

## 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 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.

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### 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/3070	—	Arm forward steering	1	Steering from spools on nose wheel
	4GB/5612		Adjustable fork unit Mk.3	2	
	4GB/4175	—	Towing arm short Mk.1	1	
	4GB/4138	—	Bridle, towing	1	Backward towing from main undercarriage
JACKING EQUIPMENT	4Q/2617	—	Jack, lifting, 5-ton	3	
	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/2667	—	Jack, pillar, hydraulic 8-ton	1	Wheel changing, nose and main
	4Q/2807	—	Jack adapter head, Mk.113	1	For use with 4Q/2667
	26FX/95606	B.205909	Pads, jacking, wing	2	
	26FX/95854	B.205907	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
TRESTLING EQUIPMENT	—	—	U.J. Trestle No.1	2	Component trestling
	—	—	U.J. Trestle No.6	4	Component trestling, wing
	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
<b>TRESTLING</b>	26FX/95018	C.189916	Cradle, trestle, forward front fuselage	1	Pre-mod. 818 and 647
<b>EQUIPMENT</b>	26FX/95019	C.189917	Beam, trestle, centre fuselage	1	For use with U.J. Trestle No.1
<b>(continued)</b>	26FX/95020	C.190377	Cradle, trestle, centre fuselage	2	For use with U.J. Trestle No.1
	26FX/95050	B.189929	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/95053	A.189922	Link, nose wheel anchorage clip	1	
	26FX/95234	B.199253	Strut, bracing, rear fuselage	1	For use when removing gun installation
	26FX/	C.233561	Cradle, trestle, forward front fuselage	1	Post Mod. 818 and 647
	26FX/95022	D.194044	Cradle, trestling, wing inboard	2	
	26FX/95023	D.194045	Cradle, trestling, wing outboard	2	
<b>SLINGING</b>	26FX/95011	D.188575	Sling, complete aircraft	1	
<b>EQUIPMENT</b>	26FX/95369	D.206951	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/95015	C.189918	Sling, front fuselage	1	
	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	
<b>ENGINE</b>	4GC/5377	GM.9161	Sling, engine change unit	1	Avon E.C.U. and stand
<b>REMOVAL AND</b>	4GC/5348	J.53558	Sling engine	1	Avon engine
<b>REPLACEMENT</b>	26FX/95216	C.200213	Trolley, engine	1	
	26FX/95423	B.202832	Rail, engine, detachable	1	
	26FX/95424	D.203762	Cradle adapter engine trolley	1	
<b>RIGGING</b>	26FX/95736	D.231154	Base clinometer at tailplane	1	
<b>EQUIPMENT</b>	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/95144	D.199059	Rigging fixture	1	For retaining control surfaces in neutral position

TABLE 1 - continued

Subject	Ref.No.	Part No.	Description	No. off	Application
<b>RIGGING</b>	26FX/95307	A.201031	Aileron and rudder rigging locks	2	
<b>EQUIPMENT</b>	26FX/95142	B.199011	Bar levelling	1	
<b>(continued)</b>	26FX/95220	A.201222	Bar levelling	1	
	26FX/95633	D.228419	Board, elevator movement checking	1	
	26FX/95306	A.201030	Elevator rigging lock	1	
	26FX/95143	F.198704	Spigot, levelling	2	
<b>MISCELLANEOUS</b>	26FX/95413	D.211231	Guard, safety, air-intake, port	1	
<b>SPECIAL</b>	26FX/95414	D.211232	Guard, safety, air-intake, starboard	1	
<b>EQUIPMENT</b>	26FX/95428	B.214194	Blanking cover assy, air-intake, port and stbd.	1	
	26FX/95422	C.209810	Cover, jet pipe	1	
	26FX/95029	C.191636	Lock, safety, main undercarriage	2	
	26FX/95030	B.188480	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/95798	E.234625	Nosepiece stand	1	
	26FX/95505	D.210928	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/95506	D.210929	Nose wheel door sequence valve setting jig	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/95770	E.229359	Trolley, drop tank	1	
	26FX/95215	C.200058	Trolley, tail empennage	1	
	26FX/95136	D.202713	Pilots ladder	1	Access to cockpit
	26FX/95421	A.214536	Position indicator, aileron booster	1	
	26FX/95715	A.227530	Dial spanner, aileron booster	1	
	27D/3022	B.214258	Weather cover, cockpit	1	
	27D/3177		Weather cover, pressure head	1	
	27D/3130	B.227411	Weather cover, centre fuselage	1	
	27D/2917	B.194026	Weather cover gun package	1	
	26FX/95527	A.208035	Adapter for external air supply	1	For use with Air Trolley
	26FX/95427	C.208502	Fuel system ground pressure testing	1	
	26FX/95839	C.207507	Defuelling equipment, wheels up	1	

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TABLE 1 - continued

Subject	Ref.No.	Part No.	Description	No.off	Application
<b>MISCELLANEOUS STANDARD EQUIPMENT</b>	4F/	—	Trolley, hydraulic servicing	1	
	4F/1913	—	Trolley, electrical testing, Mk.4	1	
	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	
<b>PICKETING AND CONTROL LOCKING EQUIPMENT</b>	—	B.191910	Picketing fitting, main undercarriage	2	Main picketing and rearward towing from main undercarriage (embalmed aircraft only)
	—	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/95135	B.188483	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	

**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/95083	A.195014	Alignment jig for gate valve	1
26FX/	F.261598	Block, undercarriage door spigot adjustment *	2
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	2
26FX/95390	A.212332	Key for hydraulic reservoir	1
26FX/95510	A.215979	Key for I.P.N. tank filler cap	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	1
26FX/95084	A.194729	Spanner for fuel system extension	1
26FX/95087	A.194634	Spanner for Dunlop brake adjustment	1
26FX/95085	A.194578	Spanner for inverted-flight valve connection	1
26FX/95502	B.212978	Spanner for recuperator connection	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 outboard pylons	1
	D.L.617-41B or 113B	Toci crutching for inboard pylons	1
26FX/95509	A.213921	Tool cocking for hood rear latch	1
26FX/	A.236181	Tool manual release for hood lock control rod	1
26FX/	F.261597	Studs securing Pt.No.F.261598 *	8

\* identical to parts authorized by S.T.I./Hunter/263

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

TABLE 3  
Packing Dimensions (fig.1)

Component	Height	Width	Length	Weight lb
Nose piece	2 ft. 7½ in.	2 ft. 4½ in.	2 ft. 5½ in.	15
Front fuselage	5 ft. 6¾ in.	4 ft. 8½ in.	12 ft. 7 in.	480
Centre fuselage	5 ft. 0 in.	10 ft. 0 in.	16 ft. 0 in.	1425
Rear fuselage	6 ft. 9½ in.	4 ft. 2½ in.	15 ft. 0 in.	560
Tail cone	3 ft. 6½ in.	3 ft. 2 in.	4 ft. 1 in.	74
Wing	2 ft. 1 in.	11 ft. 4 in.	19 ft. 8 in.	972
Rudder	5 ft. 2 in.	8 in.	2 ft. 0 in.	35
Fin	6 ft. 0 in.	7½ in.	4 ft. 10 in.	60
Tailplane	6½ in.	7 ft. 11 in.	11 ft. 10 in.	206
Elevator	9 in.	1 ft. 11 in.	7 ft. 8 in.	67½
Aileron	5 in.	2 ft. 7 in.	8 ft. 8 in.	75
Flap	5 in.	2 ft. 7 in.	7 ft. 6 in.	70
Wing tip	7 in.	11 in.	5 ft. 2¼ in.	6
Hood	1 ft. 10 in.	2 ft. 4 in.	4 ft. 1½ in.	75
Gun package	3 ft. 6 in.	3 ft. 9 in.	3 ft. 10 in.	315
Bullet fairing	10½ in.	9 in.	3 ft. 5½ in.	5
Link containers	1 ft. 0 in.	1 ft. 2¾ in.	6 ft. 1 in.	10

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.

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#### 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.

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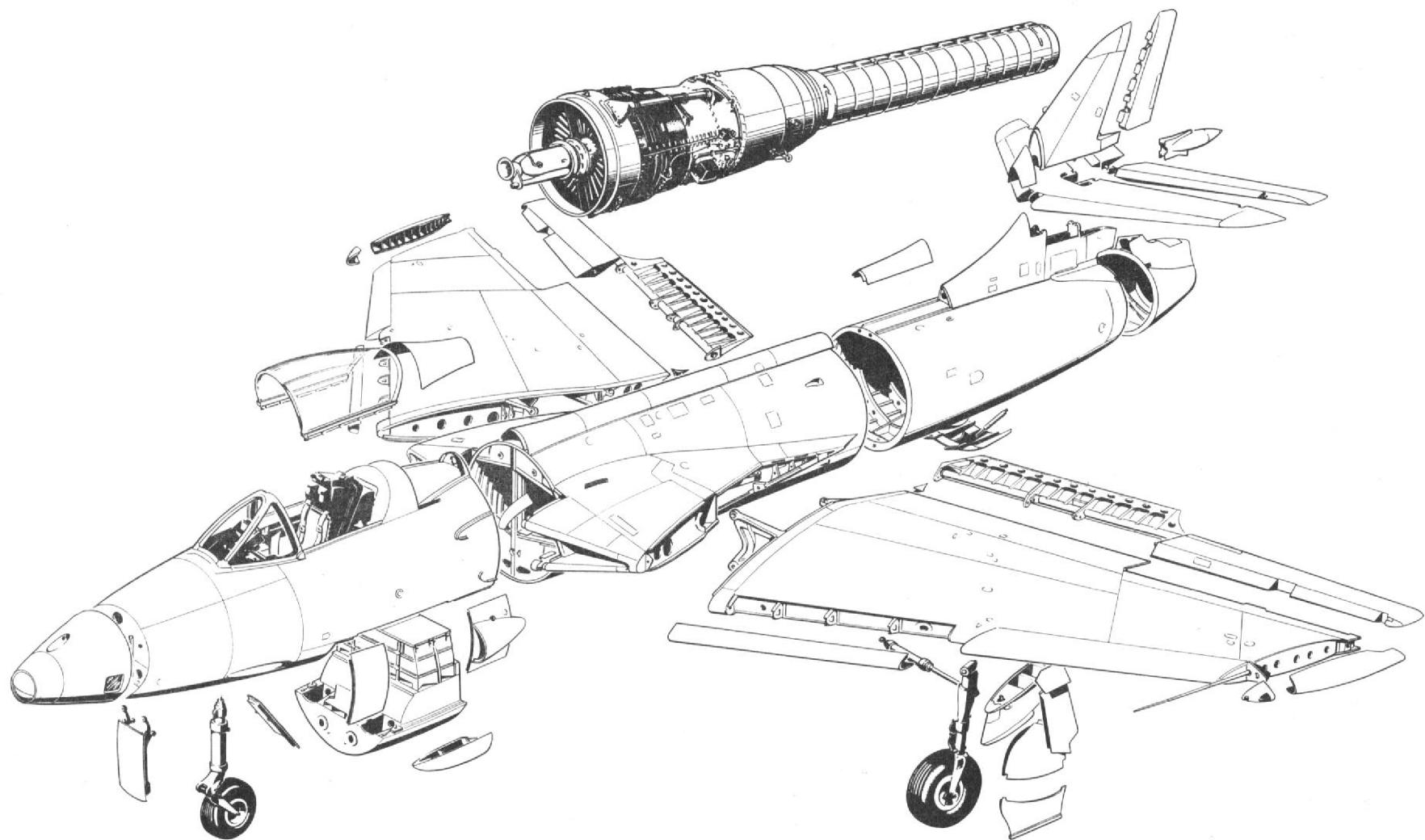


Fig. 1 Major components

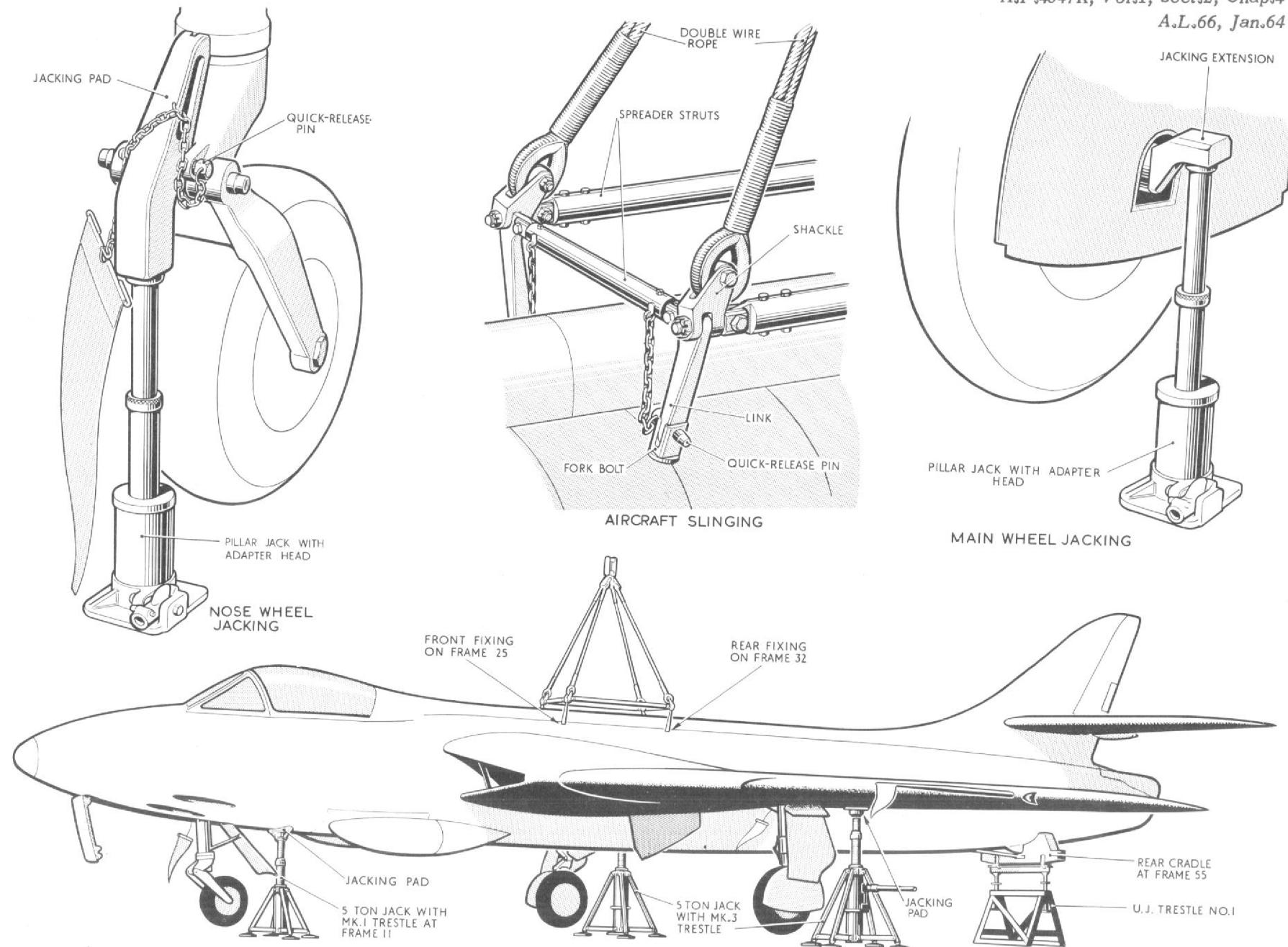
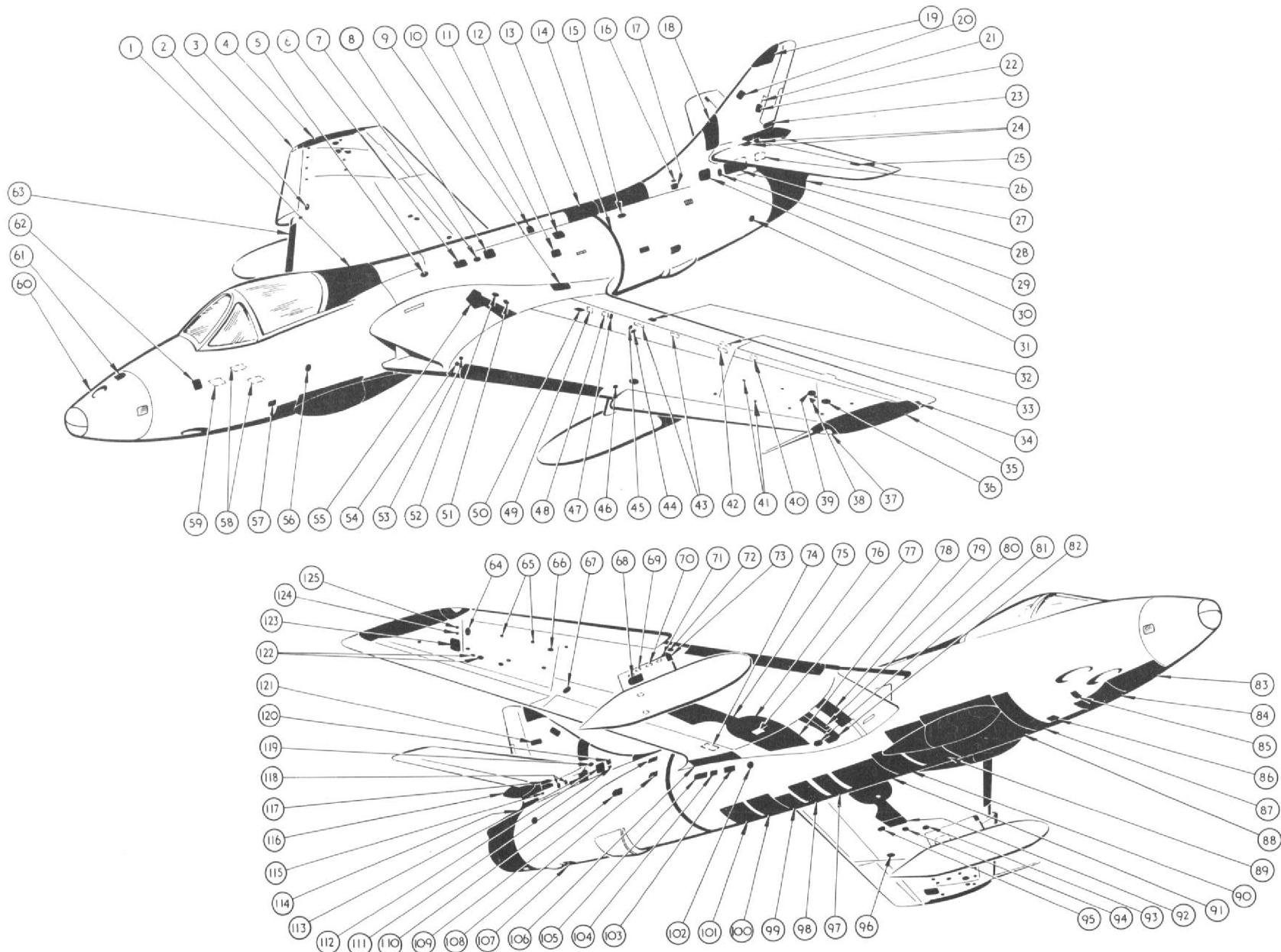


Fig.2. Jacking, trestling and slinging

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**Fig.3 Access Panels**

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## KEY TO FIG. 3 (ACCESS PANELS)

1 DETACHABLE HOOD FAIRING TO FLYING CONTROLS	43 AILERON CONTROLS	85 NOSE UNDERCARRIAGE LEG PIVOT PIN
2 GENERAL ACCESS	44 FLAP JACK ANCHORAGE	86 NOSE UNDERCARRIAGE JACK
3 STARBOARD NAVIGATION LIGHT	45 FLAP JACK GREASER	87 GUN INSTALLATION
4 DETACHABLE WING TIP	46 PYLON CRUTCHING	88 GUN PACK
5 TANK SWITCH	47 FLAP SYNCHRONISING JACK BLEEDING	89 RADIO AND ELECTRICAL
6 FUEL VENT CONNECTION	48 AILERON CONTROLS	90 FUEL PUMP
7 STARTER EQUIPMENT	49 DRUM SWITCH. FLAP CONTROL. PORT	91 FUEL SYSTEM
8 COLD AIR UNIT	50 UNDERCARRIAGE JACK ATTACHMENT BOLT	92 MAIN UNDERCARRIAGE LEG AND FLAP
9 REAR SPAR PIN JOINT AND FLYING CONTROLS	51 MANUAL UNDERCARRIAGE CATCH RELEASE	93 GENERAL ACCESS
10 DEFUELLING PRESSURE CONNECTION	52 FUEL CONNECTION	94 GENERAL ACCESS
11 FRONT ENGINE MOUNTING	53 SLINGING SOCKET	95 ELECTRICS
12 AIR SUPPLY	54 WING PIN JOINT	96 AILERON CONTROLS
13 FLYING CONTROLS	55 MAIN SPAR PIN JOINT	97 ENGINE STARTER
14 TRANSPORT JOINT BUTT STRAP	56 EXTERNAL EMERGENCY HOOD RELEASE. PORT	98 GEARBOX
15 FUEL LEVEL SWITCH	57 PILOT'S FOOTSTEP. PORT	99 GEARBOX FILLER
16 FLYING CONTROLS PIVOT BOLT	58 FLYING CONTROLS. CABIN FLOOR	100 GEARBOX TURRET
17 FLYING CONTROLS LEVER. PORT	59 CONTROL COLUMN MECHANISM. CABIN FLOOR	101 ENGINE
18 FLYING CONTROLS	60 DETACHABLE NOSE PIECE	102 FUEL FILLER, STARBOARD
19 DETACHABLE TIP	61 CAMERA SERVICING	103 R.P.M. ADJUSTMENT AND FUEL PUMP GOVERNER BLEED. STARBOARD
20 RUDDER CONTROLS	62 GENERAL ACCESS	104 OIL LEVEL SIGHTING. STARBOARD
21 RUDDER TRIM TAB ACTUATOR	63 DETACHABLE WING NOSING	105 IGNITER PLUG
22 RUDDER CONTROLS. PORT	64 GENERAL ACCESS	106 GENERAL ACCESS
23 FIN DETACHABLE PORTION	65 ROCKET PROJECTILE MOUNTINGS	107 TELEBRIEFING PLUG
24 TAILPLANE HINGE	66 ROCKET PROJECTILE AND FUEL PIPES	108 EXPLOSION SUPPRESSION
25 ELEVATOR OUTER HINGE	67 AILERON CONTROLS	109 ELECTRICAL CONNECTIONS
26 FLYING TAIL SWITCH LINKAGE	68 GENERAL ACCESS OUTBOARD SIDE OF PYLON	110 TANK SWITCH
27 DETACHABLE TAIL CONE	69 ELECTRICAL	111 FLYING CONTROLS PIVOT BOLT
28 ELEVATOR POWER CONTROLS	70 FUEL AND AIR PIPES	112 FLYING CONTROLS
29 TAILPLANE ACTUATOR	71 GENERAL ACCESS	113 TAILPLANE ACTUATOR
30 CHARGING VALVE AND PRESSURE GAUGE	72 GENERAL ACCESS	114 TAIL PARACHUTE
31 JET PIPE REAR MOUNTING	73 GENERAL ACCESS	115 ELEVATOR CONTROL LEVER
32 FLAP JACK	74 HYDRAULIC RESERVOIR. TOP SKIN WING FILLER. STARBOARD	116 DETACHABLE BULLET FAIRING
33 AILERON CONTROLS	75 MAIN UNDERCARRIAGE LEG FAIRING	117 TAILPLANE HINGE
34 AILERON OUTER HINGE	76 MAIN UNDERCARRIAGE WHEEL FAIRING	118 FLYING CONTROLS BOOSTER UNIT
35 DETACHABLE WING TIP	77 WHEEL BRAKE	119 ELEVATOR FEEL UNIT
36 GENERAL ACCESS	78 MAIN UNDERCARRIAGE DOOR	120 FLYING CONTROLS
37 PORT NAVIGATION LIGHT WINDOW	79 FUEL TANK FLOAT SWITCH	121 RUDDER TRIM TAB ACTUATOR
38 PYLON CRUTCHING FOR OUTBOARD DROP TANK	80 FUEL TRANSFER PIPE AND PRESSURE RELIEF VALVE	122 ELECTRICS
39 GENERAL ACCESS	81 FUEL AND HYDRAULIC PIPES	123 AILERON BOOSTER UNIT
40 AILERON TRIM TAB ACTUATOR. PORT	82 MAIN SPAR PIN JOINT	124 AILERON CONTROL MICRO-SWITCH
41 ROCKET PROJECTILE MOUNTING	83 NOSE UNDERCARRIAGE FRONT DOOR	125 ROCKET PROJECTILE MOUNTINGS
42 AILERON CONTROLS	84 NOSE UNDERCARRIAGE REAR DOOR	

Note . . .

Although no rocket projectiles are included in the armament of this aircraft, panels giving access to the mounting attachments do exist at 41, 65, 66 and 125.

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### 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 adviseable 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. ►*

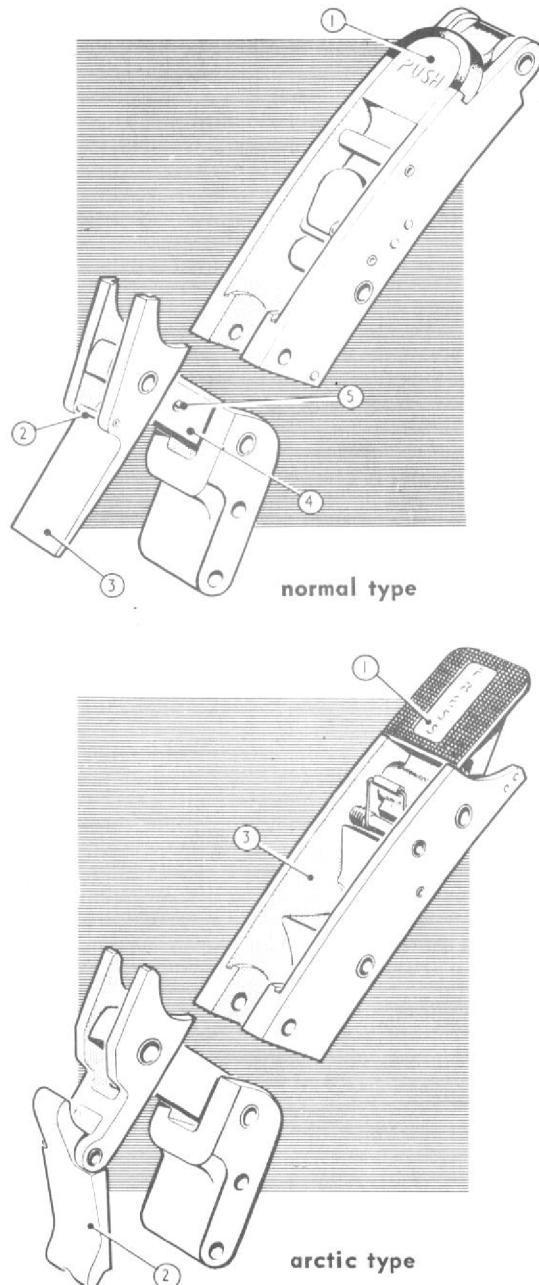


Fig.4 Toggle Fasteners

### 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 undersurface 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 the levelling bar Pt.No.B.199011 (Ref.26FX/95142) and spirit level placed across the hood rails.
- (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 drain holes, (Sect.3, Chap.1) are provided in the undersurface of the fuselage to allow any moisture and surplus fuel, which may accumulate 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. 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; for their location and method of use, reference should be made to Sect.2, Chap.2. Moisture drain traps are also provided in the pressure head installation and these are described in 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.

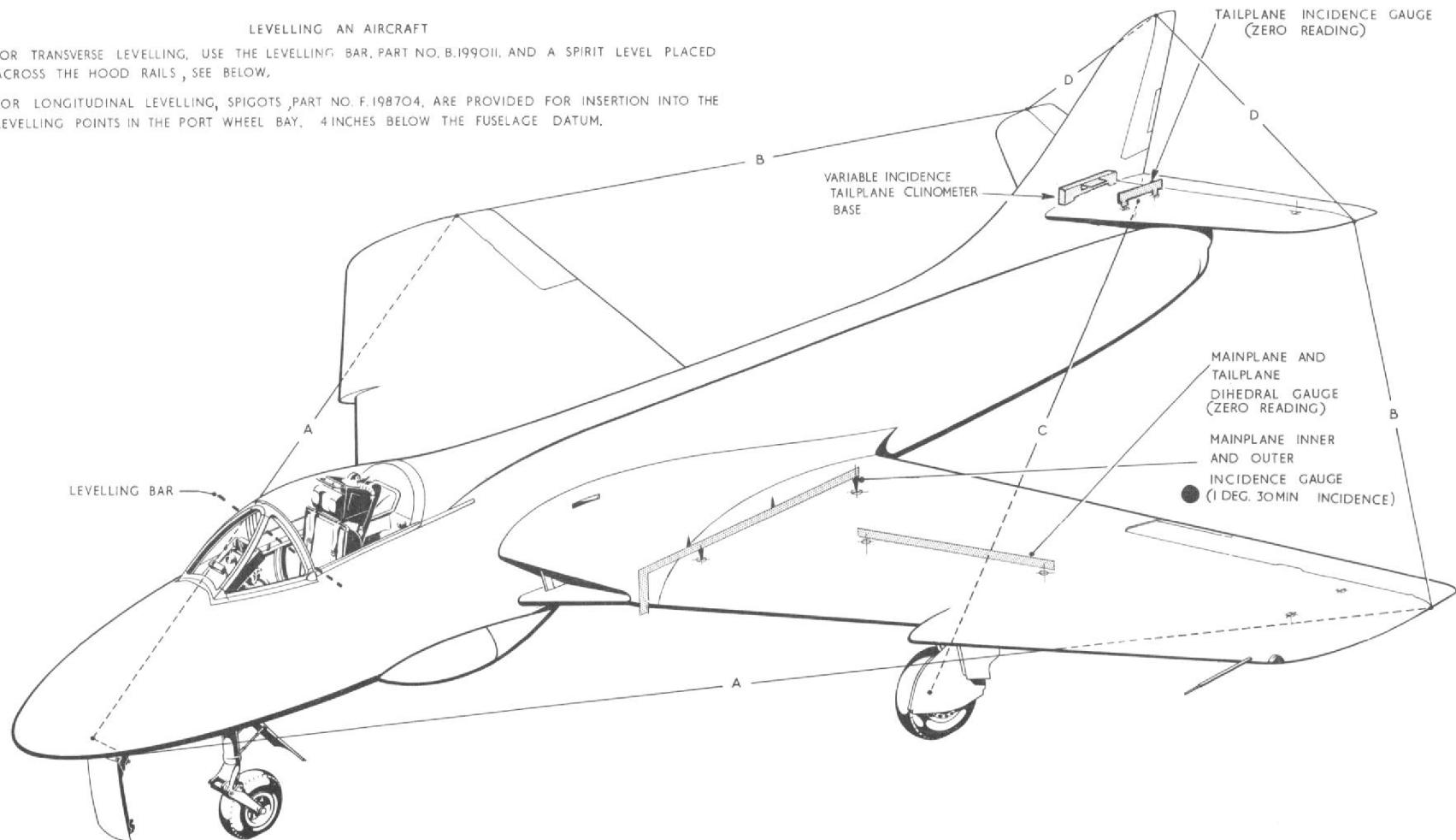
#### Pipe lines

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-28. 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 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 AN AIRCRAFT

FOR TRANSVERSE LEVELLING, USE THE LEVELLING BAR, PART NO. B.1990II, 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  $\pm$  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

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

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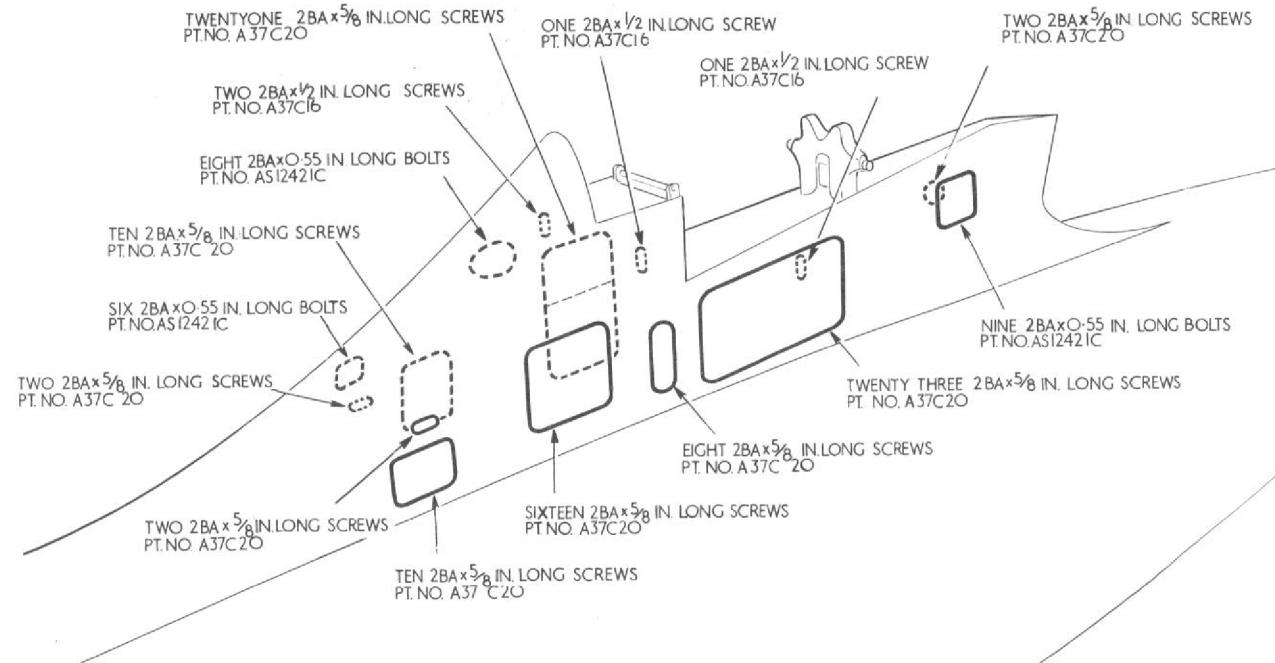


Fig.6 Dorsal fin access panels attachment fixings

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