

Chapter 4 GENERAL SERVICING

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WARNING

AIRCREW EJECTION SEATS ARE 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 the handbook have been complied with. This is very important.

ENGINE

The air intake safety guards should be fitted at all times when engine is being ground run except when it is intended to take off after running up. It is essential that personnel are aware of the air intake depression and jet efflux danger areas as shown in Sect.2, Chap.2.

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 that 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 Publications listed at the beginning of this volume, or mentioned in the text.

Standard and special ground equipment

2. The ground equipment provided for use when servicing this aircraft is listed in Table 1 below:-

TABLE 1
Standard and special ground equipment

Subject	Ref.No.	Part No.	Description	No.off	Application
TOWING AND STEERING	4GB/3071	—	Arm forward steering	1	Steering from spools on nose wheel
	26FX/95612	D.218657	Adapter, towing arm	1	
	4GB/4174	—	Towing arm long Mk.2	1	Used with D.218657
	4GB/4138	—	Bridle, towing	1	Backward towing from main undercarriage
JACKING	4Q/2617	—	Jack, lifting, 5-ton	3	
EQUIPMENT	4Q/2620	—	Trestle Mk.3	2	Main jacking under wing, used with 4Q/2617
	4Q/2618	—	Trestle Mk.1	1	Main jacking under nose, used with 4Q/2617
	4Q/2655	—	Jack adapter head, Mk.102	3	For use with 4Q/2617
	4Q/2604	—	Jack, pillar, hydraulic 4-ton	1	Wheel changing, nose and main
	4Q/3071	—	Jack adapter head, Mk.115	1	For use with 4Q/2604
	26FX/95606	B.205909	Pads, jacking, wing	2	
	26FX/95607	B.208925	Pads, jacking nose	1	
	26FX/95608	A.205912	Bracket jacking nose undercarriage	1	Nose wheel changing
	26FX/95609	B.205914	Bracket jacking main undercarriage	1	Main wheel changing
	—	—	U.J. Trestle No.1	2	Component trestling
TRESTLING	—	—	U.J. Trestle No.6	4	Component trestling, wing
EQUIPMENT	26FX/95041	C.190878	Cradle, trestle, forward rear fuselage	1	
	26FX/95042	C.190877	Cradle, trestle, aft rear fuselage	1	

TABLE 1 - continued

Subject	Ref.No.	Part No.	Description	No.off	Application
TRESTLING EQUIPMENT (continued)	26FX/95613	C.220364	Cradle, trestle, forward front fuselage	1	For use with U.J. Trestle No.1
	26FX/95614	C.220363	Beam, trestle, rear front fuselage	1	For use with U.J. Trestle No.1
	26FX/95020	C.190377	Crutch, trestle, centre fuselage	2	For use with U.J. Trestle No.1
	26FX/95615	B.220361	Strut, bracing, front fuselage cradle	2	
	26FX/95368	B.206954	Strut, bracing, rear fuselage cradle	2	
	26FX/95052	A.189921	Clip, anchorage, nose wheel leg	1	
	26FX/	A.230750	Link, nose wheel anchorage clip	1	
	26FX/95234	B.199253	Strut, bracing, rear fuselage	1	For use when removing gun installation
	26FX/95022	D.194044	Cradle, trestling, wing inboard	2	
	26FX/95023	D.194045	Cradle, trestling, wing outboard	2	
SLINGING EQUIPMENT	26FX/95011	D.188575	Sling, complete aircraft	1	
	26FX/95877	E.248990	Sling, aircraft salvaging, fuselage	1	Without engine
	26FX/95370	D.206952	Sling, aircraft salvaging, fuselage	1	With engine
	26FX/95049	C.190378	Sling, centre fuselage	1	
	26FX/95611	C.220365	Sling, front fuselage (without gun and ammunition)	1	For use with C.220363-4
	26FX/95367	B.207188	Sling, rear fuselage with tail unit	1	
	26FX/95366	C.206953	Sling, rear fuselage less tail unit	1	
	26FX/95014	C.188900	Sling, outer wing	1	
	26FX/95222	C.199388	Sling, outer wing, vertical position	1	
	26FX/95016	B.190526	Sling, tailplane, fin and rudder	1	
ENGINE REMOVAL AND REPLACEMENT	26FX/95610	D.222260	Sling, windscreen	1	
	26FX/95720	B.229927	Sling, cockpit canopy	1	
	4GC/5377	GM.9161	Sling, engine change unit	1	Avon F.C.U. and stand
	4GC/5348	J.53558	Sling engine	1	Avon engine
	26FX/95216	C.200213	Trolley, engine	1	
RIGGING EQUIPMENT	26FX/95046	B.191737	Rail, engine, detachable	1	
	26FX/95736	D.231154	Base clinometer at tailplane	1	
	26FX/95644	C.224263	Gauge, incidence, mainplane	1	
	26FX/95006	A.192534	Gauge dihedral, mainplane and tailplane	1	
	26FX/95007	B.201624	Gauge, incidence, tailplane	1	
	26FX/95792	D.232208	Rigging fixture	1	For retaining control surfaces in neutral position

TABLE 1 - continued

Subject	Ref.No.	Part No.	Description	No.off	Application
RIGGING	26FX/95220	A.201222	Bar, levelling	1	
EQUIPMENT	26FX/95143	F.198704	Spigot, levelling	2	
(continued)	26FX/95633	D.228419	Board, elevator movement checking	1	
MISCELLANEOUS	26FX/95617	A.218961	Guard, safety, air-intake, port	1	
SPECIAL	26FX/95618	A.218962	Guard, safety, air-intake, starboard	1	
EQUIPMENT	26FX/95604	C.213633	Blanking cover assy, air-intake, port and starboard	1	
	26FX/95552	C.218417	Cover, jet pipe	1	
	26FX/95029	C.191636	Lock, safety, main undercarriage	2	
	26FX/95616	B.214206	Lock, safety, nose undercarriage	1	
	26FX/95303	Dunlop A.10054	Extractor, main wheel	1	
	26FX/95032	Dunlop A.5826	Extractor, nose wheel	1	
	27G/5062	Dunlop A.10039	Brake alignment fixture	1	
	26FX/95728	D.227026	Nose wheel UP microswitch setting jig	1	
	26FX/95513	B.214835	Nose wheel UP microswitch setting gauge	1	
	26FX/95508	C.210921	Nose wheel DOWN microswitch setting gauge	1	
	26FX/95733	B.227016	Nose wheel door sequence valve setting jig	1	
	26FX/-	C.235557	Hood lock jack microswitch gauge	1	
	26FX/95860	A.249091	Gauge checking main undercarriage rear lock	1	
	26FX/95861	A.249092	Gauge checking main undercarriage front lock	1	
	-	A.204974	Wheel bay, guard for spigot	2	
	26FX/95215	C.200058	Trolley, tail empennage	1	
	26FX/95603	D.213985	Pilots ladder	2	Access to cockpit
	26FX/95421	A.214536	Position indicator, aileron booster adjustment unit	1	
	26FX/95715	A.227530	Dial spanner, aileron booster adjustment unit	1	
	27D/3082	B.214119	Weather cover, cockpit	1	
	27D/3177		Weather cover, pressure head	1	
	26FX/95217	C.200177	Weather cover, centre fuselage, port	1	
	26FX/95218	C.200178	Weather cover, centre fuselage, starboard	1	
	26FX/95527	A.208035	Adapter for external air supply	1	For use with Air Trolley (Service Supply)

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TABLE 1 - continued

Subject	Ref.No.	Part No.	Description	No.off	Application
MISCELLANEOUS	26FX/95427	C.208502	Fuel system ground pressure testing	1	
SPECIAL	26FX/95725	B.230207	Strut, jury, for hood	1	To hold hood in open position.
EQUIPMENT	26FX/95727	C.230908	Cover, protection of J.B. on floor starboard	1	
(continued)	26FX/95726	C.230909	Cover, protection of J.B. on floor port	1	
	26FX/95797	C.231754	Defuelling equipment, wheels UP, assembly	1	
	26FX/20591	DGA/G/121/120	Tool, canopy release unit stop	1	
MISCELLANEOUS	4F/	—	Trolley, hydraulic servicing	1	
STANDARD	4F/1913	—	Trolley, electrical testing, Mk.4	1	
EQUIPMENT	4F/1714	—	Trolley, pressure-testing, Mk.1C	1	
	4F/1715 or 1856	—	Trolley servicing instrument Mk.1A or 1B	1	
	4G/4220	—	Trolley, oxygen charging, Mk.2	1	
	4G/	—	Trolley, radar cooling and testing	1	
	4G/4221	—	Trolley, H.P. air charging, Mk.2	1	
	4G/4342	—	Mats, main plane	2	
	4G/4857 or 4858	—	Trolley E.C.U. servicing Mk.1 or 2	1	
	105G/11	—	Adapter, for use with Type 37 rectifier	1	
	5P/2908	—	Rectifier, metal transportable, Type 37	1	
PICKETING AND CONTROL	—	D.191910	Picketing fitting, main undercarriage	2	Main picketing and rearward towing from main undercarriage (embalmed aircraft only)
LOCKING EQUIPMENT	—	A.191716	Picketing fitting, nose undercarriage	1	Main picketing at nose wheel (embalmed aircraft only)
	26FX/95203	F.159908	Picketing fitting, rear fuselage	1	
	26FX/95205	A.176437	Shackle, picketing, main undercarriage	2	
	26FX/95204	A.176434	Shackle, picketing, nose undercarriage	1	
	26FX/95605	B.219222	Flying controls locking gear	1	
	26FX/95137	C.189263	Aileron locking gear	2	
	26FX/95138	C.192836	Elevator locking gear	2	
	26FX/95139	B.189267	Rudder lock	1	
	26FX/95307	A.201031	Aileron and rudder rigging locks	2	
	26FX/95306	A.201030	Elevator rigging lock	1	

Special tools

3. The special tools provided for use when servicing this aircraft are given in table 2 below:-

TABLE 2
Special tools

Ref.No.	Part No.	Description	No.off
26FX/95058	A.191552	Extractor, main spar joint pins	1
26FX/95059	A.191655	Extractor, rear spar joint pins	1
26FX/95140	B.198963	Extractor, for front spar wing joint bush	1
26FX/95141	C.198962	Extractor, for rear spar wing joint bush	1
26FX/95080	B.191654	Tool for undercarriage UP lock	1
26FX/2726	A.195020	Adapter for connection of pressure gauge	1
26FX/95086	A.194464	Guide for fuel tank vent connector (also used as bung when pressure testing tanks)	2
26FX/95390	A.212332	Key for hydraulic reservoir	1
26FX/95223	B.200521	Tool for assembly of rear transport joint spigot	1
26FX/95228	Z.4948	Spanner for rear transport joint nuts	1
26FX/95308	B.204866	Spanner for front fuselage attachment nuts	1
26FX/95309	A.204865	Distance piece, special, for use at front fuselage attachment nuts	1
26FX/95087	A.194634	Spanner for Dunlop brake adjustment	1
26FX/95085	A.194578	Spanner for inverted-flight valve connection	1
26FX/95081	B.194717	Spanner for refuelling valve in forward tanks	1
26FX/95425	A.190295	Spanner for fuel system	1
26FX/95503	B.209815	Spanner for fuel system in wings	1
26FX/95504	B.209816	Spanner for fuel system in wings	1
26FX/95226	A.201955	Spanner for main fuel delivery joint	1
26FX/95163	A.197766	Spanner for hydraulics in centre fuselage	1
26FX/95165	A.197767	Spanner for hydraulics in centre fuselage	1
26FX/95166	A.197768	Spanner for hydraulics in centre fuselage	1
26FX/95164	F.199124	Spanner for hydraulics in centre fuselage	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/95311	A.209612	Spanner for flap hinge bolts	1
26FX/95645	B.224080	Spanner crutching for pylons	1
26FX/	F.261597	Stud for Pt.No.F.261598	} Identical to items authorized by STI/Hunter/263
26FX/	F.261598	Block for adjustment of undercarriage door spigot	

Note . . .

Special tools for gun servicing are listed in Sect.7, Chap.3.

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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.	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 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 procedure given in para.4.

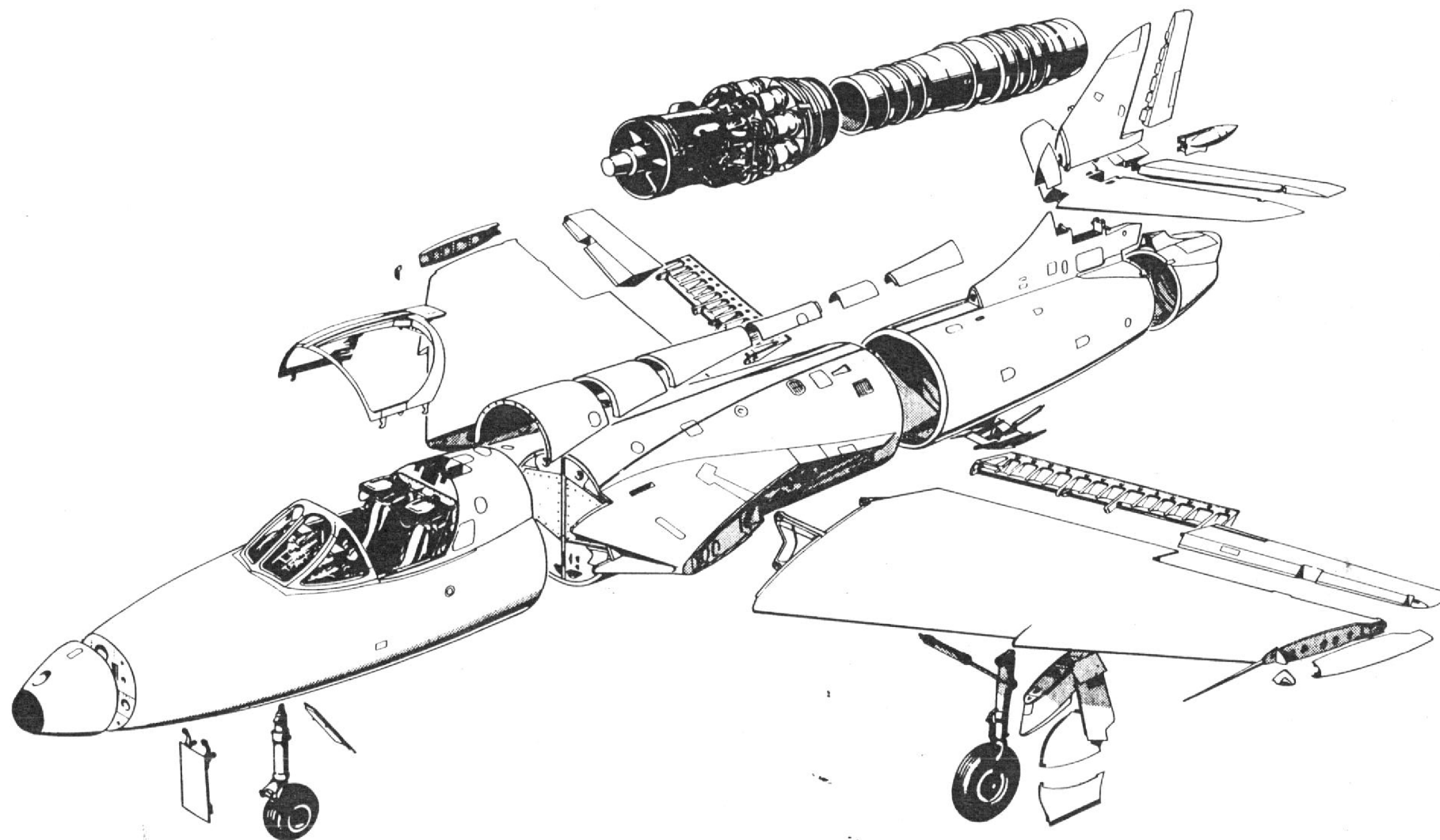


Fig.1. Major components

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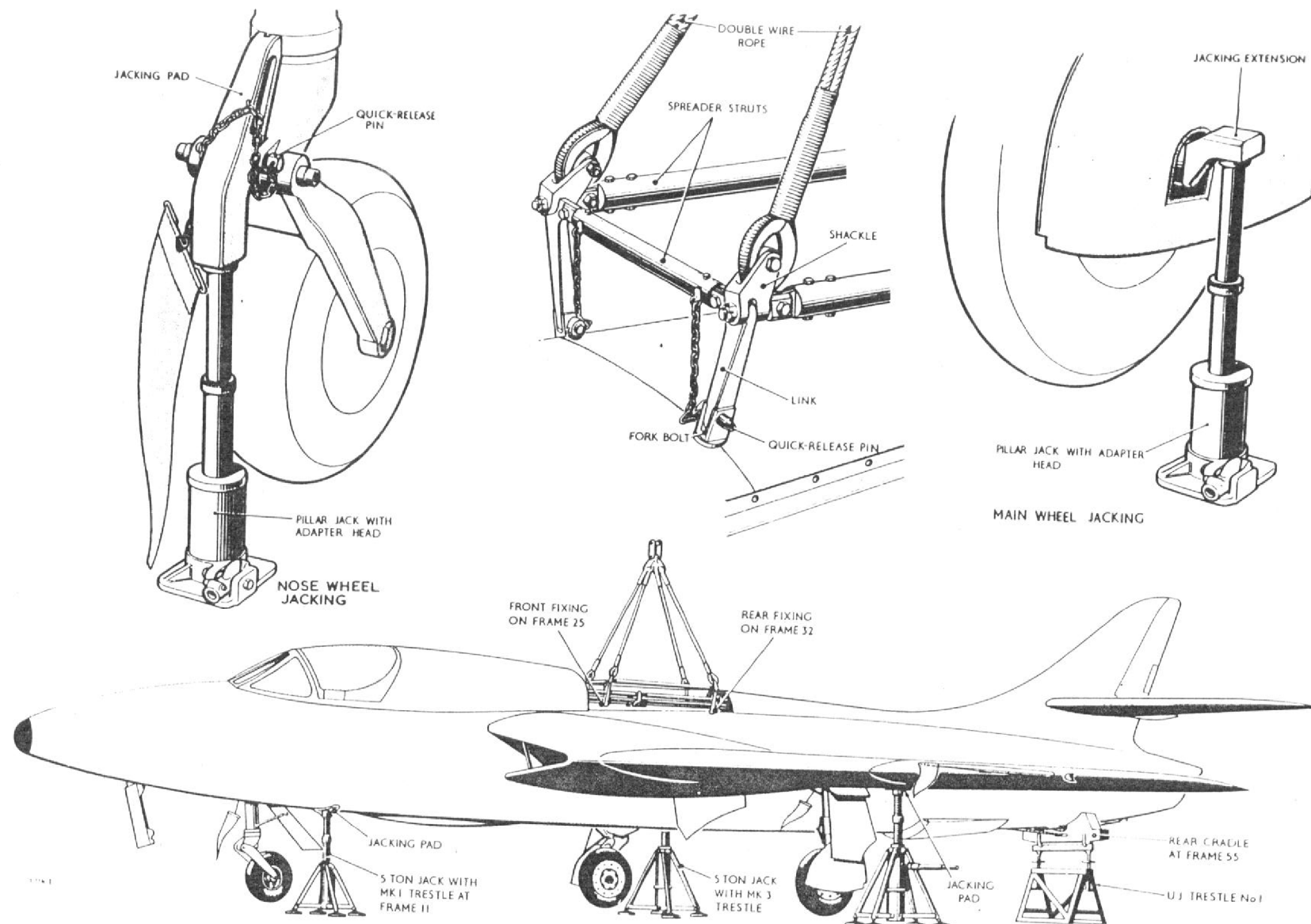


FIG. 2 Jacking, trestling and slinging
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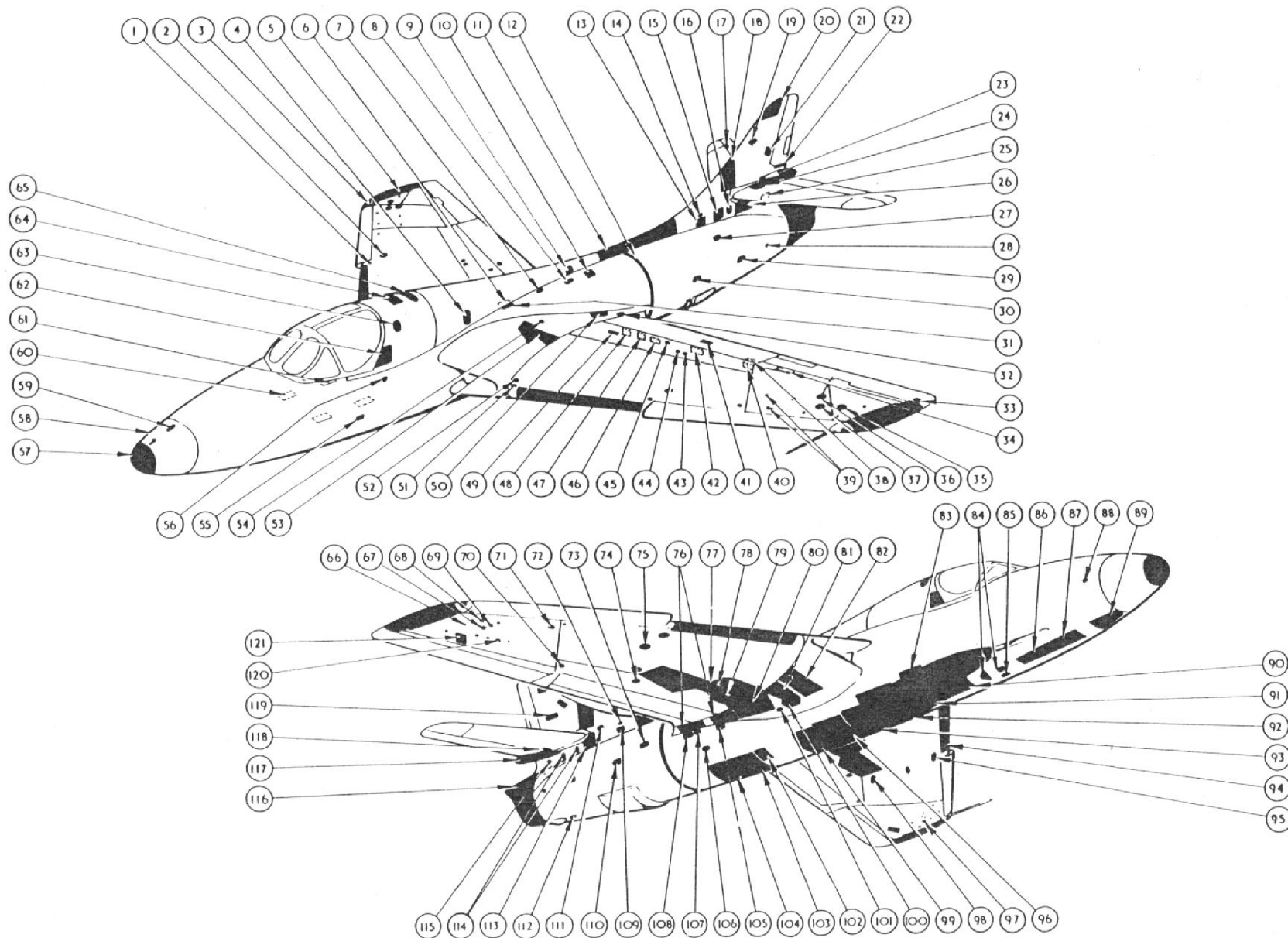


Fig.3 Access panels

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KEY TO FIG.3 (ACCESS PANELS)

- | | | |
|---|---|--|
| 1 PYLON CRUTCHING | 41 FLAP JACK | 81 REFUELLING PRESSURE RELIEF VALVE |
| 2 GENERAL ACCESS | 42 AILERON CONTROLS | 82 ARMAMENT SAFETY PLUG |
| 3 NAVIGATION LIGHT | 43 FLAP JACK ANCHORAGE | 83 ARMAMENT DETACHABLE DOOR |
| 4 TANK SWITCH | 44 FLAP JACK GREASER | 84 FLYING CONTROLS |
| 5 DETACHABLE WING TIP | 45 FLAP JACK SYNCHRONIZING | 85 NOSE WHEEL JACK |
| 6 FUEL VENT CONNECTION | 46 FLAP JACK | 86 NOSE UNDERCARRIAGE REAR DOOR |
| 7 TANK RELIEF VALVE | 47 REFUELLING PRESSURE RELIEF VALVE | 87 NOSE UNDERCARRIAGE FRONT DOOR |
| 8 DUCT TO ENGINE BLEED VALVE | 48 DRUM SWITCH FLAP CONTROL | 88 CABIN ATMOSPHERE CONTROL |
| 9 DE-FUELLING PRESSURE CONNECTION | 49 UNDERCARRIAGE JACK ATTACHMENT BOLT | 89 GENERAL ACCESS |
| 10 AIR CONDITIONING | 50 WING PIN JOINT | 90 OXYGEN CHARGING |
| 11 DETACHABLE FAIRING | 51 WING PIN JOINT | 91 RADIO AND ELECTRICAL |
| 12 TRANSPORT JOINT BUTT STRAP | 52 SLINGING SOCKET | 92 GROUND SUPPLY ELECTRICAL SOCKET |
| 13 FLYING CONTROLS | 53 MAINSPAR PIN JOINT | 93 FUEL PUMP |
| 14 FLYING CONTROLS PIVOT BOLT | 54 MANUAL UNDERCARRIAGE CATCH RELEASE | 94 DETACHABLE WING NOSING |
| 15 CHARGING VALVE AND PRESSURE GAUGE | 55 PILOTS FOOTSTEP | 95 GENERAL ACCESS |
| 16 TAILPLANE ACTUATOR | 56 EXTERNAL EMERGENCY HOOD RELEASE | 96 FUEL SYSTEM |
| 17 ELEVATOR OUTER HINGE | 57 RADAR SCANNER | 97 FUEL AND AIR CONNECTIONS |
| 18 FLYING CONTROLS | 58 DETACHABLE NOSE | 98 GENERAL ACCESS |
| 19 RUDDER CONTROLS | 59 CAMERA SERVICING | 99 ENGINE STARTER |
| 20 DETACHABLE TIP | 60 CONTROL COLUMN MECHANISM - CABIN FLOOR | 100 MAIN SPAR JOINT |
| 21 RUDDER CONTROLS | 61 FLYING CONTROLS - CABIN FLOOR | 101 GENERAL ACCESS |
| 22 FIN DETACHABLE PORTION | 62 HOOD LOCKING AND JETTISON GEAR | 102 HYDRAULIC FILTER |
| 23 TAILPLANE AND ELEVATOR HINGES | 63 HYDRAULIC EQUIPMENT | 103 GEARBOX TURRET FILLING |
| 24 TAILPLANE HINGES | 64 GENERAL ACCESS | 104 ENGINE FILLING |
| 25 FLYING TAIL SWITCH | 65 FLYING CONTROLS | 105 GEARBOX SHAFT COUPLING AND ENGINE MOUNTING |
| 26 ELEVATOR POWER CONTROLS | 66 AILERON CONTROL | 106 OIL LEVEL SIGHTING |
| 27 JET PIPE THERMO-COUPLES | 67 FUEL AND AIR CONNECTIONS | 107 HYDRAULIC FILTER |
| 28 JET PIPE REAR MOUNTING | 68 GENERAL ACCESS | 108 IGNITER PLUG |
| 29 FUEL CONNECTIONS AND JET PIPE THERMO-COUPLES | 69 PYLON CRUTCHING | 109 FLYING CONTROLS |
| 30 JET PIPE COUPLINGS | 70 AILERON CONTROLS | 110 JET PIPE COUPLINGS |
| 31 FATIGUE METER (PORT SIDE ONLY) | 71 ROCKET PROJECTILE AND FUEL PIPES | 111 ELEVATOR FUEL UNIT |
| 32 HYDRAULIC RESERVOIR FILLER | 72 FLYING CONTROLS PIVOT BOLT | 112 TELE-BRIEFING PLUG |
| 33 AILERON OUTER HINGE | 73 FUEL FILTER DE-ICING | 113 TAILPLANE ACTUATOR |
| 34 AILERON TRIM TAB ACTUATOR | 74 FLYING CONTROLS | 114 FLYING CONTROLS BOOSTER UNITS |
| 35 GENERAL ACCESS | 75 ELECTRICAL CONNECTIONS | 115 ELEVATOR LEVER |
| 36 AERIAL MOUNTING | 76 GENERAL ACCESS | 116 DETACHABLE TAIL CONE |
| 37 GENERAL ACCESS | 77 MAIN UNDERCARRIAGE FAIRING DOORS | 117 DETACHABLE BULLET FAIRING |
| 38 ELECTRICAL CONNECTIONS | 78 BRAKE BLEEDER SCREW | 118 ELEVATOR INNER HINGE |
| 39 ROCKET PROJECTILE MOUNTINGS | 79 UNDERCARRIAGE JACKING POINT | 119 RUDDER TRIM TAB ACTUATOR |
| 40 AILERON CONTROLS | 80 MAIN UNDERCARRIAGE FAIRING DOOR | 120 ROCKET PROJECTILE ELECTRICS |
| | | 121 AILERON BOOSTER UNIT |

Jacking, trestling and slinging

6. The methods to be employed and the jacks, trestles, etc., to be used when jacking, slinging and trestling 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.

Note . . .

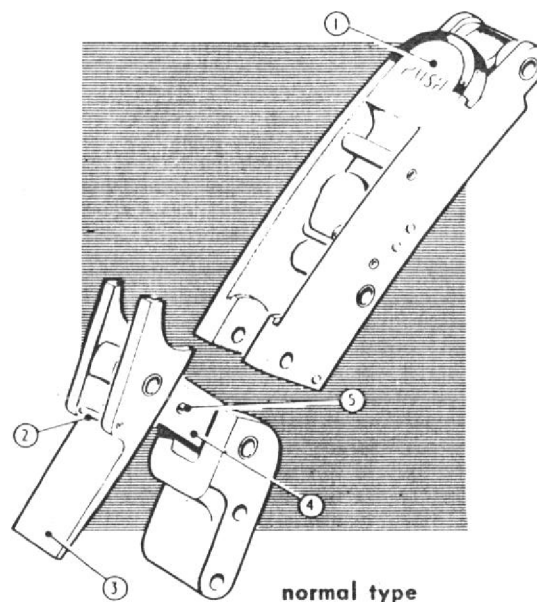
It is advisable to check the charging of the main undercarriage legs before lowering the aircraft off the trestles (A.P.1803E, Vol.1, Sect.2).

Access doors and panels

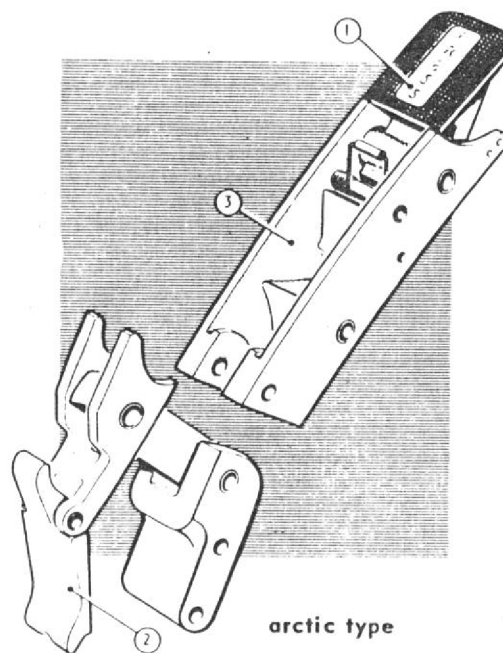
7. The positions of the access doors and removable panels are shown in fig.3, the components to which they give access being given in the key. When handling the doors and panels, care should be taken to ensure that they are not damaged or distorted in any way. When re-fitting them, ensure that they fit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

Note . . .

The screws and bolts required for the attachment of the dorsal fin panels are detailed in fig.6.



normal type



arctic type

Fig.4 Toggle Fasteners

Toggle fasteners

8. 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 fore-finger (*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.

9. Certain access doors in the under-surface of the fuselage 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. and the total adjustment available is 0.5 in. When adjustment is satisfactory, lock with a split pin.

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 flying position, with the equipment shown in 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 a straight edge and spirit level placed across the fuselage side members against the windscreen arch.
- (3) Place a levelling spigot (*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 rear fuselage after the aircraft has been levelled longitudinally.

- (4) Check the incidence and dihedral of the wings, using the gauges quoted in Table 1.
- (5) Check the incidence and dihedral of the tail plane, using the gauges quoted in Table 1.
- (6) When checking the variable incidence of the tailplane use a clinometer with the clinometer base Pt.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 points 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 (*Sect.2, Chap.2*). Moisture drain traps are also provided in the pitot installation (*Sect.5, Chap.2*).

Cleaning cabin 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, Part 2, Sect.5, Chap.5, for detailed instructions on the care of transparent plastic panels.

Cleaning cabin

13. When wiping over those portions of the 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.

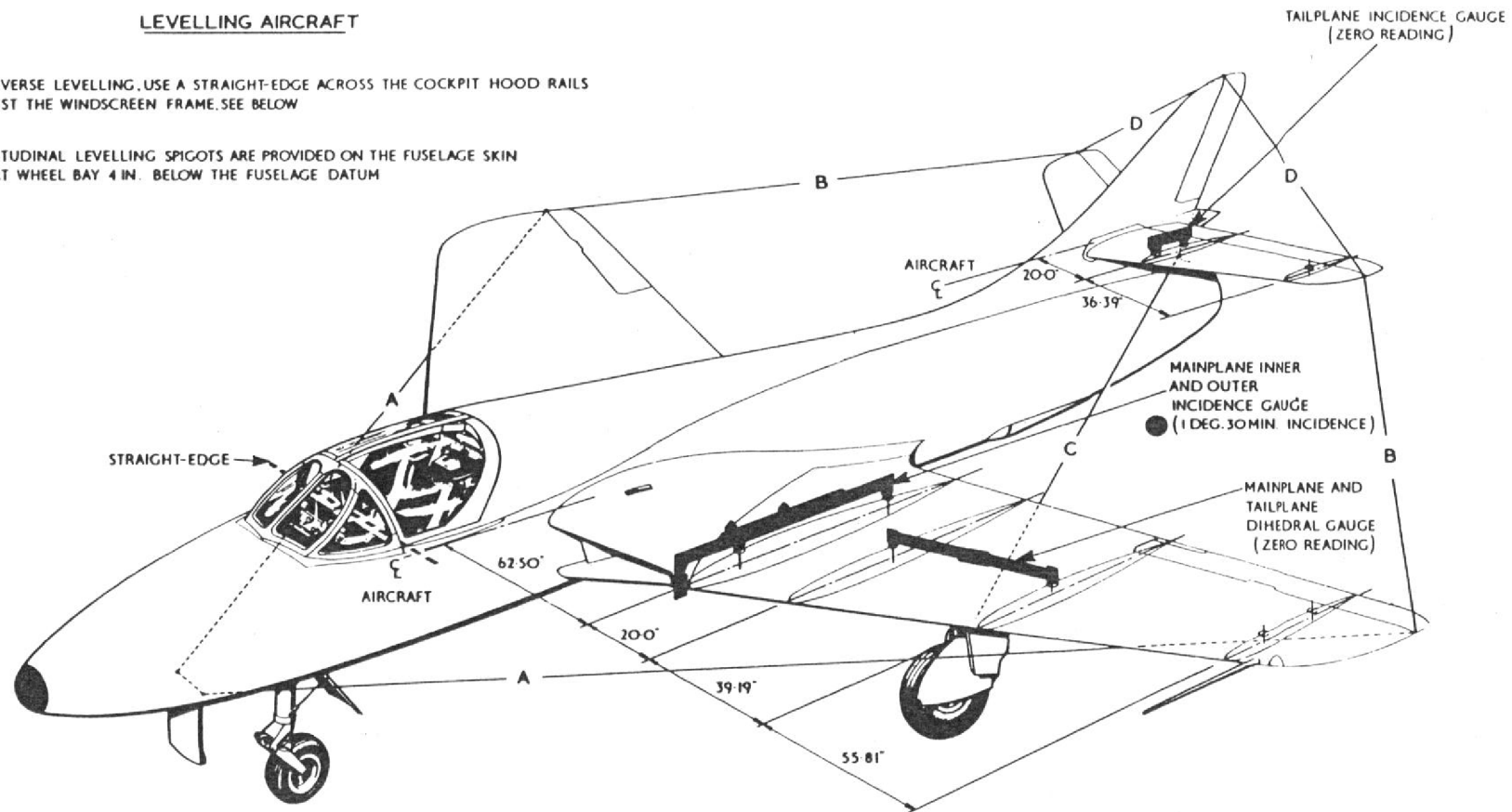
Pipe lines

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 re-assembling 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 the 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.

LEVELLING AIRCRAFT

FOR TRANSVERSE LEVELLING, USE A STRAIGHT-EDGE ACROSS THE COCKPIT HOOD RAILS AND AGAINST THE WINDSCREEN FRAME. SEE BELOW

FOR LONGITUDINAL LEVELLING SPIGOTS ARE PROVIDED ON THE FUSELAGE SKIN IN THE PORT WHEEL BAY 4 IN. 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.

Fig. 5. Rigging diagram

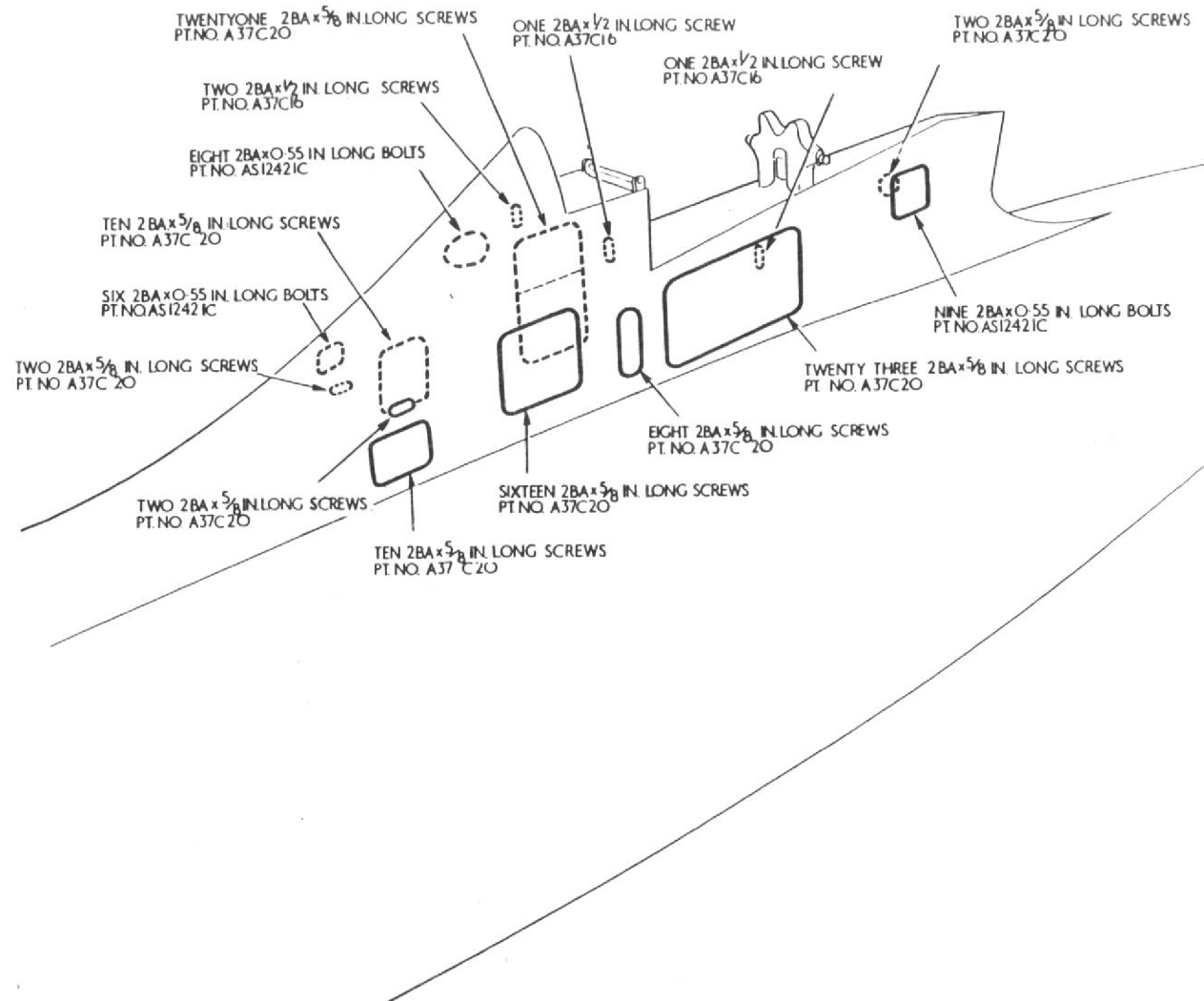


Fig.6 Dorsal fin access panels attachment fixings

RESTRICTED

◀ 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. ▶

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