing* |
| | 26FX/95029 | C.191636 | Sleeve, locking, main undercarriage | 2 | — |

**Special tools**

**3.** The special tools provided for use when servicing this aircraft are given in the following Table 2:—

**TABLE 2**

**Special tools**

| Ref. No. | Part No. | Description | No. off |
|---|---|---|---|
| 26FX/95527 | A.208035 | Adapter for external air supply | 1 |
| 26FX/95058 | A.191552 | Extractor for front spar joint pin | 1 |
| 26FX/95059 | A.191655 | Extractor for rear spar joint pin | 1 |
| 26FX/95140 | B.198963 | Extractor for main spar wing joint bush | 1 |
| 26FX/95141 | C.198962 | Extractor for rear spar wing joint bush | 1 |
| 26FX/95032 | Dunlop A.5826 | Extractor for nose wheel | 1 |
| 26FX/95303 | Dunlop A.10054 | Extractor for main wheels | 1 |

**TABLE 2**

**Special tools** *(Contd.)*

| Ref. No. | Part No. | Description | No. off |
|---|---|---|---|
| 27G/5062 | Dunlop A.10039 | Fixture brake alignment | 1 |
| 26FX/95388 | A.210992 | Gauge for undercarriage lever setting, port (Pre-mod. 1021) | 1 |
| 26FX/95389 | A.210993 | Gauge for undercarriage lever setting, starboard (Pre-mod. 1021) | 1 |
| 26FX/95860 | A.249091 | Gauge checking main undercarriage rear lock (Mod. 1021) | 1 |
| 26FX/95861 | A.249092 | Gauge checking main undercarriage front lock (Mod. 1021) | 1 |
| 26FX/95677 | B.223910 | Brace for tacan A.C. supply panel hoist | 1 |
| 26FX/95513 | B.214835 | Gauge, setting, micro-switch, nosewheel leg up | 1 |
| 26FX/95508 | A.210921 | Gauge, setting, micro-switch, nosewheel leg down | 1 |
| 26FX/ | A.204974 | Guard for spigot in wheel bay | 1 |
| 26FX/95086 | A.194464 | Guide for fuel tank vent connector (also used as a bung when pressure testing tanks) | 2 |
| 26FX/95421 | A.214536 | Indicator, position, for adjustment of aileron booster unit | 1 |
| 26FX/95505 | D.210928 | Jig, setting-up, micro-switch, nose undercarriage | 1 |
| 26FX/95506 | D.210929 | Jig, setting, nosewheel door sequence valve | 1 |
| 26FX/95390 | A.212332 | Key for hydraulic reservoir | 1 |
| 26FX/95309 | A.204865 | Piece distance at front fuselage attachment nuts | 1 |
| 26FX/95081 | B.194717 | Spanner for refuelling valve | 1 |
| 26FX/95164 | F.199124 | Spanner for hydraulic system | 1 |
| 26FX/95087 | A.194634 | Spanner for brake adjustment | 1 |
| 26FX/95085 | A.194578 | Spanner for inverted flight valve connector | 1 |
| 26FX/95304 | F.199406 | Spanner for elevator outer hinge lock-nut | 1 |
| 26FX/95305 | F.199407 | Spanner for elevator outer hinge bolt | 1 |
| 26FX/95308 | B.204866 | Spanner for front fuselage attachment nuts | 1 |
| 26FX/95311 | A.209612 | Spanner for flap hinge bolts | 1 |
| 26FX/95425 | A.190295 | Spanner for fuel system | 1 |
| 26FX/95503 | B.209815 | Spanner for wing fuel system | 1 |
| 26FX/95504 | B.209816 | Spanner for wing fuel system | 1 |
| 26FX/95715 | A.227530 | Spanner, dial, for aileron booster unit adjustment *(Mod. 703)* | 1 |
| 26FX/95645 | B.224080 | Spanner, crutching, for pylons *(Mod. 663)* | 1 |
| 26FX/95163 | A.197766 | Spanner for hydraulic system | 1 |
| 26FX/95165 | A.197767 | Spanner for hydraulic system | 1 |
| 26FX/95166 | A.197768 | Spanner for hydraulic system | 1 |
| 26FX/95226 | A.201955 | Spanner for main fuel delivery joint | 1 |
| 26FX/95228 | Britool Z.4948 | Spanner for rear fuselage transport joint nuts | 1 |
| 26FX/95080 | B.191654 | Tool for undercarriage up lock | 1 |
| 26FX/95509 | A.213921 | Tool cocking for hood rear latch | 1 |
| 26FX/95223 | B.200521 | Tool for assembly of rear transport joint spigot | 1 |
| 26FX/ | A.236181 | Tool, manual release for hood lock control rod *(Mod. 882)* | 1 |
| 26FX/95044 | B.183954 | Tool, locking for bomb pack | 2 |
| 26FX/ — | F.261598 | Block, undercarriage door spigot adjustment } *identical to parts authorized by S.T.I./Hunter/263* | 2 |
| 26FX/ — | F.261597 | Studs for Pt. No. F.261598 } *identical to parts authorized by S.T.I./Hunter/263* | 8 |

**TABLE 3**

**Packing dimensions** *(fig. 1)*

| Component | Height | Width | Length | Weight (lb.) |
|---|---|---|---|---|
| Nose piece | 2 ft. 5 in. | 2 ft. 8 in. | 2 ft. 4½ in. | 20 |
| Front fuselage | 6 ft. 0 in. | 5 ft. 1¼ in. | 15 ft. 5¼ in. | 900 |
| Centre fuselage | 5 ft. 10 in. | 10 ft. 0 in. | 16 ft. 0 in. | 1425 |
| Rear fuselage | 6 ft. 9½ in. | 4 ft. 2½ in. | 17 ft. 1 in. | 600 |
| Tail cone | 3 ft. 6½ in. | 3 ft. 2 in. | 4 ft. 1 in. | 75 |
| Wing | 2 ft. 1 in. | 11 ft. 4 in. | 19 ft. 8 in. | 972 |
| Rudder | 5 ft. 2 in. | 0 ft. 8 in. | 2 ft. 0 in. | 35 |
| Fin | 6 ft. 0 in. | 0 ft. 7½ in. | 4 ft. 10 in. | 60 |
| Tail plane | 0 ft. 6½ in. | 7 ft. 11 in. | 11 ft. 10 in. | 206 |
| Elevator | 0 ft. 9 in. | 1 ft. 11 in. | 7 ft. 8 in. | 67½ |
| Aileron | 0 ft. 5 in. | 2 ft. 7 in. | 8 ft. 8 in. | 75 |
| Flap | 0 ft. 5 in. | 2 ft. 7 in. | 7 ft. 6 in. | 70 |
| Wing tip | 0 ft. 7 in. | 0 ft. 11 in. | 5 ft. 2¼ in. | 6 |
| Hood | 2 ft. 4 in. | 4 ft. 4 in. | 4 ft. 10 in. | 150 |
| Ammunition box | 2 ft. 7 in. | 0 ft. 9½ in. | 2 ft. 0 in. | 40 |
| Bullet fairing | 0 ft. 10½ in. | 0 ft. 9 in. | 3 ft. 5½ in. | 5 |

*Dimensions given are to the nearest quarter of an inch. The weight of a component is for a single item only.*

**Order of dismantling and assembly**

4. The breakdown points for dismantling the aircraft are shown in fig. 1, the dimensions and weights of the principal components are given in Table 3. The recommended order of dismantling is as follows:—

(1) Jack up the aircraft *(fig. 2)* and retract the alighting gear.

(2) Position the component trestles to fully support the aircraft.

(3) Remove the outer wings *(Sect. 3, Chap. 2)*, after removing any external stores which may be fitted.

**Note . . .**

*The flaps, ailerons and pylons, if fitted, may be removed after the wings have been dismantled from the fuselage.*

(4) Remove the rear fuselage *(Sect. 3, Chap. 1)*.

**Note . . .**

*The rudder, elevators and tail plane (Sect. 3, Chap. 3) may be removed before or after the rear fuselage is removed from the centre fuselage.*

(5) Remove the engine *(Sect. 4, Chap. 1)*.

(6) Remove the front fuselage *(Sect. 3, Chap. 1)*.

(7) Remove the fuselage nose portion if necessary *(Sect. 3, Chap. 1)*.

5. The assembly of the principal components is, in general, a direct reversal of the above procedure.

**Access doors and panels**

6. The position of the access doors and removable panels are shown in fig. 3, the components to which they give access being given in the key. When handling the doors and panels, care should be taken to ensure that they are not damaged or distorted in any way. When re-fitting them, ensure that they fit flush with the surrounding surface and that they are secure and effectively locked.

**Note . . .**

Screws removed from access panels must be replaced by screws of the same length, after first ensuring that fouling has not already taken place, otherwise damage to components or pipe lines in the vicinity of the panel may occur. The screws and bolts required for the attachment of the dorsal fin panels are detailed in fig. 6.

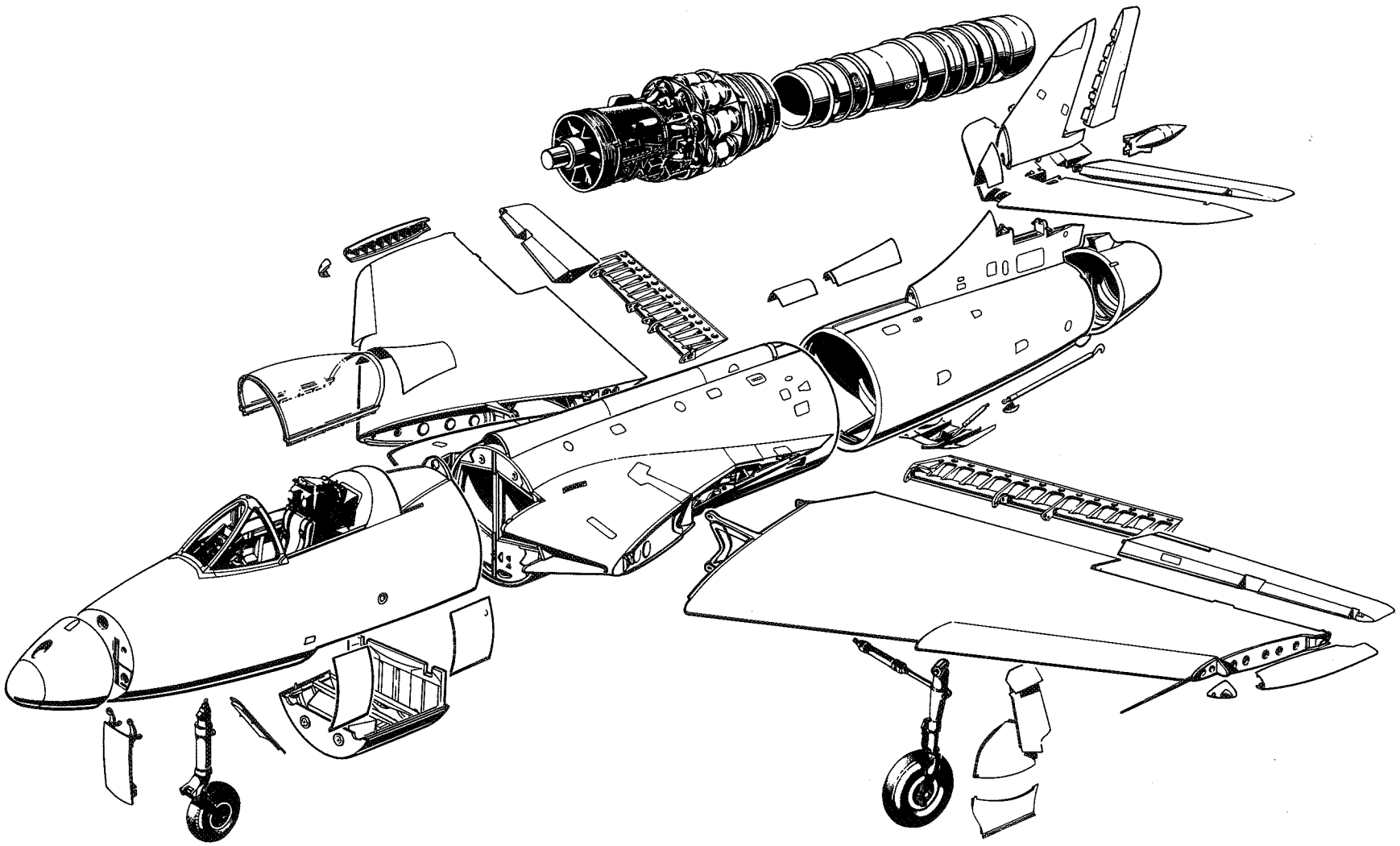


**Fig. 1 Major components**

RESTRICTED

| | |
|---|---|
| | AIR DIAGRAM<br>7600C/MIN.<br>HUNTER GA MK.11 & PR.MK.11 |
| ISSUE 2 | PREPARED BY MINISTRY OF AVIATION<br>FOR PROMULGATION BY<br>MINISTRY OF DEFENCE |

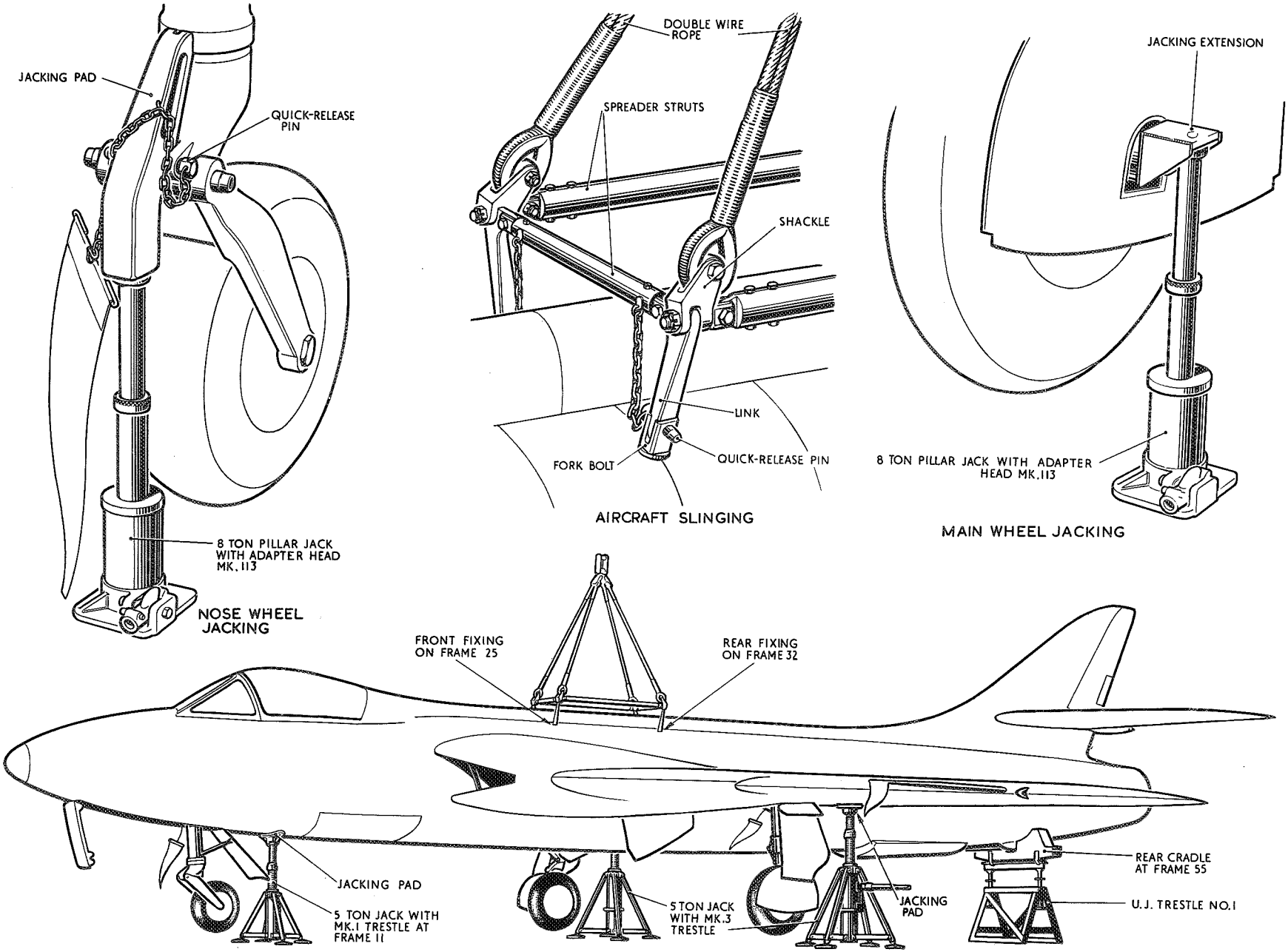



**Fig.2 Jacking, trestling and slinging**

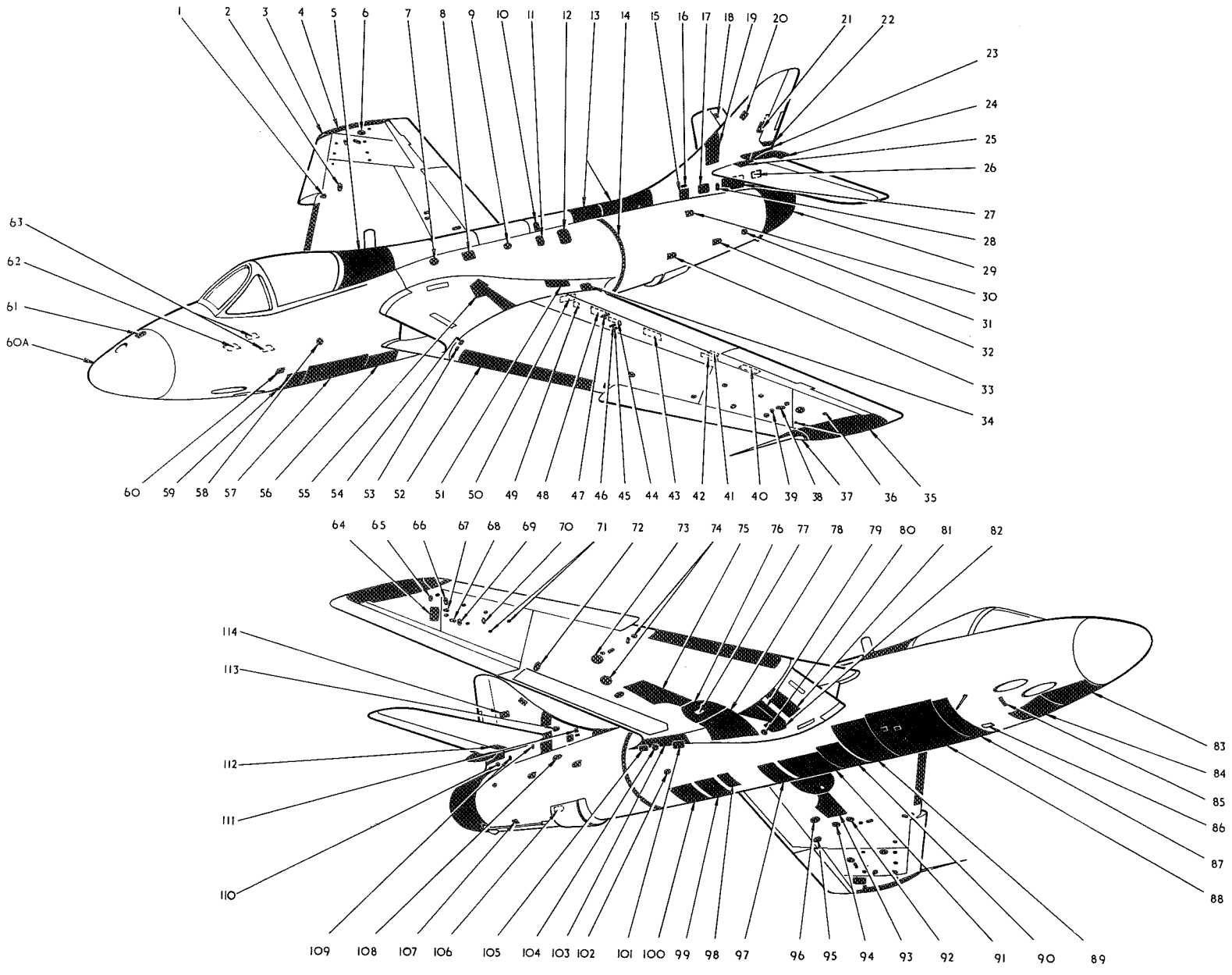



Fig.3 Access panels

◂ 60 A. added ▸

## KEY TO FIG.3 (ACCESS PANELS)

1. PYLON CRUTCHING
2. GENERAL ACCESS
3. STARBOARD NAVIGATION LIGHT
4. DETACHABLE WING TIP
5. FLYING CONTROLS, AND PRESSURIZATION EQUIPMENT
6. GENERAL ACCESS
7. FUEL LEVEL SWITCH
8. FUEL VENT CONNECTION
9. TANK RELIEF VALVE
10. DEFUELLING PRESSURE CONNECTION
11. DUCT TO ENGINE BLEED VALVE
12. PRESSURIZATION
13. FLYING CONTROLS
14. TRANSPORT JOINT BUTT STRAP
15. FLYING CONTROLS
16. FLYING CONTROLS
17. HYDRAULIC ACCUMULATOR, AND ELECTRICS
18. ELEVATOR OUTER HINGE
19. FLYING CONTROLS
20. RUDDER CONTROLS
21. RUDDER CONTROLS
22. FIN DETACHABLE PORTION
23. GENERAL ACCESS
24. DETACHABLE BULLET FAIRING
25. TAIL PLANE HINGE
26. ELEVATOR CONTROL LEVER
27. SELECTOR VALVE AND ELEVATOR CONTROLS
28. TAIL PLANE ACTUATOR
29. DETACHABLE TAIL CONE
30. JET PIPE THERMOCOUPLES
31. JET PIPE REAR MOUNTING
32. JET PIPE THERMOCOUPLES
33. ELECTRICAL CONNECTIONS
34. HYDRAULIC RESERVOIR FILLER
35. DETACHABLE WING TIP
36. R.P. MOUNTINGS
37. PORT NAVIGATION LIGHT
38. GENERAL ACCESS
39. PYLON CRUTCHING (OUTBOARD)
40. AILERON TRIM TAB ACTUATOR
41. AILERON CONTROLS
42. AILERON CONTROLS
43. AILERON CONTROLS
44. AILERON CONTROLS
45. FLAP JACK ANCHORAGE
46. FLAP JACK GREASER
47. FLAP SYNCHRONIZING JACK
48. AILERON CONTROLS
49. DRUM SWITCH FLAP CONTROL
50. GEARBOX DRIVE PORT CENTRE FUSELAGE
51. REAR SPAR PIN JOINT AND FLYING CONTROLS
52. DETACHABLE WING NOSING
53. WING PIN JOINT
54. SLINGING POINT
55. MAIN SPAR PIN JOINT
56. RADIO AND ELECTRICAL
57. TACAN ACCESS
58. EXTERNAL EMERGENCY HOOD RELEASE
59. GENERAL ACCESS
60. PILOT'S FOOTSTEP
60A. NOSE PIECE
61. CAMERA SERVICING (NOT P.R. MK.11)
62. CONTROL COLUMN MECHANISM, CABIN FLOOR
63. FLYING CONTROLS, CABIN FLOOR
64. AILERON BOOSTER UNIT
65. AILERON CONTROL MICROSWITCH
66. GENERAL ACCESS
67. DROP TANK FUEL AND AIR CONNECTIONS
68. R.P. ELECTRICAL CONNECTIONS
69. GENERAL ACCESS
70. GENERAL ACCESS
71. R.P. MOUNTINGS
72. AILERON CONTROLS
73. ELECTRICAL CONNECTIONS
74. GENERAL ACCESS
75. MAIN WHEEL BAY ACCESS
76. MAIN WHEEL BAY ACCESS
77. WHEEL BRAKE
78. MAIN WHEEL BAY ACCESS
79. FUEL TRANSFER PIPE AND PRESSURE RELIEF VALVE
80. FUEL AND HYDRAULIC PIPES
81. FUEL TANK FLOAT SWITCH
82. MAIN SPAR PIN JOINT
83. NOSE WHEEL BAY ACCESS
84. NOSE WHEEL BAY ACCESS
85. NOSE UNDERCARRIAGE LEG PIVOT PIN
86. NOSE UNDERCARRIAGE JACK
87. GENERAL ACCESS
88. BOMB PACK
89. RADIO AND ELECTRICAL
90. FUEL PUMP
91. GENERAL ACCESS
92. GENERAL ACCESS
93. MAIN WHEEL BAY ACCESS
94. GENERAL ACCESS
95. AILERON CONTROLS
96. ELECTRICS
97. ENGINE STARTER
98. GENERAL ACCESS
99. GEARBOX AND FILLER
100. ENGINE
101. ENGINE MOUNTING
102. OIL LEVEL SIGHTING
103. GENERAL ACCESS
104. HYDRAULIC FILTER
105. IGNITER PLUG
106. JET PIPE THERMOCOUPLES
107. TELE-BRIEFING PLUG
108. JET PIPE THERMOCOUPLE
109. ELEVATOR BOOSTER UNIT ATTACHMENTS
110. ELEVATOR CONTROL LEVER
111. ELEVATOR FEEL UNIT
112. TAIL PLANE HINGE
113. ELEVATOR FEEL UNIT
114. RUDDER TRIM TAB ACTUATOR

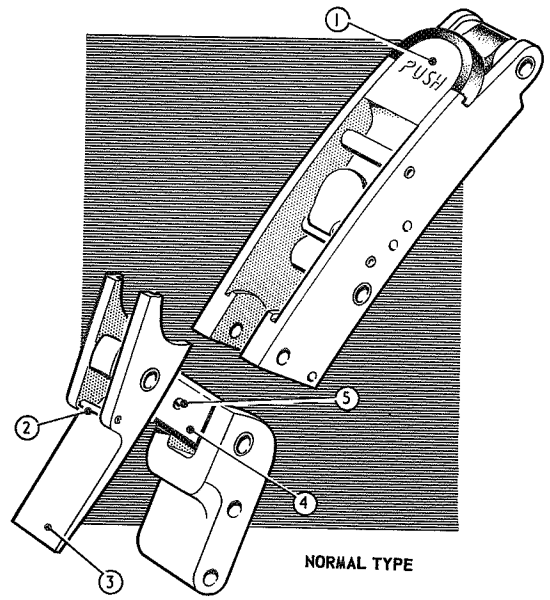
**Toggle fasteners**

**7.** Certain removable panels are secured in position by toggle fasteners *(fig. 4)*. To open these fasteners, the catch lever (*1*) marked PUSH is depressed with the forefinger (*do not use tools*) causing the hook integral with this lever to disengage from pin (*2*) in the toggle lever (*3*), withdrawing it from the housing and disengaging the fastener. For re-engagement, the hooks on the end of the toggle lever are engaged in the recess and the lever pressed home with the palm of the hand. Adjustment is accomplished by screwing up or unscrewing the links (*4*), after first slackening off the grub screw (*5*) in the side face of the links. One turn of the thread on the links gives 0·036 in. of adjustment, and the total adjustment available is 0·5 in. When adjustment is satisfactory, the grub screw must be re-tightened.

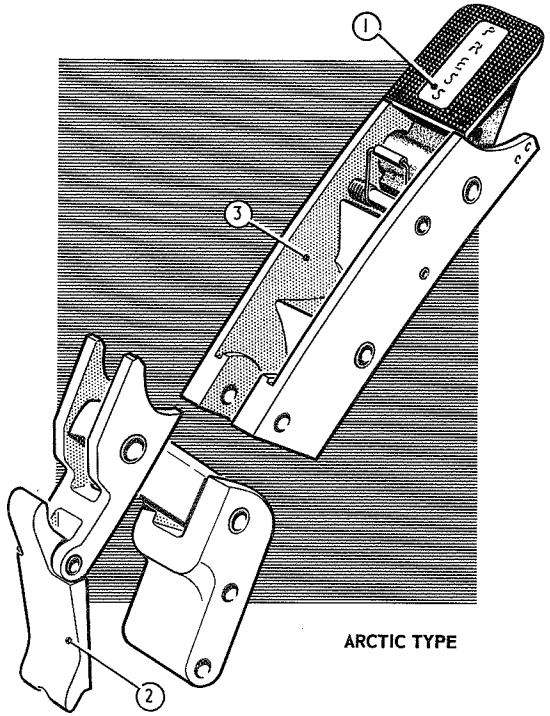
**Note . . .**

*The grub screw must be slackened off before adjustment as otherwise the threads will be damaged. The grub screw must be re-tightened after adjustment.*

**8.** Certain access doors are secured by Arctic type toggle fasteners *(fig.4)*. To open these fasteners, the knurled safety catch plate (*1*) is depressed and the lever (*2*) ejected sufficiently to enable it to be easily withdrawn from the housing (*3*). For re-engagement, the lever is engaged with the housing and then pressed home with the palm of the hand. Adjustment is accomplished by removing the split pin and then screwing up or unscrewing the links. One turn of the thread on the links gives 0.036 in., adjustment available is 0.5 in. When adjustment is satisfactory, lock with a split pin.




NORMAL TYPE




ARCTIC TYPE

**Fig. 4 Toggle fasteners**

**Jacking, trestling and slinging**

**9.** The methods to be employed and the jacks, trestles and support beams, etc., to be used when jacking, trestling and slinging the complete aircraft for servicing are illustrated in fig. 2. It should be noted that the fuselage jacking pad has a concave bearing surface and must not be interchanged with the wing jacking pad which has a flat bearing surface.

**Rigging of fixed surfaces**

**10.** When checking the alignment of the structure by means of the diagonal dimensions given in fig. 5, there is no need to trestle the aircraft. When the incidence and dihedral are being checked, the aircraft must be trestled in the rigging position, with the equipment provided *(fig. 2)*. The procedure for rigging is as follows:—

(1) Check the alignment of the structure.

(2) Jack up the aircraft and level it transversely, by means of the levelling bar Pt. No. B.199011 *(Ref. 26FX/95142)* and spirit level placed across the hood rails.

(3) Place a levelling spigot Pt. No. F.198704 *(Ref. 26FX/95143)* into each of the levelling points attached to the fuselage structure in the port wheel bay and level the aircraft longitudinally with a straight edge and spirit level placed across these two spigots. The trestle at frame 55 is to be adjusted to take the weight of the the rear fuselage after the aircraft has been levelled longitudinally.

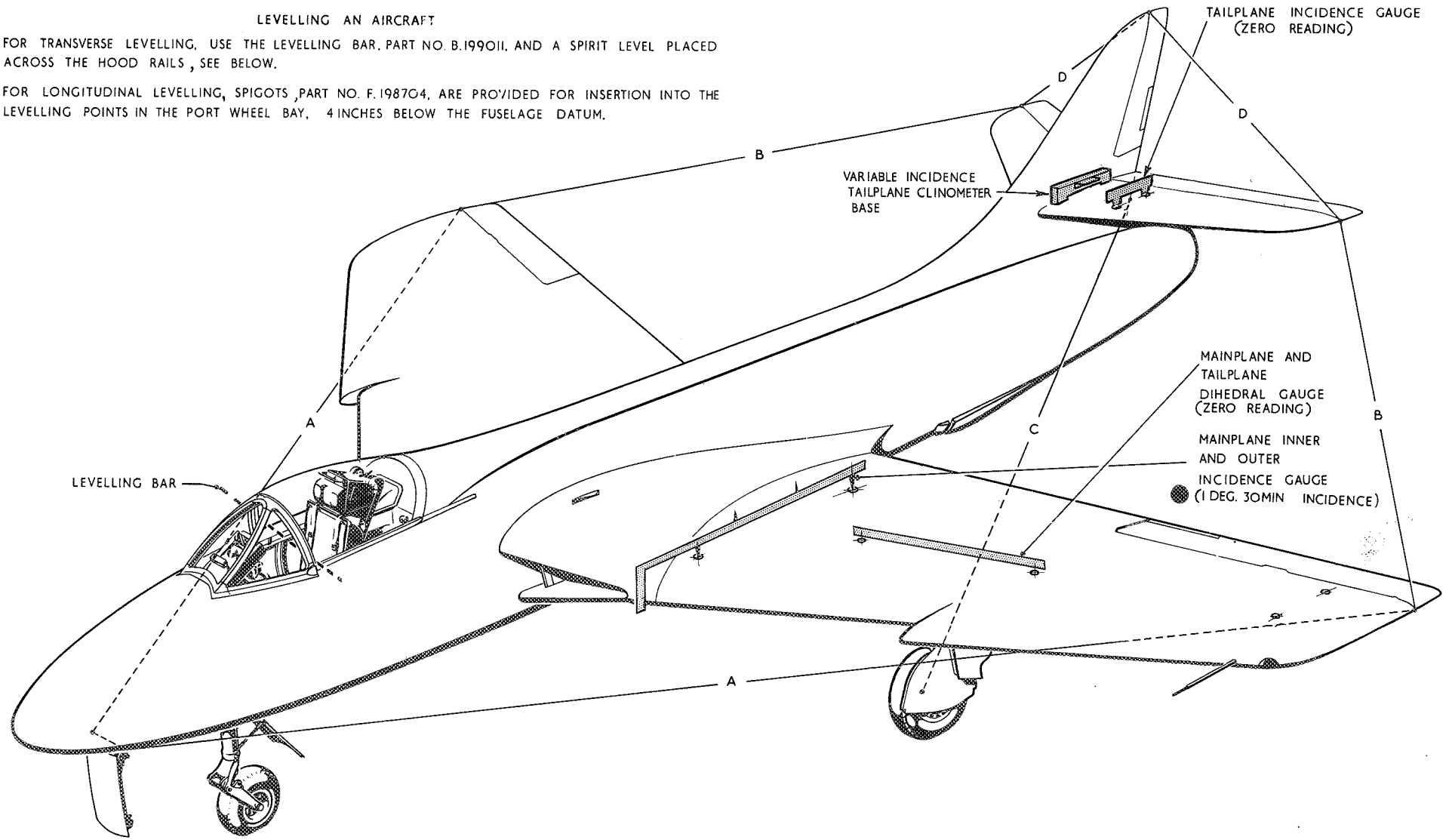
(4) Check the incidence and dihedral of the wings *(using gauges quoted in Table 1)*.

(5) Check the incidence and dihedral of the tailplane *(using gauges quoted in Table 1)*.

LEVELLING AN AIRCRAFT

FOR TRANSVERSE LEVELLING, USE THE LEVELLING BAR, PART NO. B.199011, AND A SPIRIT LEVEL PLACED ACROSS THE HOOD RAILS, SEE BELOW.

FOR LONGITUDINAL LEVELLING, SPIGOTS, PART NO. F.198704, ARE PROVIDED FOR INSERTION INTO THE LEVELLING POINTS IN THE PORT WHEEL BAY, 4 INCHES BELOW THE FUSELAGE DATUM.




● TOLERANCE AT WING ROOT AND TIP ± 0 DEG. 20 MIN. A COMBINATION OF A POSITIVE ERROR AT ONE WING TIP WITH A NEGATIVE ERROR AT THE OTHER MUST NOT GIVE A TWIST OF MORE THAN 0 DEG. 25 MIN.

SYMMETRY CHECK

| | CHECKING POINTS | LIMITS |
|---|---|---|
| A | NOSE WHEEL DOOR CUT-OUT TO OUTBOARD END OF AILERON | 0·50 IN. |
| B | OUTBOARD END OF AILERON TO OUTBOARD END OF ELEVATOR | 0·50 IN. |
| C | UNDERCARRIAGE WHEEL HUB TO TRAILING EDGE OF FIN | 0·50 IN. |
| D | TIP OF FIN TO OUTBOARD END OF ELEVATOR | 0·25 IN. |

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Fig.5 Rigging diagram

(6) When checking the variable incidence of the tailplane use a clinometer with the clinometer base Part No. D.231154 (*fig. 5*). To fit the base, remove the port top tailplane fairing, locate the lugs between the front and rear tailplane spars, with the side of the base painted red facing outboard and secure to the appropriate anchor nuts normally used for the tailplane fairing.

The adjustment of the individual control surfaces is described in Sect. 3, Chap. 4.

**Miscellaneous drain points**

**11.** A series of small holes, extending from frame 19 (*Sect. 3, Chap. 1*) to the tail end, are provided in the undersurface of the fuselage to allow any moisture and surplus fuel which may accumulate between these frames to drain away. Surplus fuel from the high pressure cock, combustion chambers and the exhaust unit is conducted through pipes to eject at the bottom of the fuselage. All the drain holes should be inspected periodically to ensure that they are not blocked, otherwise an accumulation of fuel, with its resultant fire may arise. Small cocks are provided at the lowest point of the fuel system, together with a drain plug in the engine fuel filter casing, to enable any water or sediment to be drained from the fuel (*for their location and method of use, reference should be made to Sect. 2, Chap. 2*). Moisture drain taps are also provided in the pressure head installation (*described in Sect. 5, Chap. 2*).

**Cleaning hood**

**12.** When cleaning or polishing the cabin hood, care must be taken to ensure that no rags that have been in contact with trichlorethylene are used, as rags so contaminated will cause serious damage to the surface. Refer to A.P.1464D, Vol. 1, for detailed instructions on the care of transparent plastic panels.

**Cleaning cabin**

**13.** When wiping over those portions of the cabin instrument panels, shelves, etc., which contain labels, only clean dry rags should be used. Many of these labels will be damaged if rags impregnated with fuel, grease solvent or thinners are used.

**Pipe lines**

**14.** Before the assembly of pipe lines of the fuel system, hydraulic system and air conditioning system (NOT the oxygen system), the threads of all pipe couplings should be lubricated with anti-seize compound ZX–28G. When reassembling pipe lines, ensure that the arrows on the pipes, non-return valves and other components, point in the direction of flow; tighten the unions by hand first and examine the lay of the pipe to ensure that maximum clearance from other pipes, components or structure is obtained to eliminate the possibility of chafing. After final tightening, ensure that the clearance has been maintained.

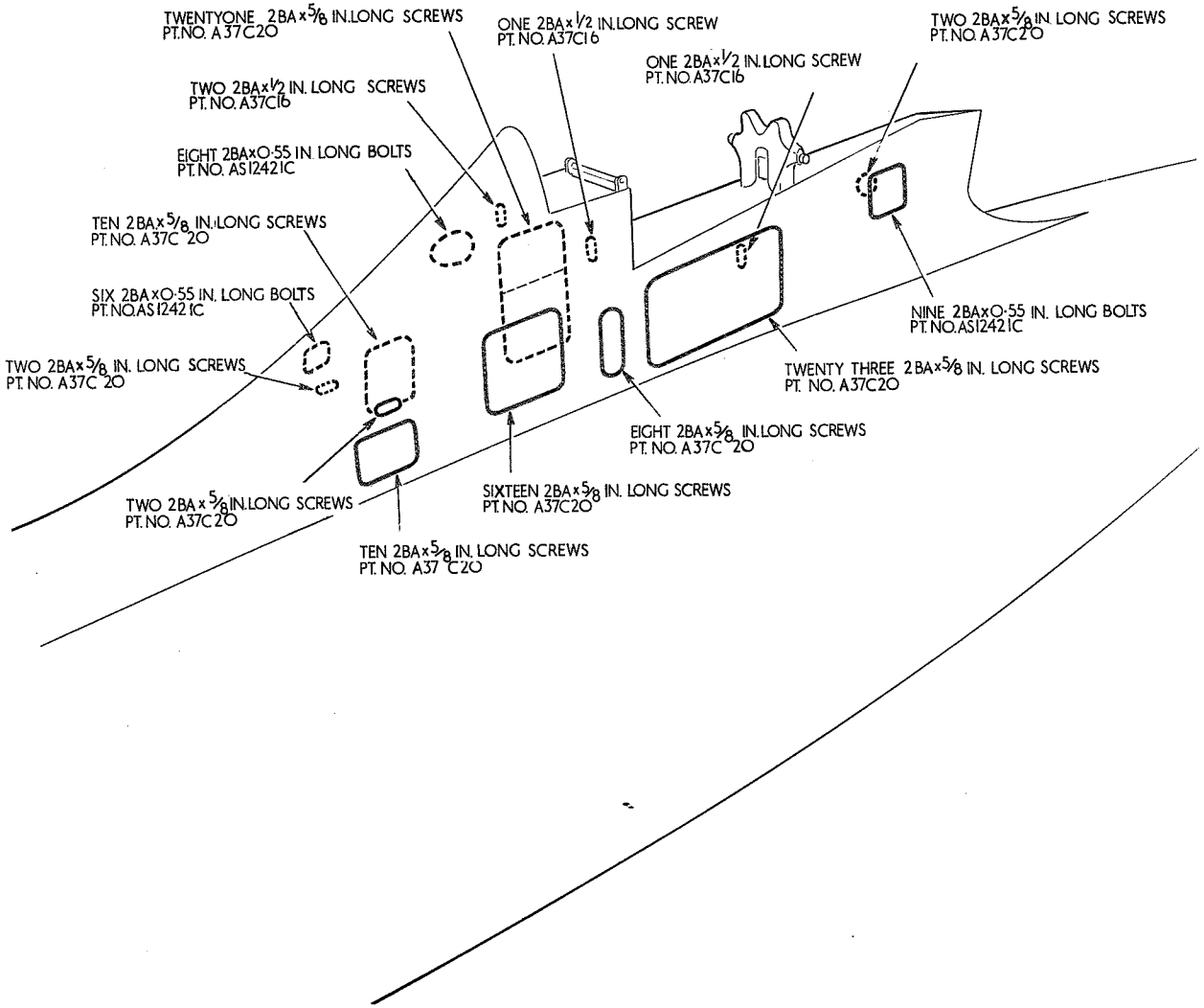


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**Fig.6 Dorsal fin access panels attachment fixings**

**Hot air ductings**

**15.** Every opportunity must be taken to examine hot air ductings throughout the life of the aircraft, particular attention being given to the following :—

(1) Damage to, or discolouration of, ducts, pipes, wiring or structure adjacent to hot air ductings, which may be indicative of gas leakages.

(2) Security and condition of all duct joints.

(3) Duct lagging for sign of damage.

(4) Visible portions of duct metalwork, particularly in the vicinity of welds for signs of cracking.