

March, 1957

A.P.4505, Vol. 6, Part 1

CHAPTER 3

MAIN PLANES

CHAP.

3

RESTRICTED

Introduction

301. The main plane assembly consists of a centre section and two outer wings and to assist the user in locating small details, these components are in turn broken down into sub-assemblies each with its own relevant illustrations and description. Wherever possible the sequence of annotation is from front to rear. The breakdown is as follows:-

CENTRE SECTION

302. Situated between the outer wing attachment points and the No.1 tank bays to the rear transport former F.428A, the assembly consists of the nose wheel bay, No.1 and 2 tank bays, bomb bay, rear portion centre section, air intakes, air brake structures and engine bays.

No.1 and 2 tank bays

303. When repairs are embodied in the tank bays, all rivet heads on the inner face of the skins must be covered with a fabric strip 1.0 in. wide (Ref.No. 33B/759) for each single row of rivets and a 2.25 in. wide strip (Ref.No. 33B/751), where double rows of riveting occurs. Attach strips with adhesive Titanine B.2 (Ref.No. 33H/268).

Bomb bay structure

304. The bomb bay is situated between the front and rear spars, and is of arch design construction. Repairs to bomb doors, heavy and medium bomb arch extrusions are illustrated in the special repairs. Enclosing the bomb bay are power operated doors. When closed, these doors are sealed at the fore and aft positions with inflatable seals. These seals if damaged or punctured are not repairable and must be renewed. Seals running longitudinally and around the hinged access doors may be repaired as shown in illustration fig.341, using the following sequence.

- (1) Remove sufficient retaining screws to enable the damaged portion of

seal to be withdrawn from the structure and cut off. Ensure that the cut lines are made equidistant between retaining screws.

- (2) From a new section of seal same type and specification as the one existing, cut off a length to replace the damaged portion.
- (3) Cut two strips from rubber sheeting (Ref.No. 33C/624), which when assembled will extend 0.5 in. beyond the first retaining screws each side of the joint.
- (4) Position insertion, joint strips, metal retaining strip and mark off for all holes where required. Remove strips and seal insertion, press out all holes using a hand operated hollow punch.
- (5) Coat one side of the joint strips with adhesive (Ref.No. 33H/45), assemble simultaneously with the insertion and metal retaining strip. Reassemble retaining screws.

This type of repair can be used on all non-inflatable seals fitted on the aircraft.

Air intakes

305. Positioned at each side of the nose wheel bays, the structure is mainly constructed of diaphragm build-up with double skinned leading edges. The inner skin, which is corrugated and fitted with magnesium alloy sealing blocks at numerous outer skin to corrugation joint assemblies, prevents skin repairs from being made in the normal manner. Requests for repair schemes for damage in this area must be submitted in accordance with the instructions on the Part 1 Marker Card.

306. Wherever possible solid rivets must be used in the air intake area, but in exceptional cases Avdel snap head rivets type A.G.S.2065/-, (Ref.No.28Q/-) can be

used, length and diameter according to requirements.

307. In common with the remainder of the aircraft structure, the intake is sealed internally at all structure and skin butt joints. Repairs in this area must incorporate the correct method of sealing for weatherproofing.

Air brake structure

308. The air brake structure is situated aft of the front spar and above and below the engine air intakes. Access panels are provided in the air brake wells and air intake tunnels through which minor repairs may be made. When the air brake mechanism is broken down to provide access for repairs, it must be reassembled in accordance with the instructions in A.P.4505A and C, Vol.1, Book 1, Sect.3, Chap.1 and 4.

Jet pipe tunnels

309. The tunnels, commencing at the rear engine bulkheads and terminating at the trailing edge of the rear fuselage structure, are made from stainless steel spec. S.520 or S.521. Mod.51 introduces Titanium skins in lieu of stainless steel. Repairs are illustrated on fig.342 and 342A. Rippling or similar distortion of the tunnel skins is acceptable up to 1.0 in. in depth from crest to trough provided there are no cracks.

OUTER MAIN PLANE

310. Undercarriage bay, leading edge, centre structure, trailing edge, wing tip, aileron and elevators form the main sub-assemblies.

Outer wing leading edge

311. The rib and stringer construction is covered in the leading edge area with double skins, one skin being made from corrugated section. Requests for repairs in this area must be submitted in accordance with the instructions on the Part 1 Marker Card.

RESTRICTED

Outer wing tanks and skins

312. Forming the greater portion of the wing between the front and rear wing spars, the main structure consists of tank tunnels braced by ribs and stringers. Repairs will generally be covered in the structural key tables. When tank compartment skins are damaged, reference must be made to para.303 and the Major Repair Leaflet in Part 2.

Repairs to ailerons and elevators

313. Repairs to these components may be made in the normal manner, but reference must be made to the aircraft log book to ascertain if any previous repairs have been done which would affect the repair allowance and mass balance. Full instructions, repair allowances and mass balancing if required, are contained in para.320 to 322 inclusive and Table 1 and 2.

Control surface - balance seals

314. Repairs to the seals will mainly depend upon the extent and disposition of the damaged area. If deterioration due to ageing of the fabric is apparent, the seals must be renewed, but minor repairs using the materials and procedure as follows are acceptable. For typical minor repairs refer to fig.406.

Materials required

- (1) Indiana/Cashmere fabric No.8099, 1/32 in. thick.
- Adhesive L.107 (Ref.No. 33H/12). 2.0 in. circular sewing needle, (Ref.No. 1B/1604).
- Single linen waxed thread, No.40, B.S.3F. 34.

Method of attachment

- (2) Damaged seals may be repaired by patching, the patch being attached with adhesive and stitching. Using the type of needle quoted and incorporating an overhand stitch (eight stitches to 1.0 in.), the stitching must be locked at approximately every 1.0 in. around the periphery of the patch. Use a herringbone stitch to draw the damaged portion together before fitting the patch. It is recommended that the stitching of the patch is carried out while the adhesive is still tacky.

Repair limits

- (3) The extent of the damage will govern the size of patch required, but an overlap of 1.0 in. all round is necessary to give the required results, therefore a rent 1.0 in. long must have a patch 3.0 in. x 2.0 in. applied. No patch must overlap an adjoining patch so repairs must be arranged to accommodate both repairs with one patch.

Procedure

- (4) It is important to ensure that the seal is absolutely dry and free from oil, grease and dust before proceeding as follows:-
 - (a) Stitch the rent using a herringbone type stitch.
 - (b) Measure the damage for length and width and cut out a patch accordingly to include overlap limits.

- (c) Mark out on the seal where the patch must be fitted.
- (d) Apply one coat of adhesive to the patch and the marked out area on the seal. Allow to dry completely.
- (e) Apply a second coat to both surfaces. When a 'tacky' state becomes obvious, place the patch in its correct position over the damaged area. Press firmly together and check that the patch is well adhered before commencing the next operation.
- (f) Using needle, thread and type of stitch as described, stitch the edges of the patch to the seal. Care must be taken to avoid pulling the thread too tightly. Smooth out wrinkles and puckers progressively.

Information

- (5) Damage occurring near or up to the retaining strips may be repaired by the same method, except that the patch must extend under the retaining strip approximately 5/8 in. Sewing of the patch must terminate just prior to the area covered by the retaining strip.

HONEYCOMB PANELS

315. Where damage is slight, e.g., dents and small holes, the following repair schemes can be used:-

Dents

- (1) Smooth dents up to 2.0 in.dia. and

RESTRICTED

not more than 1/25th of dia. in depth, must be treated in the following manner:-

- (2) To assist bonding, smooth dents with no holes must have 3/32 in. dia. holes drilled in the following ratio:-

Dents 2.0 in. to 1.5 in.dia., three holes equal pitch on a circle half the dia. of the dent.

Below 1.5 in. to 1.0 in.dia., two holes drilled equal pitch about the centre with a minimum distance between of 0.5 in.

Below 1.0 in.dia., one hole drilled in the centre.

Remove all burrs, clean the damaged area and fill with Araldite A.V.121 (Ref.No. 33H/39) mixed with the correct proportion of Hardener H.Y.951 (Ref.No. 33H/2202078).

For mixing instructions refer to Chap.2, para.223.

After curing smooth off to panel contour and apply protective treatment as required.

Hole limitations

- (3) Smooth dents (same limits as sub-para.(1)) but with one hole up to 0.5 in.dia. after cleaning out through one skin only, may be filled with adhesive and treated as in the preceding paragraphs.
- (4) Redundant holes up to 0.5 in.dia. through one skin only may be completely filled with adhesive. As an alternative, small holes below 0.5 in.dia. may be filled

by injecting Araldite A.Y.103 (Ref.No.33H/2202077) mixed with Hardener H.Y.951 in the following proportions:-

Araldite A.Y.103 - 100 parts by weight
Hardener H.Y.951 - 10 parts by weight

NOTE...

If required to assist the bonding of the Araldite in awkward places, cellophane or masking tape should be fastened across the repair until final curing has taken place. Repairs for damage outside the limits stated, are covered in fig.102 and Chap.1, para.133.

WEATHERPROOFING

316. All skin joints are weatherproofed and sealed at initial manufacture. When repairs to the outer skins are required, weatherproofing and sealing must be incorporated as stated in Chap.1, para.136 and 137. Refer to para.139 for information concerning skin corrosion.

REPLACEMENT OF VORTEX GENERATORS

317. If because of damage or corrosion a vortex generator has to be removed, information is contained on fig.346, 346A and 346B to assist assembly of the new replacement item(s). New generators can be manufactured from section 58/SS.3075 in conjunction with fig.346B and the damaged item(s). When removing the damaged item, great care must be exercised when drilling out the rivets to ensure that the holes in the wing structure are not made oversize. Prior to assembly of the new vortex generator,

the old bonding adhesive must be rubbed off and the surface cleaned and prepared for the application of the new adhesive. Refer to Chap.2, para.223 and 224 for the mixing and application of the adhesive, and para.226 and 227 for curing times. Para.230 and 231 covers information on painting and care required in the handling of the adhesive mixture. Assuming that the holes have been drilled in the new item and the adhesive has been applied and is still tacky, rivets, the correct length and diameter must be fitted after dipping in Araldite A.V.121. After final curing painting must be done as required.

EXTERNAL FINISH FOR NEGLIGIBLE DAMAGE

318. Dents and abrasions to external skins which are within the negligible damage limits quoted on the key tables and illustrations, must have the paint removed and the damaged area polished and cleaned prior to filling with Araldite A.V.121. After the adhesive has finally cured, it must be smoothed down to contour and painted as required.

CONTROL SURFACE MASS BALANCE

319. Contained in the following paragraphs are limits and instructions which must be strictly adhered to when carrying out repairs etc. on the rudder, elevators and ailerons.

General

320. If any repairs are required on a control surface, first, check the aircraft log books for any previous repairs, modifications and overpainting which have affected the repair allowance since original manufacture. Refer to the repair weight allowances in Table 1 and

RESTRICTED

accordingly adjust the figure if necessary, to find out how much repair allowance is still available, before having to re-mass balance as instructed in Table 2. In order to assist all personnel concerned, a true and complete history of all work, including modifications and overpainting carried out on each control surface, together with its effect on the mass balance, must be entered in the log books to ensure that the repair allowances are not exceeded.

Information

321. With reference to overpainting or

strip and repainting of the rudder, ailerons and elevators, items already cleared to the mass balancing instructions in Table 2 and taking into account that the repair allowances will not be exceeded after overpainting, re-mass balancing is not required. Refer to Table 3 for paint weights which will have to be deducted from the repair allowances when overpainting. For Mk.2 aircraft refer to Part 1, Chap.3, App.1.

Repair allowances

322. Figures appended in Table 1 are arrived at on assumption that the repairs

are required at the inboard trailing edges of the elevators and ailerons, and the bottom trailing edge of the rudder, in effect these are maximum positive 'arm' stations and consequently repairs to the limits quoted in Table 1 can be carried out in safety in any other position.

Overpainting - equivalent weights

323. Contained in Table 3 are the relative/weight coverage of paints which must be logged against the repair allowance when overpainting. The weight of each separate coat of paint is arrived at by using the maximum positive 'arm'.

TABLE 1
Repair allowances

Component	Mk.	Drwg.No.	Mod.Reference	Arm from Control Surface Hinge c/l.	Repair weight allowances
Rudder	1	1H.2229	Pre.Mod.977	+ 60.25 in.	3 lb. 10 oz.
	1A	200H.2229	Post Mod.613 and Pre.Mod.1028	+ 57.37 in.	3 lb. 10 oz.
	1	1H.2229	Post Mod.977	+ 60.25 in.	1 lb. 13 oz.
	1A	200H.2229	Post Mod.613 and Post Mod.1028	+ 57.37 in.	1 lb. 13 oz.
I/B.Elevator	1 and 1A	F.7851	Post Mod.627	+ 89.774 in.	5 lb. 5 oz.
O/B.Elevator	1 and 1A	F.7852	Post Mod.627	+ 75.97 in.	4 lb. 13 oz.
I/B.Aileron	1 and 1A	F.7849	Post Mod.627	+ 59.0 in.	2 lb. 8 oz.
O/B.Aileron	1 and 1A	F.7850	Post Mod.627	+ 48.038 in.	2 lb. 0 oz.

NOTE...

The arm of the weight is measured normal to the control surface hinge centre line, negative being forward of the hinge line, positive aft of the hinge line. Refer to para.322 'Repair allowances'.

RESTRICTED

TABLE 2
Static mass balance of control surfaces

Component	Mk.	Drwg.No.	Mod.Reference	Balance Checks	Arm from Control Surface Hinge c/l.	Balance weights and spring balance readings	Resultant
Rudder	1	1H.2229	Pre.Mod.977	1	0	No check weight	Statically balanced or tail heavy
	1A	200H.2229	Post Mod.613 and Pre.Mod.1028	and 2	- 10 in.	19 lb. 8 oz.	Statically balanced or nose heavy
	1	1H.2229	Post Mod.977	1	0	No check weight	Tail heavy
	1A	200H.2229	Post Mod.613 and Post Mod.1028	and 2	+ 44 in.	Spring balance reading must not exceed 17 lb.	To bring the datum line horizontal
I/B.Elevator	1	F.7851	Post Mod.627	1	+ 83 in.	2 lb.	Statically balanced or tail heavy
	and 1A			and 2	- 30 in.	5 lb. 8 oz.	Statically balanced or nose heavy
O/B.Elevator	1	F.7852	Post Mod.627	1	+ 65 in.	2 lb. 8 oz.	Statically balanced or tail heavy
	and 1A			and 2	- 20 in.	7 lb.	Statically balanced or nose heavy
I/B.Aileron	1 and 1A	F.7849	Post Mod.627	1	+ 59 in.	2 lb. to 4 lb. 4 oz.	Statically balanced
O/B.Aileron	1 and 1A	F.7850	Post Mod.627	1	+ 44.5 in.	6 lb. to 7 lb.	Statically balanced

NOTE...

*Elevators and Ailerons are to be statically balanced with the horizontal datum line set 3 deg. tail up.
The above checks apply after final painting.
Balance checks 1 and 2 must be applied to components for Mk.1 and Mk.1A aircraft.
The arm of the weight is measured normal to the control surface hinge centre line, negative being forward of the hinge line, positive aft of the hinge line.*

RESTRICTED

TABLE 3

Overpainting - equivalent weights at maximum trailing edge arm

Component	Mk.	Type	Normal paint finish to Spec. D.T.D.5555 Wt. lb./sq.ft. for 1 coat	Max. T/Edge Arm	Equivalent Wt.(oz.) at the T/Edge Arm	Camouflage area, finish to Post Mod.1877		Equivalent Wt.(oz.) at the T/Edge Arm
						Type	Wt. lb./sq.ft. for 1 coat	
Rudder 1H.2229	1	Primer	0.0034	+ 60.25 in.	3.3			
		Filler	0.0069		6.7			
		Finish	0.0098		9.5			
Rudder 200H.2229	1A	Primer	0.0034	+ 57.37 in.	3.1	Primer	0.0034	3.1
		Filler	0.0069		6.2	Finish	0.0087	7.9
		Finish	0.0098		8.9			
I/B.Elevator F.7851	1 and 1A	Primer	0.0034	+ 89.774 in.	3.0	Primer	0.0034	1.5
		Filler	0.0069		6.1	Finish	0.0087	3.9
		Finish	0.0098		8.7			
O/B.Elevator F.7852	1 and 1A	Primer	0.0034	+ 75.97 in.	3.0	Primer	0.0034	1.5
		Filler	0.0069		6.0	Finish	0.0087	3.8
		Finish	0.0098		8.5			
I/B.Aileron F.7849	1 and 1A	Primer	0.0034	+ 59.0 in.	1.5	Primer	0.0034	0.8
		Filler	0.0069		3.1	Finish	0.0087	1.9
		Finish	0.0098		4.4			
O/B.Aileron F.7850	1 and 1A	Primer	0.0034	+ 48.038	1.5	Primer	0.0034	0.8
		Filler	0.0069		3.1	Finish	0.0087	2.0
		Finish	0.0098		4.5			

NOTE...

Weights quoted in columns * must be logged against the respective repair allowances when overpainting.
Refer to para.319 to 323 inclusive for additional information.

RESTRICTED

**REPLACEMENT OF WING TOP SURFACE
SKINS ABOVE ENGINE BAYS**

324. When embodying Mod.831 and/or Mod.1454, in order to prevent the new skins from buckling after fitting, proceed as follows:-

- (1) Remove all engines

- (2) Remove the fireproof skins from the engine bays where accessibility to the wing skinning is required.
- (3) Aircraft to be stress jacked as instructed in Repair Leaflet A.1/2. For additional repair procedure refer to item 18 of Table 1 in the same leaflet.

325. The instructions detailed in para.324 will also apply if only one skin panel has to be renewed, excepting that the engine(s) on the side where the repair is required need only be removed. Small skin repairs may be fitted without stress jacking.

KEY TO FIG.302

Item	Material		Description	Dents Depth	Negligible Damage		Holes Pitch Ratio	Repair Fig.
	Spec.	S.W.G. or Section			Dist. Apart	Dia.		
1	L.65	300/SS.3075	Half ring	-	-	-	-	-
2	L.65	300/SS.3075	Joint angle	* -	-	-	-	-
3	L.72	420/SS.1793	Former	-	-	-	-	-
4	D.T.D.687	769/SS.1793	Capping strip	0.1	2.5	0.25	4:1	-
5	L.72	211/SS.1793	Stiffener	0.1	2.5	0.25	4:1	112
6	L.72	393/SS.1793	Blanking plate	0.1	2.5	0.25	6:1	108
7	L.72	20	Channel	0.15	2.5	0.25	4:1	108
8	L.72	20	Stiffening plate	0.1	2.5	0.25	4:1	-
9	L.72	26	Fireproofing skin	0.2	2.0	-	-	103
10	L.72	24	Channel	0.2	2.5	0.25	6:1	108
11	L.72	16	Former	0.1	2.5	0.25	4:1	108
12	L.72	420/SS.1793	Skin support angle	0.1	2.5	0.25	4:1	-
13	L.72	20	Centre pressing	0.15	2.5	0.25	4:1	108
14	L.72	20	Angle bracket	x 0.1	2.5	-	-	-
15	L.72	486/SS.1793	Cross member	0.1	2.5	0.25	4:1	108
16	L.72	600/SS.1793	Support channel	0.1	2.5	0.25	4:1	108
17	L.72	18	Joint bracket	0.1	2.5	0.25	4:1	115
18	L.72	224/SS.1793	Former	0.1	2.5	0.25	4:1	108
19	L.72	16	Tank channel support	0.05	3.0	0.25	6:1	108
20	L.72	16	Gusset plate	0.05	3.0	-	-	115
21	L.72	18	Gusset plate	0.05	3.0	-	-	115
22	L.72	20	Centre pressing	0.1	2.5	0.25	6:1	108
23	L.72	486/SS.1793	Cross member	0.05	3.0	0.25	6:1	108
24	L.72	18	Former	0.1	2.5	0.25	4:1	108
25	L.72	20	Pressing	0.15	2.5	0.25	4:1	108
26	L.72	18	Joint channel	0.1	2.5	0.25	4:1	108
27	L.72	20	Pressing	0.15	2.5	0.25	4:1	108
28	L.72	16	Mounting plate	0.1	2.5	0.25	6:1	-
29	L.72	20	Joint plate	0.1	2.5	0.25	4:1	115
30	L.72	16	Stiffener plate	0.05	3.0	0.25	4:1	-
31	L.72	620/SS.1793	Angle	0.1	2.5	-	-	113
32	L.72	20	Angle	x 0.1	2.5	-	-	-
33	L.72	20	Stiffening ring	0.1	2.5	0.25	4:1	-
34	L.65	324/SS.3075	Angle	-	-	-	-	-
35	D.T.D.687	16	Web	-	-	-	-	-
36	L.72	16	Angle	-	-	-	-	-
37	L.72	16	Stiffeners	0.05	3.0	-	-	108
38	L.72	18	Joint bracket	0.05	3.0	-	-	108
39	L.65	325/SS.3075	'T' stringer	0.05	3.0	-	-	110
40	L.72	211/SS.1793	Top hat stringer	0.1	2.5	-	-	112
41	L.72	18	Doubling plate	0.1	2.5	0.25	6:1	-
42	L.72	18	Stiffening plate	0.1	2.5	0.25	6:1	-
43	L.59	16	Stiffening ring	0.1	2.5	0.25	6:1	-
44	L.72	18	Attachment angle	0.1	2.5	-	-	-
45	L.72	18	Reinforcing ring	0.1	2.5	0.25	6:1	-
46	L.72	24	Intercostal	0.2	2.0	0.25	3:1	108,115
47	L.72	12d/SS.1793	Angle	0.1	2.5	-	-	113
48	L.72	16	Angle	-	-	-	-	-
49	D.T.D.687	14	Web	-	-	-	-	-
50	L.65	-	Angle	-	-	-	-	-
51	L.72	22	Tank bay skins (yellow)	0.1	3.0	-	-	-
52	L.72	24	Tank bay skins (yellow)	0.1	3.0	-	-	-
53	L.72	28	Tank bay skins (green)	0.2	2.0	-	-	-

* No repairs permitted.

x More expedient to renew than repair.

All dimensions are quoted in inches.

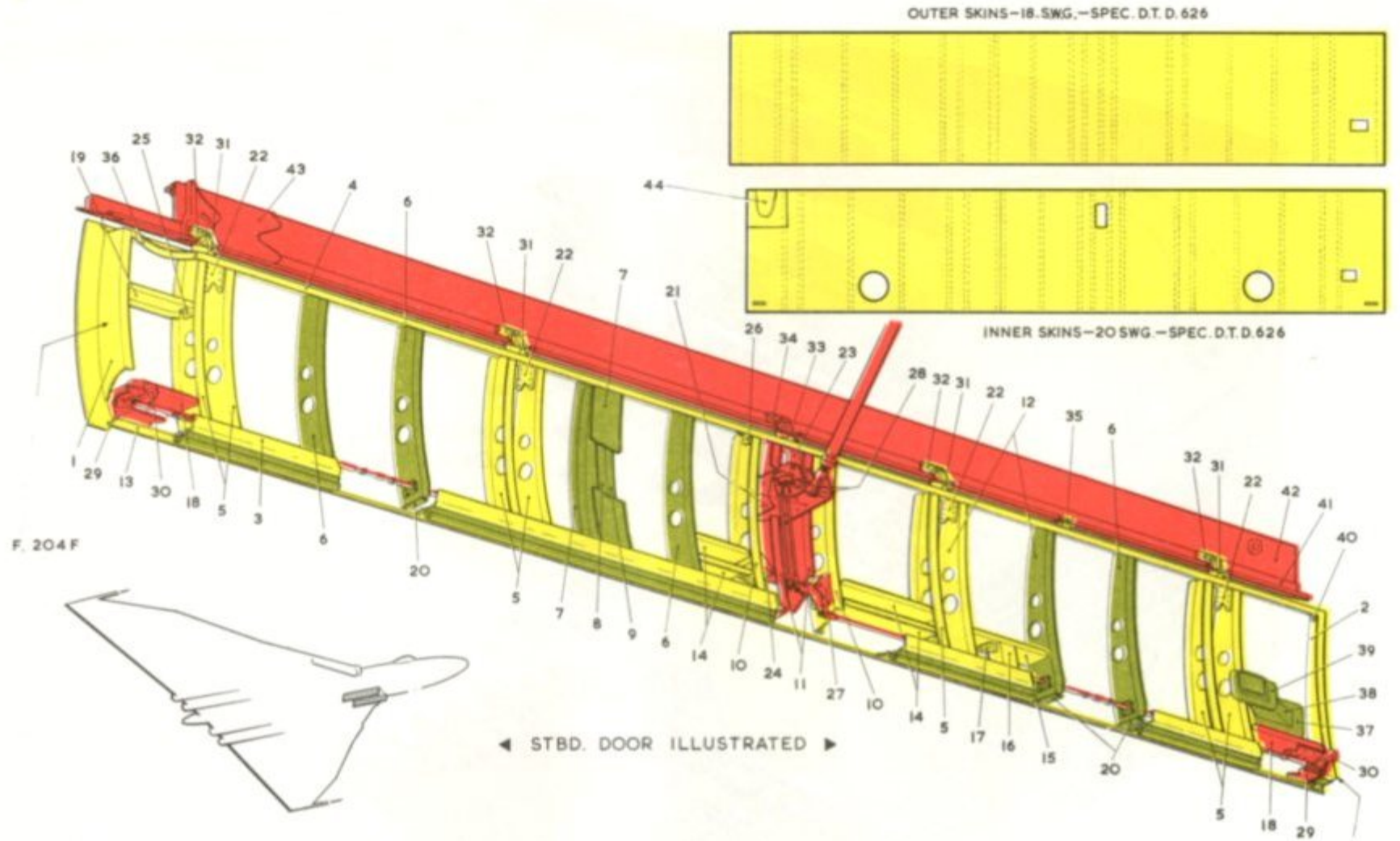
RESTRICTED

KEY TO FIG. 303

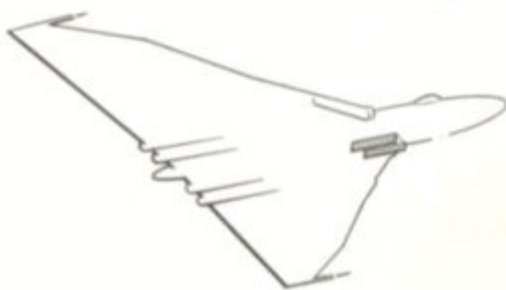
Item	Material		Description	Negligible Damage			Pitch Ratio	Repair Fig.
	Spec.	S.W.G. or Section		Dents	Dist. Apart	Dia.		
1	L.72	16	Front edge member	0.1	2.5	0.25	6:1	108
2	L.72	16	Rear edge member	0.1	2.5	0.25	6:1	108
3	L.72	18	Channel	0.1	2.5	0.25	6:1	107, 108
4	L.72	16	'Z' member	0.1	2.5	0.25	8:1	108
5	L.72	20	Former	0.1	2.5	0.5	4:1	105, 107, 108
6	L.72	22	Former	0.2	2.0	0.5	4:1	105, 107, 108
7	L.72	18	Strap plate	0.2	2.0	0.5	4:1	-
8	L.72	22	Former	0.2	2.0	0.5	4:1	105, 107, 108
9	L.72	22	Inner skin angle	0.2	2.0	-	-	113
10	L.72	20	Jack side former	0.1	2.5	0.25	6:1	105, 107, 108
11	L.72	14	Jack former	0.05	3.0	-	-	105, 107, 108
12	L.72	18	Former	0.1	2.5	0.5	4:1	105, 107, 108
13	L.72	925/SS.1793	Angle	0.1	2.5	-	-	-
14	L.72	20	Intercostal	0.1	2.5	0.25	6:1	108, 115
15	L.72	18	Intercostal	0.1	2.5	0.25	6:1	108, 115
16	L.65	225/SS.3075	Channel piece	x 0.1	2.5	0.25	6:1	-
17	L.72	18	Bracket	x 0.1	2.0	-	-	-
18	L.72	20	Intercostal	0.05	3.0	-	-	108, 115
19	L.72	20	Intercostal	0.1	2.5	0.25	6:1	108, 115
20	L.72	16	Bracket	x 0.05	3.0	-	-	-
21	L.72	8	Side plates	x -	-	-	-	-
22	L.72	12	Backing strap	* 0.05	3.0	-	-	-
23	L.72	12	Backing strap	* -	-	-	-	-
24	L.72	16	Bracket	* -	-	-	-	-
25	L.72	20	Bracket	x 0.1	2.5	-	-	-
26	L.72	16	Bracket	* -	-	-	-	-
27	D.T.D.127	-	Lever housing	* -	-	-	-	-
28	L.65	-	Distance piece	* -	-	-	-	-
29	D.T.D.127	-	Housing	x -	-	-	-	-
30	D.T.D.5054	-	Latch (hook)	* -	-	-	-	-
31	D.T.D.5054	-	Half hinge	* -	-	-	-	-
32	D.T.D.5054	-	Half hinge	* -	-	-	-	-
33	D.T.D.5054	-	Half hinge	* -	-	-	-	-
34	D.T.D.5054	-	Half hinge	* -	-	-	-	-
35	L.33	-	Lever	* -	-	-	-	-
36	L.72	18	Flanged reinforcing piece	0.1	2.5	0.25	6:1	108
37	L.72	18	Stiffening plate	0.15	2.5	0.5	4:1	-
38	L.59	20	Outlet duct	0.15	2.5	-	-	-
39	L.59	18	Attachment plate	0.15	2.5	0.5	4:1	-
40	L.72	16	Bracket	x 0.05	3.0	-	-	-
41	L.72	16	Angle	-	-	-	-	-
42	D.T.D.687	16	Web	x -	-	-	-	-
43	D.T.D.687	16	Doubling plate	x -	-	-	-	-
44	L.72	20	Capping	0.1	3.0	0.25	4:1	-

* No repairs permitted.
 x More expedient to renew than repair.
 All dimensions are quoted in inches.

RESTRICTED



F. 204F



SKINNING

NEGLECTIBLE DAMAGE ALLOWED ON SKINS

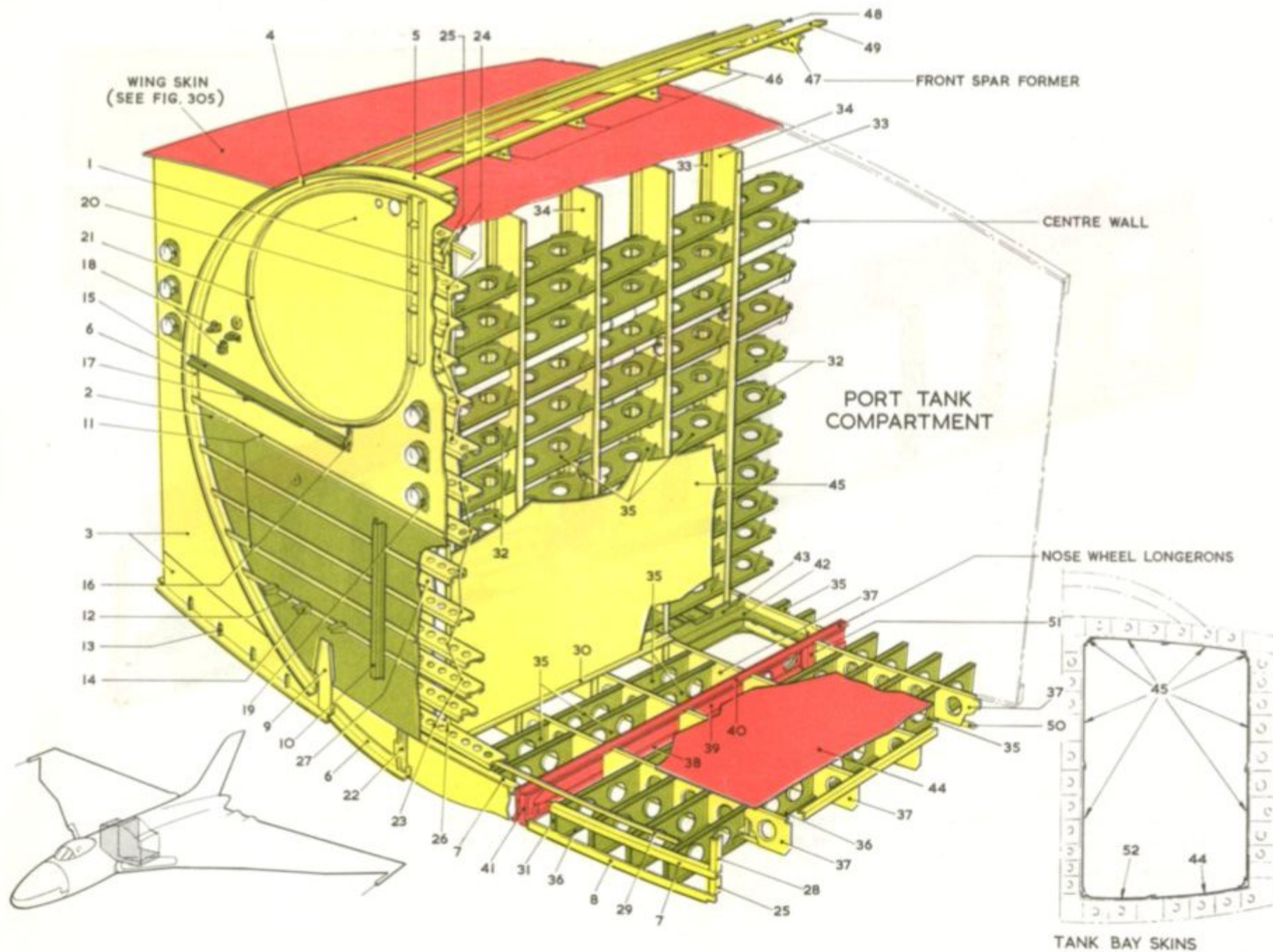
DENTS	DEPTH	DIST. APART
YELLOW	0-10 IN.	3-0 IN.

SKIN REPAIRS SEE FIG. 103, 104
◀ AND REPAIR LEAFLET C.1/1 ▶

NOTE :-

DAMAGE IN AREAS OF CONCENTRATED RIVETING MUST BE REPAIRED WITH JOINTS ARRANGED OUTSIDE THE AREA.

**Fig 303. Nose-wheel doors
RESTRICTED**



KEY TO FIG.304

Item	Material		Description	Negligible Damage				
	Spec.	S.W.G. or Section		Dents		Holes		Repair Fig.
				Depth	Dist. Apart	Dia.	Pitch Ratio	
1	D.T.D.687	20	Bulkhead web	0.05	3.0	-	-	-
2	L.72	24	Bulkhead web	0.1	2.5	0.25	3:1	-
3	D.T.D.687	18	Bulkhead web	0.05	3.0	0.25	6:1	-
4	L.72	18	Angle	0.05	3.0	-	-	113
5	L.72	18	Joint strap	0.05	3.0	-	-	-
6	L.72	14	Angle	0.05	3.0	-	-	114
7	D.T.D.687	12	Angle	0.05	3.0	0.25	6:1	114
8	D.T.D.687	10	Angle	0.05	3.0	-	-	114
9	L.72	16	Reinforcing plate	x 0.05	3.0	-	-	-
10	L.72	211/SS.1793	De-icing panel support	0.1	2.5	0.25	3:1	112
11	D.T.D.687	14	Stiffening piece	0.025	3.0	-	-	114
12	D.T.D.687	16	Stiffening piece	0.025	3.0	-	-	114
13	L.72	20	Angle	x 0.05	2.5	-	-	-
14	L.72	20	Bracket	x 0.05	2.5	-	-	-
15	L.72	22	Angle	0.05	2.5	0.25	3:1	113
16	L.72	20	Bracket	x 0.025	3.0	-	-	-
17	L.72	20	Angle	x 0.025	3.0	-	-	-
18	L.72	18	Flame switch bracket	x -	-	-	-	-
19	L.72	20	Reinforcing plate	x 0.05	2.5	-	-	-
20	L.72	486/SS.1793	Channel	0.05	3.0	0.25	6:1	108
21	L.72	446/SS.1793	Angle	0.05	3.0	-	-	114
22	L.72	18	Bracket	x 0.025	3.0	-	-	-
23	D.T.D.687	595/SS.1793	Channel	-	-	0.25	6:1	108
24	D.T.D.687	594/SS.1793	Channel	-	-	0.25	6:1	108
25	L.72	16	Angle	0.05	3.0	-	-	113
26	L.72	13b/SS.1793	Angle	0.1	2.5	-	-	113
27	D.T.D.687	18	Bulkhead web	0.05	3.0	-	-	-
28	D.T.D.687	16	Angle	x 0.05	3.0	0.25	6:1	-
29	L.72	183/SS.1793	Angle	0.05	3.0	0.25	6:1	113
30	L.72	446/SS.1793	Angle	0.05	3.0	0.25	6:1	114
31	L.72	22	Angle	x 0.1	2.5	-	-	-
32	L.72	22	Intercostal	0.1	2.5	0.25	4:1	106,115
33	L.65	294/SS.3075	Stiffening angles	0.05	3.0	-	-	-
34	L.72	18	Web vertical formers	0.05	3.0	0.25	6:1	-
35	L.72	24	Intercostal	0.15	2.5	0.25	4:1	106,115
36	L.72	747/SS.1793	Angle	0.05	3.0	-	-	-
37	L.72	20	Floor members	0.05	3.0	0.25	6:1	106,115
38	L.65	326/SS.3075	'T' section	* -	-	-	-	-
39	D.T.D.687	14	Former web	0.025	3.0	-	-	-
40	L.65	299/SS.3075	Former angle	* -	-	-	-	-
41	L.65	-	Bracket	* -	-	-	-	-
42	L.72	16	Support pressing	0.05	3.0	0.25	4:1	-
43	L.72	20	Diaphragm	0.1	2.5	0.25	4:1	-
44	L.72	12	Tank bay floor skin	0.025	3.0	-	-	-
45	D.T.D.687	20	Inner skin	0.05	3.0	-	-	103,104
46	L.72	20	Former channel	0.05	3.0	0.25	6:1	107,108
47	L.72	18	Front spar former	0.1	2.5	-	-	107
48	L.72	211/SS.1793	Stringer	0.05	3.0	-	-	112
49	L.65	325/SS.3075	'T' stringer	0.05	3.0	-	-	-
50	L.72	18	Angle	0.05	3.0	-	-	113,114
51	L.72	18	Attachment angle	x 0.025	3.0	-	-	-
52	D.T.D.687	18	Tank bay skins (yellow)	0.05	3.0	-	-	-

* No repairs permitted

x More expedient to renew than repair

All dimensions are quoted in inches.

RESTRICTED

KEY TO FIG.304A

Item	Material		Description	Negligible Damage					Repair Fig.
	Spec.	S.W.G. or Section		Dents Depth	Dist. Apart	Holes Dia.	Pitch Ratio		
1	L. 72	24	Intercostal	0.05	3.0	0.25	6:1	105,115	
2	L. 72	24	Intercostal	0.1	2.5	0.25	4:1	105,115	
3	L. 72	20	Former web	0.05	3.0	0.25	4:1	105,115	
4	D. T. D. 687	735/SS. 1793	Angle	0.05	3.0	-	-	-	
5	L. 72	18	Angle	0.5	3.0	-	-	113	
6	L. 72	20	Side member	0.05	3.0	0.25	6:1	107,108	
7	L. 72	20	Channel	x 0.05	3.0	0.25	6:1	-	
8	D. T. D. 721	-	Attachment bracket	x 0.025	3.0	-	-	-	
9	L. 65	249/SS. 3075	Attachment angle	x 0.05	3.0	-	-	-	
10	D. T. D. 687	595/SS. 1793	Channel member	x 0.05	3.0	0.25	6:1	-	
11	L. 72	18	Gusset	x 0.05	3.0	-	-	-	
12	D. T. D. 363	17B. 1635	Booms	* 0.025	3.0	-	-	-	
13	D. T. D. 683	Forging	Attachment bracket	*	-	-	-	-	
14	D. T. D. 687	17	Rear side web	0.025	3.0	-	-	103,104	
15	D. T. D. 687	17	Strap plate	0.025	3.0	-	-	-	
16	L. 72	16	Bracket	x 0.025	3.0	-	-	-	
17	L. 72	27/SS. 1793	Angle	0.05	3.0	-	-	-	
18	D. T. D. 687	14	Joint strap	0.025	3.0	-	-	-	
19	L. 72	20	Intercostal	x 0.05	3.0	0.25	6:1	-	
20	L. 72	22	Intercostal	0.1	2.5	0.25	6:1	105,108	
21	L. 72	20	Door frame member	0.1	2.5	0.25	6:1	-	
22	L. 72	24	Intercostal	x 0.1	2.5	0.25	4:1	-	
23	L. 72	24	Intercostal	x 0.1	2.5	0.25	6:1	-	
24	L. 72	20	Intercostal web	0.05	3.0	0.25	6:1	105,108	
25	L. 72	20	Door frame extension	x 0.1	2.5	0.25	4:1	-	
26	L. 72	20	Intercostal	x 0.1	2.5	0.25	4:1	-	
27	L. 72	20	Corner plate	x 0.1	2.5	0.25	4:1	-	
28	L. 72	20	Door angle	x 0.1	2.5	-	-	-	
29	L. 72	20	Angle bracket	x 0.05	2.5	-	-	-	
30	L. 72	18	Marker aerial frame	* 0.1	2.5	0.25	4:1	-	
31	D. T. D. 118A	20	Fairing skin	0.1	2.5	-	-	103,104	
32	D. T. D. 118A	20	Butt strap	x 0.1	2.5	-	-	-	
33	D. T. D. 687	14	Bottom wing skin	0.05	3.0	-	-	103,104	
34	L. 72	18	Channel	x 0.05	3.0	-	-	-	
35	L. 72	20	Intercostal	x 0.1	2.5	0.25	6:1	-	
36	L. 72	20	Angle	x 0.05	3.0	-	-	-	
37	L. 72	20	Door frame member	0.1	2.5	0.25	6:1	-	

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

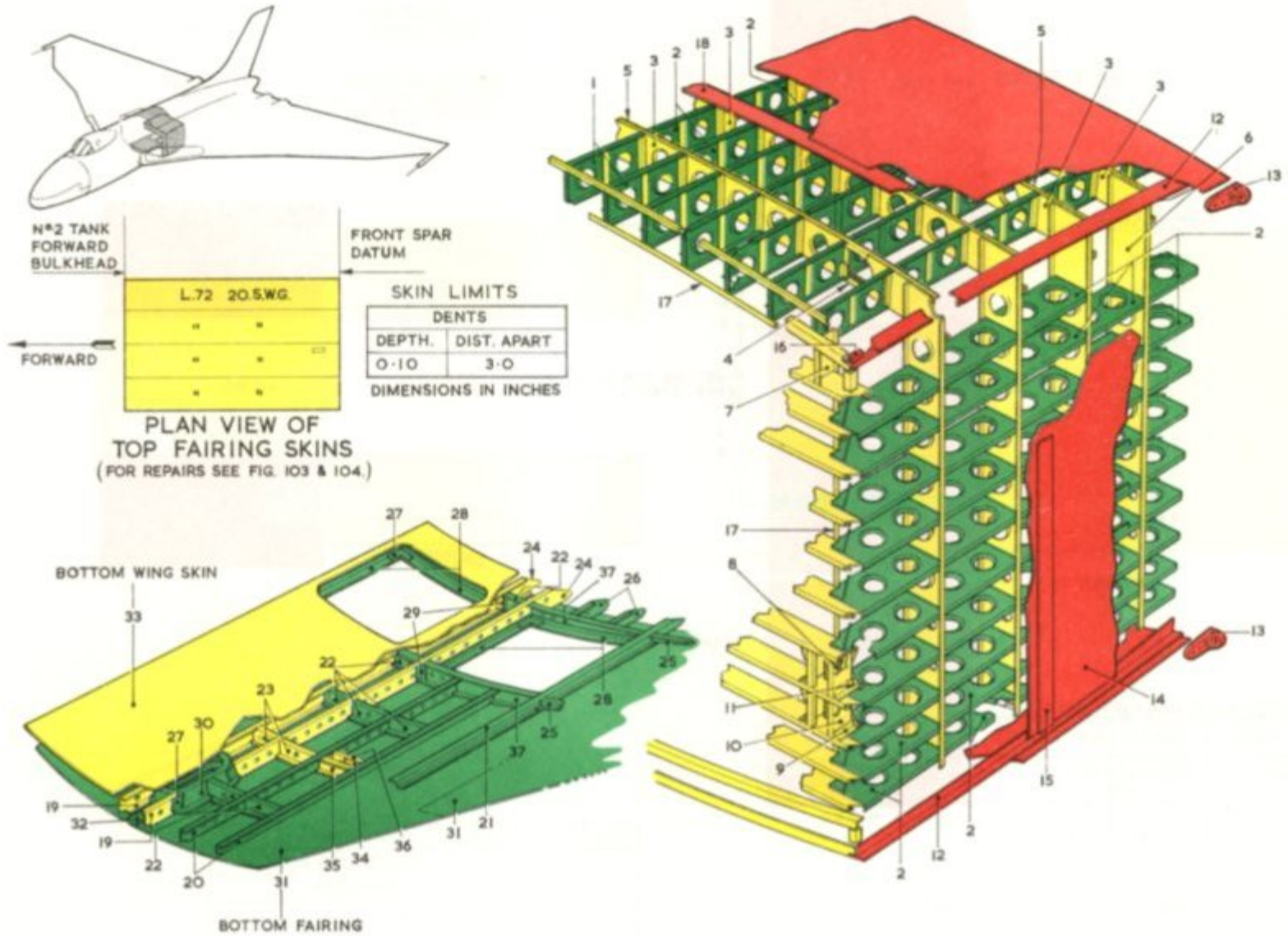


Fig. 304A Outer tank wall and fairings

RESTRICTED

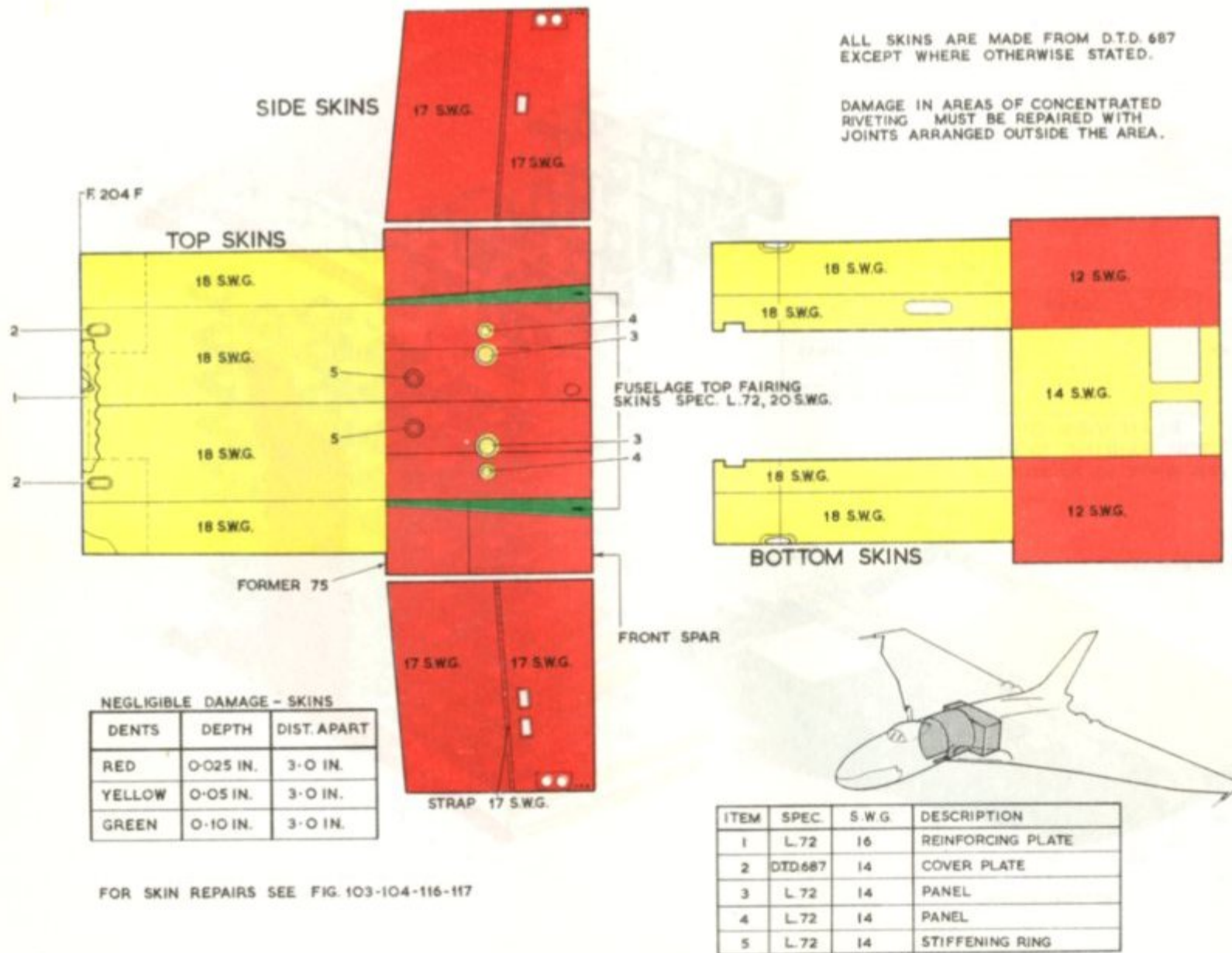


Fig. 305 No.1 and 2 Tank bays - skinning (Post Mod. 1787)

RESTRICTED

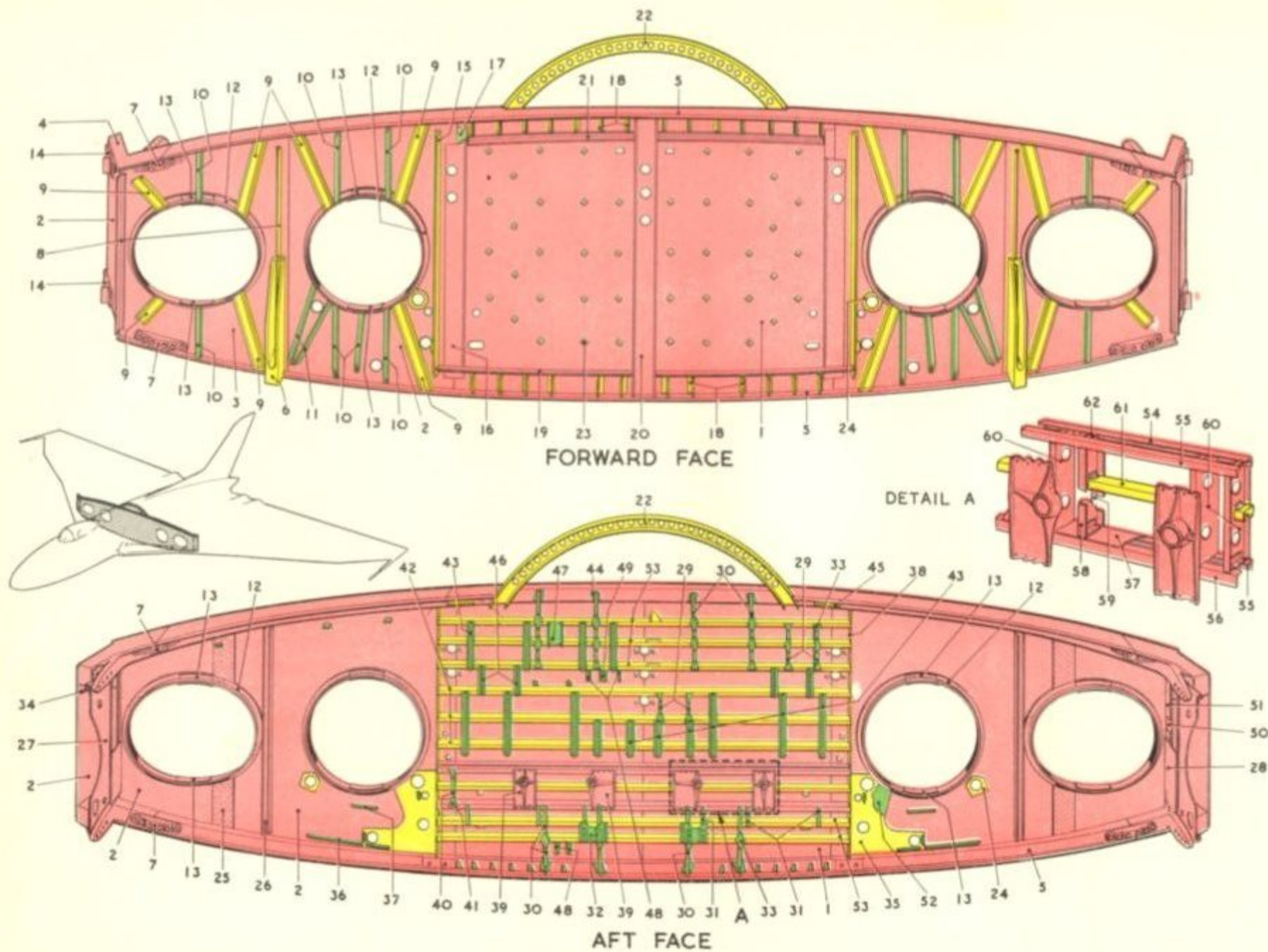


Fig 306. Front spar centre section
RESTRICTED

Fig. 306. Front spar — centre section

A.P.4505, Vol. 6, Part 1, Chap. 3 (A.L.12)

Item	Spec.	Material S.W.G. or Section	Description	Depth	Dents	Negligible Damage	Holes	Repair Fig. No.
					Dist. Apart	Dia.	Pitch Ratio	
1	DTD.687	14	Spar web	0-05	3-0	1-0	8 : 1	103-104
2	DTD.687	8	Spar web	0-05	3-0	1-0	8 : 1	103-104
3	DTD.687	16	Reinforcing plate	0-05	3-0	1-0	8 : 1	103-104
4	DTD.683	Lt. alloy forging	Joint forging	*0-05	3-0	—	—	—
5	DTD.363	1-2/B.1635	Spar booms	*0-05	3-0	—	—	—
6	L.65	Lt. alloy bar	Jack support beams	*0-10	2-5	—	—	—
7	S.99	Hts. forging	Spar joint shackle	*0-05	3-0	—	—	—
8	L.72	18	Attachment angle	0-05	3-0	—	—	113
9	L.72	14	Reinforcing channel	0-10	2-5	0-5	4 : 1	108
10	L.72	486/SS.1793	Web stiffeners	†0-10	2-5	—	—	108
11	L.72	14	Web angle	†0-10	2-5	—	—	113-114
12	L.65	394, 395/SS.3075	Reinforcing angle	0-05	3-0	—	—	—
13	DTD.687	6	Angle joint plate	0-05	3-0	—	—	—
14	S.99	Forging	Reinforcing plate	0-05	3-0	—	—	—
15	DTD.687	17	Attachment angle	†0-10	2-5	—	—	—
16	DTD.687	13	Web joint plate	0-05	3-0	—	—	—
17	L.72	14	Joint packing	0-10	2-5	—	—	—
18	L.72	22	Attachment angle	†0-10	2-5	—	—	—
19	L.72	536/SS.1793	Attachment angle	0-05	3-0	—	—	—
20	DTD.687	13	Web joint channel	0-05	3-0	0-25	8 : 1	108
21	L.72	12a/SS.1793	Attachment angle	0-05	3-0	—	—	113
22	L.72	18	Former section	0-10	2-5	—	—	107
23	L.72	20	Tank button plates	† —	—	—	—	—
24	L.72	12	Reinforcing	†0-10	2-5	—	—	—
25	DTD.687	8	Web joint plate	0-05	3-0	—	—	—
26	DTD.687	10	Channel	0-10	2-5	—	—	108
27	L.73	14	Joint plate	0-05	3-0	0-25	4 : 1	103-104
28	DTD.687	12	Strap plate	0-05	3-0	—	—	—
29	L.72	20	Intercostal	†0-10	2-5	—	—	—
30	L.72	18	Intercostal	†0-10	2-5	—	—	—
31	L.72	18	Channel	†0-10	2-5	—	—	—
32	L.72	18	Bracket	†0-10	2-5	—	—	—
33	L.72	18	Gusset	†0-10	2-5	—	—	—
34	L.73	14	Attachment angle	0-05	3-0	—	—	—
35	DTD.687	12	Reinforcing plate	†0-10	2-5	1-0	8 : 1	—
36	L.72	20	Attachment angle	†0-10	2-5	—	—	—
37	L.72	155/SS.1793	Stiffener	†0-10	2-5	—	—	—
38	DTD.687	17	Attachment angle	†0-10	2-5	—	—	—
39	DTD.683	Alloy forging	Bracket	*0-05	3-0	—	—	—
40	L.72	14	Intercostal	†0-10	2-5	—	—	—
41	L.72	14	Gusset	†0-10	2-5	—	—	—
42	DTD.687	595/SS.1793	Stiffening member	0-10	2-5	0-5	4 : 1	108
43	L.72	511/SS.1793	Top hat stiffener	†0-10	2-5	—	—	—
44	L.65	Alloy bar	Attachment bracket	†0-10	2-5	—	—	—
45	L.72	24	Attachment angle	†0-10	2-5	—	—	—
46	L.72	451/SS.1793	Stiffener	†0-10	2-5	—	—	—
47	L.72	18	Mounting bracket	†0-10	2-5	0-5	4 : 1	—
48	DTD.687	582/SS.1793	Attachment angle	†0-10	2-5	—	—	—
49	L.72	20	Channel	†0-10	2-5	—	—	—
50	L.65	Alloy bar	Stiffener	0-05	3-0	0-5	6 : 1	—
51	DTD.687	6	Channel	0-05	3-0	0-5	6 : 1	—
52	DTD.687	17	Packing plate	†0-10	2-5	1-0	8 : 1	—
53	DTD.687	18	Stiffener web	0-10	2-5	0-5	4 : 1	—
54	DTD.363A	399/SS.3075	Stiffener angle	0-05	3-0	—	—	—
55	DTD.363A	396/SS.3075	Stiffener angle	0-05	3-0	—	—	—
56	DTD.363A	398/SS.3075	Stiffener angle	0-05	3-0	—	—	—
57	DTD.687	18	Stiffener web	0-05	3-0	0-25	6 : 1	—
58	L.65	357/SS.3075	Intercostal	0-05	3-0	0-5	6 : 1	—
59	L.72	12c/SS.1793	Intercostal angle	†0-10	2-5	—	—	—
60	L.72	16	Intercostal	0-05	3-0	0-5	6 : 1	—
61	L.72	16	Stiffener	0-10	2-5	0-25	4 : 1	108
62	L.73	10	Attachment angle	†0-05	3-0	—	—	—

* No repairs permitted

† More expedient to renew

All dimensions in inches

RESTRICTED

(A.L.12, June 58)

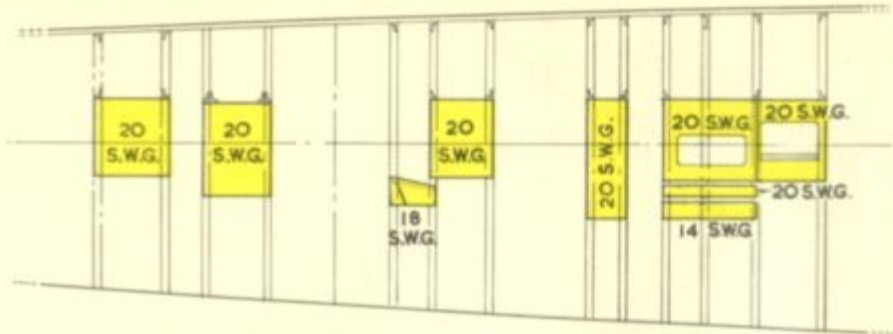
Key to Fig. 307. Bomb arches — port — fwd. face

Item	Spec.	Material S.W.G. or Section	Description	Depth	Negligible Damage		Holes Pitch Ratio	Repair Fig. No.
					Dents	Dist. Apart		
1	L.72	18	Gusset plate	†0-10	2-5	—	—	—
2	L.72	18	Attachment angle	†0-10	2-5	—	—	—
3	L.72	16	Stiffening angle	†0-10	2-5	—	—	—
4	L.72	10	Gusset plate	†0-10	2-5	—	—	—
5	L.72	385/SS.1795	Stiffener	0-10	2-5	—	—	—
6	L.72	18	Reinforcing plate	†0-05	3-0	0-3	8 : 1	—
7	L.72	18	Hinge channel	†0-10	2-5	0-3	8 : 1	—
8	DTD.683	Al. alloy	Attachment bracket	*0-10	2-5	—	—	as 112
9	L.72	85/SS.1793	Top hat stiffener	0-10	2-5	—	—	—
10	L.73	692/SS.1793	Joint stiffener	0-10	2-5	—	—	—
11	L.72	406/SS.1793	Attachment angle	0-10	2-5	—	—	—
12	L.65	294/SS.3075	Attachment angle	†0-05	3-0	—	—	—
13	L.72	20	Intercostal	†0-2	2-0	—	—	—
14	L.65	23/SS.3075	T-stiffener	†0-10	2-5	—	—	—
15	L.73	18	Joint strap	†0-20	2-0	—	—	—
16	L.65	362/SS.3075	Angle	†0-10	2-5	—	—	—
17	L.72	16	Reinforcing angle	†0-05	3-0	—	—	—
18	L.72	108/SS.1793	Channel	0-05	3-0	—	—	—
19	L.72	470/SS.1793	Angle	†0-05	3-0	—	—	—
20	L.73	793/SS.1793	Stiffener	0-10	2-5	—	—	as 112
21	DTD.683	Al. alloy	Crutching bracket	*0-10	2-5	—	—	108
22	L.72	16	Support channel	0-10	2-5	0-3	8 : 1	—
23	L.65	340/SS.3075	Stiffener	†0-05	2-5	—	—	—
24	L.73	16	Joint strap	†0-10	2-5	—	—	—
25	L.72	446/SS.1793	Angle	†0-10	2-5	—	—	—
26	L.72	619/SS.1793	Angle	†0-05	3-0	—	—	—
27	DTD.683	Al. alloy	Attachment bracket	*0-10	2-5	—	—	103
28	L.72	20	Reinforcing plate	0-05	3-0	—	—	—
29	L.72	937/SS.1793	Contour angle	0-05	3-0	—	—	—
30	L.72	18	Angle	†0-20	2-0	—	—	—
31	L.72	16	Angle	†0-20	2-0	—	—	—
32	L.72	12	Joint angle	†0-50	3-0	—	—	112
33	L.72	211/SS.1793	Top hat section	0-10	2-5	—	—	—
34	L.72	224/SS.1793	Stiffener	†0-10	2-5	—	—	—
35	L.73	314/SS.1793	Stiffener	†0-10	2-5	—	—	—
36	L.72	16	Side member	0-10	2-5	0-3	8 : 1	103
37	L.72	16	Joint member	†0-05	3-0	—	—	—
38	L.72	12	Doubler	†0-10	3-0	—	—	—
39	L.72	525/SS.1793	Stiffener	0-2	2-0	—	—	—
40	L.65	406/SS.3075	Edge member	0-05	3-0	—	—	—
41	L.72	16	Joint angle	†0-05	3-0	—	—	—
42	L.65	325/SS.3075	T-stringer	0-10	2-5	—	—	—
43	L.72	16	Attachment bracket	†0-10	2-5	—	—	—
44	DTD.683	Al. alloy	Attachment bracket	*0-05	3-0	—	—	—

* No repairs permitted
† More expedient to renew
All dimensions in inches

RESTRICTED

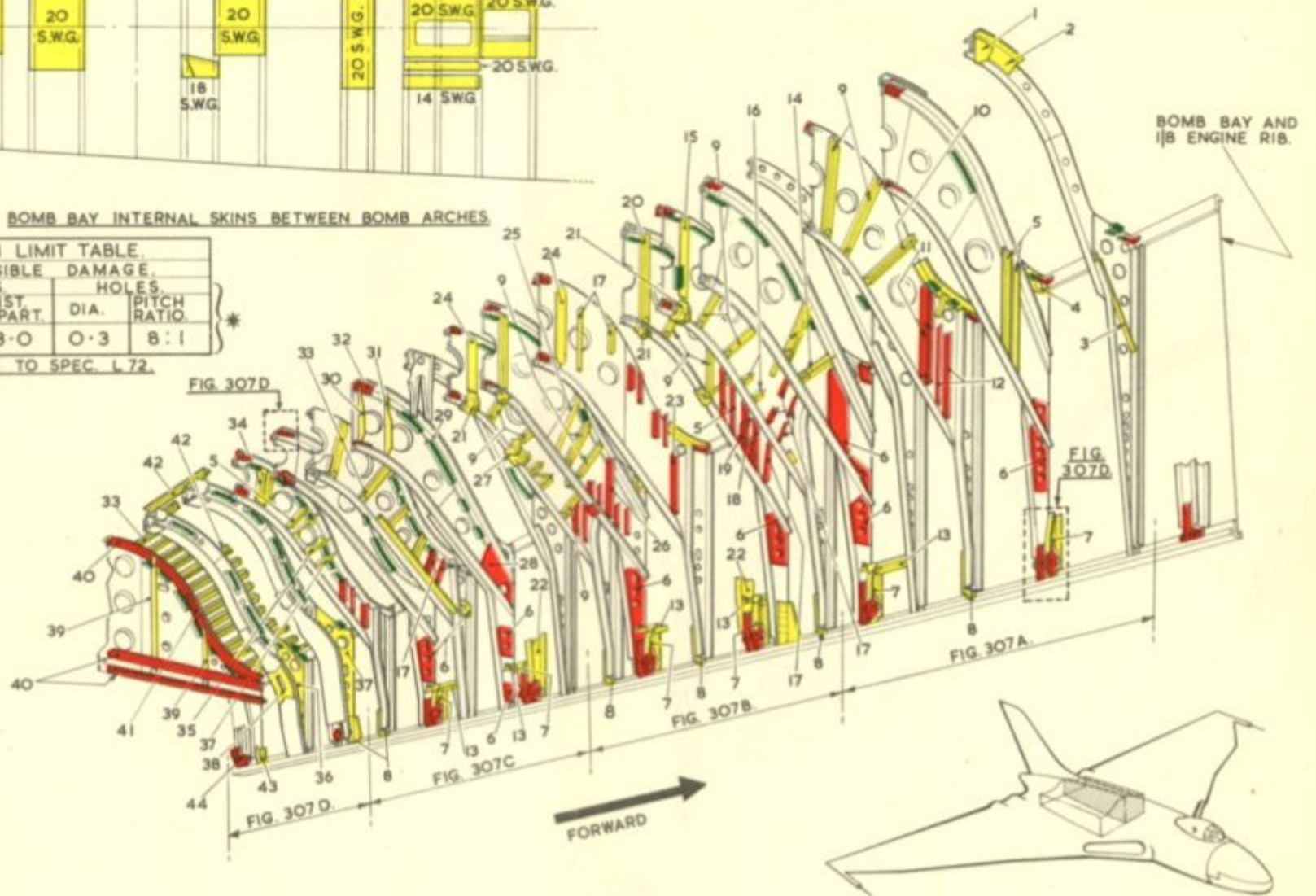
NOTE: FIG. NOS. 307A, 307B, 307C, AND 307D. SHOW STBD. VIEW OF BOMB ARCHES LOOKING FORWARD. ANNOTATION COVERS PORT AND STARBOARD.



BOMB BAY INTERNAL SKINS BETWEEN BOMB ARCHES

SKIN LIMIT TABLE			
NEGLECTIBLE DAMAGE		DENTS	
DEPTH	DIST. APART.	DIA.	PITCH RATIO
0.10	3.0	0.3	8:1

ALL SKINS TO SPEC. L.72.



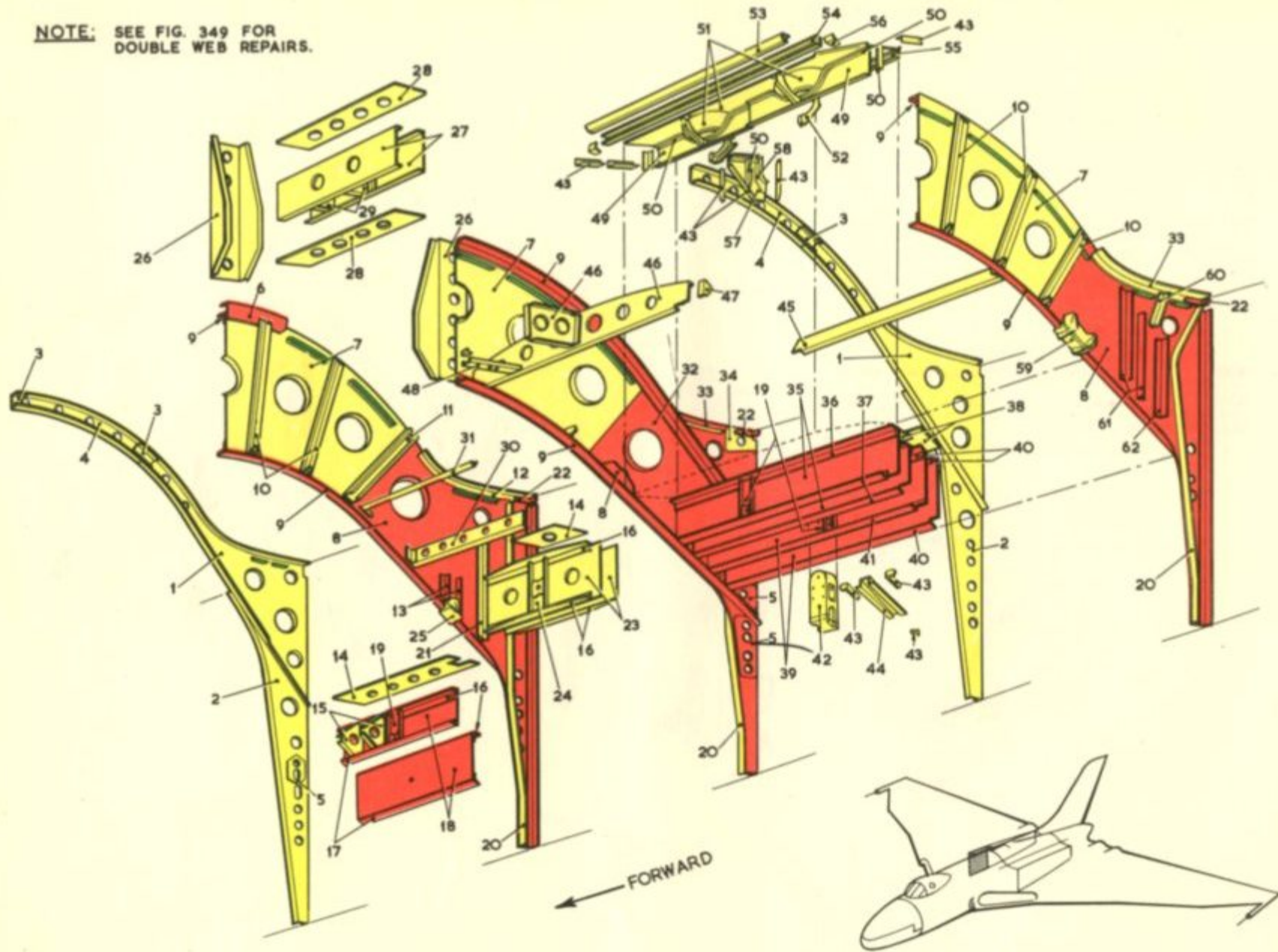
* FOR REPAIRS SEE FIG. 103, 104, AND TEXT IN CHAPTER 1.

Fig.307 Bomb arches - port

RESTRICTED

(A.L.12, June 58)

NOTE: SEE FIG. 349 FOR
DOUBLE WEB REPAIRS.



**Fig.307A Bomb arches - starboard
RESTRICTED**

Key to fig. 307A. Bomb Arches — Sbd.

A.P.4505, Vol. 6, Part 1, Chap. 3 (A.L.12)

Item	Spec.	Material S.W.G. or Section	Description	Depth	Dents Dist. Apart	Negligible Damage Dia.	Holes Pitch Ratio	Repair Fig. No.
1	L.72	16	Former channel	0-10	2-5	0-3	8 : 1	103, 106
2	L.72	16	Vertical member	0-10	2-5	0-3	8 : 1	104, 106
3	L.72	16	Joint channel	†0-10	2-5	—	—	—
4	L.72	16	Channel centre	0-10	2-5	—	—	—
5	L.72	18	Stiffener plate	†0-10	2-5	—	—	—
6	L.72	18	Attachment plate	†—	—	—	—	—
7	L.73	18	Centre web	0-10	2-5	0-3	8 : 1	103
8	L.73	18	Outer web	0-05	3-0	0-25	8 : 1	103
9	L.65	404/SS/3075	Extruded angle	0-05	3-0	—	—	—
10	L.72	85/SS/1793	Web stiffener	0-10	2-5	—	—	As 112
11	L.73	14	Joint stiffener	†0-10	2-5	—	—	—
12	L.72	14	Contour angle	0-10	2-5	—	—	As 114
13	DTD.687	14	Attachment angle	†0-05	3-0	—	—	—
14	L.72	20	Intercostal plate	†0-2	2-0	—	—	—
15	L.72	18	Diaphragm	†0.2	2-0	—	—	—
16	L.65	356/SS/3075	Intercostal angle	†0-05	3-0	—	—	—
17	L.72	12	Intercostal angle	†0-05	3-0	—	—	—
18	DTD.687	14	Intercostal web	0-05	3-0	—	—	103
19	L.72	14	Stiffening channel	†0-05	3-0	—	—	—
20	L.65	304/SS/3075	Vertical angle	0-10	2-5	—	—	343
21	L.65	294/SS/3075	Attachment angle	†0-10	2-5	—	—	—
22	DTD.683	Forging	Attachment bracket	—	—	—	—	—
	364							
23	DTD.687	16	Intercostal web	0-10	2-5	0-3	8 : 1	103
24	L.72	14	Stiffening channel	†0-10	2-5	—	—	—
25	L.65	Al. Alloy	Crutching bracket	†0-10	2-5	—	—	—
26	L.72	18	Actuator channel	0-10	2-5	—	—	—
27	L.72	18	Side member	0-10	2-5	—	—	103
28	L.72	18	Top and bottom plate	0-20	2-0	—	—	—
29	L.72	18	Diaphragm	†0-10	2-5	—	—	—
30	L.72	20	Intercostal	0-10	2-5	—	—	—
31	L.72	20	Skin angle	†0-10	2-5	—	—	—
32	L.73	20	Web reinforcing	0-05	3-0	0-3	8 : 1	103
33	L.65	273/SS/3075	Web angle	†0-05	3-0	—	—	—
34	L.72	10	Gusset plate	†0-05	3-0	—	—	—
35	DTD.687	18	Intercostal web	0-05	3-0	—	—	103
36	L.65	307/SS/3075	Stiffening angle	0-05	3-0	—	—	—
37	L.72	10	Stiffening angle	0-05	3-0	—	—	—
38	L.72	18	Top skins	†0-10	2-5	—	—	—
39	L.72	12	Intercostal webs	0-05	3-0	—	—	103
40	L.65	486/SS/3075	Intercostal angle	0-05	3-0	—	—	—
41	L.65	348/SS/3075	Intercostal angle	0-05	3-0	—	—	—
42	L.65	Al. Alloy	Crutching block	†0-10	2-5	—	—	—
43	L.72	18	Attachment angle	—	—	—	—	—
44	L.72	12	Stiffener	†0-10	2-5	—	—	—
45	L.72	596/SS/1793	Channel	0-20	2-0	—	—	—
46	L.72	20	Intercostal	0-20	2-0	0-3	8 : 1	—
47	L.72	18	Intercostal bracket	†0-10	2-5	—	—	—
48	L.72	264/SS/1793	Channel	†0-20	2-0	—	—	—
49	L.72	20	Web	0-20	2-0	0-3	8 : 1	—
50	L.72	126/SS/1793	Web angle	†0-20	2-0	—	—	—
51	L.72	16	Support tray	†0-20	2-0	—	—	—
52	L.72	20	Tray stiffeners	†0-20	2-0	—	—	—
53	L.73	16	Channel	†0-20	2-0	—	—	—
54	L.73	18	Channel	†0-20	2-0	—	—	—
55	L.72	16	Tray angle	0-20	2-0	—	—	114
56	L.72	16	Attachment angle	†0-20	2-0	—	—	—
57	L.72	24	Stiffener web	†0-20	2-0	—	—	—
58	L.72	18	Web stiffener	†0-20	2-0	—	—	—
59	L.65	Al. Alloy	Attachment bracket	†0-10	2-5	—	—	—
60	L.72	528/SS/1793	Lipped angle	†0-10	2-5	—	—	—
61	L.72	406/SS/1793	Support angle	†0-05	3-0	—	—	—
62	L.65	191/SS/3075	Attachment angle	†0-05	3-0	—	—	—

* No repairs permitted

† More expedient to renew

All dimensions in inches

RESTRICTED

(A.L.12, June 58)

Key to Fig. 307B Bomb Arches — Stbd.

Item	Spec.	Material S.W.G. or Section	Description	Depth	Dents	Negligible Damage	Holes	Repair Fig. No.
					Dist. Apart	Dia.	Pitch Ratio	
1	L.73	18	Centre web	0-10	2.5	0-3	8 : 1	103
2	L.73	18	Lower web	0-05	3-0	0-25	8 : 1	103
3	L.65	305/SS/3075	Profile angle	0-05	3-0	—	—	—
4	L.72	85/SS/1793	Stiffener	0-10	2.5	—	—	as 112
5	DTD.683	Al. Alloy	Crutching bracket	*0-10	2.5	—	—	—
6	L.72	18	Angle	0-10	2.5	—	—	—
7	L.65	273/SS/3075	Contour angle	0-10	2.5	—	—	—
8	L.72	10	Gusset plate	†0-10	2.5	0-3	8 : 1	—
9	L.72	16	Attachment angle	0-05	3-0	—	—	—
10	L.72	18	Reinforcing plate	†0-05	3-0	—	—	—
11	L.72	16	Web	0-05	3-0	—	—	103
12	L.72	525/SS/1793	Intercostal angle	†0-05	3-0	—	—	—
13	L.65	Al. Alloy	Pivot bracket	*0-10	2.5	—	—	—
14	L.65	304/SS/3075	Stiffening angle	0-10	2.5	—	—	343
15	L.65	405/SS/3075	Profile member	0-05	3-0	—	—	—
16	L.72	14	Stiffening angle	0-10	2.5	—	—	—
17	L.72	16	Reinforcing angle	†0-10	2.5	—	—	114
18	L.73	10	Reinforcing	†0-10	2.5	—	—	—
19	L.65	333/SS/3075	Angle	0-05	3-0	—	—	—
20	L.72	20	Bracket	†0-05	3-0	—	—	—
21	L.72	20	Side member	0-2	2-0	—	—	103
22	L.72	18	Plate	†0-2	2-0	—	—	—
23	L.72	20	Channel	0-2	2-0	—	—	—
24	L.65	222/SS/3075	Booms	0-05	3-0	—	—	344
25	DTD.687	14	Web	0-05	3-0	0-3	8 : 1	103
26	L.72	16	Bracket	†0-2	2-0	—	—	—
27	L.72	14	Channel	†0-05	3-0	—	—	—
28	S.96	H.T. Steel	Bearing plate	†0-05	3-0	—	—	—
29	L.72	22	Angle	†0-2	2-0	—	—	—
30	DTD.626	6	Packing	†0-2	2-0	—	—	—
31	L.72	20	Diaphragm	†0-2	2-0	—	—	—
32	L.72	20	Mounting plate	†0-2	2-0	—	—	—
33	L.72	60/SS/1793	Attachment angle	†0-2	2-0	—	—	—
34	L.72	602/SS/1793	Stiffener	0-10	3-0	—	—	—
35	L.72	446/SS/1793	Angle	†0-10	3-0	—	—	—
36	L.72	20	Plate	†0-2	2-0	—	—	—
37	DTD.687	16	Web	0-10	2.5	0-3	8 : 1	103
38	L.65	356/SS/3075	Angle	0-10	2.5	—	—	—
39	L.65	340/SS/3075	Angle	†0-10	2.5	—	—	—
40	L.72	14	Stiffening channel	†0-10	2.5	—	—	—
41	L.72	16	Doubling plate	†0-05	3-0	—	—	—
42	L.65	356/SS/3075	Angle	†0-05	3-0	—	—	—
43	L.72	12	Angle	†0-05	3-0	—	—	—
44	L.72	18	Diaphragm	†0-2	2-0	—	—	—
45	L.65	404/SS/3075	Contour angle	0-05	3-0	—	—	—
46	L.65	192/SS/3075	T-stiffener	†0-10	2.5	—	—	—
47	L.72	247/SS/1793	Angle	†0-2	2-0	—	—	—
48	L.72	385/SS/1793	Stiffening channel	0-10	2.5	—	—	—
49	L.65	Al. Alloy	Crutching bracket	*0-10	2.5	—	—	—
50	L.72	12	Intercostal web	0-05	3-0	0-3	8 : 1	103
51	L.65	486/SS/3075	Intercostal booms	†0-05	3-0	—	—	—
52	L.65	Al. Alloy	Crutching block	*0-10	3-0	—	—	—
53	S.96	H.T.S. Bar	Crutching pad	*0-10	3-0	—	—	—
54	L.65	326/SS/3075	Attachment angle	†0-05	3-0	—	—	—
55	L.65	384/SS/3075	Bottom boom	†0-05	3-0	—	—	—
56	L.73	18	Reinforcing ring	†0-2	2-0	—	—	—
57	L.72	16	Plate	†0-2	2.5	—	—	—
58	L.65	23/SS/3075	Stiffener	†0-05	3-0	—	—	—
59	L.65	307/SS/3075	Angle	†0-05	3-0	—	—	—
60	L.72	619/SS/1793	Angle	†0-10	2.5	—	—	—
61	L.72	18	Channel	†0-10	2.5	—	—	—

* No repairs permitted

† More expedient to renew

All dimensions in inches

RESTRICTED

NOTE: SEE FIG. 349 FOR
DOUBLE WEB REPAIRS.

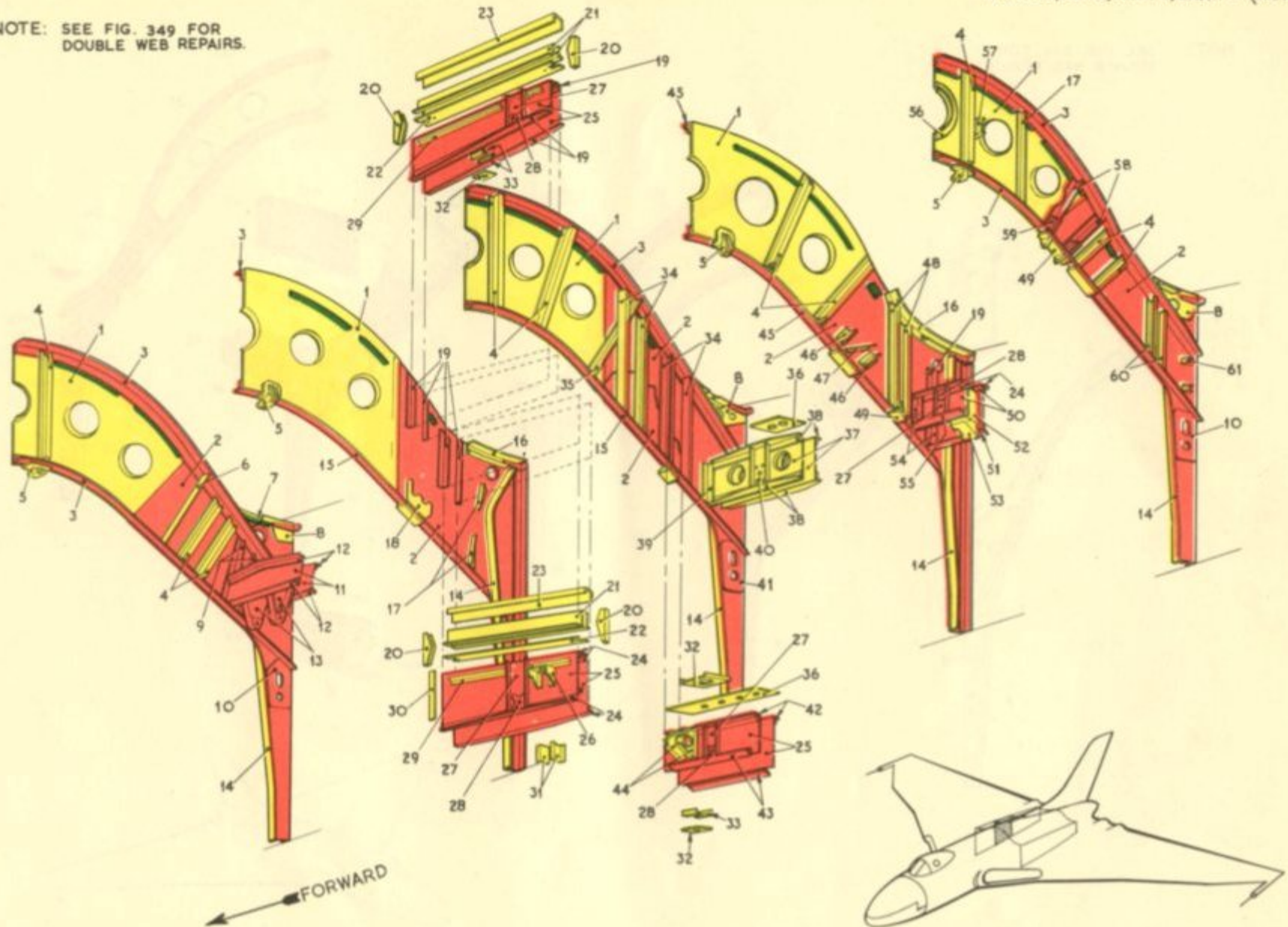


Fig.307B Bomb arches - starboard
RESTRICTED

(A.L12, June 58)

NOTE: SEE FIG. 349 FOR
DOUBLE WEB REPAIRS.

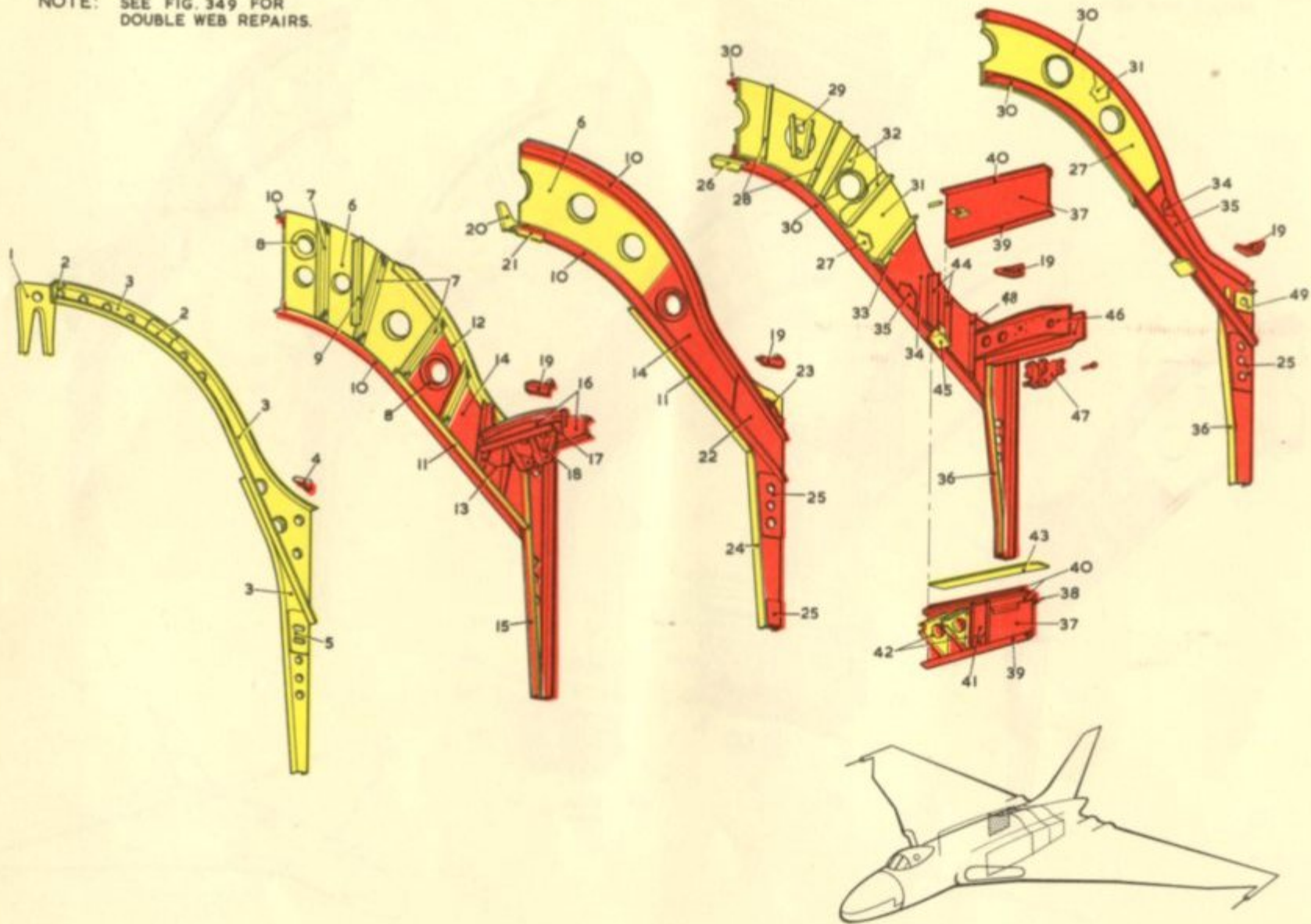


Fig.307C Bomb arches - starboard
RESTRICTED

Key to Fig. 307C — Bomb arches — stbd.

Item	* Spec.	Material S.W.G. or Section	Description	Dents		Negligible Damage		Holes Pitch Ratio	Repair Fig. No.
				Depth	Dist. Apart	Dia.			
1	L.72	18	Hanger bracket	†0.2	2.0	0.3	8 : 1	—	
2	L.72	16	Insert channel	†0.05	3.0	—	—	—	
3	L.72	16	Former member	0.05	3.0	—	—	103	
4	DTD.683	Al. alloy	Attachment bracket	† —	—	—	—	—	
5	L.72	18	Reinforcing plate	†0.10	2.5	—	—	—	
6	L.72	18	Centre web	0.10	2.5	0.3	8 : 1	103	
7	L.72	211/SS/1793	Stiffeners	0.10	2.5	—	—	112	
8	L.72	18	Stiffening ring	†0.10	2.5	—	—	—	
9	L.72	13b/SS/1793	Angle	†0.10	2.5	—	—	—	
10	L.72	937/SS/1793	Angle	0.05	3.0	—	—	—	
11	L.72	525/SS/1793	Angle	0.10	2.5	—	—	—	
12	L.72	937/SS/1793	Angle	0.10	2.5	—	—	—	
13	L.72	16	Angle	†0.05	3.0	—	—	—	
14	L.72	18	Web	0.05	3.0	0.25	8 : 1	103	
15	L.72	524/SS/1793	Vertical angle	0.10	2.5	—	—	—	
16	L.72	16	Intercostal web	0.05	3.0	—	—	103	
17	L.72	525/SS/1793	Intercostal angles	†0.05	3.0	—	—	—	
18	L.65	Al. alloy	Pivot bracket	*0.05	3.0	—	—	—	
19	DTD.683	Al. alloy	Attachment bracket	† —	—	—	—	—	
20	L.72	18	Bracket	†0.10	2.5	—	—	—	
21	L.65	356/SS/3075	Attachment angle	†0.10	2.5	—	—	—	
22	L.72	20	Reinforcing plate	0.05	3.0	—	—	103	
23	L.72	18	Gusset plate	†0.10	2.5	—	—	—	
24	L.72	524/SS/1793	Vertical angle	0.10	2.5	—	—	—	
25	L.72	18	Stiffening plate	†0.10	2.5	—	—	—	
26	L.72	14	Attachment angle	†0.10	2.5	—	—	—	
27	L.73	16	Centre web	0.10	2.5	0.3	8 : 1	103	
28	L.72	385/SS/1793	Angle	0.05	3.0	—	—	—	
29	L.72	22	Channel	†0.10	2.5	0.3	8 : 1	—	
30	L.65	305/SS/3075	Contour angle	0.05	3.0	—	—	—	
31	L.73	16	Centre reinforcing plate	0.05	3.0	0.3	8 : 1	103	
32	L.65	314/SS/3075	Stiffeners	†0.10	2.5	—	—	—	
33	L.72	16	Joint angle	†0.10	2.5	—	—	—	
34	DTD.687	14	Reinforcing web	0.05	3.0	—	—	103	
35	DTD.687	18	Lower web	0.05	3.0	0.3	8 : 1	103	
36	L.65	304/SS/3075	Vertical angle	0.05	3.0	—	—	343	
37	DTD.687	14	Intercostal web	0.05	3.0	—	—	103	
38	L.72	12b/SS/1793	Angle	†0.05	3.0	—	—	—	
39	L.72	12	Angle	†0.05	3.0	—	—	—	
40	L.65	356/SS/3075	Angle	†0.05	3.0	—	—	—	
41	L.72	16	Channel	†0.05	3.0	—	—	—	
42	L.72	18	Diaphragm	†0.10	2.5	0.3	8 : 1	—	
43	L.72	18	Plate	†0.20	2.0	0.3	8 : 1	—	
44	DTD.687	14	Attachment angle	†0.05	3.0	—	—	—	
45	L.65	Al. alloy	Crutching bracket	*0.10	2.5	—	—	—	
46	L.65	Al. alloy	Forged beams	*0.05	3.0	—	—	—	
47	L.65	Al. alloy	Hoist fitting	*0.05	3.0	—	—	—	
48	L.65	294/SS/3075	Angle	†0.05	3.0	—	—	—	
49	DTD.687	12	Reinforcing plate	†0.10	2.5	—	—	—	

* No repairs permitted
† More expedient to renew
All dimensions in inches

RESTRICTED

(A.L.12, June 58)

Key to Fig. 307D — Bomb arches — stbd.

Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage			Holes Pitch Ratio	Repair Fig. No.
				Dents Depth	Dist. Apart	Dia.		
1	L.72	14	Joint angle	†0-10	2-5	—	—	—
2	L.72	16	Former channel	0-10	2-5	—	—	—
3	L.72	16	Top and bottom skins	0-10	2-5	0-25	5 : 1	105, 107
4	L.72	16	Joint plate	†0-05	3-0	—	—	—
5	L.72	16	Side members	0-2	2-0	0-25	5 : 1	103
6	L.72	18	Joint angle	†0-10	2-5	—	—	—
7	L.72	18	Gusset plate	†0-10	2-5	—	—	—
8	L.72	20	Intercostal	0-2	2-0	0-25	5 : 1	106, 115
9	L.72	410/SS/1793	Stiffener	0-10	2-5	—	—	—
10	L.72	18	Contour angle	†0-10	2-5	—	—	—
11	DTD.683	Al. alloy	Bearing	* —	—	—	—	—
12	DTD.687	12	Reinforcing ring	†0-2	2-0	—	—	—
13	L.72	20	Skin panel	0-05	3-0	0-25	8 : 1	103
14	L.72	18	Skin panel	0-05	3-0	0-25	8 : 1	103
15	L.72	18	Doubling plate	0-05	3-0	—	—	—
16	L.72	14	Attachment bracket	0-05	3-0	—	—	—
17	S.96	H.T.S.	Joint plate	—	—	—	—	—
18	L.72	16	Stringer bracket	†0-05	3-0	—	—	—
19	L.72	10	Packing	†0-10	2-5	—	—	—
20	DTD.683	Al. alloy	Bearing bracket	* —	—	—	—	—
21	DTD.683	Al. alloy	Attachment bracket	*0-05	3-0	—	—	—

* No repairs permitted
 † More expedient to renew
 All dimensions in inches

RESTRICTED

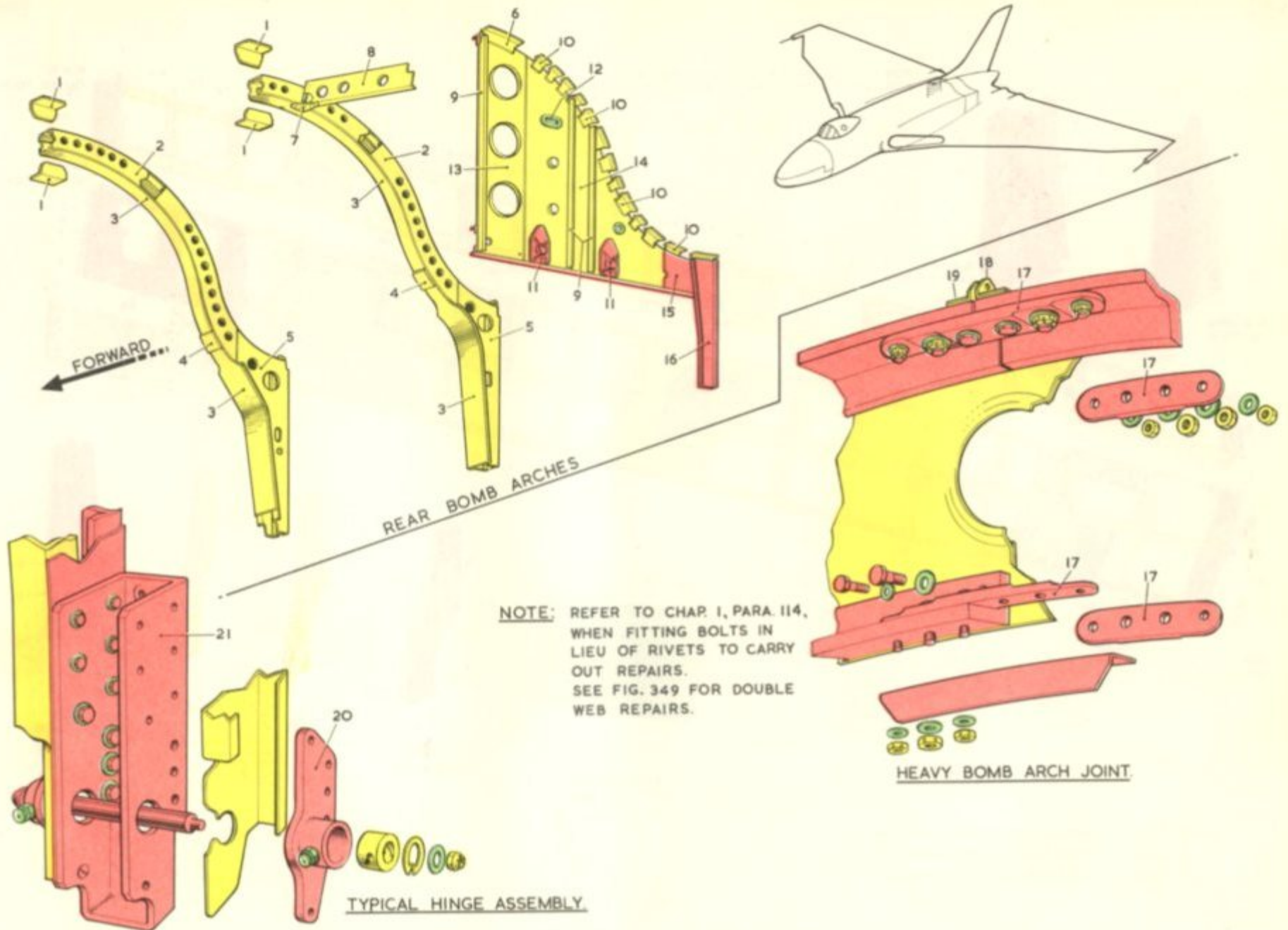
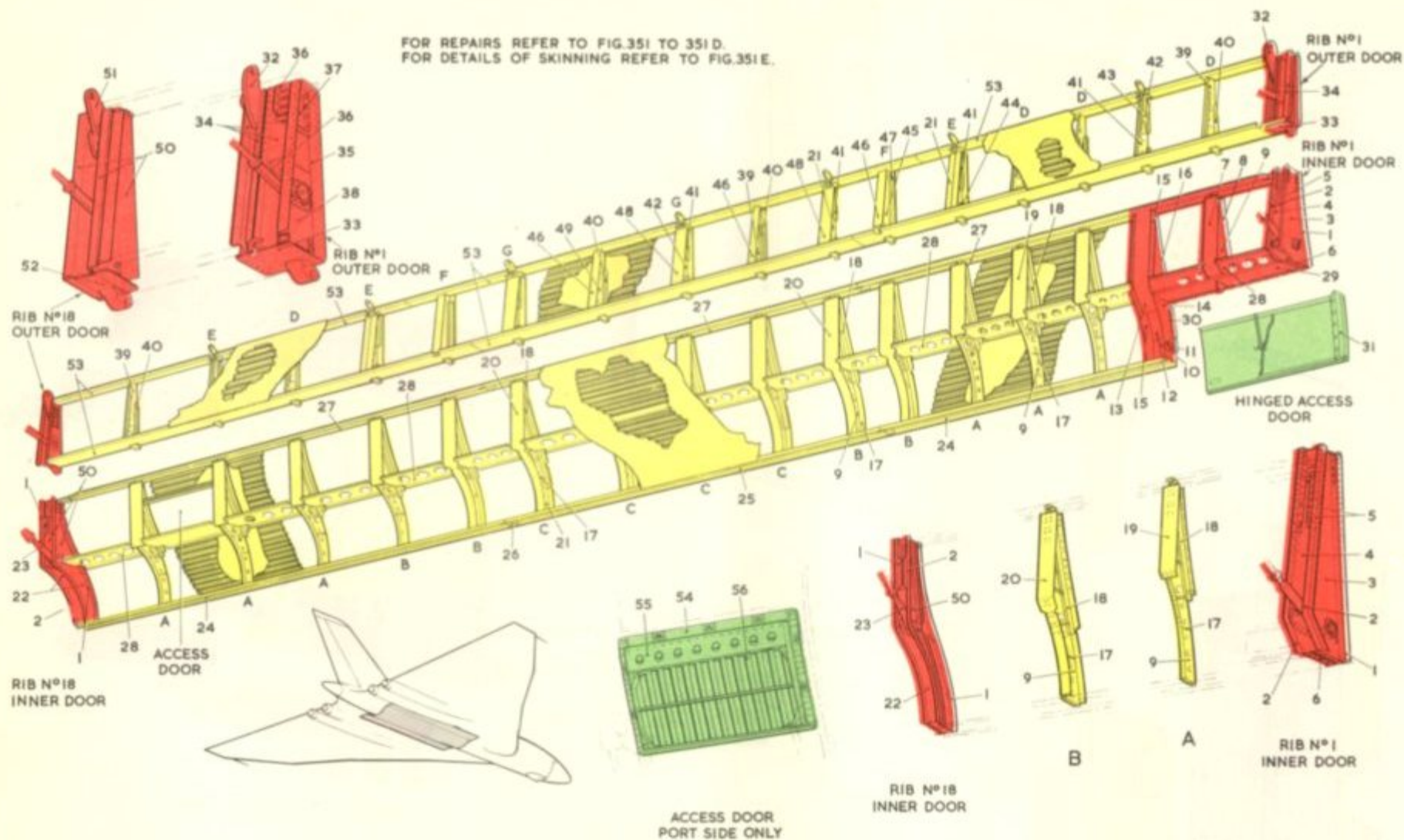


Fig. 307D. Bomb arches-Starboard
RESTRICTED

FOR REPAIRS REFER TO FIG.35I TO 35I D.
FOR DETAILS OF SKINNING REFER TO FIG.35I E.



NOTE. PREFIX "IDENTICAL" LETTERS AT THE RIBS
INDICATES THAT SIMILAR MATERIALS
AND SECTIONS ARE USED ON ASSEMBLY.

PORT DOORS ILLUSTRATED
STBD. " OPPOSITE HAND

Fig.30B. Bomb door structure
RESTRICTED

Fig. 308. Bomb door structure

Item	Spec.	Material S.W.G. or Section	Description	Depth	Negligible Damage		Holes Pitch Ratio	Repair Fig. No.
					Dents Dist. Apart	Dia.		
1	L.72	18	Angle	—	—	—	—	—
2	L.72	14	Angle	—	—	—	—	—
3	DTD.687	14	Web	0-05	3-0	0-25	8 : 1	—
4	L.72	14	Top plate	0-05	3-0	0-25	8 : 1	—
5	L.72	18	Angle	† —	—	—	—	—
6	L.72	20	Angle	† —	—	—	—	—
7	L.72	754/SS.1793	Strap	†0-05	3-0	0-25	8 : 1	—
8	L.72	752/SS.1793	Angle	0-05	3-0	—	—	—
9	L.72	20	Web	0-10	2-5	0-25	6 : 1	—
10	L.72	16	Side member	†0-05	3-0	0-25	8 : 1	—
11	L.65	—	Catch bracket	*0-05	3-0	—	—	—
12	L.73	14	Reinforcing plate	†0-05	3-0	0-25	8 : 1	—
13	L.73	18	Strap plate	†0-10	2-5	0-25	6 : 1	—
14	L.73	16	Side member	0-05	3-0	0-25	8 : 1	—
15	L.72	943/SS.1793	'Z' section	†0-05	3-0	—	—	—
16	L.72	12b/SS.1793	Attachment angle	0-05	3-0	—	—	—
17	L.72	753/SS.1793	Angle	†0-10	2-5	—	—	—
18	L.72	752/SS.1793	Angle	0-10	2-5	—	—	—
19	L.72	754/SS.1793	Strap plate	†0-15	2-0	0-30	5 : 1	—
20	L.72	18	Strap plate	†0-15	2-0	0-30	5 : 1	—
21	L.72	18	Web	0-10	2-5	0-25	6 : 1	—
22	L.72	18	Web	0-05	3-0	0-25	8 : 1	—
23	L.65	—	Eye-end	—	—	—	—	—
24	L.72	16	Channel	0-10	2-5	0-25	8 : 1	108
25	L.72	20	Channel	0-10	2-5	0-25	8 : 1	108
26	L.72	16	Joint channel	†0-10	2-5	—	—	—
27	L.72	14	Channel	0-10	2-5	0-25	8 : 1	108
28	L.72	20	Intercostals	0-15	2-0	0-25	4 : 1	105
29	L.72	18	Hinge-channel	0-05	3-0	0-25	4 : 1	108
30	L.72	20	Angle	†0-05	3-0	—	—	—
31	L.72	20	Support member	0-20	2-0	0-30	4 : 1	—
32	S.11	—	Hinge block	* —	—	—	—	—
33	L.72	16	Stiffening plate	†0-05	3-0	0-25	4 : 1	—
34	L.72	14	Channel	0-05	3-0	0-25	6 : 1	—
35	DTD.687	10	Web plate	0-05	3-0	—	—	—
36	L.72	14	Channel	0-05	3-0	—	—	108
37	L.72	14	Angle	†0-05	3-0	—	—	—
38	L.72	14	Reinforcing plate	0-05	3-0	0-25	6 : 1	—
39	L.72	22	Web	0-20	2-0	0-50	4 : 1	108
40	L.72	761/SS.1793	Angle	0-15	2-5	—	—	113
41	L.72	16	Channel	0-05	3-0	0-25	6 : 1	108
42	L.72	16	Web	0-10	2-5	0-25	6 : 1	108
43	L.72	16	Angle	0-05	3-0	—	—	113
44	L.72	763/SS.1793	Angle	†0-05	3-0	—	—	—
45	L.72	18	Web	0-20	2-0	0-50	4 : 1	108
46	L.72	20	Plate	†0-20	2-0	0-50	4 : 1	—
47	L.72	523/SS.1793	Angle	0-15	2-5	—	—	113
48	L.72	20	Plate	†0-15	2-5	0-25	6 : 1	—
49	L.72	20	Web	0-20	2-0	0-50	4 : 1	108
50	L.72	14	Web plate	0-05	3-0	0-25	8 : 1	108
51	S.96	—	Hinge block	* —	—	—	—	—
52	L.72	18	Plate	†0-05	3-0	0-25	4 : 1	—
53	L.72	14	Channel	0-10	2-5	0-25	8 : 1	108
54	L.72	20	Door frame member	0-20	2-0	—	—	—
55	L.72	22	Skin panel	0-20	2-0	0-50	4 : 1	—
56	L.59	18	Louvre	0-20	2-0	—	—	—

* No repairs permitted

† More expedient to renew

All dimensions in inches

RESTRICTED

(A.L.12, June 58)

Fig. 309. Dorsal fin — structure — skins

Item	Spec.	Material S.W.G. or Section	Description	Depth	Negligible Damage		Holes Pitch Ratio	Repair Fig. No.
					Dents Dist. Apart	Dia.		
1	L.72	12a/SS.1793	Angle	0.10	2.5	—	—	113
2	L.72	22	Web	0.15	2.5	0.25	4 : 1	—
3	L.72	20	Attachment angle	†0.10	2.5	—	—	—
4	L.72	20	Gusset plate	†0.15	2.5	0.25	4 : 1	—
5	L.72	18	Panel	0.15	2.5	0.25	4 : 1	—
6	L.72	65/SS.1793	Panel angles	0.10	2.5	—	—	113
7	L.72	18	Attachment channel	0.10	2.5	—	—	—
8	L.72	112/SS.1793	Angle	0.10	2.5	—	—	113
9	L.72	133/SS.1793	Side angle	0.10	2.5	—	—	113
10	L.72	13b/SS.1793	Angle	0.10	3.0	—	—	113
11	L.72	12b/SS.1793	Angle	0.10	2.5	—	—	113
12	L.72	446/SS.1793	Angle	0.10	2.5	—	—	—
13	L.72	24	Web	0.20	2.0	0.25	4 : 1	—
14	L.72	13b/SS.1793	Angle	0.10	2.5	—	—	113
15	L.72	20	Angle	0.10	2.5	—	—	113
16	L.72	12d/SS.1793	Attachment angle	0.10	2.5	—	—	113
17	L.72	22	Angle	0.10	2.5	—	—	113
18	L.72	22	Angle	0.10	2.5	—	—	—
19	L.72	24	Web	0.15	3.0	0.25	6 : 1	—
20	L.72	20	Angle	0.10	2.5	—	—	113
21	L.72	22	Angle	0.10	2.5	—	—	113
22	L.72	22	Angle	†0.10	2.5	—	—	113
23	L.72	22	Angle	†0.10	2.5	—	—	113
24	L.72	22	Angle	†0.10	2.5	—	—	—
25	L.72	22	Angle	†0.10	2.5	—	—	113
26	L.72	22	Angle	†0.10	2.5	—	—	113
27	L.72	22	Angle	†0.10	2.5	—	—	113
28	L.72	22	Angle	†0.10	2.5	—	—	113

All dimensions in inches
 † More expedient to renew

RESTRICTED

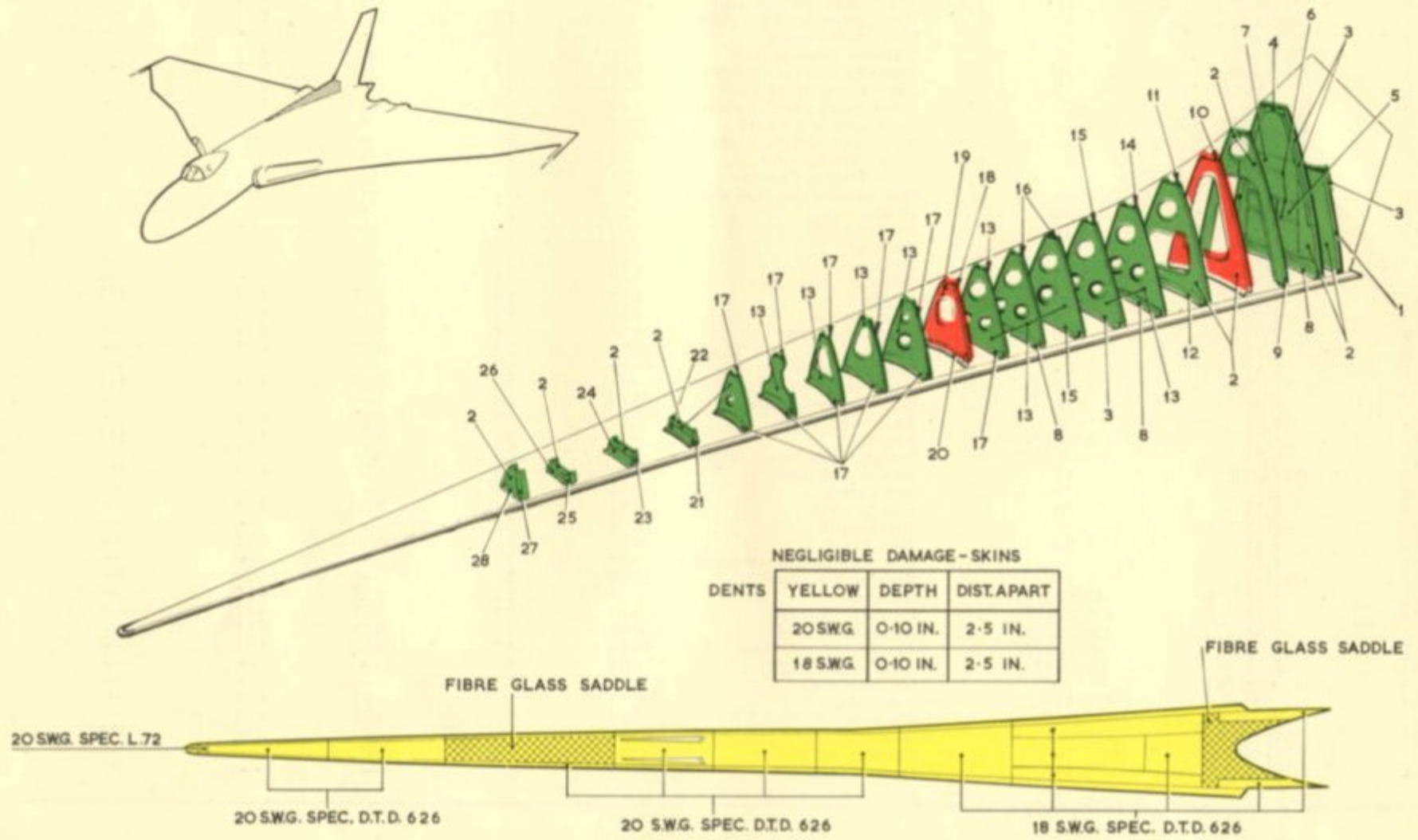


FIG. 309. DORSAL FIN - STRUCTURE - SKINS
RESTRICTED

(A.L.12, June 58)

Fig. 310. Rear spar structure

Item	Spec.	Material S.W.G. or Section	Description	Depth	Negligible Damage		Holes Pitch Ratio	Repair Fig. No.
					Dents	Dist. Apart		
1	DTD.687	10	Web	0.05	3	1.0	8:1	—
2	DTD.687	10	Web joint plate	0.05	3	—	—	—
3	DTD.687	12	Web-centre portion (red)	0.05	3	1.0	8:1	—
3	DTD.687	12	Web-centre portion (yellow)	0.10	2.5	1.0	8:1	—
4	DTD.687	12	Web joint channel	0.05	3	—	—	—
5	DTD.687	12	Web-top portion (red)	0.15	3	1.0	8:1	—
5	DTD.687	12	Web-top portion (yellow)	0.10	2.5	1.0	8:1	—
6	L.73	10	Reinforcing plate (red)	0.05	3	1.0	8:1	—
6	L.73	10	Reinforcing plate (yellow)	0.10	2.5	1.0	8:1	—
7	DTD.363A	—	Rear spar top boom	*0.05	3	—	—	—
8	DTD.363A	—	Rear spar bottom boom	*0.05	3	—	—	—
9	DTD.683	—	Joint forging—top	*0.05	3	—	—	—
10	DTD.683	—	Joint forging—bottom	*0.05	3	—	—	—
11	S.96	—	Spar boom—ring joint section	*0.05	3	—	—	—
12	L.72	24	Angle	†0.1	2.5	—	—	—
13	L.72	14	Stiffener web	0.05	3	—	—	—
14	L.72	16	Stiffener	0.05	3	—	—	—
15	L.72	108/SS.1793	Stiffener	0.10	2.5	—	—	—
16	L.72	20	Stiffener	0.10	2.5	—	—	—
17	L.72	20	Angles	0.10	2.5	0.25	4:1	113
18	L.72	16	Channel	0.10	2.5	0.25	4:1	—
19	L.72	20	Centre pressing	0.10	2.5	1.0	6:1	—
20	L.72	10	Beam	†0.10	2.5	0.25	4:1	—
21	L.65	—	Catch plate	†0.10	2.5	—	—	—
22	L.72	18	Reinforcing angle	0.10	2.5	0.25	4:1	113
23	L.72	18	Skin attachment angles	†0.10	2.5	—	—	—
24	L.72	16	Angle and strap	0.10	2.5	0.25	4:1	—
25	L.72	12a/SS.1793	Angle	0.10	2.5	0.25	4:1	113
26	L.72	386/SS.1793	Stringer attachment angle	0.10	2.5	0.25	4:1	—
27	DTD.687	17	Attachment angle	0.10	2.5	0.25	4:1	113
28	L.72	20	Strap plate	†0.10	2.5	—	—	—
29	L.72	20	Side member	0.05	3	0.50	6:1	—
30	L.72	20	Diaphragm	†0.10	2.5	—	—	—
31	L.72	20	Skin panel	0.05	3	0.50	6:1	—
32	L.65	—	Fwd. fin post support member	*0.05	3	—	—	—
33	DTD.687	14	Reinforcing plate	†0.05	3	—	—	—
34	L.72	83/SS.1793	Stiffener	0.10	2.5	0.25	4:1	—
35	L.72	677/SS.1793	Platform channel	0.10	2.5	0.25	4:1	—
36	L.65	338/SS.1793	Attachment angles	0.05	3	0.25	6:1	—
37	L.72	85/SS.1793	Attachment member	†0.10	2.5	0.25	4:1	—
38	L.72	249/SS.1793	Attachment angle	0.05	3	—	—	—
39	S.99 or EN.267	—	Jet pipe rings	0.05	3	—	—	—
40	DTD.124A	14	Inner skin	0.10	3	0.50	4:1	—
41	DTD.687	939/SS.1793	Channel	0.05	3	0.25	6:1	—
42	DTD.687	715/SS.1793	Angle	0.05	3	—	—	113
43	DTD.687	16	Capping strip	0.05	3	—	—	—
44	DTD.687	18	Gusset plate	†0.05	3	—	—	—

* No repairs permitted
 † More expedient to renew
 All dimensions in inches

RESTRICTED

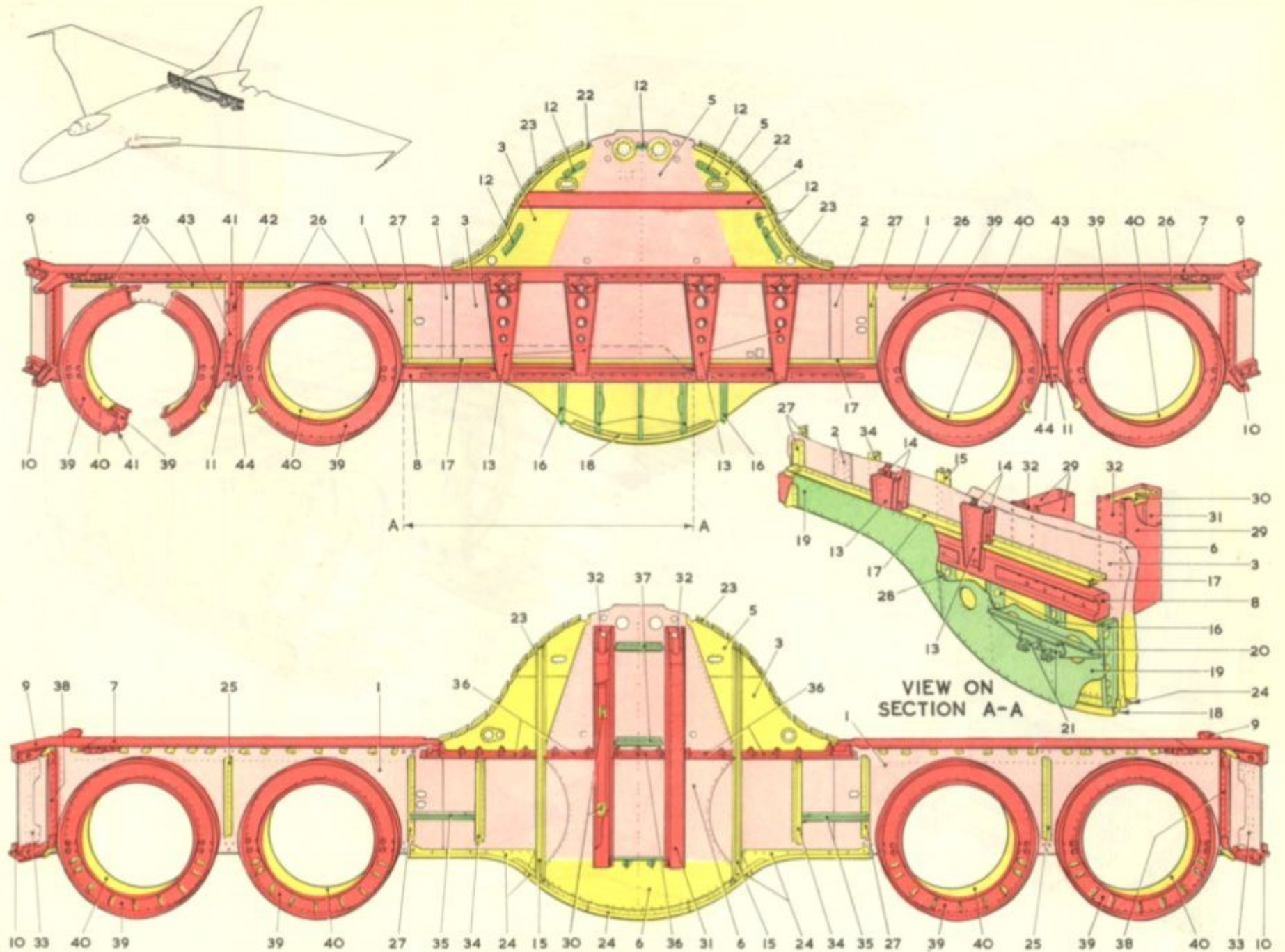


Fig. 310. Rear spar - Centre section

RESTRICTED

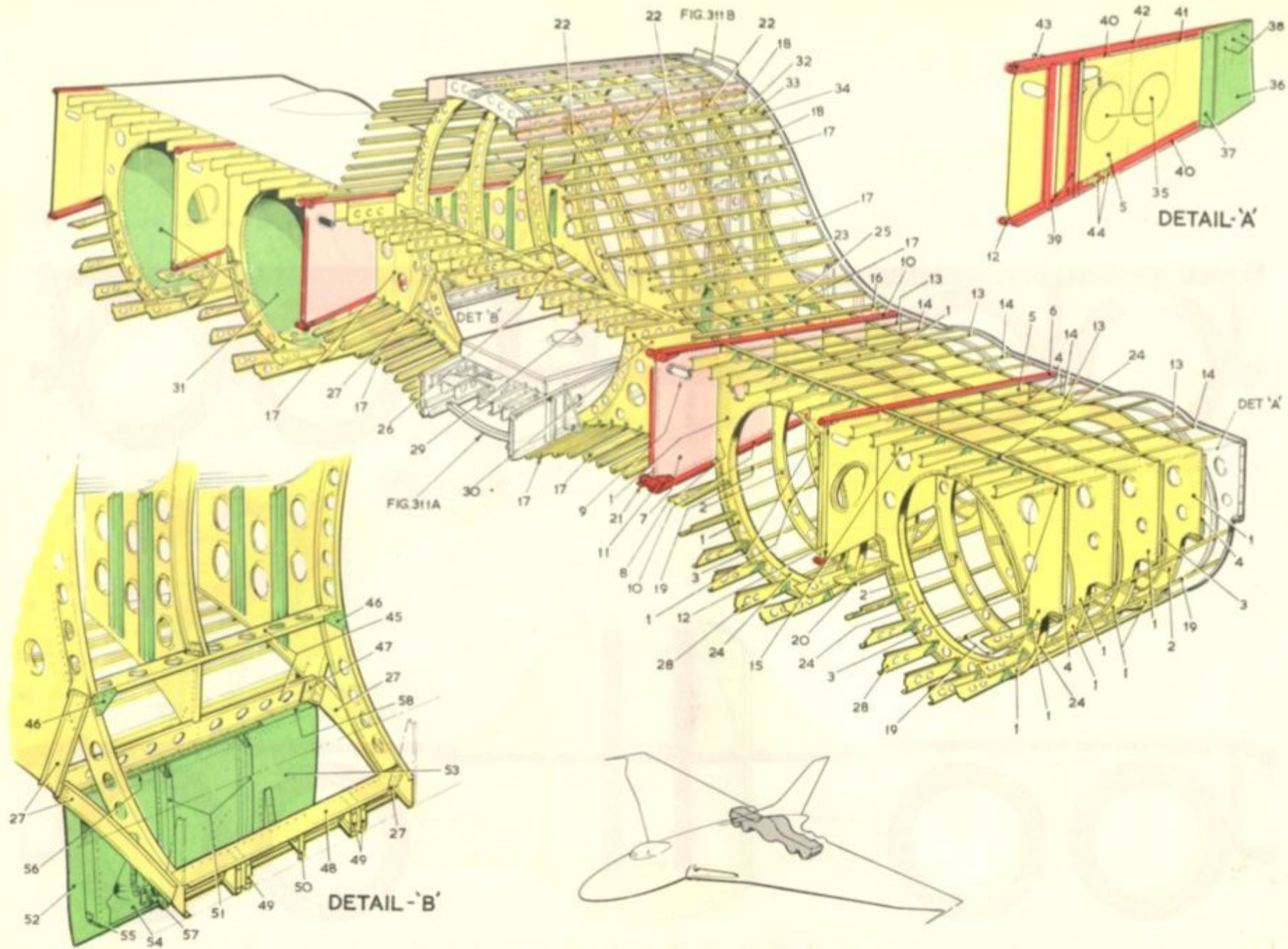


Fig 311. Structure aft of rear spar
RESTRICTED

KEY TO FIG.311

Item	Material		Description	Negligible Damage					Repair Fig.
	Spec.	S.W.G. or Section		Dents		Holes			
				Depth	Dist. Apart	Dia.	Pitch Ratio		
1	L.72	22	Formers	0.1	3.0	0.25	8:1	103	
2	L.72	20	Joint channel	x 0.1	3.0	0.25	6:1	-	
3	L.72	12d/SS.1793	Angle	0.1	3.0	0.25	6:1	-	
4	L.72	386/SS.1793	Stiffener	0.05	3.0	0.25	6:1	-	
5	L.73	24	Web	0.1	3.0	0.25	8:1	103	
6	L.65	361/SS.3075	Boom	0.025	3.0	-	-	-	
7	D.T.D.687	17	Web	0.025	3.0	0.25	8:1	103,104	
8	L.72	12a/SS.1793	Attachment angle	0.05	3.0	0.25	8:1	113	
9	D.T.D.687	16	Stiffening ring	x 0.025	3.0	-	-	-	
10	D.T.D.363	411/SS.3075	Boom	0.025	3.0	-	-	-	
11	S.96	-	Attachment bracket	* 0.025	3.0	-	-	-	
12	L.65	-	Attachment bracket	* 0.025	3.0	-	-	-	
13	D.T.D.687	582/SS.1793	'Z' stringer	0.05	3.0	0.25	6:1	221	
14	L.65	375/SS.3075	'T' stringer	0.05	3.0	0.25	6:1	109	
15	L.72	20	Intercostals	x 0.1	3.0	0.25	6:1	-	
16	L.72	525/SS.1793	Special stringer	0.05	3.0	0.25	6:1	-	
17	L.72	211/SS.1793	Top hat stringer	0.1	3.0	0.25	6:1	112	
18	L.65	325/SS.3075	'T' stringer	0.05	3.0	0.25	6:1	-	
19	D.T.D.687	582/SS.1793	'Z' stringer	0.1	3.0	0.25	6:1	221	
20	L.65	337/SS.3075	'T' stringer	0.1	3.0	0.25	6:1	-	
21	L.65	292/SS.3075	'T' stringer	0.05	3.0	0.25	6:1	110	
22	L.72	455/SS.1793	Formers	0.05	3.0	0.25	6:1	105,107	
23	L.72	22	Pressing	0.1	2.5	0.25	6:1	103	
24	L.72	20	Butt strap	x 0.1	3.0	0.25	6:1	-	
25	L.72	20	Reinforcing angle	x 0.1	2.5	0.25	4:1	-	
26	L.65	357/SS.3075	Channel	0.05	3.0	0.25	6:1	-	
27	L.72	18	Channel	0.05	4.0	0.25	8:1	107	
28	L.72	24	Intercostals	x 0.1	3.0	0.25	6:1	-	
29	L.72	20	Intercostals	x 0.1	3.0	0.25	6:1	-	
30	L.72	18	Intercostals	x 0.1	3.0	0.25	6:1	-	
31	A.V.R.50	28	Jet pipe tunnels	xx 1.0	-	-	-	342	
	D.T.D.571 or D.T.D.166	28	(Prior to Mod.51)	xx 1.0	-	-	-	342	
32	L.72	14	Beam	x 0.05	3.0	-	-	-	
33	L.72	10	Gusset	x 0.05	3.0	-	-	-	
34	L.65	-	Bracket	x 0.05	3.0	-	-	-	
35	L.72	22	Reinforcing plate	x 0.1	3.0	0.25	6:1	-	
36	L.72	20	Fairing skin	0.15	2.5	-	-	103,104	
37	L.72	18	Diaphragm	x 0.1	2.5	-	-	-	
38	L.72	18	Channel stiffeners	0.05	2.5	0.25	6:1	-	
39	L.72	666/SS.1793	Stiffener	0.05	3.0	0.25	8:1	-	
40	L.72	430/SS.1793	Angle	0.05	3.0	-	-	113,114	
41	L.72	112/SS.1793	Angle	0.05	3.0	-	-	113,114	
42	L.65	306/SS.3075	Boom	0.05	3.0	-	-	-	
43	L.72	18	Angle	x 0.05	3.0	-	-	-	
44	L.65	-	Bracket	* 0.05	3.0	-	-	-	
45	L.72	18	Channel	0.05	4.1	0.25	8:1	105,107	
46	L.72	18	Gusset	x 0.05	2.0	-	-	-	
47	L.72	18	Bracket	x -	-	-	-	-	

* No repairs permitted
x More expedient to renew than repair
xx See text in Chap.3
All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.311 (contd.)

Item	Spec.	Material		Description	Negligible Damage				Repair Fig.
		S.W.G. or Section			Dents Depth	Dist. Apart	Holes Dia.	Pitch Ratio	
48	L. 72	20		Skin angle	0.05	4.0	0.25	8:1	
49	L. 72	16		Diaphragm	x 0.05	4.0	-	-	-
50	L. 72	20		Diaphragm	x 0.05	4.0	-	-	-
51	L. 72	507/SS. 1793		Stiffener	0.05	4.0	-	-	-
52	L. 72	20		Outer skin	0.1	4.0	-	-	102
53	L. 72	20		Inner skin	0.1	4.0	0.5	8:1	102
54	L. 72	22		Pressing	0.1	4.0	0.5	8:1	
55	S. 3	18		Reinforcing strip	x 0.05	4.0	-	-	-
56	L. 72	A.S. 1880		Hinge	x -	-	-	-	-
57	D. T. D. 721			Door catch	x -	-	-	-	-
58	L. 72	20		Channel	0.05	4.1	0.25	8:1	

* No repairs permitted
 x More expedient to renew than repair
 All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.311A

Item	Material		Description	Dept	Negligible Damage			Repair Fig.
	Spec.	S.W.G. or Section			Dents	Holes		
					Dist. Apart	Dia.	Pitch Ratio	
1	L. 72	20	Stiffening angle	0.05	3.0	0.25	4:1	-
2	L. 72	20	Intercostal	0.1	2.5	0.25	4:1	108
3	L. 72	13b/SS. 1793	Attachment angle	0.05	3.0	0.25	6:1	113
4	L. 65	-	Bracket	*	-	-	-	-
5	L. 72	16	Support angle	0.05	3.0	0.25	6:1	-
6	L. 72	16	Attachment bracket	*	-	-	-	-
7	L. 72	20	Skin	0.05	3.0	0.25	6:1	103, 104
8	L. 72	20	Cross member	0.05	3.0	0.25	6:1	108
9	L. 72	20	Floor support member	0.05	3.0	0.25	6:1	103
10	L. 72	18	Side member	0.05	3.0	0.25	6:1	108
11	L. 65	293/SS. 3075	Angle	0.025	3.0	-	-	-
12	L. 72	20	Stiffening channel	0.05	3.0	0.25	6:1	107
13	L. 72	18	Skin attachment angle	0.05	3.0	-	-	-
14	L. 72	20	Side web	0.1	2.5	0.25	6:1	103, 104
15	L. 72	20	Diaphragm	0.1	2.5	0.25	6:1	115
16	L. 72	20	Angle	x 0.1	2.5	-	-	-
17	L. 72	20	Stiffening ring	0.05	3.0	-	-	-
18	L. 72	18	Support angle	0.5	3.0	0.25	6:1	113
19	D. T. D. 622	450/SS. 3075	Edge member	0.05	3.0	0.25	6:1	-
20	Alum. foil	SS. 4275	Honeycomb	0.05	3.0	-	-	102
21	D. T. D. 88C	-	Support block	* 0.025	3.0	-	-	-
22	L. 72	20	Corner plate	x 0.1	2.5	-	-	-
23	L. 72	24	Top and bottom skins	0.1	2.5	-	-	103
24	L. 72	16	Bracket	* 0.05	3.0	-	-	-
25	L. 72	20	Angle	x 0.05	3.0	-	-	-
26	D. T. D. 410	-	Packing	x 0.05	3.0	-	-	-
	D. T. D. 423	-						
27	L. 72	308/SS. 1793	Support channel	0.05	3.0	0.25	6:1	108
28	L. 72	18	Cross member	0.05	3.0	0.25	6:1	105, 107
29	L. 72	596/SS. 1793	Support channel	0.05	3.0	0.25	6:1	105, 108
30	L. 72	18	Bracket	x 0.05	3.0	-	-	-
31	L. 72	158/SS. 1793	Channel	0.05	3.0	0.25	6:1	105, 108
32	L. 72	486/SS. 1793	Intercostal	x 0.05	3.0	0.25	4:1	-
33	L. 72	18	Angle	x 0.05	3.0	-	-	-
34	L. 72	158/SS. 1793	Intercostal	x 0.05	3.0	0.25	4:1	105, 108
35	L. 72	18	Support angle	0.05	3.0	0.25	6:1	-
36	D. T. D. 423	-	Attachment bracket	* 0.05	3.0	-	-	-
37	L. 72	20	Skin	0.1	2.5	0.25	4:1	103, 104
38	L. 72	20	Angle	x 0.05	3.0	0.25	4:1	-

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

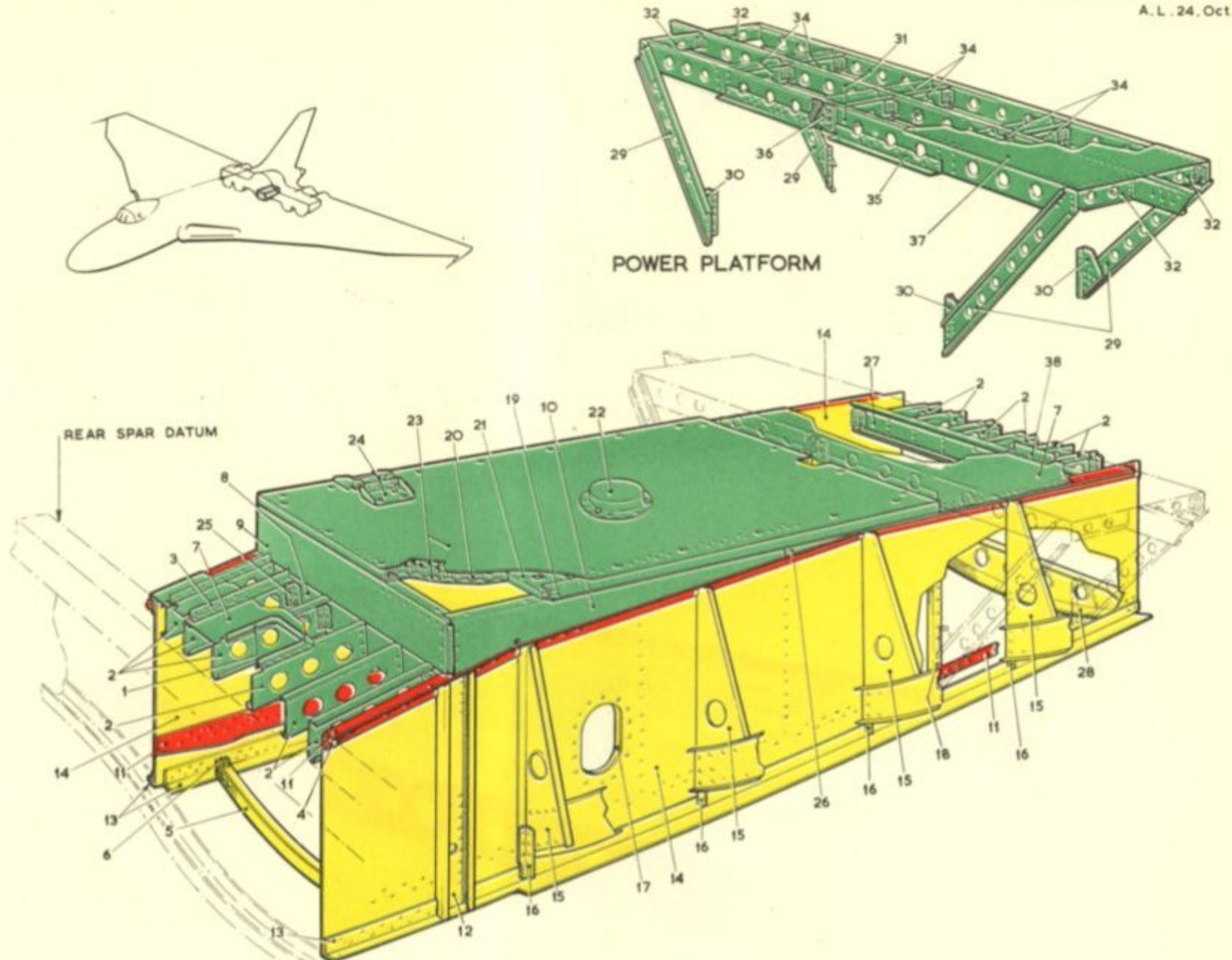


FIG. 311A. LAUNCHING COMPARTMENT (MOD. 10)
RESTRICTED

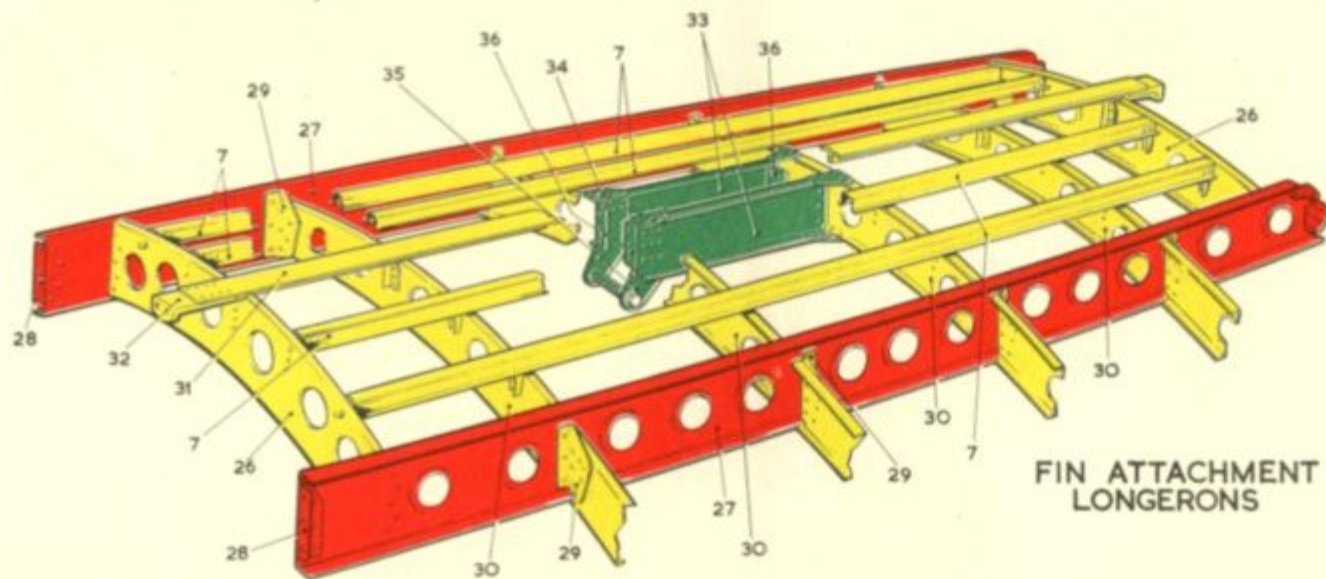
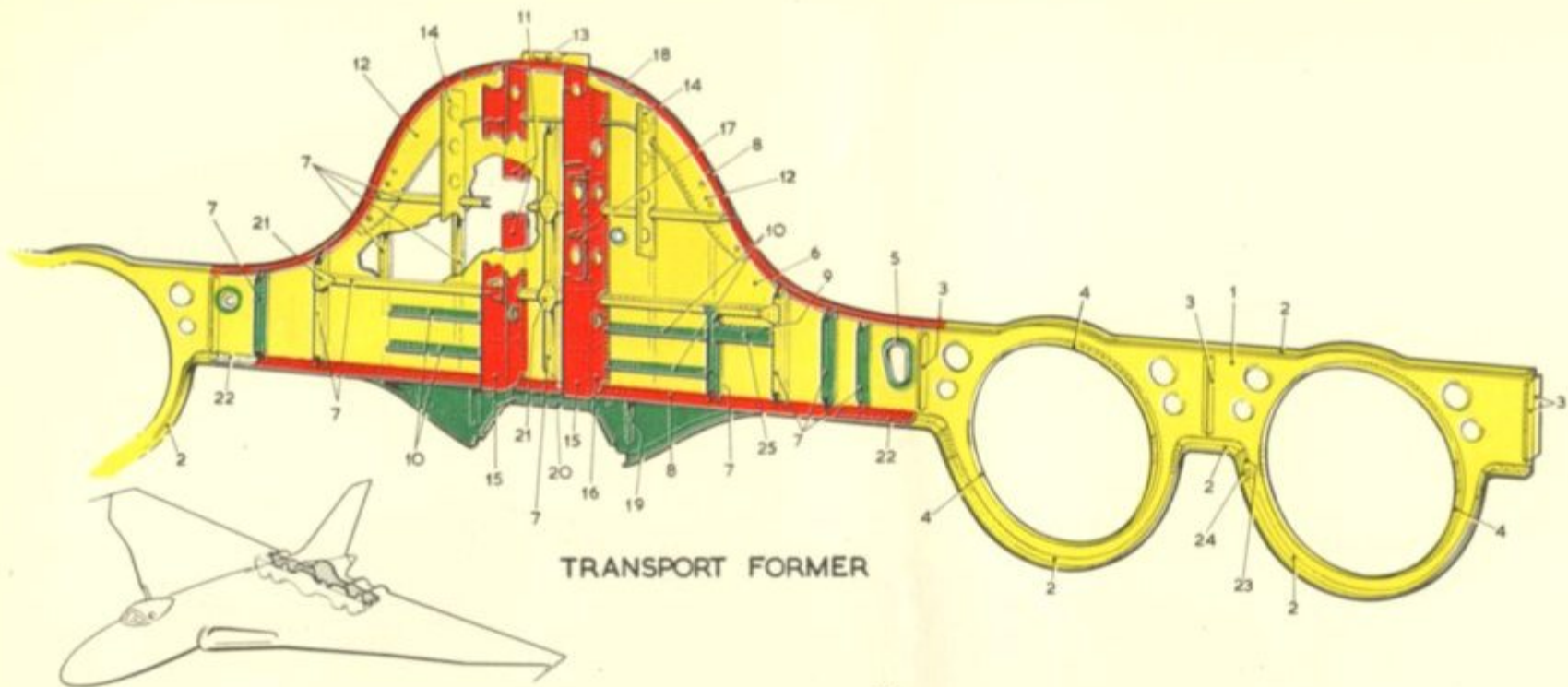


FIG. 311B. STRUCTURE AFT OF REAR SPAR
RESTRICTED

Fig. 311B. Structure aft of rear spar

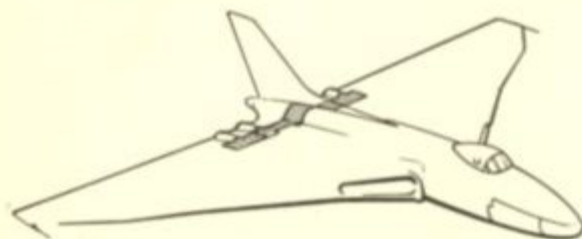
Item	Spec.	Material S.W.G. or Section	Description	Depth	Negligible Damage		Holes Pitch Ratio	Repair Fig. No.
					Dents	Dist. Apart		
1	L.73	20	Web	0.10	2.5	0.25	6 : 1	103-104
2	L.65	355/SS.3075	Angle	0.025	3.0	—	—	—
3	L.72	20	Angle	†0.05	3.0	—	—	—
4	L.72	13b/SS.1793	Angle	0.05	3.0	0.25	6 : 1	113
5	L.73	18	Tube support	†0.05	3.0	—	—	—
6	L.73	18	Web	0.05	3.0	0.25	8 : 1	—
7	L.72	211/SS.1793	Stiffener	0.05	3.0	0.25	6 : 1	112
8	L.65	329/SS.3075	Angle	0.025	3.0	—	—	—
9	D.T.D.687	583/SS.1793	Z Section	†0.05	3.0	0.25	6 : 1	—
10	L.72	625/SS.1793	Stiffening angle	0.05	3.0	0.25	6 : 1	113
11	L.65	Light-Alloy	Fin, post support member	*—	—	—	—	—
12	L.73	14	Reinforcing plate	0.05	3.0	0.25	8 : 1	103-104
13	L.73	18	Reinforcing skin	0.05	3.0	0.25	6 : 1	103-104
14	L.72	18	Channel	0.05	3.0	0.25	6 : 1	107-108
15	L.72	20	Back plate	0.05	3.0	0.25	6 : 1	103-104
16	L.72	20	Side member	0.05	3.0	0.25	6 : 1	107-108
17	L.72	20	Diaphragm	†0.05	3.0	0.25	4 : 1	—
18	L.65	Light-alloy	Reinforcing member	†0.025	3.0	—	—	—
19	L.72	13b/SS.1793	Angle	†0.05	3.0	0.25	4 : 1	—
20	L.72	20	Angle	0.05	3.0	0.25	4 : 1	113
21	L.72	18	Gusset	†0.05	3.0	0.25	4 : 1	—
22	D.T.D.124A	12	Joint angle	*—	—	—	—	—
23	L.72	8	Side plate	†—	—	—	—	—
24	L.72	14	Top plate	†—	—	—	—	—
25	L.72	20	Cover plate	†0.05	3.0	0.25	6 : 1	—
26	L.72	18	Intercostal	0.05	3.0	0.25	6 : 1	—
27	L.72	16	Longeron	0.025	3.0	0.25	8 : 1	105
28	L.72	16	Bracket	†0.025	3.0	—	—	—
29	L.72	16	Bracket	†0.025	3.0	—	—	—
30	L.72	455/SS.1793	Former channel	0.05	3.0	0.25	6 : 1	105
31	L.65	325/SS.3075	Tee stringer	0.05	3.0	0.25	6 : 1	—
32	D.T.D.88c	Mag.-al. forging	Attachment bracket	*0.025	3.0	—	—	—
33	L.72	18	Intercostal	0.05	3.0	0.25	6 : 1	107-108
34	L.72	18	Gusset	†0.05	2.0	—	—	—
35	L.72	10	Reinforcing plate	*0.025	3.0	—	—	—
36	L.72	18	Attachment angle	†0.05	3.0	—	—	—

* No repairs permitted
† More expedient to renew
All dimensions in inches



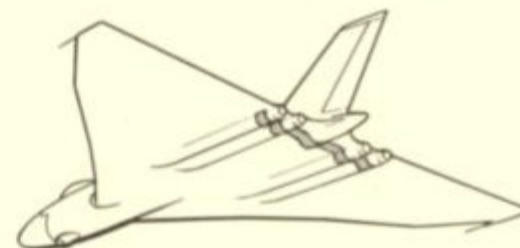
REAR SPAR DATUM

TOP SURFACE SKINS



NOTE: DAMAGE IN AREAS OF CONCENTRATED RIVETING MUST BE REPAIRED WITH JOINTS ARRANGED OUTSIDE THE AREA

SEE TEXT IN CHAP I FOR SKIN REPAIRS AND WEATHERPROOFING. FOR METHOD OF REPAIR SEE FIG. 103, 116, 117.

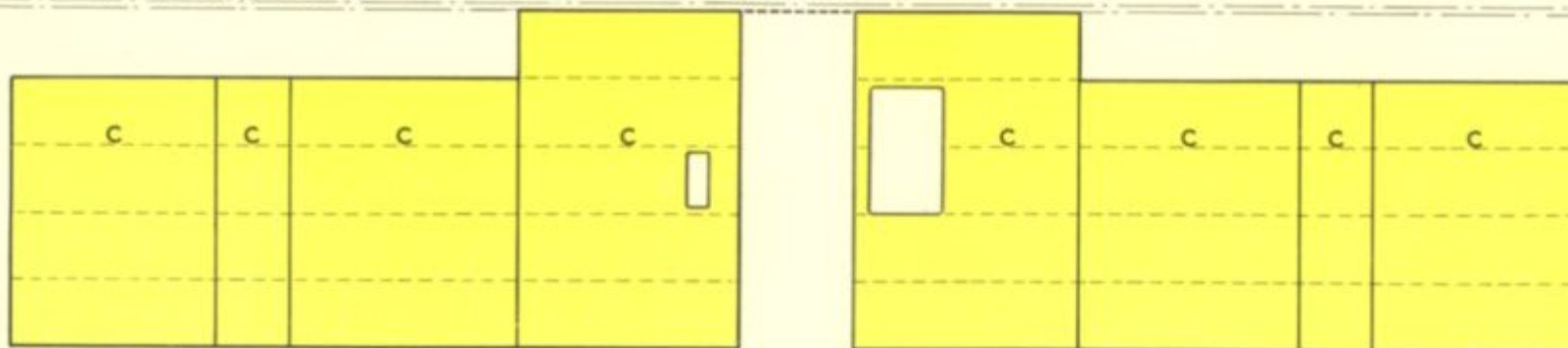


SKIN REFERENCE.		
LETTER.	S.W.G.	MAT. SPEC.
A	18	D.T.D. 687
B	20	D.T.D. 687
C	20	L72

SKIN LIMITS		
NEGLIGIBLE		DAMAGE
COLOUR.	DENTS.	DIST. APART.
RED.	—	—
YELLOW.	0.10	2.5
GREEN.	—	—

ALL DIMENSIONS IN INCHES.

REAR SPAR DATUM



BOTTOM SURFACE SKINS

Fig.312 Skinning aft of rear spar
RESTRICTED

Fig. 313. Leading edge intake and skins

Item	Spec.	Material S.W.G. or Section	Description	Depth	Negligible Damage			Repair Fig. No.
					Dents Dist. Apart	Holes Pitch Ratio	Dia.	
1	L.72	24	Separator web	0.15	2.5	—	—	—
2	L.72	22	Separator web	0.15	2.5	—	—	103-104
3	L.72	663/SS.1793	Separator angle	0.15	2.5	—	—	—
4	L.72	13b/SS.1793	Separator angle	0.15	2.5	—	—	113
5	L.73	22	Web	0.15	3.0	2.5	6:1	103-104
6	L.72	759/SS.1793	Skin angle	0.05	3.0	—	—	—
7	L.73	605/SS.1793	Skin angle	0.10	3.0	—	—	—
8	L.73	16	Centre web	0.05	3.0	0.25	6:1	103-104
9	L.72	13b/SS.1793	Attachment angle	0.10	3.0	—	—	113
10	L.72	85/SS.1793	Stiffener	0.10	3.0	—	—	—
11	L.72	18	Reinforcing angle	0.10	3.0	—	—	—
12	L.72	20	Web	0.10	3.0	0.25	8:1	103-104
*13	L.72	811/SS.1793	Spar boom	0.10	3.0	—	—	—
14	L.73	18	Web reinforcing	†0.10	3.0	0.25	6:1	—
15	L.72	22	Rib web	0.15	3.0	0.25	4:1	103-106
16	L.72	620/SS.1793	Rib angle	†0.10	3.0	—	—	—
17	L.72	24	Rib web	0.15	3.0	0.25	4:1	103-106
18	L.72	20	Rib angle	†0.10	3.0	—	—	—
19	L.72	18	Rib web	0.10	3.0	—	4:1	103-106
20	L.73	12	Rib angle	†0.10	3.0	—	—	—
21	L.72	211/SS.1793	Top hat stiffener	0.10	3.0	0.25	6:1	112
22	L.72	20	Intercostal web	†0.10	3.0	0.25	4:1	—
23	L.72	14	Joint straps	†0.05	3.0	—	—	—
24	L.65	58/SS.3075	T-stringer	0.10	3.0	—	—	—
25	L.72	664/SS.1793	Rib angle	†0.10	3.0	—	—	—
26	L.53	Al.-alloy	Nose rib casting	*0.05	3.0	—	—	—
27	L.72	1/SS.4127	Corrugated skin	*0.10	2.5	—	—	—
28	L.72	14	Leading edge skins	*0.05	3.0	—	—	—
29	L.72	14	Fairings	0.05	3.0	—	—	—
30	L.72	14	Nose skins	0.05	3.0	—	—	—
31	L.72	14	Fairing	0.05	3.0	—	—	—
32	L.59	16	Ducting	†0.10	3.0	—	—	—
33	L.59	18	Ducting	†0.10	3.0	—	—	—
34	L.72	18	Inner skins	0.05	3.0	—	—	—

* No repairs permitted
† More expedient to renew
All dimensions in inches

KEY TO FIG.314B

Item	Material		Description	Dents Depth	Negligible Damage			Repair Fig.
	Spec.	S.W.G. or Section			Holes Dist. Apart	Dia.	Pitch Ratio	
1	L. 72	22	Angle	x 0.05	6.0	0.125	10:1	113
2	L. 72	24	Plate	0.05	4.0	0.25	8:1	103
3	L. 72	133/SS. 1793	Angle	0.05	6.0	0.125	10:1	113
4	L. 72	20	Reinforcing plate	x 0.05	6.0	0.125	10:1	
5	L. 54	Tubing	Stub pipe	x 0.05	6.0	-	-	
6	L. 59	18	Plate	x 0.05	6.0	0.125	10:1	
7	L. 72	18	Angle	x 0.05	6.0	0.125	10:1	113
8	L. 72	20	Angle	0.05	6.0	0.125	10:1	113
9	L. 73	12	Beam reinforcing angles	0.025	8.0	-	-	
10	L. 73	16	Web	0.05	8.0	0.125	10:1	103, 104, 106
11	L. 73	10	Channel member	0.025	8.0	-	-	107, 108
12	L. 72	13b/SS. 1793	Angle	0.05	6.0	0.125	10:1	113
13	L. 72	100/SS. 1793	Channel member	0.05	8.0	0.125	10:1	107, 108
14	L. 73	10	Angle	0.025	8.0	-	-	113
15	L. 72	13b/SS. 1793	Angle	0.05	6.0	0.125	10:1	113
16	L. 72	20	Web	0.05	8.0	0.25	10:1	103, 104, 106
17	L. 72	14	Bracket	x 0.025	8.0	0.125	10:1	
18	L. 73	10	Boom angles	0.025	8.0	-	-	
19	L. 72	18	Bracket	x 0.05	8.0	0.125	10:1	
20	L. 72	18	Support bracket	x 0.05	6.0	0.125	8:1	
21	L. 72	18	Angle	x 0.025	6.0	-	-	
22	L. 72	18	Packing piece	x 0.025	6.0	-	-	
23	L. 72	14	Packing piece	x 0.025	6.0	-	-	
24	L. 65 or D. T. D. 683	Forging	Bracket	* -	-	-	-	
25	L. 72	379/SS. 1793	Top hat section stiffeners	0.05	8.0	0.125	10:1	See Note on Fig. 314B
26	L. 72	20	Stiffener	0.05	8.0	0.125	10:1	107, 108
27	L. 72	129/SS. 1793	Channel member	x 0.05	6.0	0.125	8:1	

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

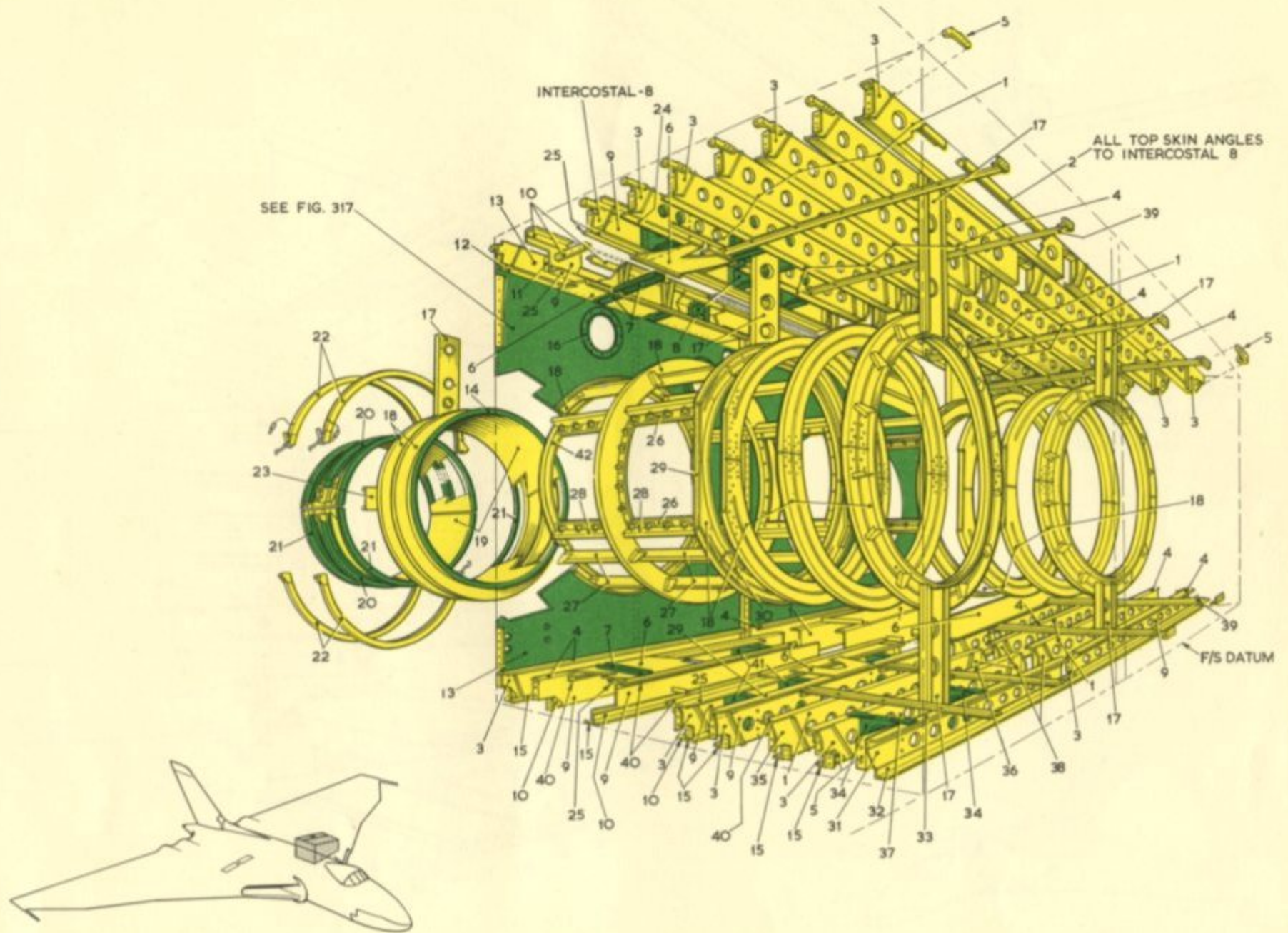
RESTRICTED

KEY TO FIG.315

Item	Material		Description	Negligible Damage				Repair Fig.		
	Spec.	S.W.G. or Section		Dents	Holes	Depth	Dist. Apart		Dia.	Pitch Ratio
1	L. 72	24	Intercostal web			0.05	2.5	0.25	4:1	103, 115
2	L. 72	525/SS. 1793	Skin angle			-	-	0.125	4:1	-
3	L. 72	18	Stiffening bracket			x 0.05	2.5	0.25	4:1	-
4	L. 72	386/SS. 1793	Bottom angles			-	-	0.125	4:1	-
5	D. T. D. 364B D. T. D. 683	-	Attachment bracket			* 0.02	-	-	-	-
6	L. 72	22	Reinforcing skins			0.1	2.5	1.0	8:1	103, 104
7	L. 72	16	Stiffeners			x 0.1	2.5	0.25	4:1	-
8	L. 72	18	Diaphragm			0.1	2.5	0.25	4:1	-
9	L. 72	20	Intercostal web			0.1	2.5	0.25	4:1	103, 115
10	L. 72	16	Skin angle			-	-	0.125	4:1	-
11	L. 72	18	Bracket			x 0.05	2.5	0.25	4:1	-
12	L. 72	66/SS. 1793	Angle			-	-	0.125	4:1	-
13	D. T. D. 687	22	Bulkhead web (green) (yellow)			0.3 0.1	2.5 2.5	- 0.25	- 4:1	103, 104 103, 104
14	L. 72	112/SS. 1793	Stiffening ring			0.1	2.5	-	-	-
15	L. 72	530/SS. 1793	Skin angle			0.1	2.5	0.125	4:1	-
16	D. T. D. 687	20	Reinforcing ring			0.1	2.5	-	-	-
17	L. 72	20	Support bracket			0.1	2.5	0.25	4:1	-
18	L. 72	20	Formers			0.1	2.5	0.25	4:1	-
19	L. 72	18	Intake skin			0.1	2.5	-	-	103, 104
20	L. 72	18	Stiffener			0.1	2.5	0.25	4:1	112
21	L. 33	-	Half ring			0.1	2.5	0.25	4:1	-
22	L. 72	18	Retaining ring			0.1	2.5	0.25	4:1	-
23	L. 72	20	Side support bracket			x 0.1	2.5	0.25	4:1	-
24	L. 72	12c/SS. 1793	Angle			0.1	2.5	0.125	4:1	113
25	L. 72	18	Angle			0.1	2.5	0.125	4:1	-
26	L. 72	976/SS. 1793	Angle			0.1	2.5	0.125	4:1	-
27	L. 72	667/SS. 1793	Stringer			x 0.1	2.5	0.125	4:1	-
28	L. 72	816/SS. 1793	Channel			x 0.1	2.5	0.125	4:1	-
29	L. 72	12b/SS. 1793	Angle stiffener			0.1	2.5	0.125	4:1	113
30	L. 72	18	Joint angle			x 0.1	2.5	-	-	-
31	L. 73	18	Web			0.05	2.5	0.25	4:1	103, 115
32	L. 73	689/SS. 1793	Angle			0.05	2.5	0.25	4:1	-
33	L. 73	688/SS. 1793	Angle			0.05	2.5	0.25	4:1	-
34	D. T. D. 364B D. T. D. 683	-	Side load bracket			* 0.2	-	-	-	-
35	L. 72	16	Bracket			x 0.1	2.5	0.25	4:1	-
36	L. 72	304/SS. 1793	Angle			0.05	2.5	0.25	4:1	-
37	L. 72	22	Web			0.05	2.5	0.25	4:1	103, 115
38	L. 72	20	Bracket			x 0.1	2.5	0.25	4:1	-
39	L. 72	379/SS. 1793	Top hat stringers			0.1	2.5	0.125	4:1	112
40	L. 72	249/SS. 1793	Angle			0.05	2.5	0.125	4:1	-
41	L. 72	20	Diaphragm			x 0.1	2.5	0.5	4:1	-
42	L. 72	20	Angle			x 0.05	2.5	0.25	4:1	-

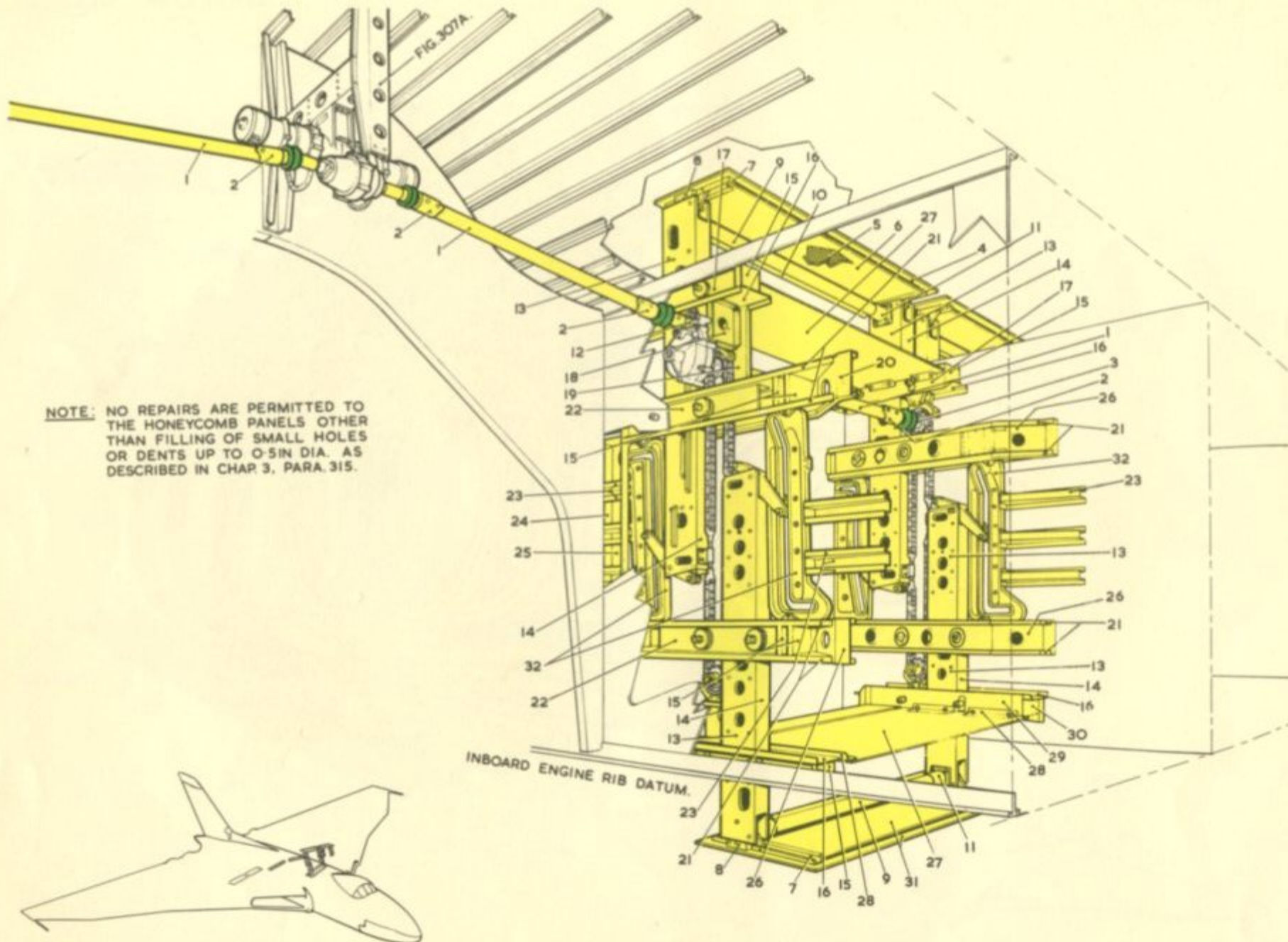
* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED



(A.L./2, June 58)

FIG. 307A



NOTE: NO REPAIRS ARE PERMITTED TO THE HONEYCOMB PANELS OTHER THAN FILLING OF SMALL HOLES OR DENTS UP TO 0.5 IN DIA. AS DESCRIBED IN CHAP 3, PARA. 315.

Fig.315A - Airbrake structure RESTRICTED

Key to fig. 315A. Airbrake structure

Item	Spec.	Material S.W.G or Section	Description	Dents		Negligible Damage		Repair Fig. No.
				Depth	Dist. Apart	Dia.	Holes Pitch Ratio	
1	T.45	20	Torque shaft	*0.025	3.0	—	—	—
2	T.45	17	Sleeve	†0.025	3.0	—	—	—
3	S.1	M.S. bar	Adapter	†0.025	3.0	—	—	—
4	L.73	17	Top skin	†0.025	3.0	—	—	—
5	—	11/SS/4282 11/SS/4275	Honeycomb	‡—	—	—	—	—
6	L.73	17	Inner skin	†0.025	3.0	—	—	—
7	L.73	16	Side member	†0.025	3.0	—	—	—
8	BSS.668	—	Stops	†0.025	3.0	—	—	—
9	L.63	20	Bracing tube	0.025	3.0	—	—	—
10	L.72	929/SS/1793	Angle	0.025	3.0	—	—	—
11	L.65	Al. alloy	Spigot	†0.025	3.0	—	—	—
12	S.96	Bar	Adapter	†0.025	3.0	—	—	—
13	L.73	8	Side plate	0.025	3.0	0.25	8:1	—
14	DTD.683	408/SS/3075	Channel	0.025	3.0	0.25	8:1	—
15	L.72	18	Diaphragm	†0.05	3.0	0.25	8:1	—
16	L.72	18	Box members	0.05	3.0	0.25	8:1	—
17	L.72	18	Side channel	0.05	3.0	0.25	8:1	—
18	L.73	16	Diaphragm	†0.05	3.0	0.25	8:1	—
19	L.73	16	Mounting channel	0.05	3.0	0.25	8:1	—
20	L.72	16	Side channel	0.05	3.0	0.25	8:1	103
21	L.72	18	Upper and lower channels	0.05	3.0	0.25	8:1	—
22	L.72	18	Channel	0.05	3.0	0.25	8:1	—
23	L.72	18	Buttress	†0.05	3.0	0.25	6:1	—
24	L.72	20	Sealing intercostal	0.05	3.0	0.25	6:1	—
25	L.72	20	Skin	0.05	3.0	—	—	—
26	L.72	441/SS/1793	Channel	0.05	3.0	0.25	8:1	—
27	L.72	20	Skin panel	0.10	3.0	—	—	103
28	L.72	18	Attachment angle	†0.05	3.0	0.25	8:1	—
29	DTD.687	12	Side plate	0.05	3.0	0.25	8:1	103
30	L.72	22	Reinforcing	†0.10	3.0	0.25	6:1	—
31	L.73	18	Skins	†0.05	3.0	—	—	—
32	DTD.304 or L.53	Al. alloy	Cam track	*0.05	3.0	—	—	—

* No repairs permitted
† More expedient to renew
‡ See note on fig. 315A
All dimensions in inches

Key to Fig. 316. Air intake tunnels

Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage			Holes Pitch Ratio	Repair Fig. No.
				Dents Depth	Dist. Apart	Dia.		
			Tunnel skin	—	—	—	—	116
1	L.72	20	Joint strap	• —	—	—	—	—
2	L.72	20	Tunnel skins	—	—	—	—	116
3	L.72	22	Anti-icing fairing	—	—	—	—	—
4	L.72	20	Nose skins	—	—	—	—	—
5	L.72	20	Intake bleed duct	0.05	6.0	—	—	—
6	L.59	20	Fairing block	† —	—	—	—	—
7	BS.668	—	Duct angles	10.030	6.0	—	—	—
8	L.72	20	Stiffener	10.030	6.0	0.125	16 : 1	—
9	L.72	17/SS/1793	Stiffening angle	10.030	6.0	—	—	—
10	L.72	22	Panel	10.050	6.0	—	—	—
11	L.72	22	Access panel	—	—	—	—	—
12	L.72	18	Packer	10.050	6.0	—	—	—
13	L.72	14	Duct, web	10.050	6.0	—	—	—
14	L.72	24	Duct, channel	0.050	6.0	—	—	—
15	L.72	129/SS/1793	Angle	0.030	6.0	0.125	16 : 1	—
16	L.72	112/SS/1793	Web	0.050	6.0	0.25	8 : 1	103
17	L.72	22	Channel	0.025	6.0	0.125	16 : 1	—
18	L.73	10	Intercostals	10.050	6.0	0.25	8 : 1	—
19	L.72	20	Stub pipe	10.025	6.0	—	—	—
20	L.59	20	Angle	0.025	6.0	—	—	—
21	L.72	60/SS/1793	Tunnel skins	—	—	—	—	116
22	DTD.626	17	Channel	10.025	6.0	—	—	—
23	L.72	10	Packing	—	—	—	—	—
24	L.72	26	Butt straps	• —	—	—	—	—
25	L.72	22	Angle	10.025	6.0	—	—	—
26	L.72	20	Angle	0.025	6.0	—	—	—
27	L.72	133/SS/1793	Angle	0.025	6.0	—	—	113
28	L.72	13b/SS/1793	Angle	0.025	6.0	—	—	—
29	L.72	18	Angle	0.025	6.0	—	—	—
30	L.72	601/SS/1793	Angle	0.025	6.0	—	—	—

* No repairs permitted
 † More expedient to renew
 All dimensions in inches

RESTRICTED

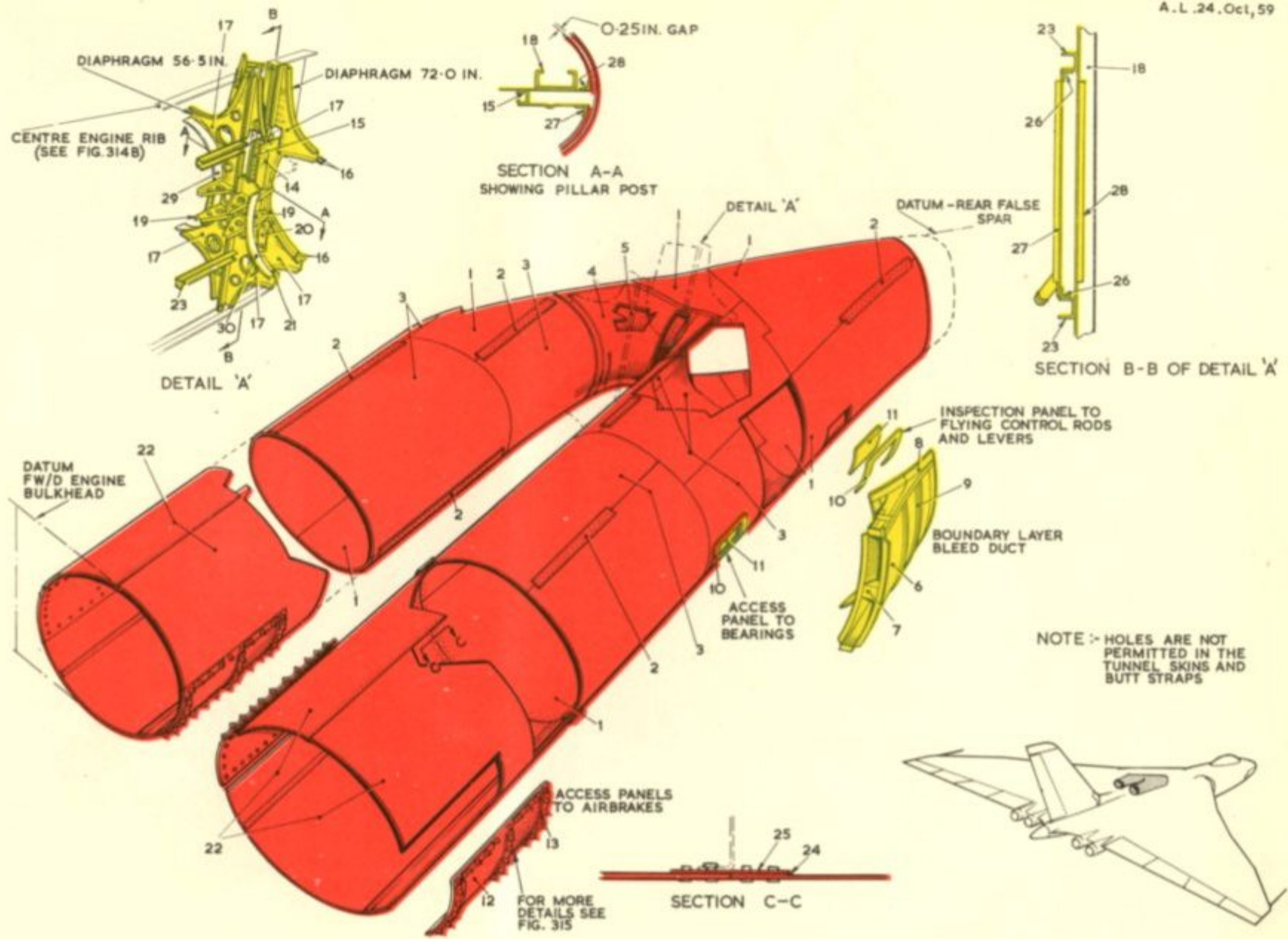
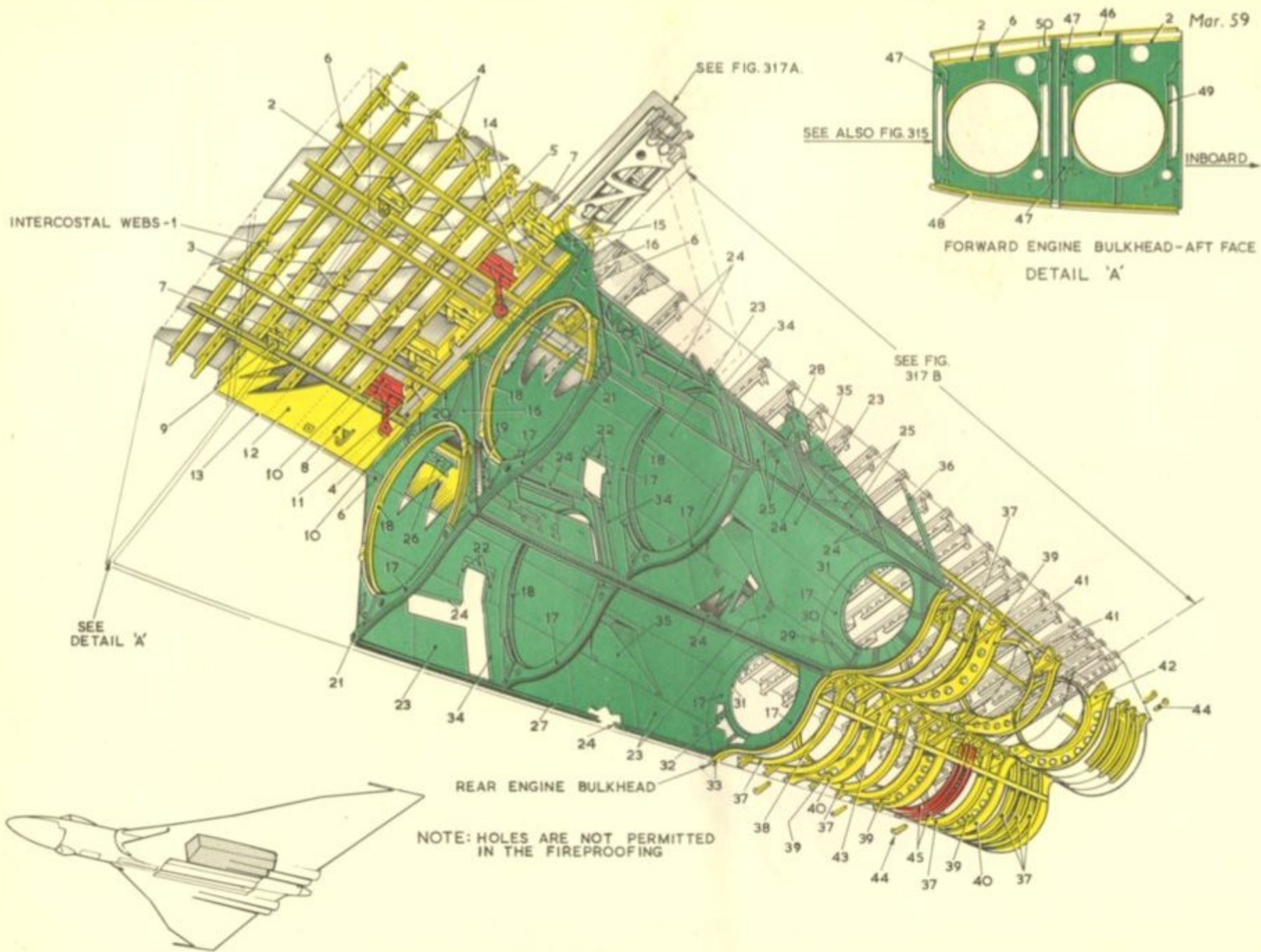


Fig.316 Air intake tunnels RESTRICTED



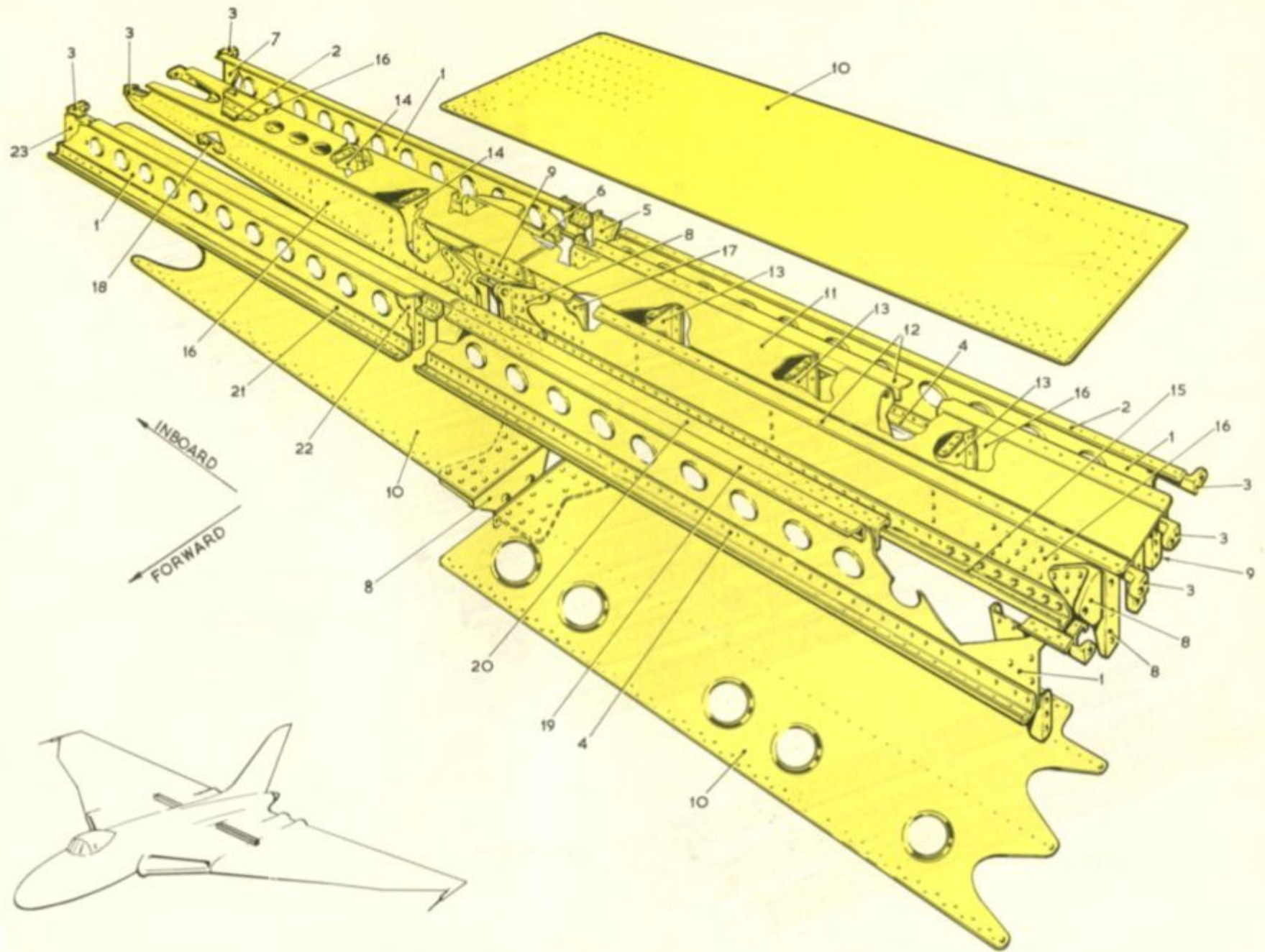


Fig. 317A.- U/c side-load beam
RESTRICTED

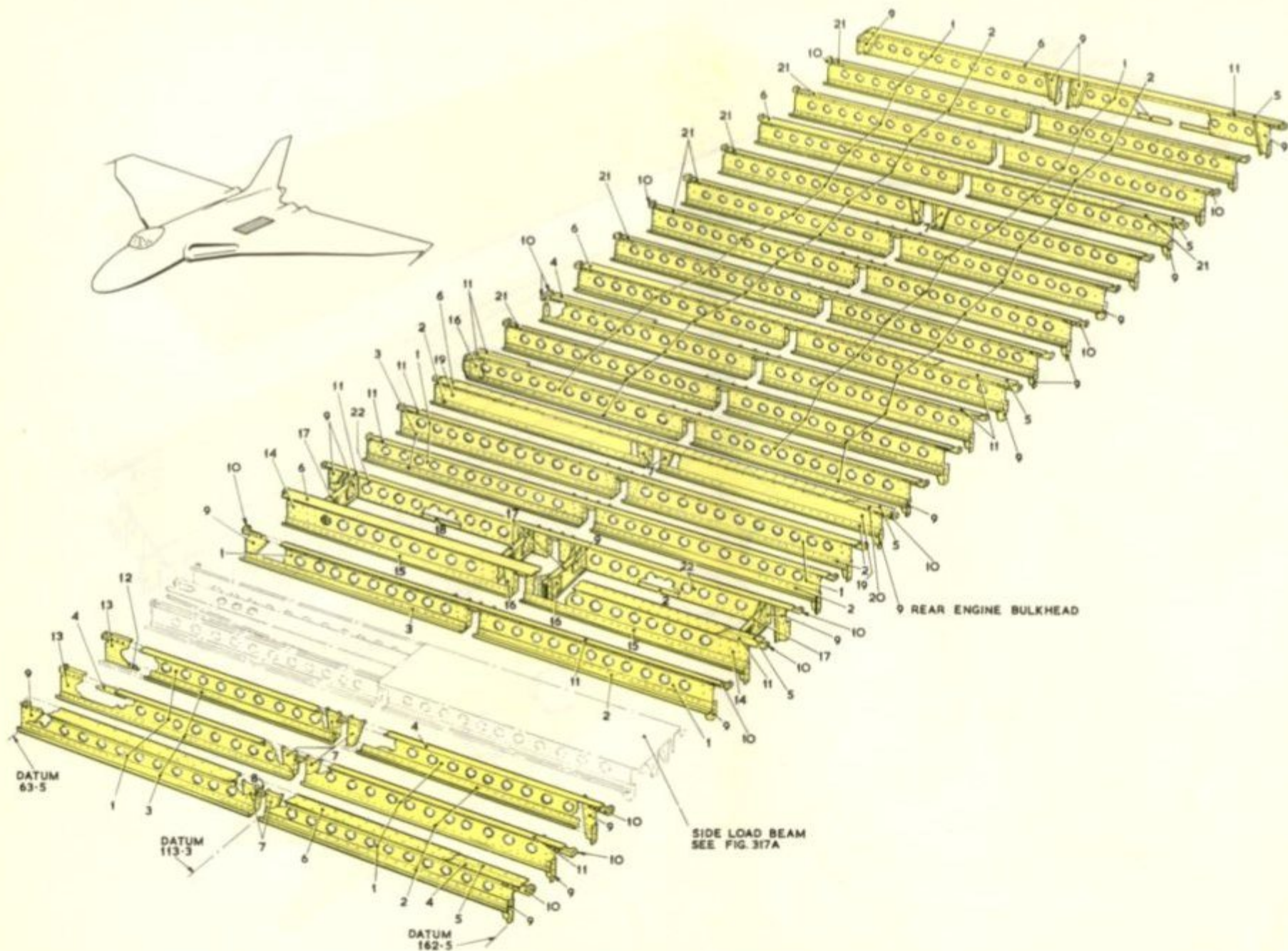


Fig. 317B. Centre section roof structure
 RESTRICTED

KEY TO FIG.317B

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Holes		Pitch Ratio	
				Depth	Dist. Apart	Dia.		
1	L.72	24	Web	0.05	2.5	0.25	4:1	103
2	L.72	386/SS.1793	Angle	-	-	0.125	4:1	113
3	L.72	971/SS.1793	Angle	-	-	0.125	4:1	113
4	L.72	88/SS.1793	Angle	-	-	0.125	4:1	114
5	L.72	67/SS.1793	Angle	-	-	0.125	4:1	114
6	L.72	20	Strap plate	-	-	-	-	-
7	L.72	20	Bracket	x 0.05	2.5	0.25	4:1	-
8	L.72	16	Bracket	x 0.05	2.5	0.25	4:1	-
9	L.72	18	Bracket	x 0.05	2.5	0.25	4:1	-
10	L.65	-	Stringer bracket	* 0.02	-	-	-	-
11	L.72	16	Skin angle	-	-	0.125	4:1	113
12	L.72	529/SS.1793	Angle	-	-	0.125	4:1	113
13	L.72	14	Bracket	x 0.05	2.5	0.25	4:1	-
14	L.72	16	Web	x 0.05	2.5	0.25	4:1	103
15	L.72	385/SS.1793	Angle	-	-	0.125	4:1	113
16	L.72	16	Bracket	x 0.05	2.5	0.25	4:1	-
17	L.72	16	Channel member	-	-	0.125	4:1	108
18	L.72	972/SS.1793	Angle	-	-	0.125	4:1	113
19	L.72	22	Web	0.05	2.5	0.25	4:1	103
20	L.72	530/SS.1793	Angle	-	-	0.125	4:1	114
21	L.72	770/SS.1793	Skin angle	-	-	0.125	4:1	114
22	L.72	20	Web	0.05	2.5	0.25	4:1	103

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.318

Item	Material		Description	Depth	Negligible Damage			Repair Fig.
	Spec.	S. W. G. or Section			Dents	Holes		
					Dist. Apart	Dia.	Pitch Ratio	
1	L. 72	665/SS. 1793	Stringer	x 0.1	2.5	0.25	4:1	-
2	L. 72	20	Former	0.1	2.5	-	-	-
3	L. 72	16	Capping strip	* 0.1	2.5	0.25	4:1	-
4	L. 72	18	Capping strip	* 0.1	2.5	0.25	4:1	-
5	L. 72	20	Capping strip	* 0.1	2.5	0.25	4:1	-
6	D. T. D. 171B	26	Inner skins	0.2	2.5	-	-	-
7	L. 72	24	Inner skins	0.2	2.5	-	-	103
8	D. T. D. 171B	20	Breather labyrinth	* 0.2	2.0	-	-	103
9	D. T. D. 171B	26	Patch plate	* 0.2	2.0	-	-	-
10	L. 72	20	Outer skins	0.1	2.5	-	-	-
11	L. 59	18	Air intake	* -	-	-	-	103
12	D. T. D. 171B	20	Gusset plate	0.1	2.5	0.25	8:1	-
13	L. 72	20	Stiffener plate	x -	-	-	-	-
14	L. 72	20	Outboard edge member	0.1	2.5	-	-	-
15	L. 72	20	Inboard edge section	0.1	2.5	-	-	-
16	L. 72	18	Inboard edge member	0.1	2.5	-	-	-
17	L. 72	20	Seal retaining strip	x 0.2	2.0	-	-	-
18	L. 72	20	Seal angle	0.1	2.5	-	-	-
19	D. T. D. 171B	22	Scoop angle	0.1	2.5	-	-	-
20	D. T. D. 171B	22	Scoop liner	* -	-	-	-	-
21	S. 3	20	Air scoop	* -	-	-	-	-

* No repairs permitted
 x More expedient to renew than repair
 All dimensions are quoted in inches

RESTRICTED

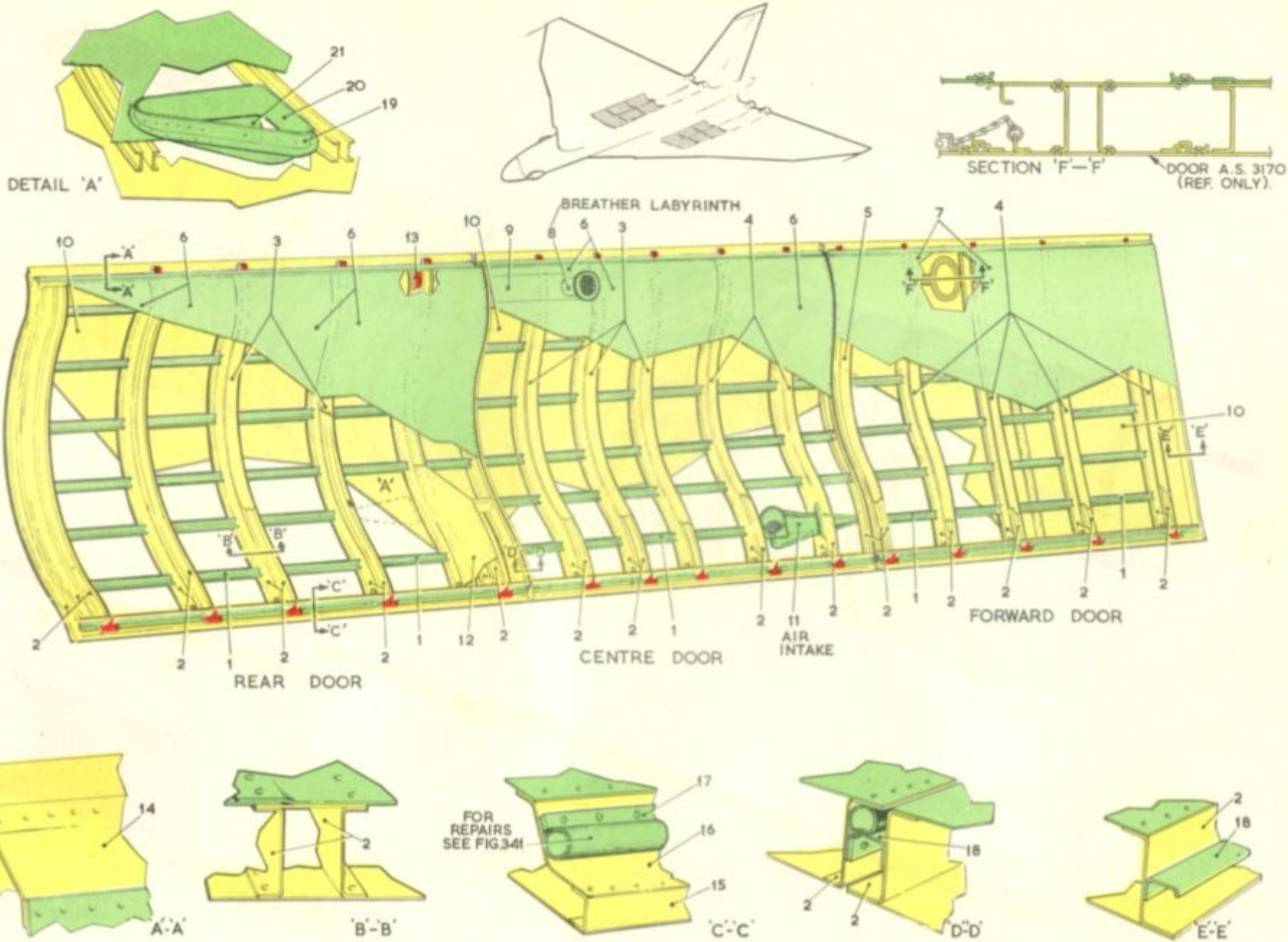


Fig.318. Engine access doors-Port outer
RESTRICTED

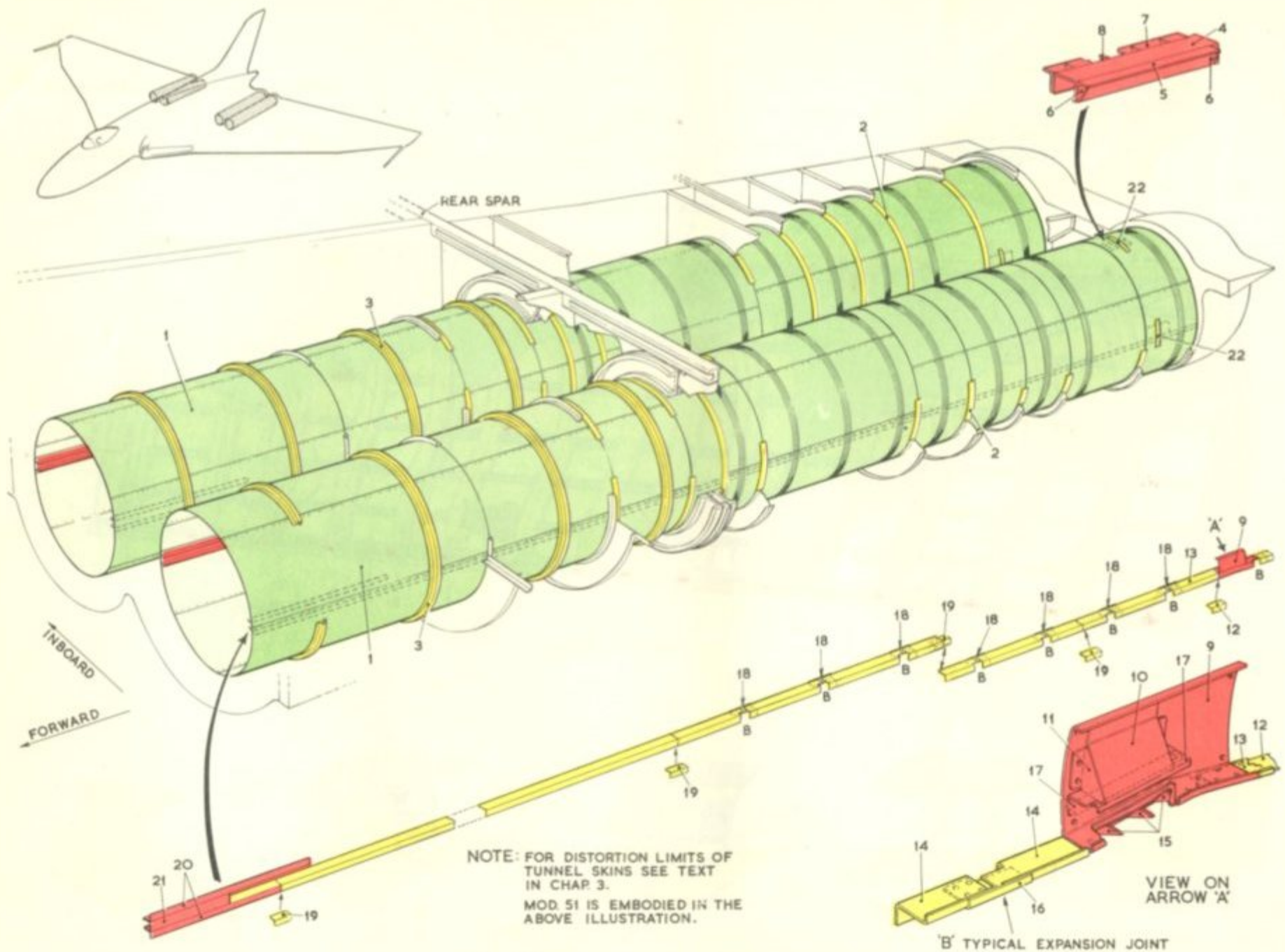


Fig. 319. Jet pipe tunnels
RESTRICTED

KEY TO FIG.319

Item	Material		Description	Depth	Negligible Damage			Repair Fig.
	Spec.	S.W.G. or Section			Dents	Holes		
					Dist. Apart	Dis.	Pitch Ratio	
1	A.V.R.50 Titanium	28	Jet pipe tunnel skins	* 1.0	-	-	-	342,342A
	D.T.D.571 or D.T.D.166	28	(Prior to Mod.51)	* 1.0	-	-	-	342, 342A
2	A.V.R.50 Titanium	20	Tunnel skin joint straps	x 0.05	3.0	-	-	-
	D.T.D.571 or D.T.D.166	20	(Prior to Mod.51)	x 0.05	3.0	-	-	-
3	L.72	379/SS.1793	Top hat stiffeners	0.05	3.0	0.125	8:1	342
4	D.T.D.171B	14	Channel	x 0.025	4.0	-	-	-
5	D.T.D.171B	16	Angle	x 0.025	4.0	-	-	-
6	D.T.D.171B	16	End plates	x 0.025	4.0	-	-	-
7	D.T.D.171B	14	Angle	x 0.025	4.0	-	-	-
8	D.T.D.171B	14	Gusset	x 0.025	4.0	-	-	-
9	D.T.D.171B	18	Backplate	0.025	6.0	0.125	8:1	-
10	D.T.D.171B	18	Bracket	x 0.025	4.0	0.125	6:1	-
11	D.T.D.171B	18	Gusset	x 0.025	4.0	0.125	6:1	-
12	L.72	16	Jointing angle	x 0.05	6.0	0.125	8:1	-
13	L.72	690/SS.1793	Guide rail	0.05	6.0	-	-	-
14	D.T.D.171B	18	Guide rail	0.05	6.0	-	-	-
15	D.T.D.166B	18	Gusset	x 0.025	6.0	0.125	10:1	-
16	D.T.D.171B	18	Expansion bracket	x 0.025	6.0	0.125	8:1	-
17	D.T.D.171B	18	Retaining angle (free side)	x 0.025	8.0	-	-	-
	D.T.D.171B	18	Guide channel (fixed side)	x 0.025	8.0	-	-	-
18	L.72	18	Expansion bracket	x 0.05	6.0	0.125	6:1	-
19	L.72	66/SS.1793	Jointing angle	x 0.05	6.0	0.125	8:1	-
20	D.T.D.171B	18	Top and bottom guide rails	x 0.025	6.0	-	-	-
21	D.T.D.171B	18	Channel	x 0.025	6.0	-	-	-
22	L.72	68/SS.1793	Stiffening channel	x 0.025	6.0	-	-	-

x More expedient to renew than repair

* See text in Chap.3

All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.320

Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage				Repair Fig.
				Dents Depth	Dist. Apart	Holes Dia.	Pitch Ratio	
1	D. T. D. 363	6B/1824	Rib boom	* 0.05	3.0	-	-	-
2	D. T. D. 687	18	Rib web	0.05	3.0	1.0	8:1	103, 104
3	D. T. D. 687	16	Rib web	0.05	3.0	1.0	8:1	103, 104
4	S. 96	-	Bearing housing	*	-	-	-	-
5	D. T. D. 687	18	Joint strap	0.05	3.0	-	-	-
6	L. 72	20	Stiffening plate	x 0.1	2.5	0.5	8:1	-
7	L. 72	18	Attachment angle	0.1	2.5	-	-	113
8	L. 65	-	Bobbin	x -	-	-	-	-
9	L. 72	16	Stiffening plate	x 0.1	2.5	0.25	4:1	-
10	L. 72	18	Stiffening plate	x 0.1	2.5	-	-	-
11	L. 72	12b/SS. 1793	Attachment angle	0.1	2.5	-	-	113
12	D. T. D. 124A	18	Side member	-	-	0.5	8:1	-
13	D. T. D. 171B	-	-	-	-	-	-	-
14	D. T. D. 166B	26	Back plate	0.1	2.5	-	-	-
15	D. T. D. 166B	26	Attachment angle	x 0.1	2.5	-	-	-
16	S. 1	-	Bearing plate	*	-	-	-	-
17	D. T. D. 124A	16	Bracket assembly	x -	-	-	-	-
18	D. T. D. 124A	20	Compression member	*	-	0.25	4:1	-
18	S. 93	-	Channel bracket	*	-	-	-	-

* No repairs permitted
 x More expedient to renew than repair
 All dimensions are quoted in inches

RESTRICTED

Key to Fig. 320A. Inboard engine rib

Item	Spec.	Material S.W.G. or Section	Description	Depth	Negligible Damage		Holes Pitch Ratio	Repair Fig. No.
					Dents Dist. Apart	Dia.		
1	DTD.363	6B/1824	Top boom	*0.05	3.0	—	—	—
2	L.72	16	Side member	—	—	—	—	105, 115
3	L.72	14	Channel	† —	—	—	—	—
4	L.72	18	Reinforcing plate	†0.05	3.0	—	—	—
5	L.72	406/SS/1793	Angle	0.10	2.5	—	—	—
6	L.72	83/SS/1793	Top hat stiffener	0.10	2.5	—	—	—
7	L.72	16	Channel	†0.10	2.5	—	—	—
8	L.72	18	Stiffening plate	†0.10	2.5	0.3	12 : 1	—
9	L.72	20	Support plate	†0.2	2.0	—	—	—
10	L.72	20	Intercostal	†0.10	2.5	0.3	12 : 1	—
11	L.65	Al. alloy	Bearing channel	†0.10	2.5	—	—	—
12	L.65	304/SS/3075	Angle	0.05	3.0	—	—	343
13	L.72	14	Channel	0.10	2.5	—	—	—
14	L.72	16	Bracket	†0.10	2.5	0.3	12 : 1	—
15	L.72	12b/SS/1793	Angle	0.05	3.0	—	—	—
16	L.72	18	Stiffener	†0.10	2.5	—	—	113
17	L.65	343/SS/3075	Angle	0.05	3.0	—	—	—
18	L.72	16	Angle	0.05	3.0	—	—	—
19	L.72	14	Channel	0.05	3.0	—	—	114
20	L.72	84/SS/1793	Support members	†0.10	2.5	—	—	—
21	L.72	16	Gusset plates	†0.10	2.5	—	—	—
22	L.72	18	Doubler plate	†0.05	3.0	—	—	—
23	L.65	Al. alloy	Attachment fitting	† —	—	—	—	—
24	S.96	—	Screwed sleeve	†0.05	3.0	—	—	—
25	L.65	Al. alloy	Bearing	† —	—	—	—	—
26	L.65	312/SS/3075	Bottom boom	*0.05	3.0	—	—	—

* No repairs permitted
† More expedient to renew
All dimensions in inches

Key to Fig. 321. Centre engine rib

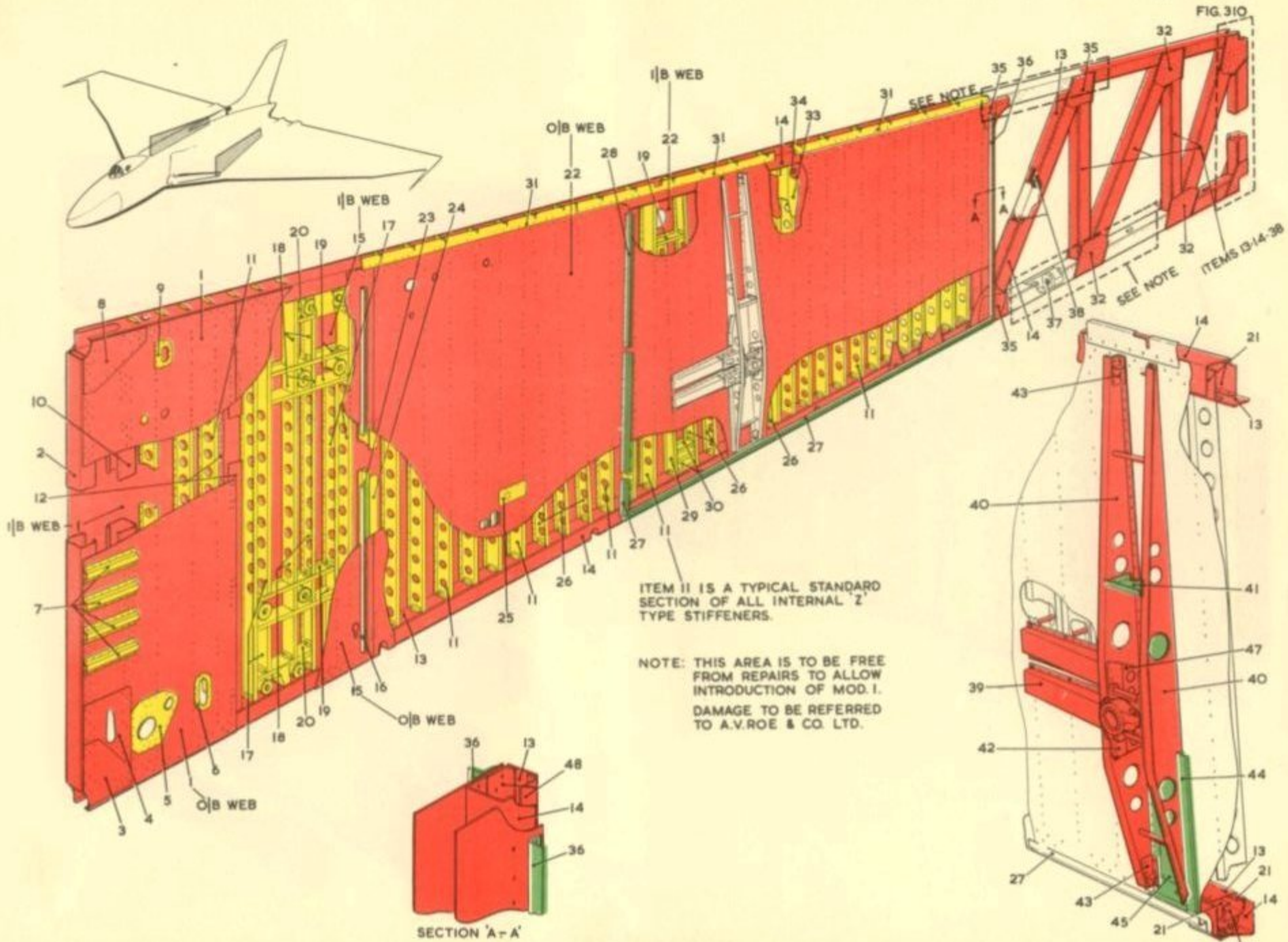
Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage			Holes Pitch Ratio	Repair Fig. No.
				Dents Depth	Dist. Apart	Dia.		
1	DTD.687	20	Web	0.05	3.0	1.0	8:1	103, 104
2	DTD.687	10	Channel	0.10	2.5	—	—	—
3	DTD.687	14	Gusset	†0.05	3.0	1.0	8:1	—
4	DTD.687	18	Reinforcing plate	0.05	3.0	1.0	8:1	103
5	DTD.687	18	Reinforcing plate	0.10	2.5	0.50	8:1	—
6	L.72	20	Reinforcing plate	†0.10	2.5	0.25	4:1	—
7	L.72	500/SS/1793	Stiffener	0.10	2.5	0.25	4:1	As 112
8	DTD.687	10	Gusset	†0.05	3.0	1.0	8:1	—
9	L.72	14	Stiffening plate	†0.10	2.5	0.25	4:1	—
10	L.72	721/SS/1793	Channel member	0.10	2.5	—	—	—
11	L.72	586/SS/1793	Stiffener	0.10	2.5	0.25	4:1	—
12	DTD.687	22	Butt strap	†0.05	3.0	—	—	—
13	DTD.687	16	Capping	0.05	3.0	—	—	—
14	DTD.687	939/SS/1793	Boom channel	0.05	3.0	—	—	—
15	DTD.687	16	Web	0.05	3.0	1.0	8:1	103, 104
16	L.72	20	Angle	0.10	2.5	—	—	As 113, 114
17	L.72	749/SS/1793	Channel	0.10	2.5	0.25	4:1	105, 107
18	L.72	750/SS/1793	Channel	0.10	2.5	0.25	4:1	105, 107
19	L.72	20	Channel	0.10	2.5	0.25	4:1	As 108
20	L.72	16	Channel	0.10	2.5	0.25	4:1	As 108
21	DTD.687	716/SS/1793	Angle member	0.05	3.0	—	—	—
22	DTD.687	22	Web	0.05	3.0	1.0	8:1	103, 104
23	L.72	22	Channel	0.10	2.5	0.25	4:1	As 108
24	L.72	24	Butt strap	0.10	2.5	—	—	—
25	L.72	18	Stiffening plate	†0.10	2.5	0.25	4:1	—
26	L.72	703/SS/1793	Channel	0.10	2.5	0.25	4:1	105, 107
27	DTD.171B or 166B	743/SS/1793	'Z' section	†0.15	2.0	—	—	—
28	L.72	13b/SS/1793	Angle	0.15	2.0	—	—	113
29	L.72	18	Channel	0.10	2.5	0.25	4:1	108
30	S.3	20	Channel	†0.10	2.5	0.25	4:1	—
31	L.72	20	Angle	0.10	2.5	0.25	4:1	—
32	DTD.687	18	Gusset	†0.10	2.5	—	—	—
33	L.72	22	Channel	†0.10	2.5	0.25	4:1	—
34	DTD.142A	Mag. alloy	Block	†0.10	2.5	—	—	—
35	DTD.687	16	Gusset	†0.05	3.0	—	—	—
36	L.72	12a/SS/1793	Angle	0.15	2.0	—	—	113
37	L.72	18	Diaphragm	†0.10	2.5	—	—	—
38	DTD.687	715/SS/1793	Angle	0.05	3.0	—	—	—
39	S.514	20	Compression member	* —	—	0.25	4:1	—
40	S.514	16	Mounting member	—	—	0.5	8:1	—
41	DTD.171B or 166B	26	Partition	†0.15	2.0	—	—	—
42	S.1	M. steel	Bearing plate	—	—	—	—	—
43	S.514	16	Bracket	†0.05	3.0	—	—	—
44	DTD.171B or 166B	26	Angle	0.15	2.0	—	—	—
45	DTD.171B or 166B	26	Backing plate	0.15	2.0	—	—	—
46	DTD.687	16	Channel	0.05	3.0	—	—	—
47	S.96	Steel	Bearing base	—	—	—	—	—
48	DTD.687	713/SS/1793	Angle member	0.05	3.0	—	—	—

† More expedient to renew

* No repairs permitted

All dimensions in inches

RESTRICTED



ITEM 11 IS A TYPICAL STANDARD SECTION OF ALL INTERNAL 'Z' TYPE STIFFENERS.

NOTE: THIS AREA IS TO BE FREE FROM REPAIRS TO ALLOW INTRODUCTION OF MOD. I. DAMAGE TO BE REFERRED TO A.V.ROE & CO. LTD.

SECTION 'A-A'

Fig.321 - Centre engine rib RESTRICTED

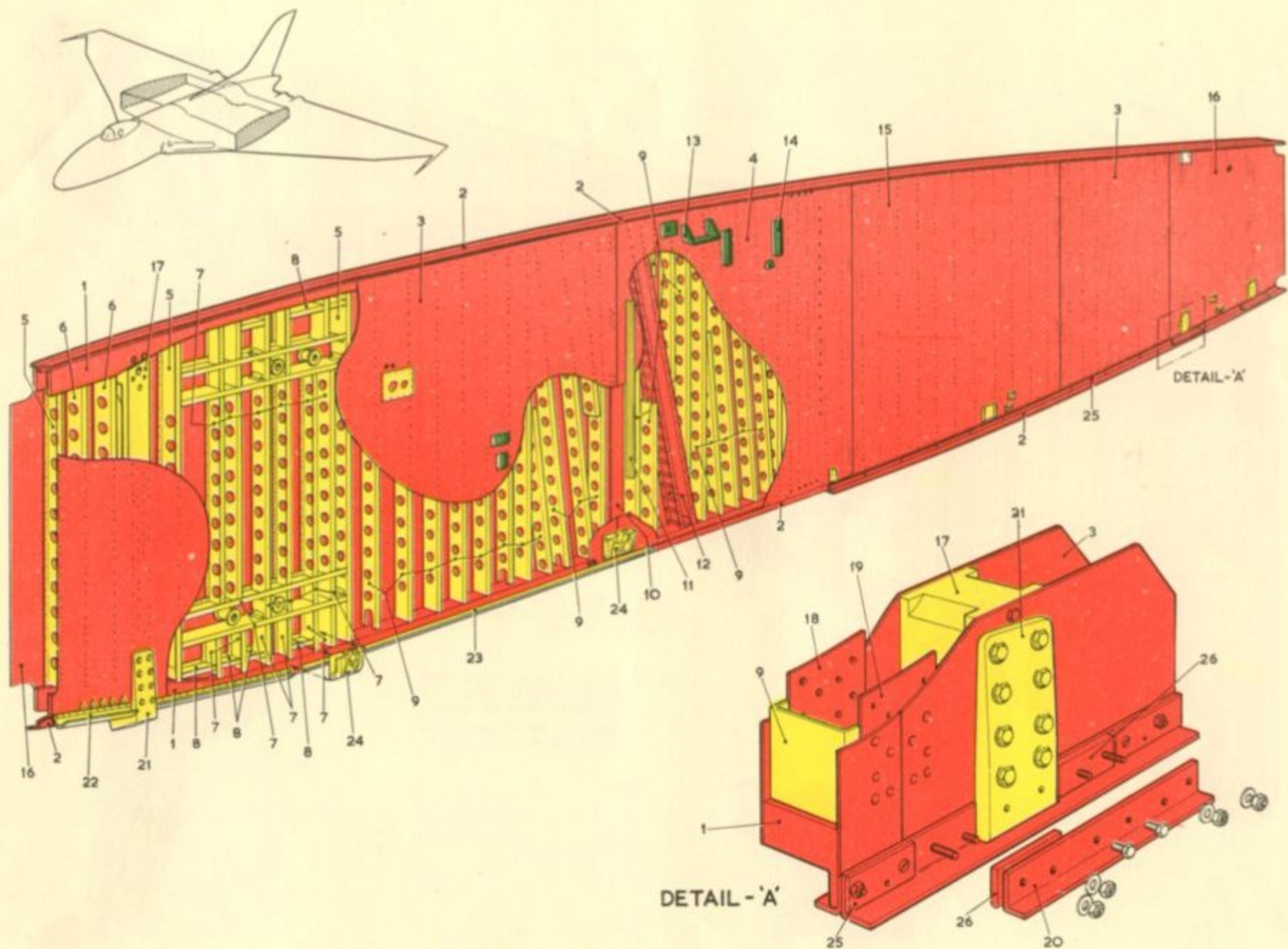


Fig.322 - Outboard engine rib
RESTRICTED

Key to Fig. 322. Outboard Engine Rib

Item	Spec.	Material S.W.G. or Section	Description	Depth	Negligible Damage		Holes Pitch Ratio	Repair Fig. No.
					Dents	Dist. Apart		
1	DTD.363A	Al. Alloy	Rib booms	*0.05	3.0	—	—	
2	L.73	10	Skin angle	0.05	3.0	—	—	
3	DTD.687	14	Skin panel	0.05	3.0	1.0	8:1	103 104
4	DTD.687	13	Skin panel	0.05	3.0	1.0	8:1	103 104
5	L.72	429/SS/1793	Channel	0.05	3.0	0.25	4:1	105
6	L.72	122/SS/1793	Channel	0.05	3.0	0.25	4:1	105
7	L.72	20	Channel	†0.05	3.0	0.25	4:1	
8	L.72	16	Channel	†0.05	3.0	0.25	4:1	105
9	L.72	579/SS/1793	Channel	0.05	3.0	0.25	4:1	
10	DTD.687	13	Joint strap	—	—	—	—	
11	L.72	140/SS/1793	Grooved strip	†—	—	—	—	
12	L.73	14	Channel	0.05	3.0	—	—	
13	L.72	16	Bracket	†0.10	2.5	0.25	4:1	
14	L.72	511/SS/1793	Stiffener	0.10	2.5	0.25	4:1	
15	DTD.687	18	Skin panel	0.05	3.0	1.0	8:1	103 104
16	DTD.687	12	Skin panel	0.05	3.0	1.0	8:1	103 104
17	L.65	Al. Alloy	Centre member	*0.10	2.5	0.25	4:1	
18	DTD.687	16	Butt strap	—	—	—	—	
19	DTD.687	12	Butt strap	—	—	—	—	
20	DTD.364B	294/SS/3075	Angle	†0.05	3.0	—	—	
21	DTD.364B	Al. Alloy	Jacking pad mounting	0.02	—	—	—	
22	DTD.372	332/SS/3075	Hinge	†—	—	—	—	
23	L.65	251/SS/3075	Retaining angle	0.10	3.0	0.25	4:1	
24	DTD.88c	Mag. Alloy	Catch bracket	0.10	2.5	—	—	
25	L.73	10	Strips	0.10	2.5	0.25	4:1	
26	DTD.142A	Mag. Alloy	Packing blocks	†0.10	2.5	—	—	

* No repairs permitted
† More expedient to renew
All dimensions in inches

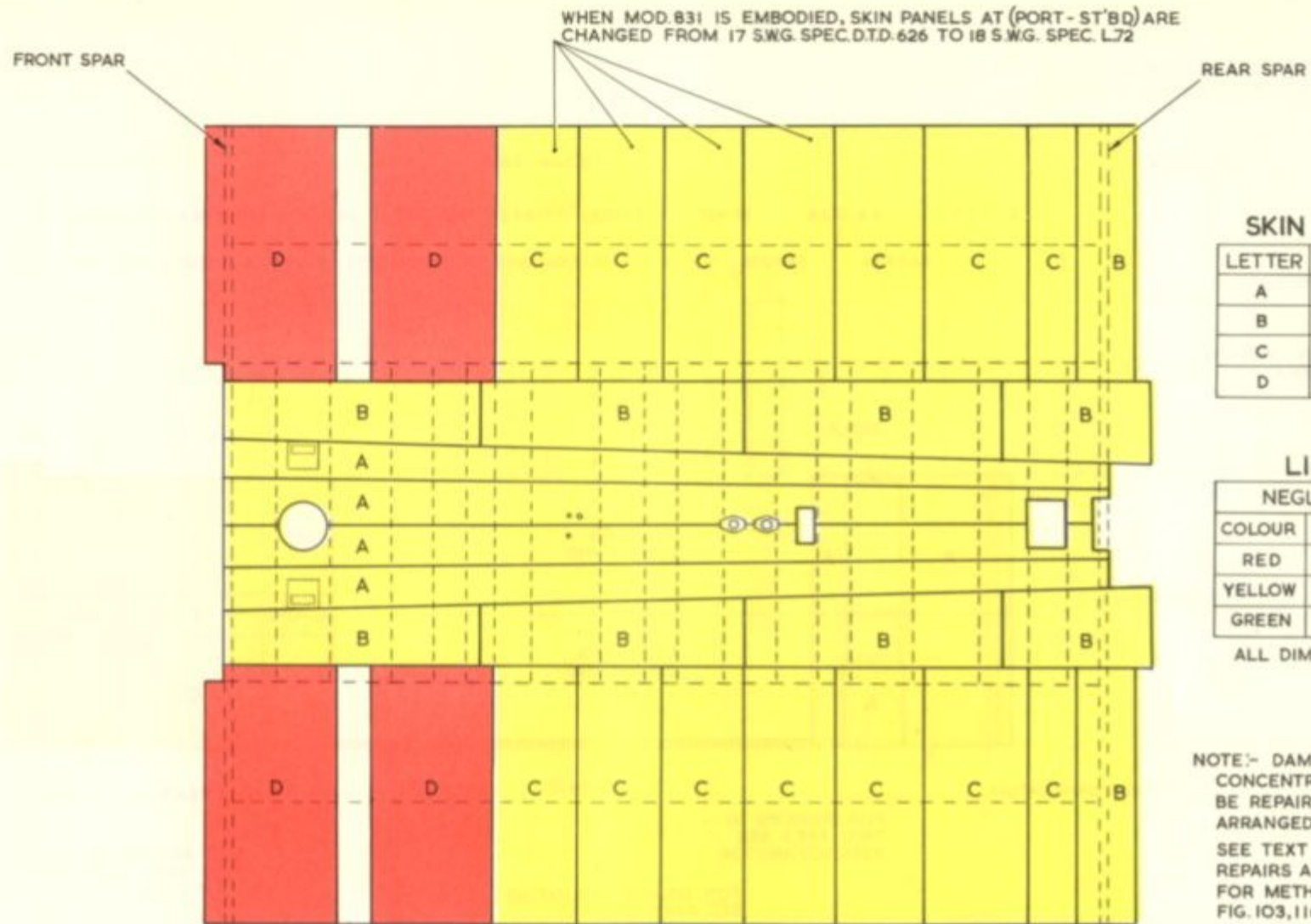


Fig. 323. Centre section skinning - Top surface
RESTRICTED

DAMAGE IN AREAS OF CONCENTRATED RIVETING
MUST BE REPAIRED WITH JOINTS ARRANGED
OUTSIDE THE AREA.

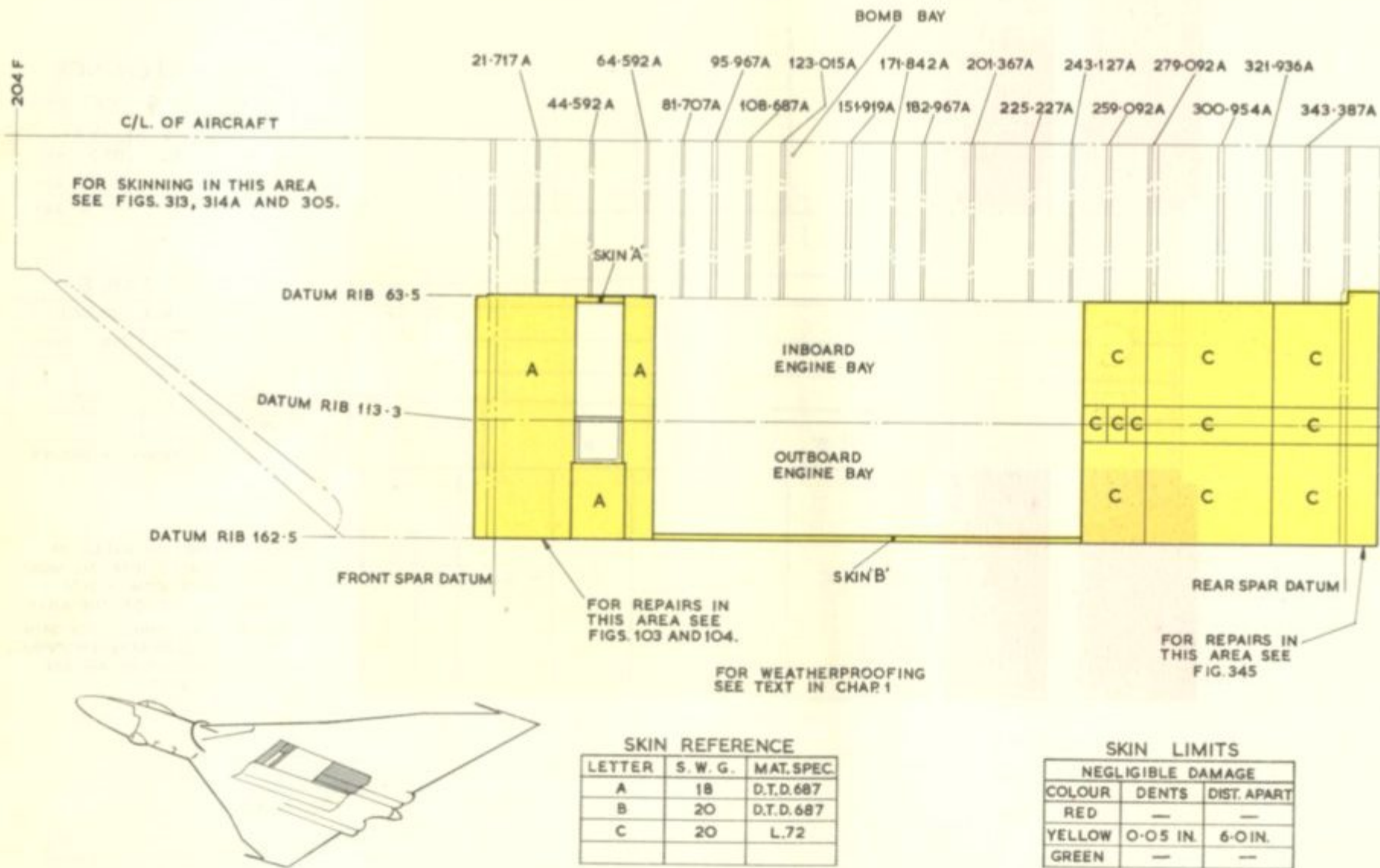
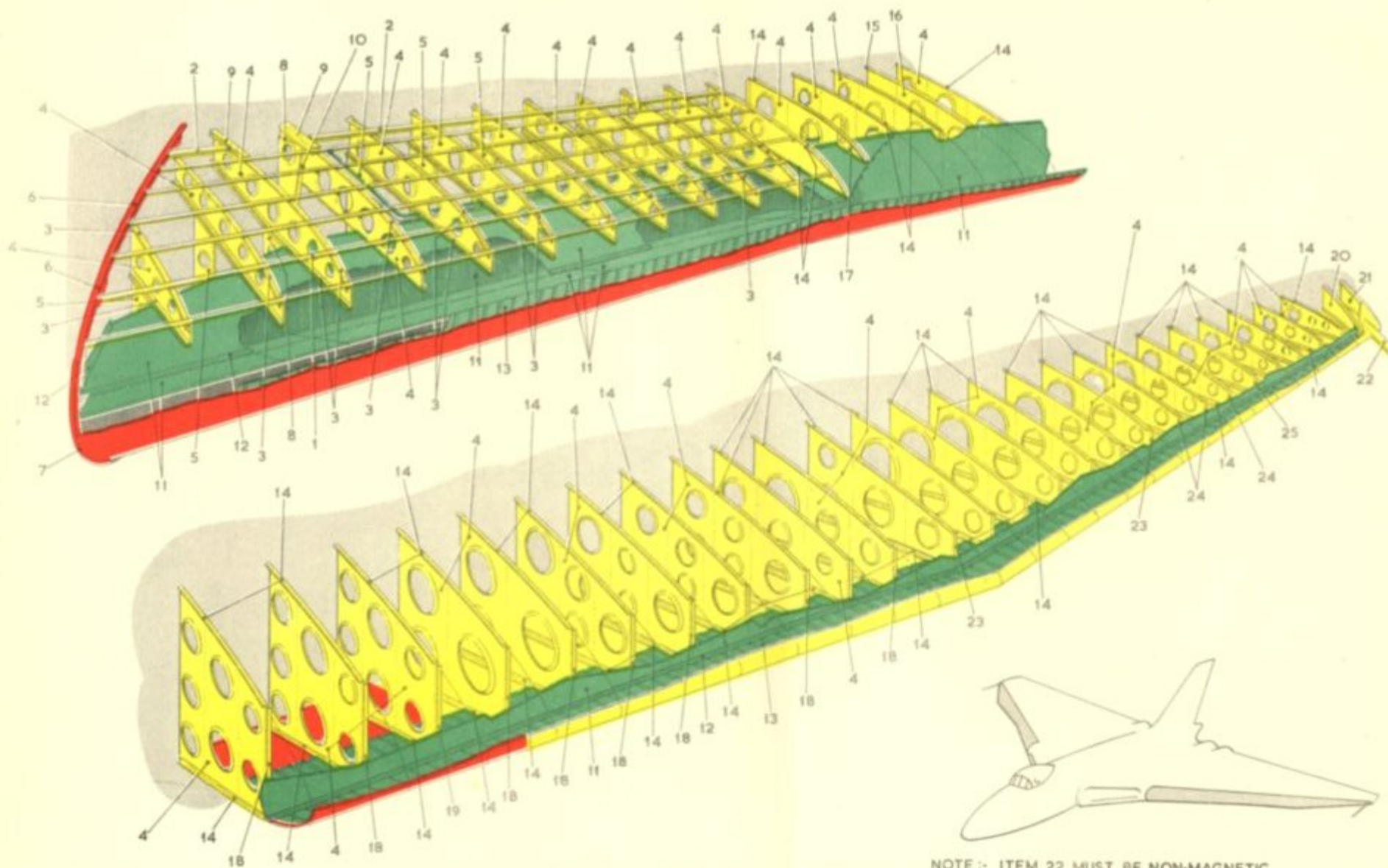


Fig. 323A. Centre section skinning - Bottom surface

RESTRICTED



NOTE :- ITEM 22 MUST BE NON-MAGNETIC
 ITEM 11 TO BE REPAIRED WITH D.T.D. 742

Fig.324 - Leading edge structure
 RESTRICTED

Key to Fig. 324. Leading edge structure

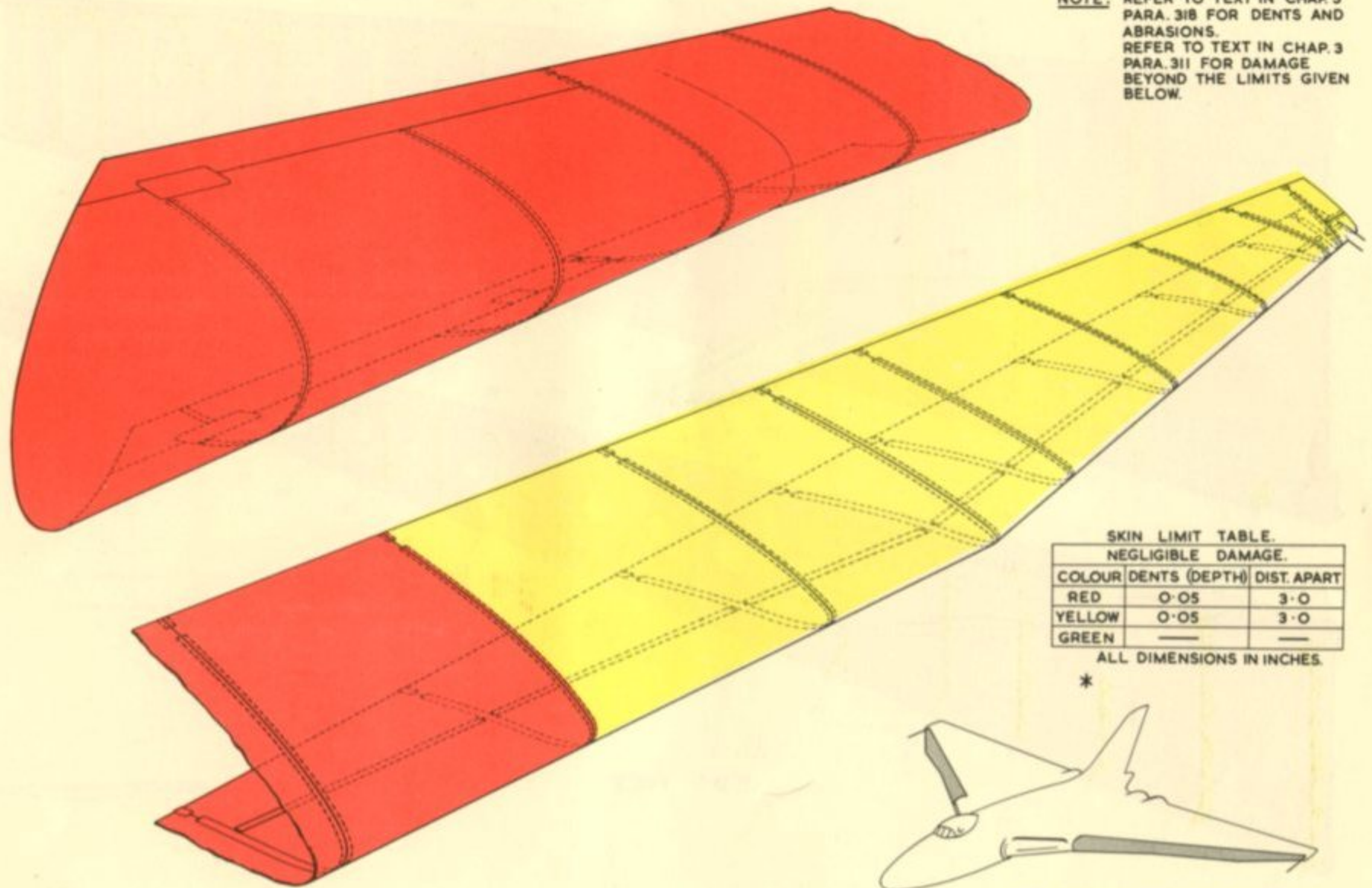
Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage			Holes Pitch Ratio	Repair Fig. No.
				Dents Depth	Dist. Apart	Dia.		
1	DTD.687	582/SS/1793	Stringers	—	—	0.125	4 : 1	221
2	DTD.683	301/SS/3075	Stringers	—	—	0.125	4 : 1	110
3	L.72	431/SS/1793	Rib boom	—	—	0.125	4 : 1	—
4	L.72	24	Rib webs	0.10	2.5	0.25	4 : 1	103, 106
5	L.72	22	Intercostal	0.10	2.5	0.25	4 : 1	103, 106
6	L.65	352/SS/3075	Nose casting	*	—	—	—	—
7	L.53	Al. alloy	Nose casting	*	—	—	—	—
8	L.72	20	Intercostal	0.10	2.5	0.25	4 : 1	103, 106
9	L.72	14	Attachment angle	†	—	0.125	4 : 1	—
10	L.72	12b/SS1793	Angle	—	—	0.125	4 : 1	—
11	A.Z.31	24	Duct panels	0.15	2.0	—	—	113
12	L.72	22	Nose angle	0.15	2.0	—	—	103
13	L.72	SS/4121	Corrugation panels	0.15	2.0	—	—	—
14	L.72	13b/SS/1793	Rib booms	—	—	0.125	4 : 1	—
15	L.65	293/SS/3075	Rib booms	—	—	0.125	4 : 1	—
16	L.72	18	Rib web	0.10	2.5	0.25	4 : 1	103, 106
17	L.72	20	Nose rib	0.10	2.5	0.25	4 : 1	—
18	L.72	950/SS/1793	Duct angle	—	—	0.125	4 : 1	—
19	L.72	999/SS/1793	Duct angle	—	—	0.125	4 : 1	—
20	L.72	20	Rib pressing	0.10	2.5	0.25	4 : 1	103
21	L.72	18	Rib pressing	0.10	2.5	0.25	4 : 1	103
22	DTD.171	18	Pitot fairing	0.10	2.5	—	—	—
23	L.72	949/SS/1793	Duct angle	—	—	0.125	4 : 1	—
24	L.72	22	Duct angle	—	—	0.125	4 : 1	—
25	L.72	950/SS/1793	Duct angle	—	—	0.125	4 : 1	—

* No repairs permitted

† More expedient to renew

All dimensions in inches

NOTE: REFER TO TEXT IN CHAP. 3
 PARA. 318 FOR DENTS AND
 ABRASIONS.
 REFER TO TEXT IN CHAP. 3
 PARA. 311 FOR DAMAGE
 BEYOND THE LIMITS GIVEN
 BELOW.

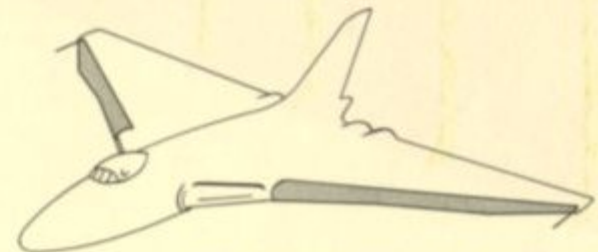


SKIN LIMIT TABLE.
 NEGLIGIBLE DAMAGE.

COLOUR	DENTS (DEPTH)	DIST. APART
RED	0.05	3.0
YELLOW	0.05	3.0
GREEN	—	—

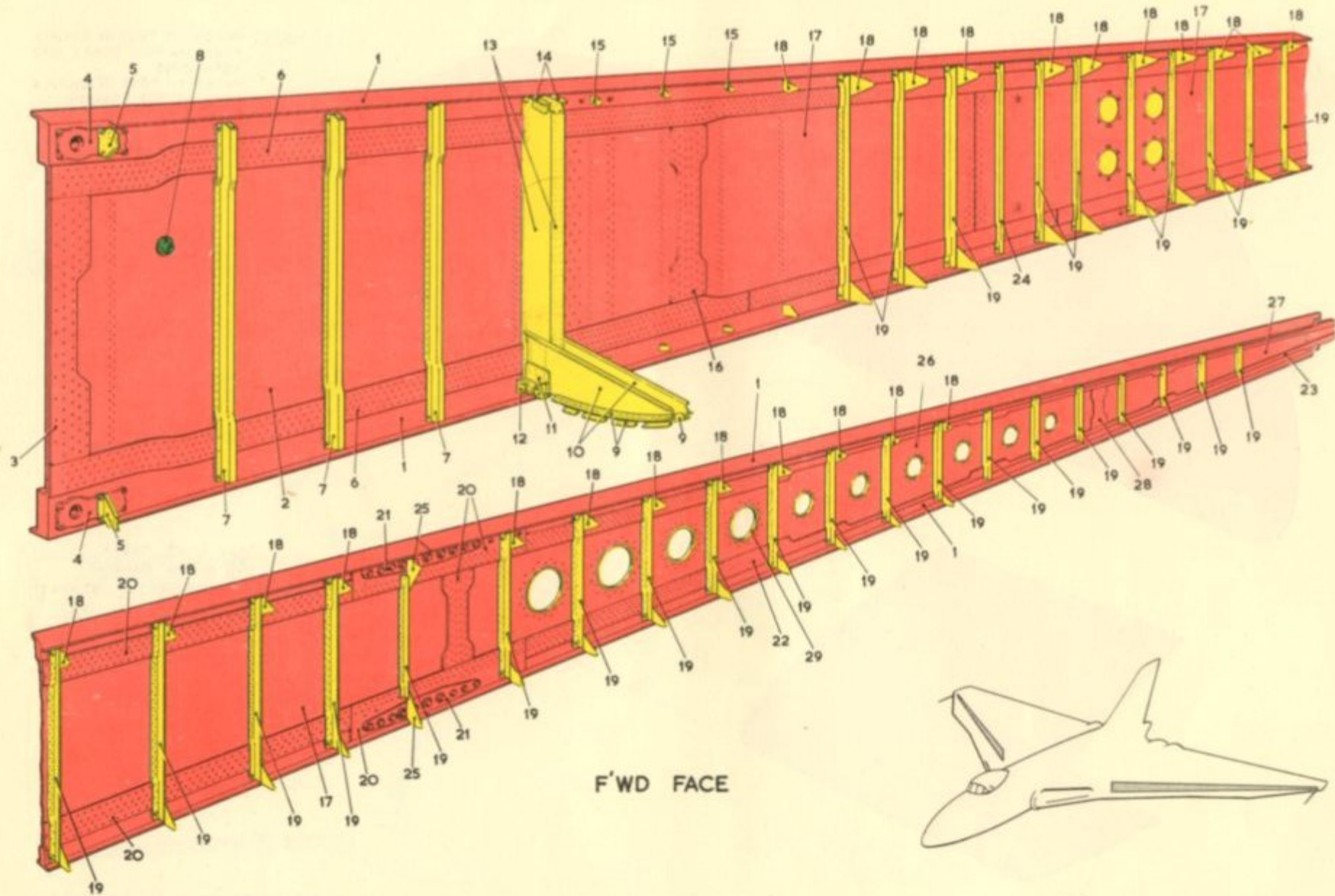
ALL DIMENSIONS IN INCHES.

*



* THESE LIMITS APPLY TO BUTTSTRAPS.
 ALL SKINS AND BUTTSTRAPS ARE D.T.D.
 687. 14S.W.G.

**Fig.324A - Leading edge skins
 RESTRICTED**



**Fig.325 - Outer wing front spar
RESTRICTED**

Key to Fig. 325. Outer wing — front spar

Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage			Holes Pitch Ratio	Repair Fig. No.
				Dents Depth	Dist. Apart	Dia.		
1	DTD.363	—	Spar booms	*0.05	3.0	—	—	—
2	DTD.687	9	Spar web	0.025	6.0	—	—	—
3	DTD.687	8	Reinforcing plate	—	—	—	—	—
4	SS.99	H.T.S.	Reinforcing plate	—	—	—	—	—
5	L.72	16	Bracket	†0.10	2.5	0.25	4:1	—
6	DTD.687	9	Boom strap	—	—	—	—	—
7	L.72	14	Web stiffener	—	—	0.25	4:1	—
8	L.65	Al. alloy	Pipe connection	—	—	—	—	—
9	L.73	14	Angles	†0.10	2.5	0.25	4:1	—
10	L.73	14	Channel	0.10	2.5	0.25	4:1	103
11	L.73	14	Bearing plate	† —	—	—	—	—
12	DTD.683	Al. alloy	Bracket	† —	—	—	—	—
13	L.73	12	Channel	—	—	0.25	4:1	103
14	L.73	12	Shear angle	†0.10	2.5	0.25	4:1	—
15	L.72	16	Attachment bracket	—	—	—	—	—
16	DTD.687	12	Joint strap	† —	—	—	—	—
17	DTD.687	13	Spar web	0.025	6.0	—	—	—
18	L.72	18	Bracket	† —	—	—	—	—
19	L.72	20	Attachment angle	0.05	3.0	0.125	4:1	—
20	DTD.687	13	Strap	—	—	—	—	—
21	DTD.363	Al. alloy	Shackle	—	—	—	—	—
22	DTD.687	16	Boom strap	—	—	—	—	—
23	DTD.687	18	Boom strap	—	—	—	—	—
24	L.65	292/SS/3075	'Tee' stiffener	0.05	3.0	—	—	—
25	L.72	16	Bracket	† —	—	0.25	4:1	—
26	DTD.687	16	Web	0.025	6.0	0.25	8:1	103, 104
27	DTD.687	18	Web	0.025	6.0	0.25	8:1	103, 104
28	DTD.687	16	Joint plate	—	—	—	—	—
29	L.72	16	Reinforcing ring	† —	—	—	—	—

* No repairs permitted
† More expedient to renew
All dimensions in inches

Key to Fig. 325A. Outer wing — front spar

Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage			Holes Pitch Ratio	Repair Fig. No.
				Dents Depth	Dist. Apart	Dia.		
1	S.99	H.T.S.	Reinforcing plate	—	—	—	—	—
2	L.65	Al. alloy	Pipe connection	—	—	—	—	—
3	L.72	10	Mounting block	—	—	—	—	—
4	DTD.687	16	Attachment angle	* —	—	0.125	4 : 1	—
5	DTD.687	11	Attachment angle	—	—	0.125	4 : 1	—
6	L.65	Al. alloy	Bracket	† —	—	—	—	—
7	L.72	18	Attachment angle	0.05	3.0	0.125	4 : 1	—
8	DTD.687	18	Attachment angle	0.05	3.0	0.125	4 : 1	—
9	L.72	16	Attachment bracket	† —	—	—	—	—
10	DTD.687	16	Cover plate	†0.10	2.5	—	—	—
11	DTD.687	13	Cover plate	—	—	—	—	—
12	DTD.363	Al. alloy	Joint shackle	—	—	—	—	—
13	L.72	16	Attachment angle	* —	—	—	—	—
14	L.72	14	Attachment angle	* —	—	—	—	—
15	L.72	16	Reinforcing ring	† —	—	—	—	—
16	DTD.687	16	Attachment angle	†0.05	3.0	0.125	4 : 1	—

* No repairs permitted
† More expedient to renew
All dimensions in inches

RESTRICTED

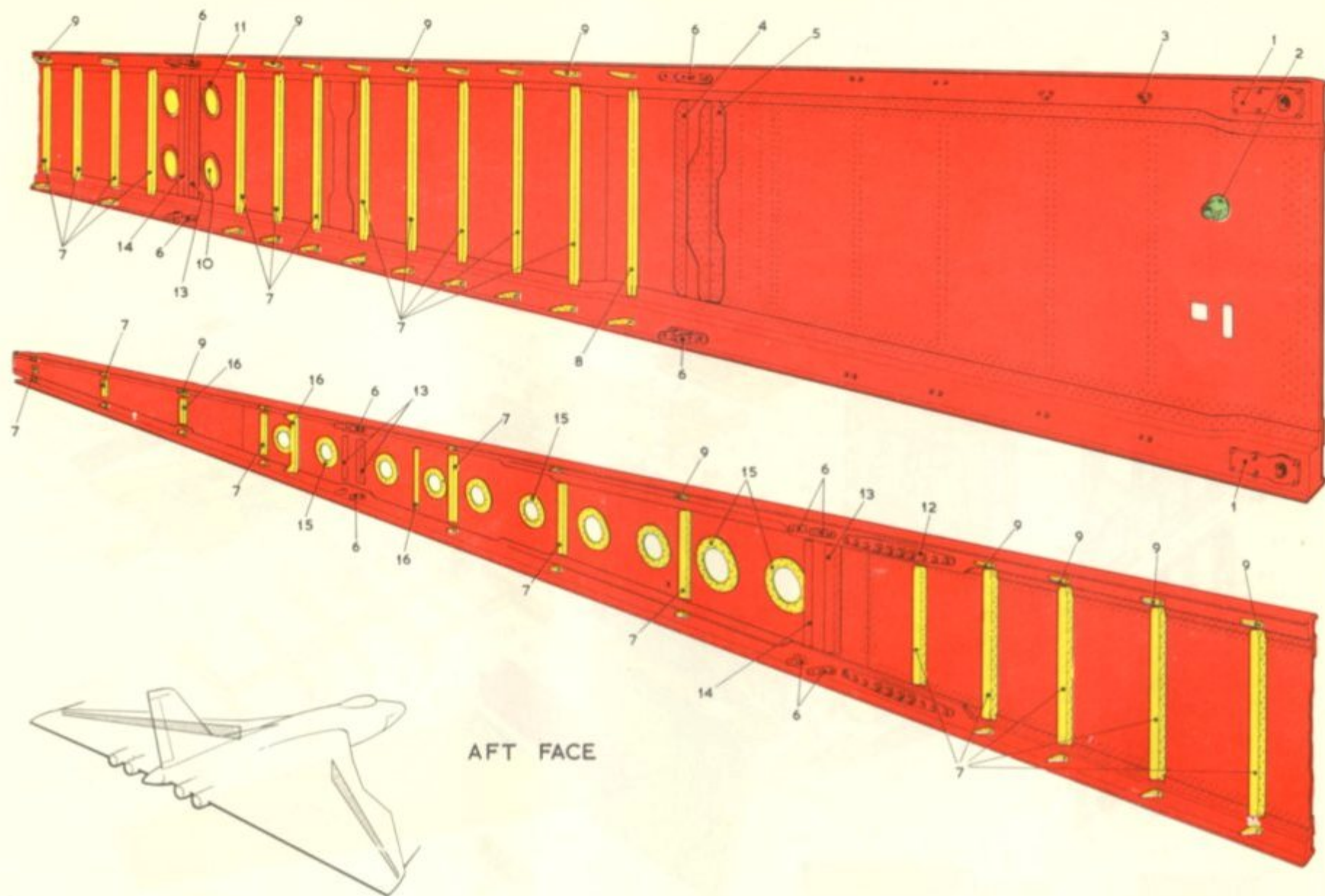


Fig. 325A. Outer wing front spar
RESTRICTED

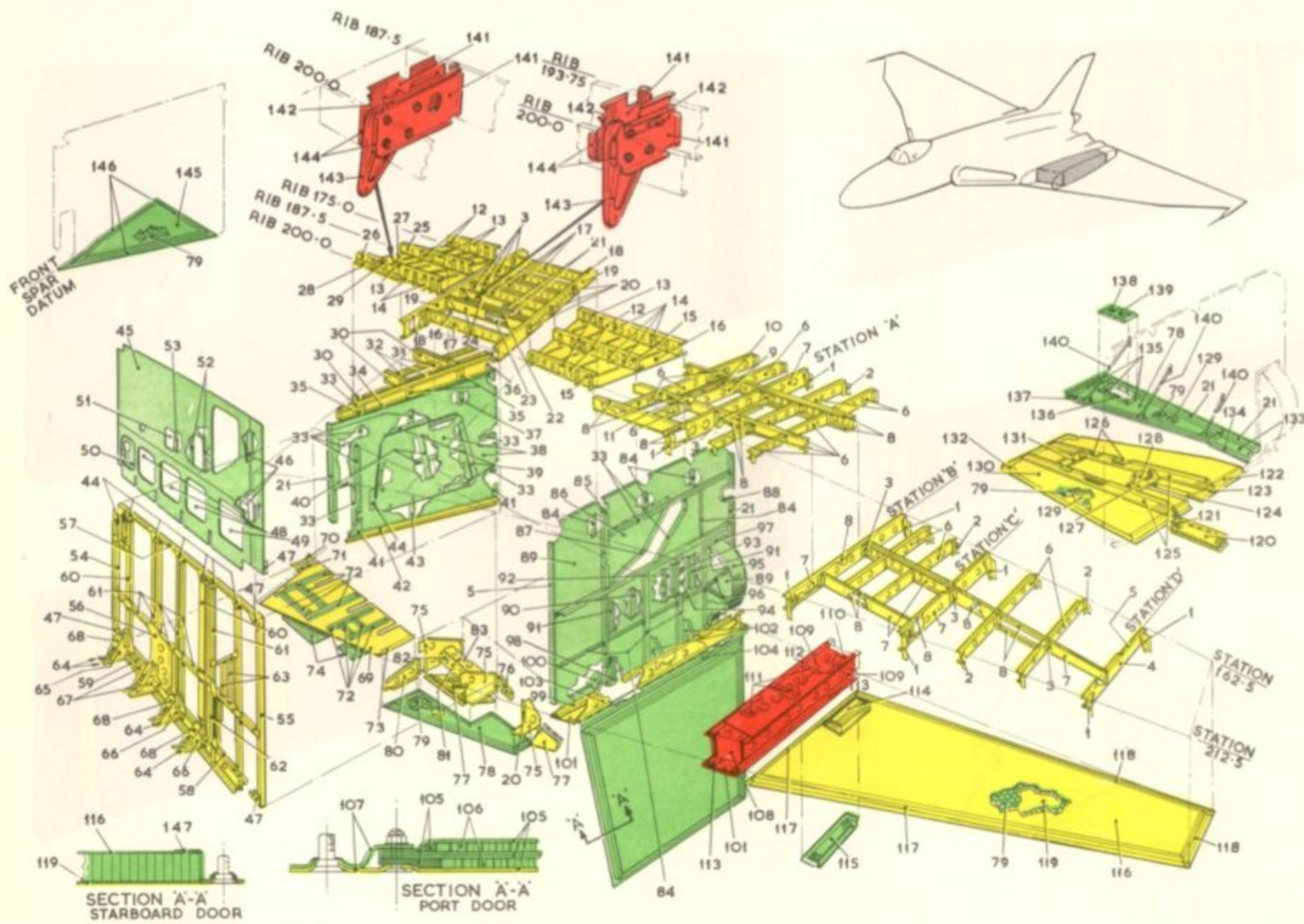


Fig. 326. U/C. bay and aft structure
RESTRICTED

KEY TO FIG.326

Item	Material		Description	Depth	Negligible Damage			Repair Fig.
	Spec.	S.W.G. or Section			Dents	Holes		
					Dist. Apart	Dia.	Pitch Ratio	
1	L. 72	18	Attachment angle	x -	-	-	-	
2	L. 72	67/SS. 1793	Attachment bracket	x -	-	-	-	
3	L. 72	20	Attachment angle	x -	-	-	-	
4	L. 72	18	Support beam	0.1	2.0	0.25	4:1	108
5	L. 72	16	Stiffening angle	-	-	0.125	4:1	113
6	L. 72	24	Intercostal	0.1	2.0	0.25	4:1	105, 108
7	L. 72	22	Web	0.1	2.0	0.25	4:1	103
8	L. 65 or D. T. D. 423	248/SS. 3075	Extruded angle	-	-	0.125	4:1	
9	L. 72	16	Intercostal	0.1	2.0	0.25	4:1	105, 108
10	L. 72	22	Intercostal	0.1	2.0	0.25	4:1	105, 108
11	L. 72	22	Gusset plate	x -	-	0.25	4:1	
12	L. 72	24	Web	0.1	2.0	0.25	4:1	
13	L. 72	834/SS. 1793	Top and bottom booms	-	-	0.125	4:1	114
14	L. 72	183/SS. 1793	Stiffener	x -	-	-	-	
15	L. 72	24	Doubling plate	0.1	2.0	0.25	4:1	
16	L. 72	26	Skin	0.2	2.5	0.125	4:1	
17	L. 72	394/SS. 1793	Rib	0.1	2.0	0.25	4:1	108
18	L. 65	340/SS. 3075	Top and bottom booms	-	-	0.125	4:1	
19	L. 72	20	Web	0.2	2.5	0.25	4:1	
20	L. 72	18	Angle	x -	-	-	-	
21	L. 72	18	Angle	-	-	0.125	4:1	114
22	L. 65	343/SS. 3075	Top boom	-	-	0.125	4:1	
23	L. 65	293/SS. 3075	Bottom boom	-	-	0.125	4:1	
24	L. 72	16	Web	0.2	2.5	0.25	4:1	
25	L. 72	20	Plate	0.2	2.5	0.25	4:1	
26	L. 72	18	Plate	0.2	2.5	0.25	4:1	
27	L. 72	26	Skin	0.2	2.5	0.25	4:1	
28	L. 72	678/SS. 1793	Bottom boom	-	-	0.125	4:1	114
29	L. 72	22	Angle	-	-	0.125	4:1	114
30	L. 72	20	Diaphragm	0.1	2.0	0.25	4:1	105, 108
31	L. 72	386/SS. 1793	Angle	-	-	0.125	4:1	114
32	L. 72	379/SS. 1793	Stringer	-	-	0.125	4:1	
33	L. 72	385/SS. 1793	Angle	-	-	0.125	4:1	114
34	L. 72	16	Angle	-	-	-	-	114
35	L. 72	18	Bracket	x -	-	-	-	
36	L. 72	18	Plate	x -	-	-	-	
37	L. 72	110/SS. 1793	Channel	-	-	0.125	4:1	107, 108
38	L. 72	24	Web	0.2	2.0	0.25	4:1	103
39	L. 72	192/SS. 1793	'Z' section stiffener	-	-	0.125	4:1	
40	L. 72	18/SS. 1793	Stiffener	-	-	0.125	4:1	
41	L. 72	20	Gusset plate	x -	-	-	-	
42	L. 72 or L. 65 or D. T. D. 423	10 251/SS. 3075	Angle	-	-	0.25	4:1	
43	L. 72	16	Channel	-	-	0.125	4:1	
44	L. 72	18	Gusset plate	x -	-	-	-	
45	D. T. D. 626	20	Skin	0.2	2.0	0.25	4:1	103, 104
46	D. T. D. 626	20	Joint strap	x -	-	0.25	4:1	
47	L. 72	16	Gusset plate	x -	-	-	-	
48	D. T. D. 626	20	Access door	0.1	2.5	0.25	4:1	103

* No repairs permitted

x More expedient to renew than repair

All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.326 (contd.)

Item	Material		Description	Depth	Negligible Damage			Repair Fig.
	Spec.	S.W.G. or Section			Dents	Holes	Pitch Ratio	
49	L. 72	20	Access door	0.1	2.5	0.25	4:1	103
50	L. 72	18	Stiffening plate	-	-	0.25	4:1	
51	D. T. D. 626	18	Access door	0.1	2.5	0.25	4:1	103
52	L. 72	60/SS. 1793	Angle	-	-	0.125	4:1	113
53	L. 72	12b/SS. 1793	Angle	-	-	0.125	4:1	113
54	L. 72	608/SS. 1793	Vertical boom	-	-	0.125	4:1	
55	L. 72	606/SS. 1793	Vertical boom	-	-	0.125	4:1	
56	L. 72	18	Bracket plate	0.1	2.5	0.25	4:1	
57	L. 72	244/SS. 1793	Top boom	-	-	0.125	4:1	
58	L. 72	108/SS. 1793	Bottom boom	-	-	0.125	4:1	
59	L. 72	18	Skin attachment angle	-	-	0.125	4:1	
60	L. 72	102/SS. 1793	Channel	-	-	0.125	4:1	
	L. 72	16	Reinforcing channel	-	-	0.125	4:1	
61	L. 72	16	Strap plate	-	-	0.25	4:1	
	L. 72	102/SS. 1793	Stiffener	-	-	0.125	4:1	107, 108
62	L. 72	16	Bracket	-	-	0.125	4:1	
63	L. 72	120/SS. 1793	Stiffener	-	-	0.125	4:1	
64	L. 72	247/SS. 1793	Attachment angle	x -	-	0.125	4:1	
65	L. 72	12	Hinge bracket	x -	-	-	-	
66	L. 72	14	Hinge bracket	x -	-	-	-	
67	L. 72	18	Box bracket	x -	-	-	-	
68	L. 72	16	Plate	x -	-	-	-	
69	D. T. D. 626	16	Skin	0.2	2.0	0.25	4:1	103
70	L. 72	18	Strap	x 0.1	2.5	0.25	4:1	
71	L. 72	18	Attachment angle	x -	-	-	-	
72	L. 72	348/SS. 1793	Stiffening channel	-	-	-	-	
73	L. 72	183/SS. 1793	Angle	-	-	0.125	4:1	107, 108
74	L. 72	16	Access panel	0.1	2.0	0.25	4:1	113
75	L. 72	18	Diaphragm	0.1	2.5	0.25	4:1	103
76	L. 72	18	Support member	0.1	2.5	0.25	4:1	
77	D. T. D. 626	16	Access panel	0.1	2.0	0.25	4:1	103
78	L. 72	30	Skin	0.2	2.0	0.25	4:1	
79	Alum. foil	SS. 4275	Honeycomb	-	-	-	-	
80	L. 72	18	Intercostal	0.05	1.5	0.25	4:1	
81	L. 72	14	Support bracket	0.1	2.0	0.25	4:1	
82	L. 72	20	Stiffening member	0.1	2.0	0.25	4:1	
83	L. 72	18	Spray shield	-	-	-	-	
84	L. 72	12a/SS. 1793	Angle	-	-	0.125	4:1	113
85	L. 72	285/SS. 1793	Channel	-	-	0.125	4:1	108
86	L. 72	20	Access door	0.2	2.0	0.25	4:1	103
87	L. 72	200/SS. 1793	Angle	-	-	0.125	4:1	
88	L. 72	16	Stiffening plate	x -	-	0.125	4:1	
89	L. 72	20	Web	0.2	2.0	0.25	4:1	103
90	L. 72	790/SS. 1793	Stiffener	-	-	0.125	4:1	
91	L. 72	790/SS. 1793	Stiffener	-	-	0.125	4:1	
92	L. 72	85/SS. 1793	Stiffener	-	-	0.125	4:1	
93	L. 72	14	Bracket	x -	-	0.125	4:1	
94	L. 72	16	Bracket	x -	-	-	-	
95	L. 72	20	Channel	-	-	0.125	4:1	
96	L. 72	2/SS. 1793	Stiffener	-	-	0.125	4:1	108
97	L. 72	20	Angle	-	-	0.125	4:1	113

* No repairs permitted

x More expedient to renew than repair

All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.326 (contd.)

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Holes			
			Depth	Dist. Apart	Dia.	Pitch Ratio		
98	L. 65 or D. T. D. 683	Forging	Hinge arm	* -	-	-	-	
99	L. 65	333/SS. 3075	Angle	-	-	0.125	4:1	
100	L. 72	18	Bracket	x -	-	-	-	
101	L. 72	16	Skin	0.1	2.5	-	-	103,104
102	L. 72	24	Diaphragm	-	-	-	-	
103	L. 72	18	Beam	0.05	2.0	0.125	4:1	
104	L. 72	16	Hinge angle	-	-	0.125	4:1	
105	V93-T5	-	Fibreglass cloth	-	-	-	-	
106	Dufaylite	¼ in. cell	Fibreglass honeycomb	-	-	-	-	
107	L. 72	16	Frame member	-	-	0.125	4:1	
108	L. 72	16	Channel	0.05	2.5	0.125	4:1	
109	L. 72	24	Web	0.05	2.5	0.125	8:1	
110	L. 72	24	Plate	0.1	2.5	0.25	8:1	
111	L. 72	24	Diaphragm	-	-	0.25	8:1	
112	L. 72	12d/SS. 1793	Angle	-	-	0.125	8:1	113
113	L. 72	20	Angle	-	-	0.125	8:1	114
114	L. 59	20	Chute sleeve	x 0.1	2.0	0.25	4:1	
115	L. 72	18	Extractor ramp	x 0.1	2.0	0.25	4:1	
116	L. 73	22	Inner skin	0.2	2.0	0.125	4:1	
117	L. 72	22/SS. 7000	Edge member	-	-	0.125	4:1	123
118	L. 72	35/SS. 7000	Edge member	-	-	0.125	4:1	123
119	L. 73	24	Outer skin	0.1	2.5	-	-	
120	L. 72	18	Hinged flap	-	-	-	-	
121	S. 110	-	Bracket	x -	-	-	-	
122	L. 72	20	'Z' member	-	-	0.125	4:1	
123	L. 65 or D. T. D. 683	Forging	Hinge bracket	* -	-	-	-	
124	L. 72	27/SS. 7000	Frame member	-	-	0.125	4:1	
125	L. 73	825/SS. 1793	Stiffener	0.1	2.5	0.25	4:1	
126	L. 73	20	Channel	0.1	2.5	0.25	4:1	
127	L. 72	825/SS. 1793	Stiffener	-	-	-	-	
128	L. 72	20	Spring anchorage	x -	-	-	-	
129	L. 72	26	Outer skin	0.1	2.5	-	-	
130	D. T. D. 118	24	Inner skin	0.2	2.0	0.125	4:1	
131	L. 72	20	Bracket	x -	-	0.125	4:1	
132	L. 72	14	Plate	x 0.1	2.5	0.25	4:1	
133	L. 73	14	Skin	0.1	2.0	-	-	103
134	L. 72	846/SS. 1793	Seal retaining strip	x -	-	0.125	4:1	
135	L. 72	20/SS. 1793	Channel	-	-	0.125	4:1	
136	L. 72	19/SS. 1793	'Z' section	-	-	0.125	4:1	
137	L. 72	20	Channel	-	-	0.125	4:1	
138	L. 72	24	Access door pressing	0.1	2.5	-	-	
139	L. 72	22	Access door skin	0.1	2.5	-	-	
140	T. 45	-	Strut	x -	-	-	-	
141	L. 72	18	Intercostal	-	-	0.125	8:1	
142	L. 72	18	Angle	-	-	-	-	
143	D. T. D. 88C	-	Bracket	x 0.02	-	-	-	
144	L. 72	16	Angle	x -	-	-	-	
145	L. 72	24	Inner skin	0.2	2.0	0.125	4:1	
146	L. 72	895/SS. 1793	Frame member	-	-	0.125	4:1	
147	L. 72	22/SS. 1793	Angle	-	-	0.125	4:1	

* No repairs permitted

x More expedient to renew than repair

All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.326A

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Dist. Apart	Holes	Pitch Ratio	
			Depth		Dia.			
1	L.72	16	Support beam	0.1	2.0	0.25	4:1	107,108
2	L.72	12c/SS.1793	Angle	-	-	0.125	4:1	113
3	L.72	18	Angle	x -	-	0.125	4:1	
4	L.72	18	Bracket	x -	-	0.125	4:1	
5	L.72	22	Gusset plate	x -	-	0.25	4:1	
6	L.72	18	Intercostal	0.1	2.0	0.125	4:1	107,108
7	L.53	-	Suspension bracket	* 0.05	-	-	-	
8	L.72	18	Angle bracket	x -	-	-	-	
9	L.72	22	Bracket	x -	-	-	-	
10	L.72	18	Intercostal	0.1	2.0	0.25	4:1	105,108
11	L.72	18	Bracket	x -	-	-	-	
12	L.72	20	Bracket	x -	-	-	-	
13	L.72	20	Angle	x -	-	-	-	
14	L.72	12b/SS.1793	Angle	x -	-	-	-	
15	L.72	16	Channel bracket	0.1	2.0	0.25	4:1	
16	L.53	-	Suspension bracket	* 0.2	-	-	-	
17	L.72	14	Bracket	-	-	0.125	4:1	
18	L.72	16	Bracket	-	-	0.125	4:1	
19	L.72	20	Bracket	x -	-	0.125	4:1	
20	-	-	Pulley	* -	-	-	-	
21	L.72	22	Skin panel	0.2	2.0	0.25	4:1	103
22	L.72	20	Beam web	0.2	2.0	0.25	4:1	
23	L.65 or D.T.D.423	248/SS.3075	Beam angle	-	-	0.125	4:1	
24	L.72	18	Bracket	x -	-	-	-	
25	L.72	278/SS.1793	Support bracket	-	-	0.125	4:1	
26	L.72	16	Angle	x -	-	0.125	4:1	
27	L.65 or D.T.D.423	249/SS.3075	Bracket	x -	-	-	-	
28	L.72	72/SS.1793	Support bracket	x -	-	0.125	4:1	
29	S.94, S.95 or S.96	-	'U' link	* 0.05	-	-	-	
30	D.T.D.130	-	Packing	x -	-	-	-	

* No repairs permitted
 x More expedient to renew than repair
 All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.327

Item	Material Spec.	S.W.G. or Section	Description	Negligible Damage				Repair Fig.
				Dents Depth	Dist. Apart	Holes Dia.	Pitch Ratio	
1	L.72	20	Intercostal	0.1	2.0	0.125	4:1	106, 107
2	D.T.D.687	10	Plate)	x -	-	-	-	-
2a	L.72	16	Plate) Pre. Mod.1736	x -	-	-	-	-
3	L.72	18	Web	0.05	2.5	-	-	-
4	L.72	16	Angle	-	-	-	-	114
5	L.72	18	Rib	-	-	-	-	105, 106, 107
6	L.72	22	Intercostal	0.1	2.0	0.125	4:1	106, 107
7	S.80	-	Door-catch	* 0.02	-	-	-	-
8	L.72	18	Bracket	x -	-	0.125	8:1	-
9	L.72	14	Angle	-	-	-	-	114
10	L.65	-	Bracket	* -	-	-	-	-
11	L.72	16	Rib	0.05	2.5	-	-	105, 106, 107
12	L.72	20	Angle	-	-	0.125	4:1	113
13	L.72	20	Rib	0.1	2.0	0.125	4:1	105, 106, 107
14	L.72	18	Rib	0.05	2.5	-	-	105, 106, 107
15	L.83	-	Hinge arm	* 0.02	-	-	-	-
16	L.72	16	Intercostal web	0.1	2.0	0.125	4:1	106
17	L.72	16	Intercostal boom	-	-	-	-	-
18	L.72	16	Access panel	0.1	2.0	0.25	4:1	-
19	L.72	18	Frame member	0.2	2.0	0.25	4:1	-
20	L.72	22	Cover strip	x -	-	0.125	4:1	-
21	D.T.D.552	1/SS.4143	Seal - rubber	-	-	-	-	-
22	L.72	20	Access panel	0.1	2.0	0.25	4:1	-
23	L.72	20	Gusset plate	x 0.1	2.0	0.25	4:1	-
24	L.73	20	Outer skin	0.1	2.5	-	-	103
25	L.72	18	Frame member	0.1	2.0	0.25	4:1	-
26	L.72	18	Gusset plate	x -	-	0.25	4:1	-
27	L.72	20	Inner skin	0.2	2.0	0.25	4:1	-
28	L.72	18	Access panel	0.1	2.0	0.25	4:1	-
29	L.72	14	Frame member	0.1	2.0	0.25	4:1	-
30	S.520	6	Plate, Post Mod.1736	x -	-	-	-	-

* No repairs permitted.

x More expedient to renew than repair.

All dimensions are quoted in inches.

RESTRICTED

KEY TO FIG.328

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Dist. Apart	Holes	Pitch Ratio	
				Depth		Dia.		
1	L.72	17	Stiffening plate	x 0.1	2.5	0.25	4:1	-
2	L.72	20	Reinforcing plate	0.1	2.5	0.25	4:1	-
3	D.T.D.687	13	Web	0.05	3.0	1.0	8:1	103
4	D.T.D.687	18	Web	0.05	3.0	1.0	8:1	103
5	D.T.D.687	17	Butt strap	-	-	-	-	-
6	L.72	579/SS.1793	Stiffeners	0.05	3.0	0.25	4:1	-
7	D.T.D.687	12	Web	0.05	3.0	-	-	-
8	L.73	14	Channel	0.05	3.0	-	-	-
9	D.T.D.683	9/B.1635	Rib booms	* 0.05	3.0	-	-	-
10.	D.T.D.687	17	Rib web	0.05	3.0	-	-	103
11	L.72	12c/SS.1793	Tank angle	0.1	2.5	0.125	4:1	113
12	L.65	-	Lifting block	x 0.02	-	-	-	-
13	D.T.D.683	302/SS.3075	'Z' stringer (top)	-	-	-	-	347
14	D.T.D.683	301/SS.3075	'T' stringer	-	-	-	-	110
15	L.72	146/SS.1793	Rib stiffeners	x 0.05	3.0	0.125	4:1	-
16	D.T.D.626	20	Rib web	0.1	2.5	0.5	8:1	-
17	L.72	24	Rib web	0.1	2.5	0.5	8:1	-
18	L.72	186/SS.1793	Web stiffeners	x 0.05	3.0	0.125	4:1	-
19	L.72	12c/SS.1793	Rib angle	-	-	0.125	4:1	113
20	L.72	10	Rib booms	-	-	0.125	4:1	-
21	D.T.D.742	24	Tank bay skins	0.1	2.5	-	-	Repair Leaflet C.4/1
22	D.T.D.626	20	Reinforcing strips	0.1	2.5	-	-	-
23	L.72	20	Diaphragms	x 0.1	2.5	0.25	4:1	-
24	L.72	18	Panel	x 0.1	2.5	-	-	-
25	L.72	22	Panel	x 0.1	2.5	-	-	-
26	D.T.D.687	583/SS.1793	'Z' stringer (bottom)	0.05	4.0	-	-	111
27	D.T.D.742	22	Tank bay skins	0.1	2.5	-	-	Repair Leaflet C.4/1

* No repairs permitted.
 x More expedient to renew than repair.
 All dimensions are quoted in inches.

RESTRICTED

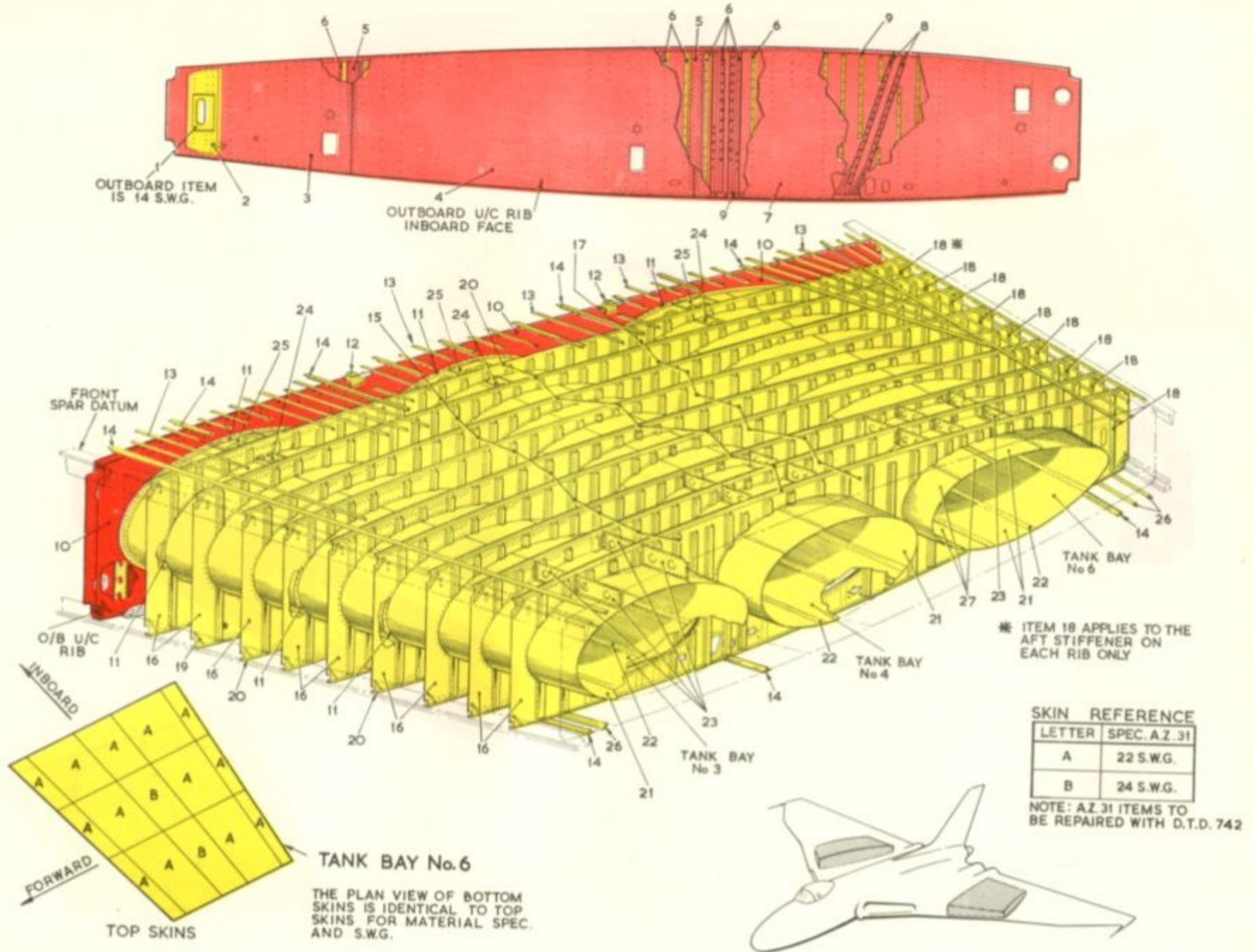


Fig. 328. Nos. 3, 4 and 6 tank bays
RESTRICTED

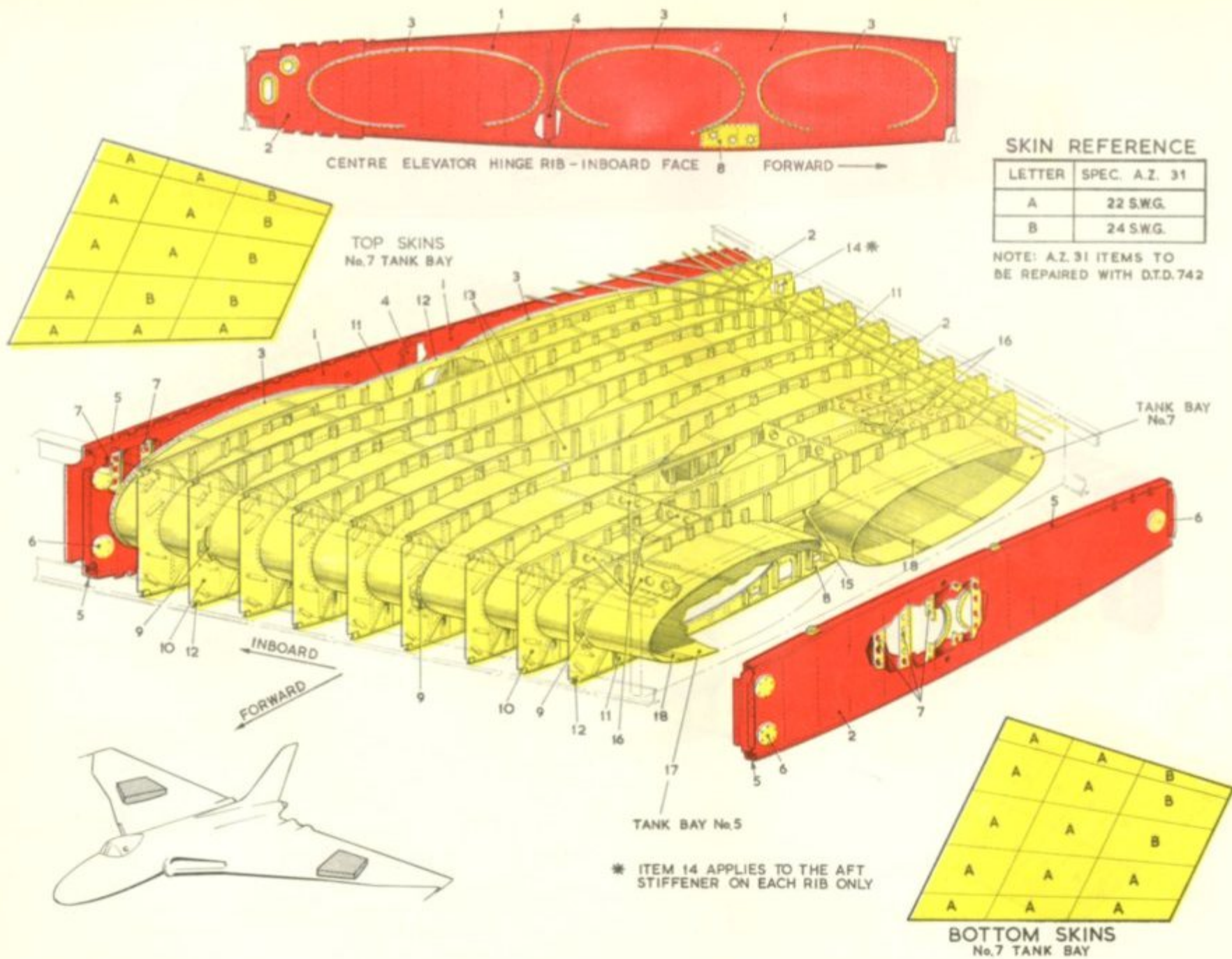


Fig. 328A. Nos.5 and 7 tank bays

RESTRICTED

KEY TO FIG.328A

Item	Material		Description	Depth	Negligible Damage			Repair Fig.
	Spec.	S.W.G. or Section			Dents	Holes		
					Dist. Apart	Dia.	Pitch Ratio	
1	L.72	20	Web	0.05	3.0	1.0	8:1	103, 104
2	L.72	20	Reinforcing plate	0.05	3.0	1.0	8:1	-
3	L.72	12c/SS.1793	Tank angle	0.1	2.5	0.125	4:1	113
4	L.72	18	Joint strap	-	-	-	-	-
5	L.65	311/SS.3075	Rib booms	* 0.05	3.0	-	-	-
6	L.72	20	Cover plate	0.1	2.5	1.0	8:1	-
7	L.72	579/SS.1793	Channel	0.1	2.5	0.25	4:1	-
8	L.72	18	Reinforcing plate	0.05	3.0	0.5	8:1	-
9	L.72	16	Tank angle	0.1	2.5	0.125	4:1	-
10	L.72	22	Stiffening plate	0.1	2.5	0.5	8:1	-
11	L.72	146/SS.1793	Stiffener	x 0.05	3.0	0.125	4:1	-
12	L.72	537/SS.1793	Top and bottom booms	0.05	3.0	0.125	4:1	-
13	L.72	24	Rib web	0.1	2.5	0.5	8:1	-
14	L.72	12b/SS.1793	Stiffener	x 0.05	3.0	0.125	4:1	-
15	L.72	100/SS.1793	Stiffening channel	0.05	3.0	0.125	4:1	-
16	L.72	20	Diaphragm	x 0.1	2.5	0.25	4:1	-
17	D.T.D.742	24	Tank bay skins	0.1	2.5	-	-	Repair Leaflet C.4/1
18	D.T.D.626	20	Reinforcing strip	0.1	2.5	-	-	-

* No repairs permitted-

x More expedient to renew than repair.

All dimensions are quoted in inches.

RESTRICTED

KEY TO FIG.329

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Holes			
				Depth	Dist. Apart	Dia.	Pitch Ratio	
1	L. 72	386/SS. 1793	Boom	-	-	0.125	4:1	
2	L. 72	24	Web	0.1	2.5	0.5	8:1	103, 104
3	L. 72	91/SS. 1793	Stiffener	0.05	3.0	0.125	4:1	
4	L. 72	20	Channel	0.1	2.5	0.25	4:1	
5	L. 72	18	Stiffener	0.05	3.0	0.125	4:1	
6	L. 72	22	Mounting plate	0.1	2.5	0.5	8:1	103
7	L. 72	18	Vertical member	0.05	3.0	0.125	4:1	
8	L. 72	18	Channel	x 0.1	2.5	0.25	4:1	
9	L. 72	20	Gusset plate	x 0.1	2.5	0.25	4:1	
10	L. 72	530/SS. 1793	Stiffener (yellow)	0.05	3.0	0.125	4:1	
10	L. 72	530/SS. 1793	Stiffener (red)	0.05	3.0	-	-	
11	L. 72	410/SS. 1793	Stiffener	0.05	3.0	-	-	
12	L. 72	18	Reinforcing plate	0.05	3.0	-	-	349
13	L. 72	18	Rib web	0.05	3.0	-	-	103, 104, 349
14	L. 72	525/SS. 1793	Top boom	0.05	3.0	-	-	
15	L. 65	304/SS. 3075	Bottom boom	0.05	3.0	-	-	
16	L. 72	731/SS. 1793	Angle	0.05	3.0	-	-	
17	L. 72	16	Angle	0.05	3.0	-	-	
18	L. 72	15/SS. 1793	Channel	0.05	3.0	-	-	
19	S. 96	-	Bearing housing	* -	-	-	-	
20	L. 72	20	Web	0.05	3.0	-	-	103, 104
21	L. 65	311/SS. 3075	Top and bottom booms	* 0.05	3.0	-	-	
22	L. 72	579/SS. 1793	Stiffeners (yellow)	0.05	3.0	0.125	4:1	
22	L. 72	579/SS. 1793	Stiffeners (red)	0.05	3.0	-	-	
23	L. 72	233/SS. 1793	Stiffeners	0.05	3.0	-	-	
24	D. T. D. 142	-	Packing block	x 0.1	2.5	0.25	-	
25	L. 72	10	Reinforcing plate	0.05	3.0	-	-	
26	L. 72	16	Shear angles	0.05	3.0	-	-	
27	L. 72	20	Reinforcing plate	x 0.15	3.0	-	-	
28	L. 72	18	Reinforcing ring	x 0.1	2.5	-	-	
29	L. 72	27/SS. 1793	Stiffening angle	x 0.05	3.0	-	-	

* No repairs permitted
 x More expedient to renew than repair
 All dimensions are quoted in inches

RESTRICTED

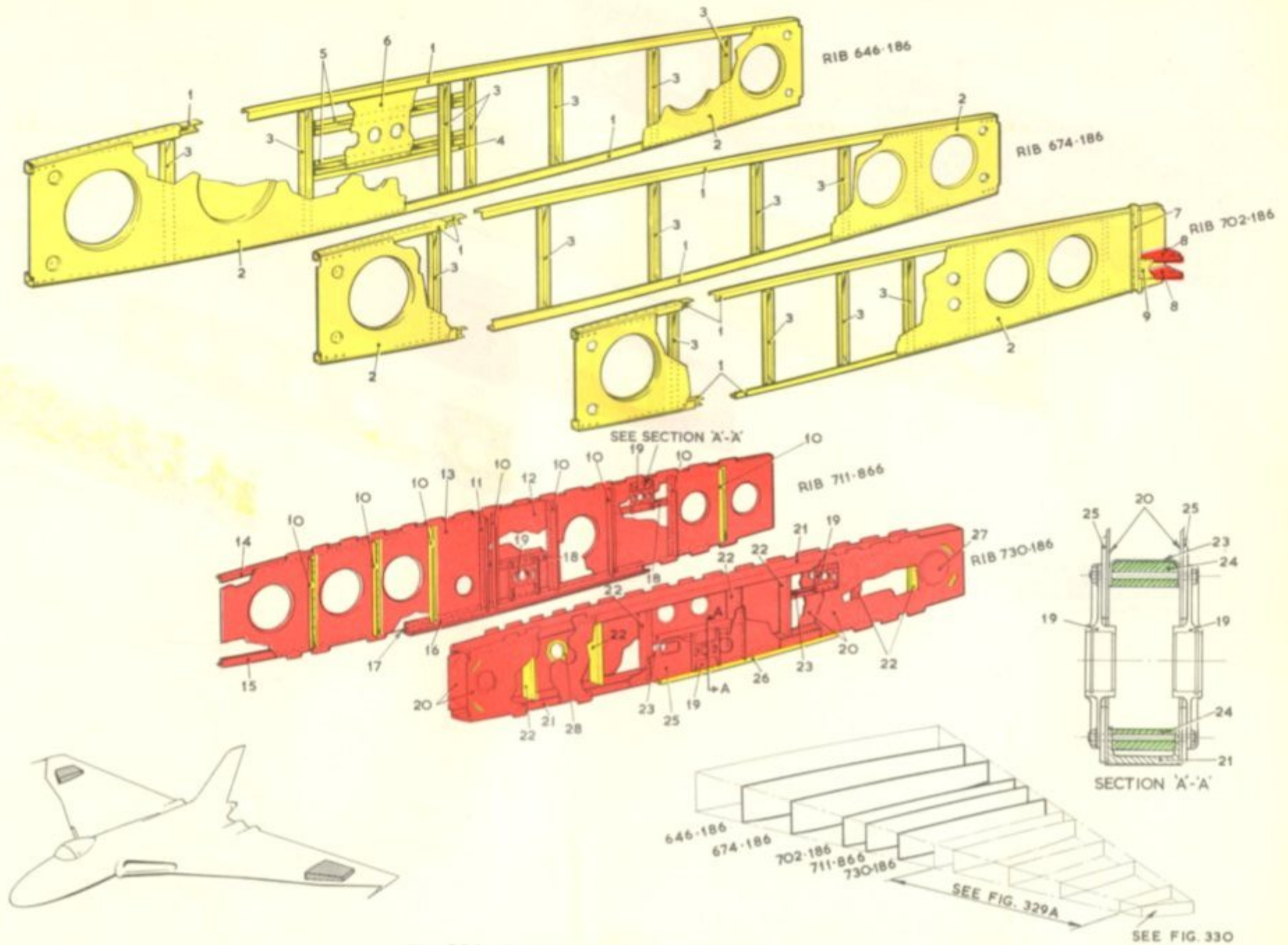
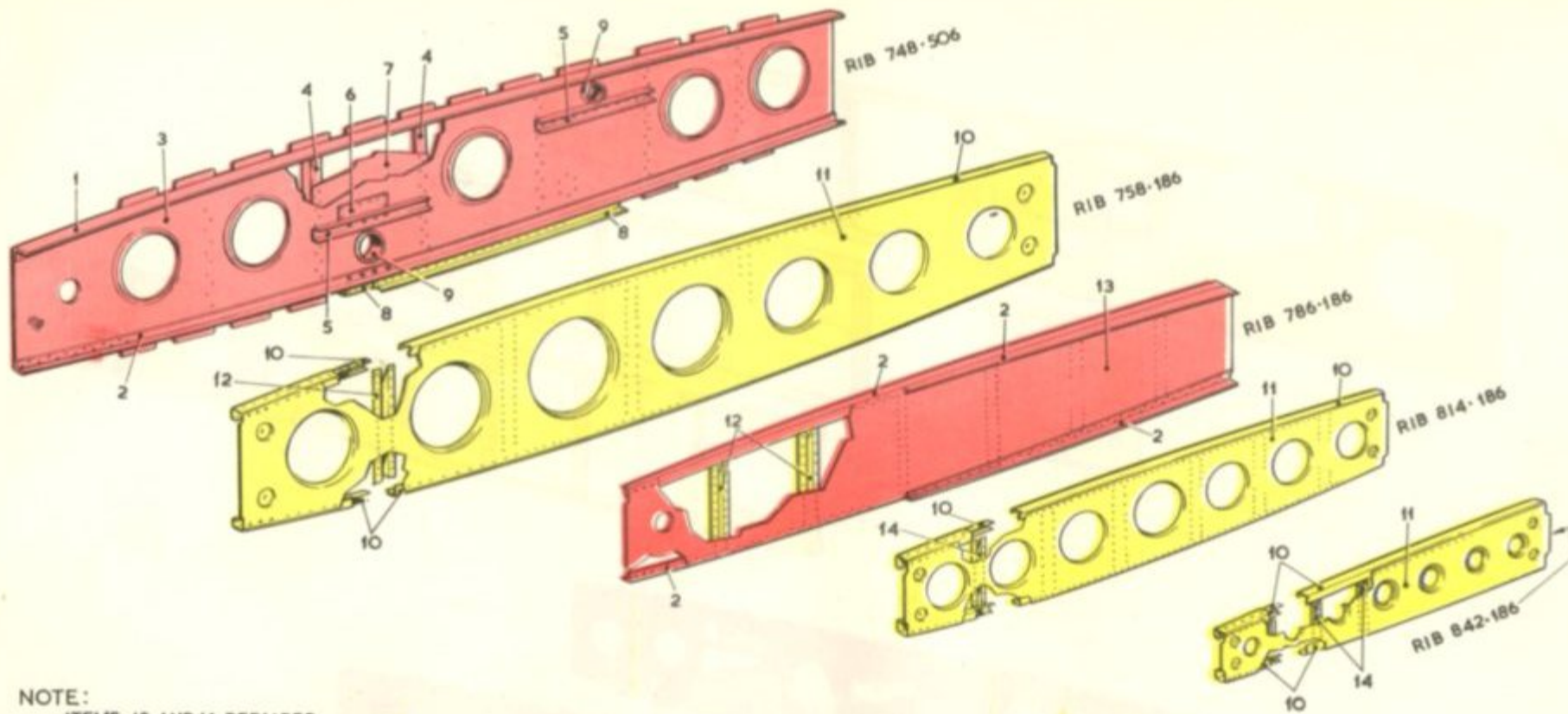


Fig. 329. Outboard wing structure
RESTRICTED



NOTE:
 ITEMS 12 AND 14 REPAIRED
 AS FIG. 112 WITH REPAIR
 MATERIAL ARRANGED
 EXTERNALLY

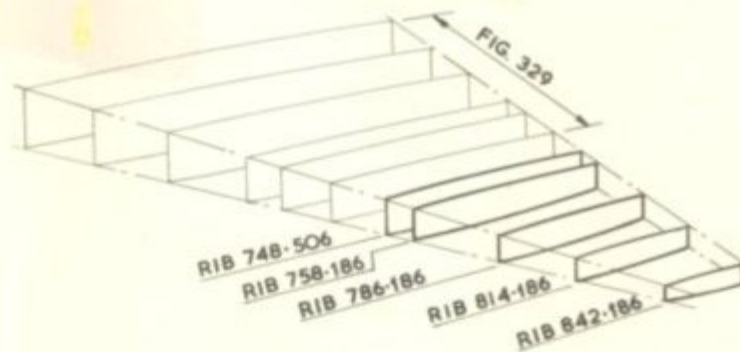


Fig 329A. Outboard wing structure
 RESTRICTED

KEY TO FIG.329A

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Holes	Pitch Ratio		
				Depth	Dist. Apart	Dia.		
1	L. 72	525/SS, 1793	Boom	* 0.05	3.0	-	-	-
2	L. 65	304/SS, 3075	Boom	* 0.05	3.0	-	-	-
3	L. 72	18	Rib web	0.05	3.0	-	-	103, 104, 106
4	L. 72	530/SS, 1793	Rib stiffeners	0.05	3.0	-	-	114
5	L. 72	15/SS, 1793	Channel stiffeners	x 0.05	3.0	-	-	108
6	L. 72	16	Reinforcing plate	* 0.05	3.0	-	-	-
7	L. 72	18	Reinforcing plate	x 0.05	3.0	-	-	-
8	L. 72	16	Angle	0.05	3.0	0.125	4:1	-
9	S. 96		Housing	* -	-	-	-	-
10	L. 72	386/SS, 1793	Boom angles	-	-	0.125	4:1	113
11	L. 72	24	Rib web	0.1	2.5	0.5	8:1	103, 104, 106
12	L. 72	91/SS, 1793	Stiffeners	0.05	3.0	0.125	4:1	112
13	L. 72	20	Rib web	0.05	3.0	-	-	103, 104, 106
14	L. 73	379/SS, 1793	Stiffeners	0.05	3.0	0.125	4:1	112

* No repairs permitted
 x More expedient to renew than repair
 All dimensions are quoted in inches

RESTRICTED

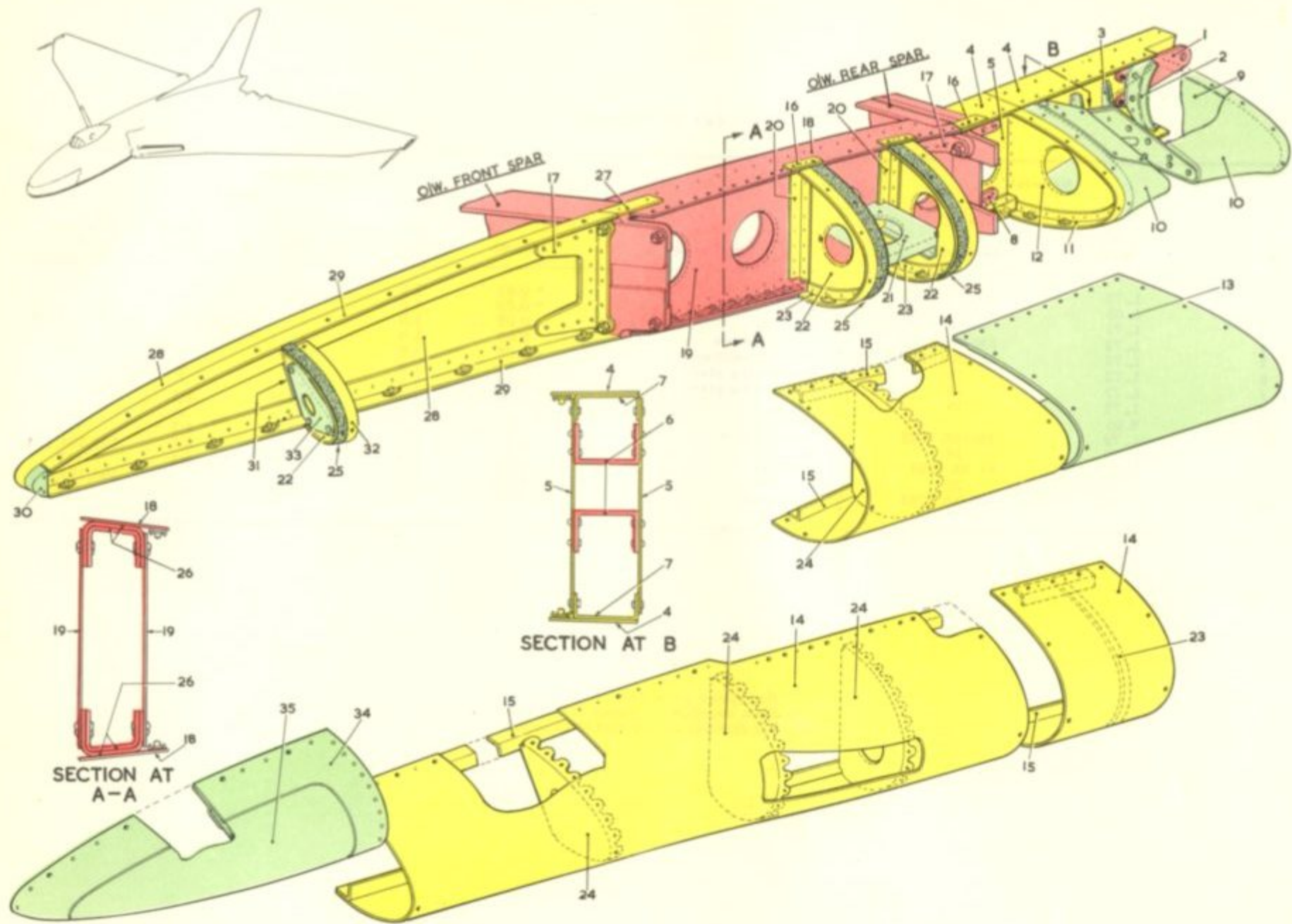


Fig. 330. Outboard wing tip
 RESTRICTED

KEY TO FIG.331A

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Holes	Pitch Ratio		
				Depth	Dist. Apart	Dia.		
1	D.T.D.687	14	Reinforcing plate	* -	-	-	-	-
2	S.99	-	Reinforcing plate	* -	-	-	-	-
3	D.T.D.363A	11.B.1824	Spar booms	* 0.05	3.0	-	-	-
4	D.T.D.687	12	Spar webs	0.025	6.0	-	-	103,104
5	L.72	8	Stiffening angle	-	-	-	-	-
6	D.T.D.683	-	Bracket	* -	-	-	-	-
7	L.72	16	Attachment angle	0.05	3.0	0.125	4:1	114
8	D.T.D.683	-	Bracket	* -	-	-	-	-
9	L.72	18	Channel	x 0.1	2.5	0.25	4:1	-
10	L.72	18	Channel	x 0.05	3.0	0.125	4:1	-
11	L.65	304/SS.3075	Angle	-	-	-	-	-
12	L.65	251/SS.3075	Angle	-	-	-	-	-
13	D.T.D.363	-	Joint strap	* -	-	-	-	-
14	L.65	176/SS.3075	Attachment angle	0.05	3.0	0.125	4:1	-
15	D.T.D.687	16	Outboard web	0.025	6.0	-	-	103,104
16	D.T.D.687	12	Joint plate	* -	-	-	-	-
17	L.72	18	Angle	0.05	3.0	0.125	4:1	114
18	L.72	20	Angle	0.05	3.0	0.125	4:1	114
19	L.72	16	Angle	-	-	-	-	114
20	D.T.D.687	12	Angle	-	-	-	-	-
21	D.T.D.687	16	Angle	-	-	-	-	-
22	L.73	14	Vertical channel	x -	-	-	-	-
23	L.73	14	Stiffener	x -	-	-	-	-
24	D.T.D.410	-	Bracket	* -	-	-	-	-
25	L.72	16	Attachment angle	-	-	-	-	-
26	L.72	16	Angle	0.05	3.0	0.125	4:1	114

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.331B

Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage				Repair Fig.
				Dents Depth	Dist. Apart	Holes Dia.	Pitch Ratio	
1	L. 72	22	Inner skin	0.2	2.0	0.125	4:1	351C, 351D 351C, 352, 353
2	L. 72	22	Outer skin	0.1	2.5	-	-	
3	L. 72	SS.4133/24G	Corrugation	0.1	2.5	-	-	
3A	L. 72	SS.4132/24G	Corrugation	0.1	2.5	-	-	
3B	L. 72	24	Corrugation	0.1	2.5	-	-	
3C	L. 72	SS.4131/24G	Corrugation	0.1	2.5	-	-	
4	D. T. D. 259	383/SS.3075	Extruded member	*	-	-	-	
5	L. 72	18	Rear edge member	-	-	0.125	4:1	
6	Tufnol	-	Rubbing block	-	-	0.125	4:1	
7	L. 72	18	Edge member	x	-	-	-	
8	L. 72	746/SS.1793	Stiffening angle	-	-	0.25	4:1	
9	L. 72	20	Channel bracket	-	-	0.125	4:1	
10	L. 72	22/SS.1793	Angle bracket	x	-	-	-	
11	T.35	17	Distance tube	x	-	-	-	
12	L. 72	18	'Z' section stiffener	x	-	-	-	
13	L. 72	22	Funnel	-	-	0.125	4:1	
14	L. 72	20	Cover	x 0.05	2.0	-	-	
15	L. 72	22	Flanged outlet	x	-	0.125	4:1	
16	L. 72	20	Channel	x	-	-	-	
17	L. 72	20	End stiffener	x	-	0.125	4:1	
18	L. 72	20	Packing	x	-	0.125	4:1	
19	L. 72	20	Fairing	x	-	0.125	4:1	
20	L. 72	746/SS.1793	Stiffening angle	0.05	1.5	-	-	
21	L. 72	13b/SS.1793	Angle bracket	0.1	2.0	0.25	4:1	
22	L. 72	22	Stiffener	x	-	-	-	

* No repairs permitted
 x More expedient to renew than repair
 All dimensions are quoted in inches

RESTRICTED

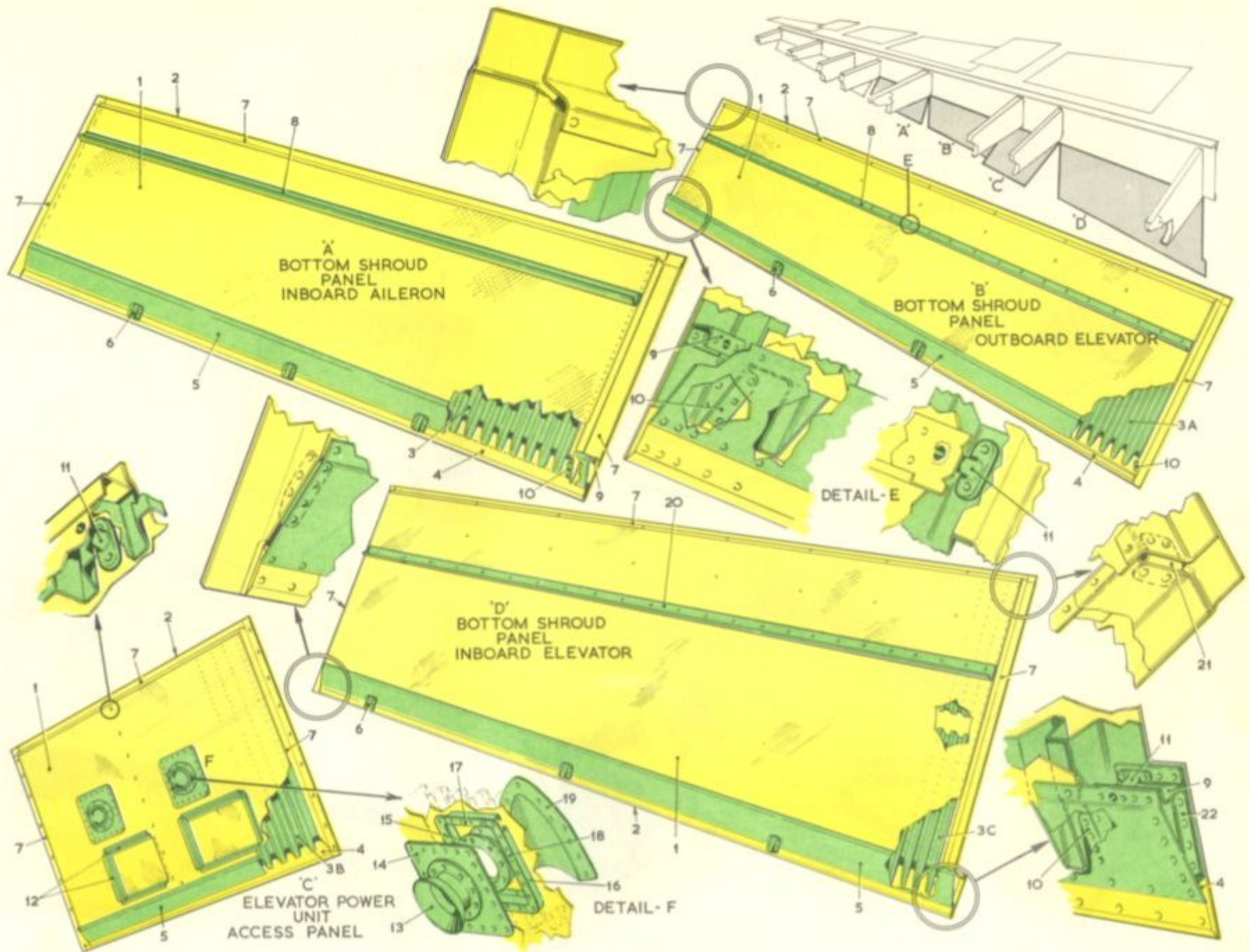


Fig. 331B. Trailing edge structure-Panels

RESTRICTED

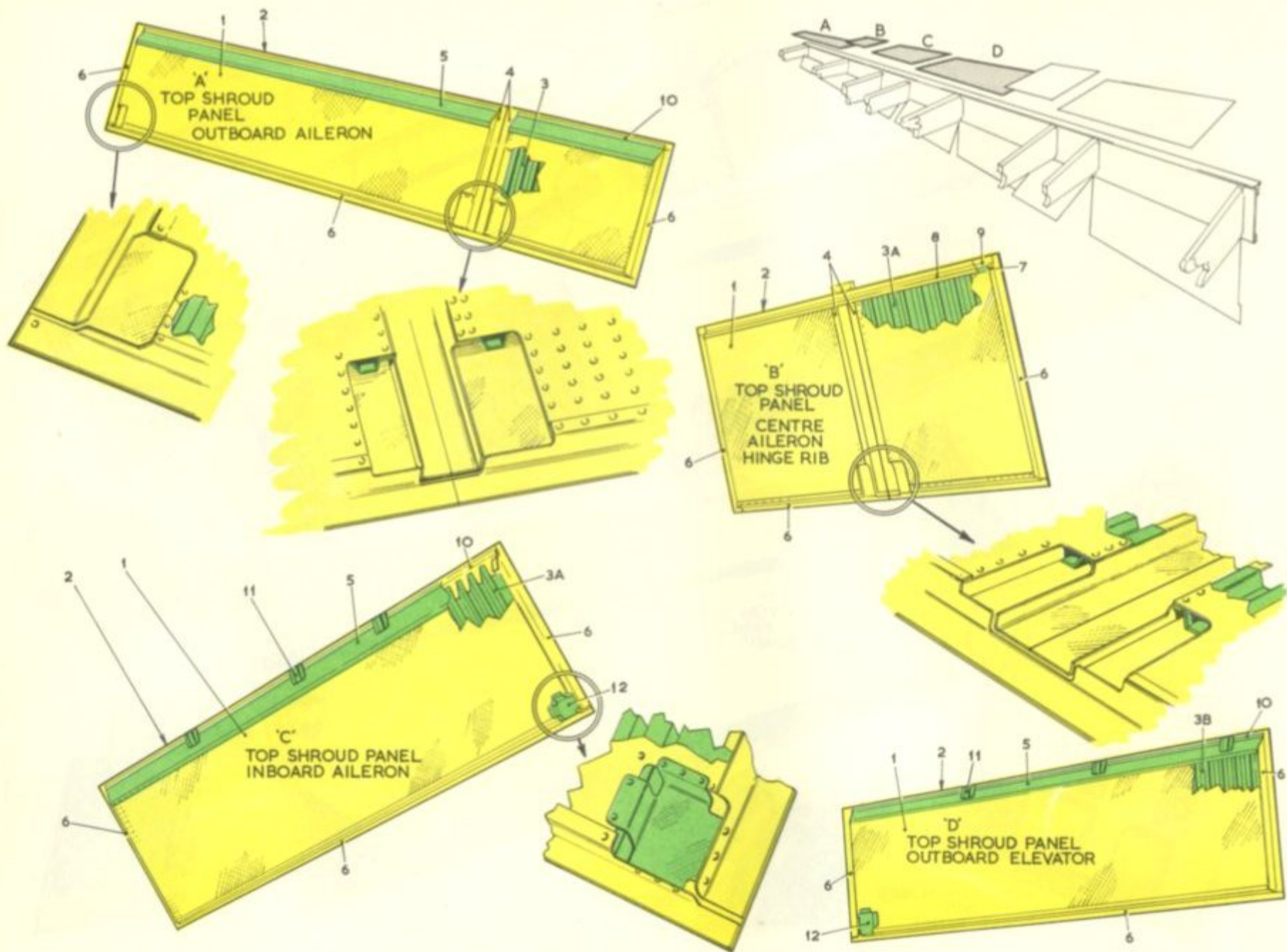


Fig. 331C. Trailing edge structure-Panels
RESTRICTED

KEY TO FIG.331C

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Dist. Apart	Holes	Pitch Ratio	
				Depth		Dia.		
1	L.72	22	Inner skin	0.2	2.0	0.125	4:1	351C,351D 351C,352,353
2	L.72	22	Outer skin	0.1	2.5	-	-	
3	L.72	SS.4134/24G	Corrugation	0.1	2.5	-	-	
3A	L.72	SS.4133/24G	Corrugation	0.1	2.5	-	-	
3B	L.72	SS.4132/24G	Corrugation	0.1	2.5	-	-	
4	L.72	18	Channel member	0.1	2.5	0.125	4:1	
5	L.72	18	Rear member	-	-	0.125	4:1	
6	L.72	18	Edge member	-	-	0.25	4:1	
7	L.72	18	Channel stiffener	0.1	2.0	0.125	4:1	
8	L.72	20	Shroud	0.05	2.0	0.25	4:1	
9	L.72	12	Trailing edge member	-	-	0.25	4:1	
10	D.T.D.259	383/SS.3075	Extruded member	*	-	0.125	4:1	
11	Tufnol	-	Rubbing block	x -	-	-	-	
12	L.72	20	Bracket	x 0.1	-	0.25	4:1	

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.331D

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Holes		Pitch Ratio	
				Depth	Dist. Apart	Dia.		
1	L.72	22	Inner skin	0.2	2.0	0.125	4:1	351C,351D 351C,352,353
2	L.72	22	Outer skin	0.1	2.5	-	-	
3	L.72	18	Centre member	0.1	2.5	0.125	4:1	
4	L.72	SS.4132/24G	Corrugation	0.1	2.5	-	-	
4A	L.72	SS.4132/24G	Corrugation	0.1	2.5	-	-	
4B	L.72	SS.4133/24G	Corrugation	0.1	2.5	-	-	
5	L.72	12	Rear member	-	-	0.125	4:1	
6	L.72	20	Shroud	0.05	2.0	0.25	4:1	
7	L.72	18	Channel member	-	-	0.25	4:1	
8	L.72	18	Edge member	-	-	0.25	4:1	
9	L.72	SS.4131/22G	Corrugation	0.1	2.5	-	-	
10	D.T.D.259	383/SS.3075	Extruded member	* -	-	0.125	4:1	
11	L.72	18	Rear member	-	-	0.125	4:1	
12	L.72	20	Corner bracket	x 0.1	-	0.25	4:1	
13	Tufnol	-	Rubbing block	x -	-	-	-	
14	L.72	746/SS.1793	Angle	-	-	0.125	4:1	
15	L.72	20	Bracket	x 0.1	1.5	0.25	4:1	
16	L.72	18	Channel	0.1	2.5	0.125	4:1	
17	L.65	-	Distance piece	x -	-	-	-	

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

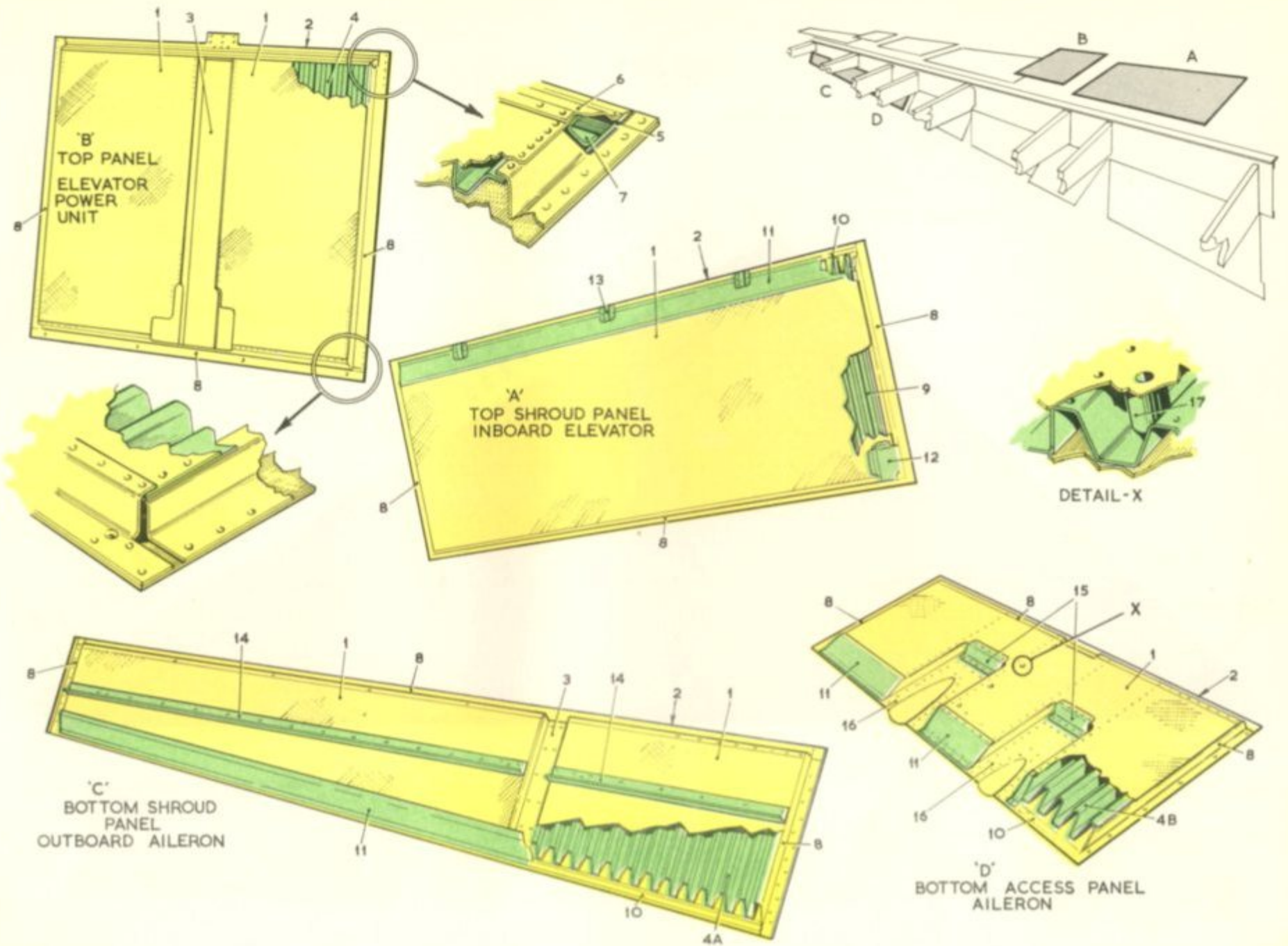
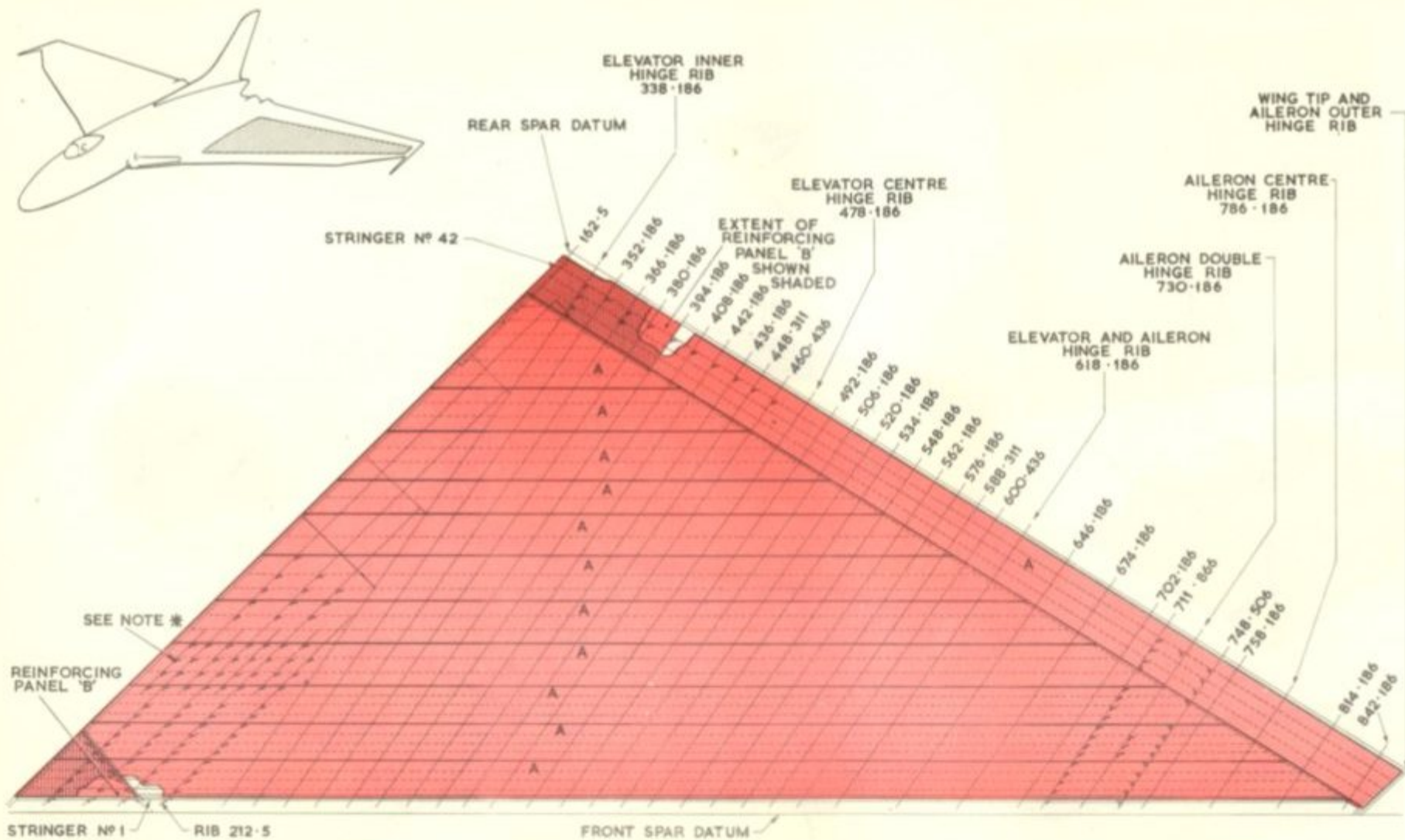


Fig. 33ID. Trailing edge structure-Panels
 RESTRICTED



NOTE:- STRINGERS ARE NUMBERED CONSECUTIVELY 1 TO 42.

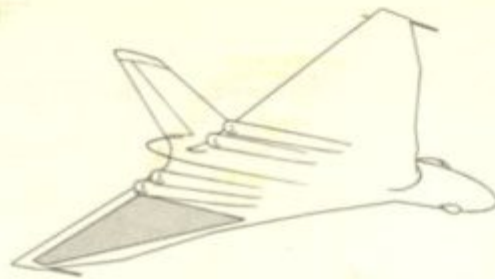
* NO NEGLIGIBLE DAMAGE IS ALLOWED TO ROLLED SECTION SHEAR ANGLES OR STRINGER BRACKETS. THESE ITEMS ARE TO BE RENEWED TO SPEC. L72. THE S.W.G. IS TO BE THE SAME AS DAMAGED ITEM.

SKIN LIMIT TABLE		
NEGLIGIBLE DAMAGE		
COLOUR	DENTS	DIST. APART
RED	0-05 IN.	3-0 IN.

SKIN REFERENCE		
LETTER	SPEC.	S. W. G.
A	D.T.D. 687	16
B	D.T.D. 687	22

FOR WEATHERPROOFING SEE TEXT IN CHAP 1 AND 3.
 FOR SKIN REPAIRS SEE FIG. 103 AND 104.
 FOR COMBINED SKIN AND STRINGER REPAIRS SEE FIG. 110, 117 AND 347.
 FOR STRINGER NEGLIGIBLE DAMAGE LIMITS SEE KEY TABLE TO FIG. 328.
 POP RIVETS USED FOR REPAIRS SHOULD BE FILLED WITH A SUITABLE FILLER, REFER TO CHAP. 1.

Fig. 332. Top skins - Outer wing
 RESTRICTED



WEATHERPROOF ALL REPAIRS
AS STATED IN THE TEXT
IN CHAR 1 & 3.

ELEVATOR INNER
HINGE RIB
338-186

SKIN REFERENCE *

SKIN LIMITS		
NEGLECTIBLE DAMAGE		
COLOUR	DENTS	DIST. APART
RED	0.05 IN.	3.0 IN.

* WING SKINS - SPEC. D.T.D. 687
16SWG.

SEE FIG. 328
FOR STRINGER
LIMITS

ELEVATOR AND AILERON
HINGE RIB
618-186

SEE ITEM 21 ON
FIG. 333A
REINFORCING AS
ITEM 2 ON
FIG. 333C

AILERON DOUBLE
HINGE RIB
730-186

AILERON CENTRE
HINGE RIB
785-186

WING TIP AND
AILERON OUTER
HINGE RIB

LANDING LAMP STRUCTURE
SEE FIG. 333C.

ACCESS DOOR
12/55/3221

FRONT SPAR DATUM

SECTION ON "B"-
"B" SEE FIG. 333C.

NOTE:- STRINGERS ARE NUMBERED
CONSECUTIVELY 1 TO 36.

ACCESS PANEL REFERENCE
NEGLECTIBLE DAMAGE

COLOUR	DENTS	DIST. APART
RED	0.05 IN.	3.0 IN.
GREEN	0.20 IN.	2.0 IN.

ACCESS PANELS FOR STRUCTURES MARKED ▲ ARE 16 SW.G. SPEC. D.T.D. 687
ACCESS PANELS FOR STRUCTURES MARKED + ARE 16 S.W.G. SPEC. L 72
ACCESS STRUCTURES MARKED F ARE SIMILAR TO EACH OTHER
ACCESS STRUCTURE DETAILS ARE SHOWN ON FIG.- 333A, 333 B AND 333 C

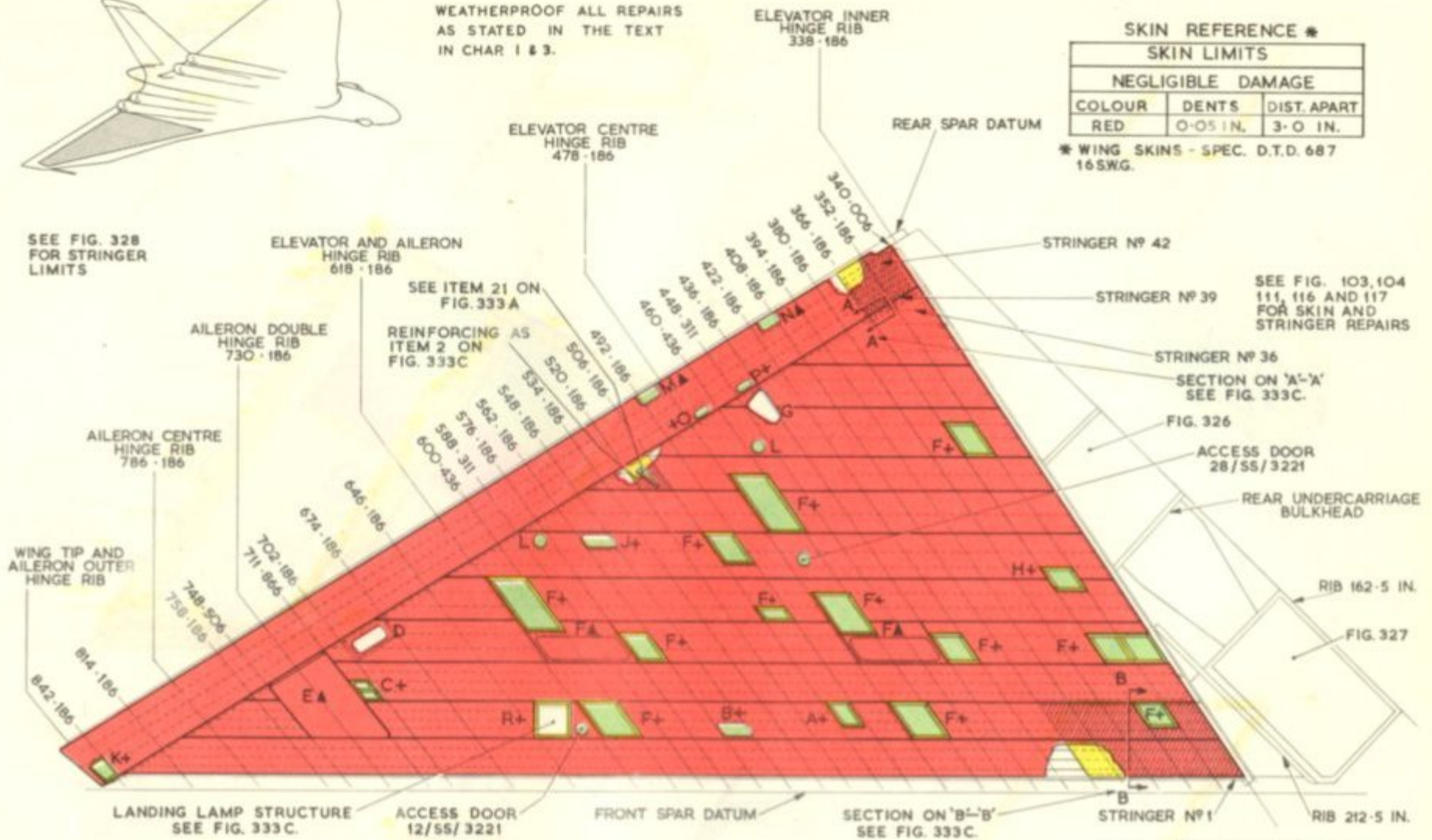


Fig. 333. Bottom skins-Outer wing
RESTRICTED

KEY TO FIG.333A

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Dist. Apart	Holes	Pitch Ratio	
				Depth		Dia.		
1	L. 72	16	Angle member	-	-	0.125	4:1	
2	D. T. D. 683	301/SS, 3075	'T' stringers	-	-	0.125	4:1	
3	L. 72	18	Door frame	0.1	2.0	0.25	4:1	
4	L. 72	16	Attachment bracket	x	-	-	-	-
5	L. 72	20	Stringer bracket	x	-	-	-	-
6	L. 72	18	Packing	x	-	-	-	-
7	L. 72	18	Attachment bracket	x	-	-	-	-
8	L. 72	18	Attachment angle	x	-	-	-	-
9	L. 72	558/SS, 1793	Channel	-	-	0.125	4:1	
10	L. 72	18	Lipped angle	-	-	0.125	4:1	
11	L. 59	18	Louvre vanes	x	-	-	-	-
12	L. 34	3/16 in. bar	Bracing rod	x	-	-	-	-
13	L. 59	18	Louvre frame	0.1	2.0	0.25	4:1	
14	L. 72	18	Skin panel-inner	0.2	2.0	0.25	4:1	103
15	D. T. D. 687	16	Skin panel-outer	0.05	3.0	-	-	103
16	L. 72	16	Door edge member	-	-	0.125	4:1	
17	L. 72	18	'Z' stiffener	-	-	0.125	4:1	
18	L. 72	18	Corner brackets	x	-	-	-	-
19	L. 72	18	Transverse members	-	-	0.125	4:1	
20	L. 72	18	Gusset	x	-	-	-	-
21	L. 59	18	Flush intake	0.2	2.0	0.25	4:1	
22	L. 72	18	Channel	-	-	0.125	4:1	
23	L. 72	18	Reinforcing skin	0.2	2.0	0.25	4:1	
24	L. 72	16	Centre channel	-	-	0.125	4:1	103
25	L. 72	16	'T' stringer bracket	x	-	-	-	-
26	L. 59	20	Funnel	0.05	-	-	-	-
27	L. 54	20	Tube	0.05	-	-	-	-
28	L. 59	20	Base plate	-	-	0.25	4:1	
29	L. 59	20	Flange	-	-	0.25	4:1	
30	L. 72	20	Fairing	0.2	2.0	-	-	
31	L. 59	18	Tank vent scoop	0.2	2.0	-	-	
32	L. 72	16	Stiffening ring	0.05	2.5	0.125	4:1	
33	L. 72	16	Stringer bracket	-	-	-	-	
34	L. 72	16	Stringer bracket	-	-	-	-	
35	L. 72 or AS, 1880/35	20	Door hinge	-	-	-	-	

x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.333B

Item	Material Spec.	S.W.G. or Section	Description	Negligible Damage			Pitch Ratio	Repair Fig.
				Dents Depth	Dist. Apart	Holes Dia.		
1	D. T. D. 423	193/SS. 3075	Stringer section	-	-	0.125	4:1	
2	D. T. D. 683	301/SS. 3075	Stringer section	-	-	0.125	4:1	
3	L. 72	16	Bracket	x -	-	-	-	-
4	L. 72	18	Panel frame	0.05	2.0	0.25	4:1	
5	L. 72	18	Panel frame	-	-	0.125	4:1	
6	L. 72	18	Bracket	x -	-	-	-	-
7	L. 72	18	Vent body	0.1	2.5	-	-	-
8	L. 59	20	Louvre	x 0.02	-	-	-	-
9	L. 59	16	Inner body	0.05	2.0	-	-	-
10	L. 34	3/16" bar	Bracing rod	x -	-	-	-	-
11	L. 72	20	Top angle ring	-	-	-	-	-
12	L. 72	20	Cover plate	x 0.05	2.0	-	-	-
13	L. 72	20	Reinforcing ring	x -	-	-	-	-
14	L. 72	10	Packing plate	x -	-	-	-	-
15	L. 72	A.S. 1877	Hinge	x -	-	-	-	-
15a	M. Steel	14	Hinge pin	x -	-	-	-	-
15b	D. T. D. 215	16	Spring	x -	-	-	-	-
16	L. 72	20	Reinforcing angle	-	-	0.125	4:1	
17	L. 73	16	Reinforcing panel	0.05	2.0	0.25	4:1	
18	L. 65	356/SS. 3075	Stiffening angle	-	-	0.125	4:1	
19	D. T. D. 687	16	Door angle	x -	-	-	-	-
20	L. 72	386/SS. 1793	Stiffening angle	-	-	0.125	4:1	
21	L. 72	18	Inner stiffening plate	0.05	2.0	0.125	4:1	
22	L. 72	12	Packing	x -	-	-	-	-
23	L. 72	199a/SS. 1793	Joint angles	x -	-	0.125	4:1	
24	L. 72	20	Packing	x -	-	-	-	-

x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

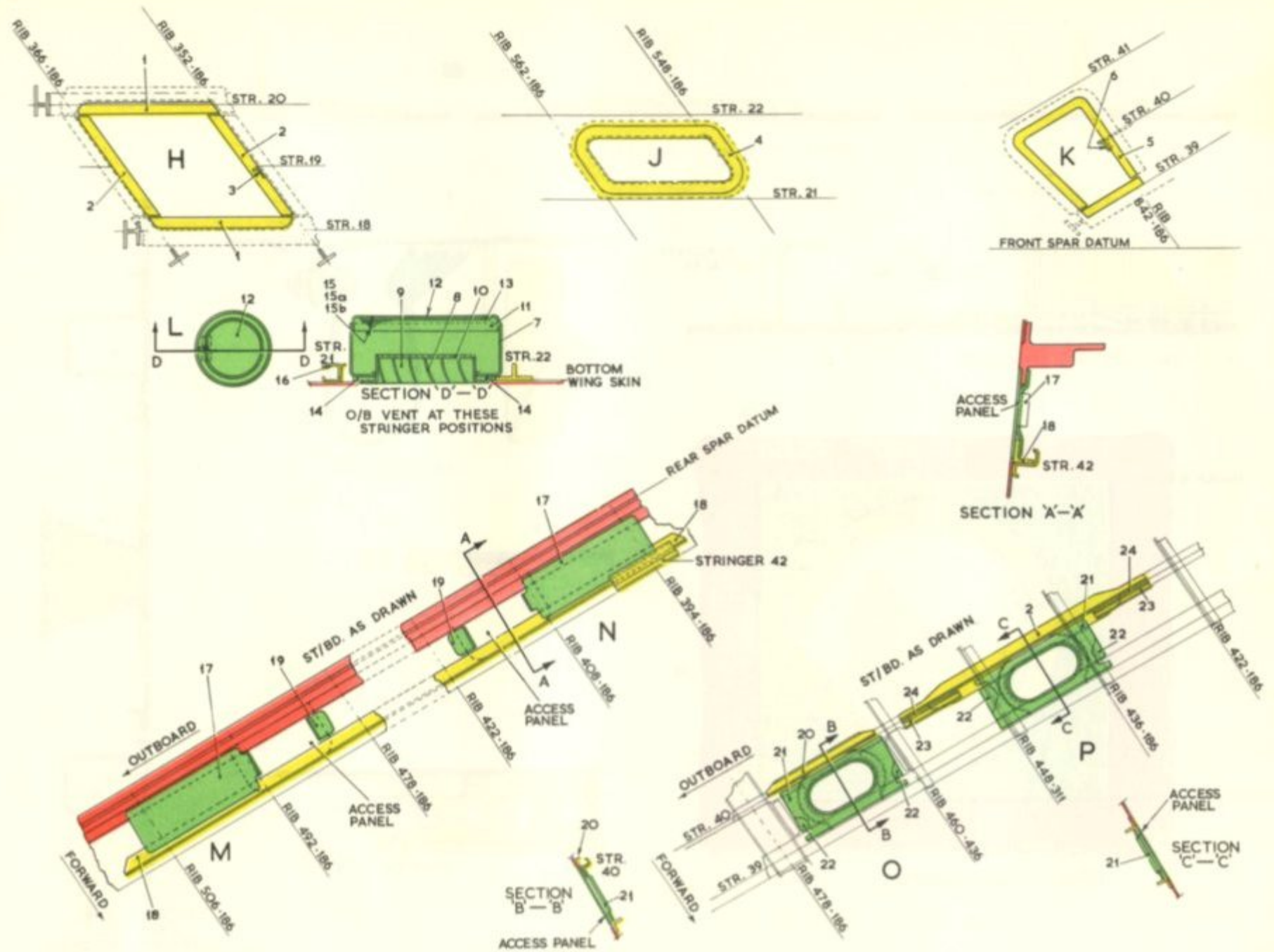


Fig. 333B. Bottom skins-Access structure
RESTRICTED

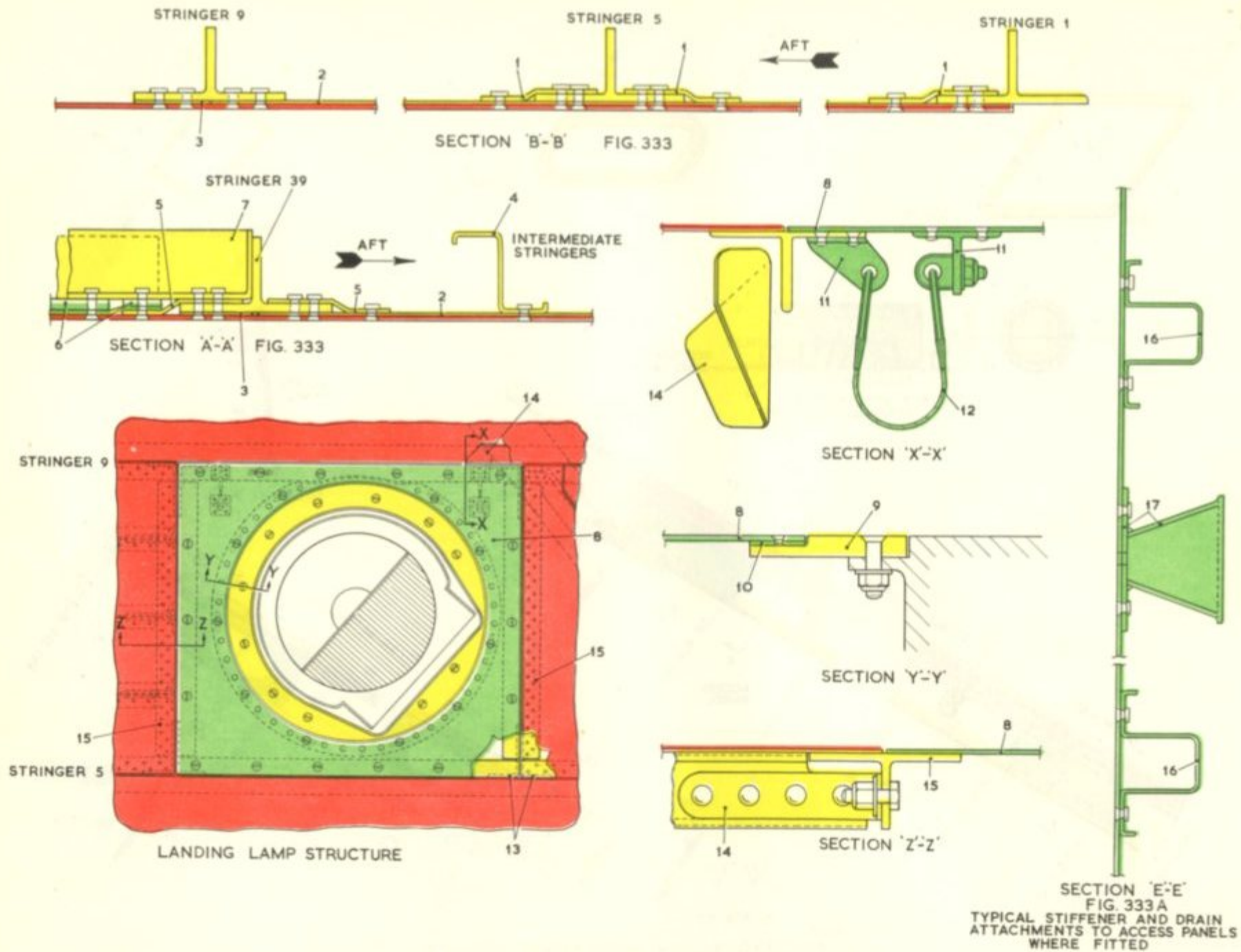


Fig. 333C. Bottom skins - Access structure
 RESTRICTED

SECTION 'E'-E'
 FIG. 333A
 TYPICAL STIFFENER AND DRAIN
 ATTACHMENTS TO ACCESS PANELS
 WHERE FITTED

KEY TO FIG.333C

Item	Spec.	Material		Description	Dents Depth	Negligible Damage		Pitch Ratio	Repair Fig.
		S.W.G. or Section				Dist. Apart	Holes Dia.		
1	L. 73	14		Reinforcing plates	-	-	0.125	4:1	
2	D. T. D. 687	22		Reinforcing skin	0.1	2.5	0.25	4:1	
3	L. 72	22		Packing	x -	-	-	-	-
4	D. T. D. 687	583/SS, 1793		Stringer section	-	-	0.125	4:1	111
5	L. 73	16		Reinforcing plates	-	-	0.125	4:1	
6	L. 72	-		Packing block	x -	-	-	-	-
7	L. 72	16		Attachment angle	x -	-	-	-	-
8	L. 72	16		Landing lamp panel	x 0.1	2.5	-	-	-
9	L. 72	3		Mounting ring	0.02	-	-	-	-
10	L. 72	16		Packing ring	x -	-	-	-	-
11	L. 65	58/SS, 3075		Bracket	x -	-	0.125	-	-
12	W. 2	3 Cwt.		Cable	x -	-	-	-	-
13	L. 72	14		Corner brackets	x -	-	-	-	-
14	L. 72	20		Stringer brackets	x -	-	-	-	-
15	D. T. D. 683	301/SS, 3075		Stringer intercostal	-	-	0.125	4:1	110
16	L. 72	85/SS, 1793		Panel stiffener	-	-	0.125	4:1	
17	L. 59	18		Drain body and base plate	x 0.05	-	-	-	-

x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.334

Item	Material			Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section	Depth		Dents		Holes		
					Dist. Apart	Dia.	Pitch Ratio		
1	D. T. D. 118	22		Trailing edge member	0.05	6.0	-	-	
2	D. T. D. 118	16		Packing strip	0.05	6.0	-	-	
3	D. T. D. 118	24		Tail rib	0.05	6.0	0.25	8:1	108,115,120
4	L. 72	20		Angle	0.05	8.0	-	-	
5	L. 72	20		Angle	0.05	8.0	-	-	
6	L. 72	22		Attachment angle	x 0.05	6.0	0.125	12:1	
7	L. 72	810/SS, 1793		Angle	0.025	8.0	-	-	
8	L. 72	808/SS, 1793		Angle	0.025	8.0	-	-	
9	L. 72	809/SS, 1793		Angle	0.025	8.0	-	-	
10	D. T. D. 626	20		Web	0.025	8.0	-	-	103
11	L. 72	807/SS, 1793		Angle	0.025	8.0	-	-	
12	L. 72	22		Angle	0.05	8.0	0.125	12:1	
13	D. T. D. 687	12		Packing	x 0.05	6.0	-	-	
14	D. T. D. 687	16		Packing	x 0.05	6.0	-	-	
15	L. 72	14		Plate	x 0.05	8.0	-	-	
16	D. T. D. 259	-		Packing	x 0.05	6.0	-	-	
17	D. T. D. 259	-		Packing	x 0.05	6.0	-	-	
18	L. 72	16		Plate	x 0.05	6.0	-	-	
19	L. 72	16		Channel	0.025	10.0	-	-	
20	S. 96	-		Bearing housing	*	-	-	-	
21	L. 72	20		Angle	x 0.05	8.0	-	-	
22	L. 65	-		Packing	x 0.05	6.0	-	-	
23	L. 72	183/SS, 1793		Angle	0.05	6.0	0.125	12:1	113
24	L. 72	789/SS, 1793		Angle	0.05	8.0	0.125	12:1	113
25	D. T. D. 118	22		Web	0.05	8.0	0.125	12:1	
26	L. 72	18		Plate	x 0.05	8.0	-	-	
27	L. 65	-		Packing	x 0.05	8.0	-	-	
28	L. 72	18		Angle	0.05	8.0	-	-	
29	S. 96	-		Bracket	*	-	-	-	
30	L. 72	18		Angle	x 0.05	8.0	-	-	
31	L. 65	306/SS, 3075		Angle	0.025	10.0	-	-	
32	L. 72	798/SS, 1793		Angle	0.025	10.0	-	-	113
33	L. 72	799/SS, 1793		Angle	0.025	8.0	-	-	113
34	L. 65	-		Bracket	*	-	-	-	
35	S. 96	-		Bracket	*	-	-	-	
36	L. 72	20		Riblet	0.05	4.0	0.25	6:1	
37	L. 72	20		Angle	0.05	6.0	-	-	
38	L. 72	18		Skin	0.05	8.0	-	-	103
39	D. T. D. 118	792/SS, 1793		Angle	0.025	8.0	0.125	12:1	113
40	D. T. D. 118	801/SS, 1793		Angle	0.025	8.0	0.125	12:1	113
41	D. T. D. 118	24		Web	0.05	6.0	0.25	6:1	
42	L. 72	24		Angle	x 0.05	6.0	0.125	10:1	
43	L. 72	20		Angle	x 0.05	6.0	0.125	10:1	
44	D. T. D. 118	803/SS, 1793		Angle	0.025	8.0	-	-	113
45	D. T. D. 118	804/SS, 1793		Angle	0.025	8.0	-	-	113

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

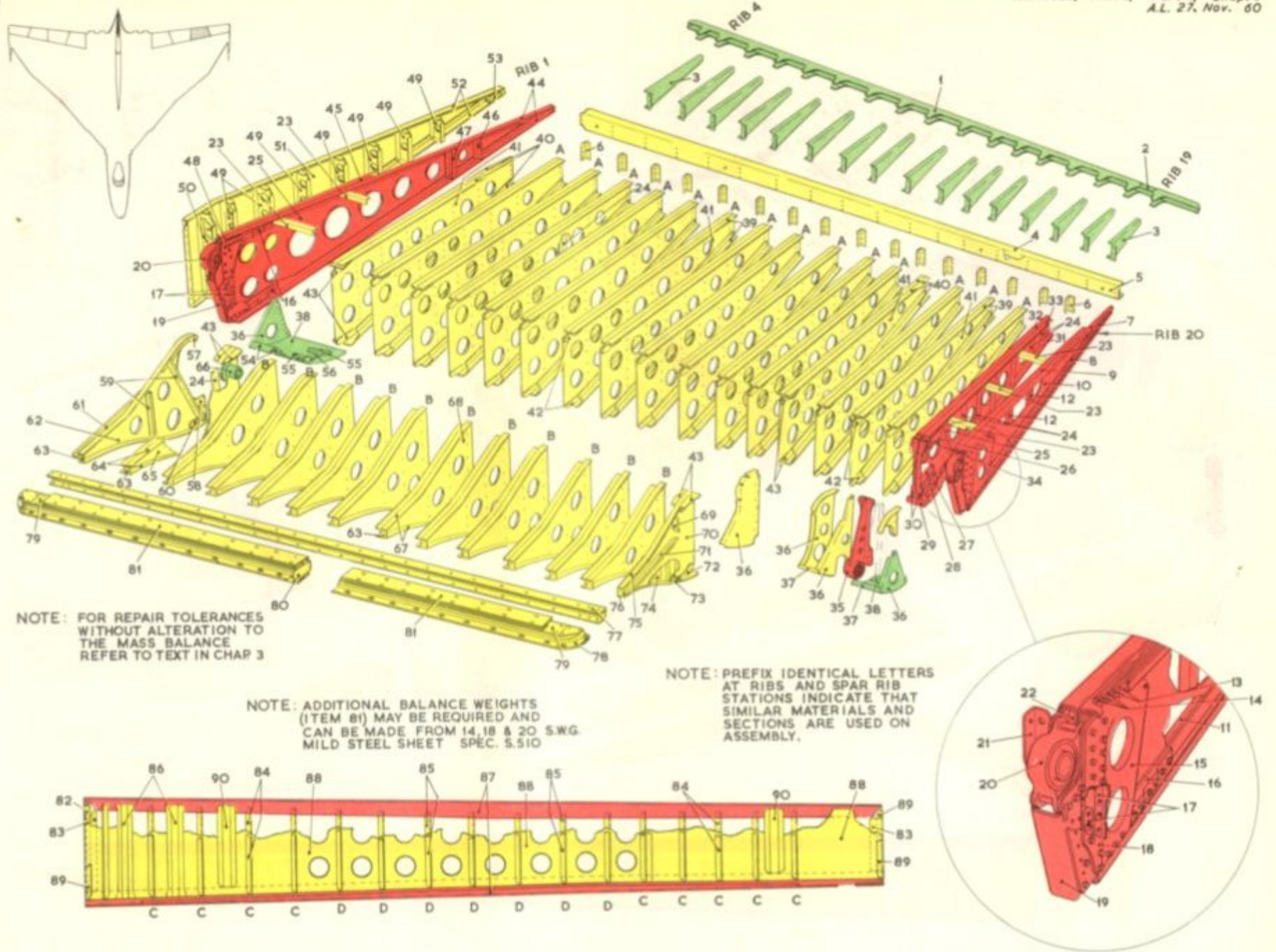
RESTRICTED

KEY TO FIG.334 (contd.)

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Holes			
				Depth	Dist. Apart	Dia.	Pitch Ratio	
46	L. 72	20	Angle					
47	L. 72	24	Top hat stiffener	0.05	8.0	0.125	12:1	113
48	D. T. D. 687	14	Plate	0.05	8.0	0.125	12:1	
49	D. T. D. 118	24	Diaphragm	x 0.05	8.0	-	-	
50	D. T. D. 118	24	Angle	0.05	6.0	0.25	8:1	105
51	D. T. D. 118	20	Web	0.05	6.0	0.25	8:1	113
52	L. 72	797/SS. 1793	Angle	0.025	6.0	-	-	103
53	L. 72	24	Packing	0.025	6.0	0.125	12:1	113
54	L. 72	20	Bracket	x 0.05	6.0	0.25	8:1	
55	L. 72	850/SS. 1793	Angle	0.05	6.0	-	-	
56	L. 72	849/SS. 1793	Angle	x 0.05	6.0	-	-	
57	L. 72	20	Angle	x 0.05	6.0	-	-	
58	L. 72	18	Plate	x 0.025	8.0	0.125	12:1	
59	L. 72	794/SS. 1793	Stiffener	x 0.05	6.0	0.125	12:1	
60	L. 72	22	Angle	0.05	6.0	0.125	12:1	113
61	L. 72	20	Angle	x 0.05	6.0	0.125	12:1	
62	L. 72	22	Angle	0.05	6.0	0.125	12:1	
63	L. 72	22	Rib	0.05	6.0	0.25	10:1	103
64	L. 72	20	Angle	x 0.05	6.0	0.25	10:1	
65	L. 72	20	Angle	0.025	8.0	0.125	12:1	113
66	T. 45	17	Web	0.05	6.0	0.25	10:1	103
67	L. 72	819/SS. 1793	Tube	x 0.05	4.0	-	-	
68	L. 72	24	Angle	0.025	8.0	0.125	12:1	113
69	L. 72	22	Web	0.05	6.0	0.125	8:1	
70	D. T. D. 118	22	Angle	x 0.05	6.0	0.125	10:1	
71	L. 72	22	Web	0.05	6.0	0.25	10:1	
72	L. 72	20	Angle	0.05	6.0	0.25	12:1	
73	L. 72	22	Angle	x 0.05	6.0	0.125	12:1	
74	L. 72	24	Bracket	x 0.05	6.0	0.125	10:1	
75	L. 72	883/SS. 1793	Corrugation	0.05	4.0	0.25	10:1	
76	L. 72	20	Channel	0.025	8.0	0.125	12:1	
77	L. 72	20	Channel	x 0.05	6.0	0.25	10:1	
78	S. 510	-	Channel	0.05	8.0	-	-	108
79	S. 510	-	End piece	x 0.025	8.0	-	-	
80	Lead	-	Channel	0.025	8.0	-	-	
81	S. 510	-	Balance weight	0.1	4.0	-	-	
82	L. 65	259/SS. 3075	Additional balance weight	0.1	4.0	-	-	
83	L. 72	10	Angle	0.025	6.0	-	-	113
84	L. 72	802/SS. 1793	Bearing plates	x 0.025	6.0	-	-	
85	L. 72	13b/SS. 1793	Angle	0.05	6.0	0.125	8:1	113
86	L. 72	20	Angle	0.05	6.0	0.125	8:1	113
87	D. T. D. 363	413/SS. 3075	Top hat stiffener	0.05	6.0	0.125	10:1	
88	L. 72	14	Boom	0.025	12.0	-	-	
89	L. 65	429/SS. 3075	Web	0.025	12.0	0.125	16:1	103
90	L. 72	22	Angle	0.025	6.0	-	-	
			Bracket	0.025	6.0	-	-	

x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED



NOTE: FOR REPAIR TOLERANCES WITHOUT ALTERATION TO THE MASS BALANCE REFER TO TEXT IN CHAP 3

NOTE: ADDITIONAL BALANCE WEIGHTS (ITEM 81) MAY BE REQUIRED AND CAN BE MADE FROM 14, 18 & 20 S.W.G. MILD STEEL SHEET SPEC. S.510

NOTE: PREFIX IDENTICAL LETTERS AT RIBS AND SPAR RIB STATIONS INDICATE THAT SIMILAR MATERIALS AND SECTIONS ARE USED ON ASSEMBLY.

Fig. 334. Inboard aileron
RESTRICTED

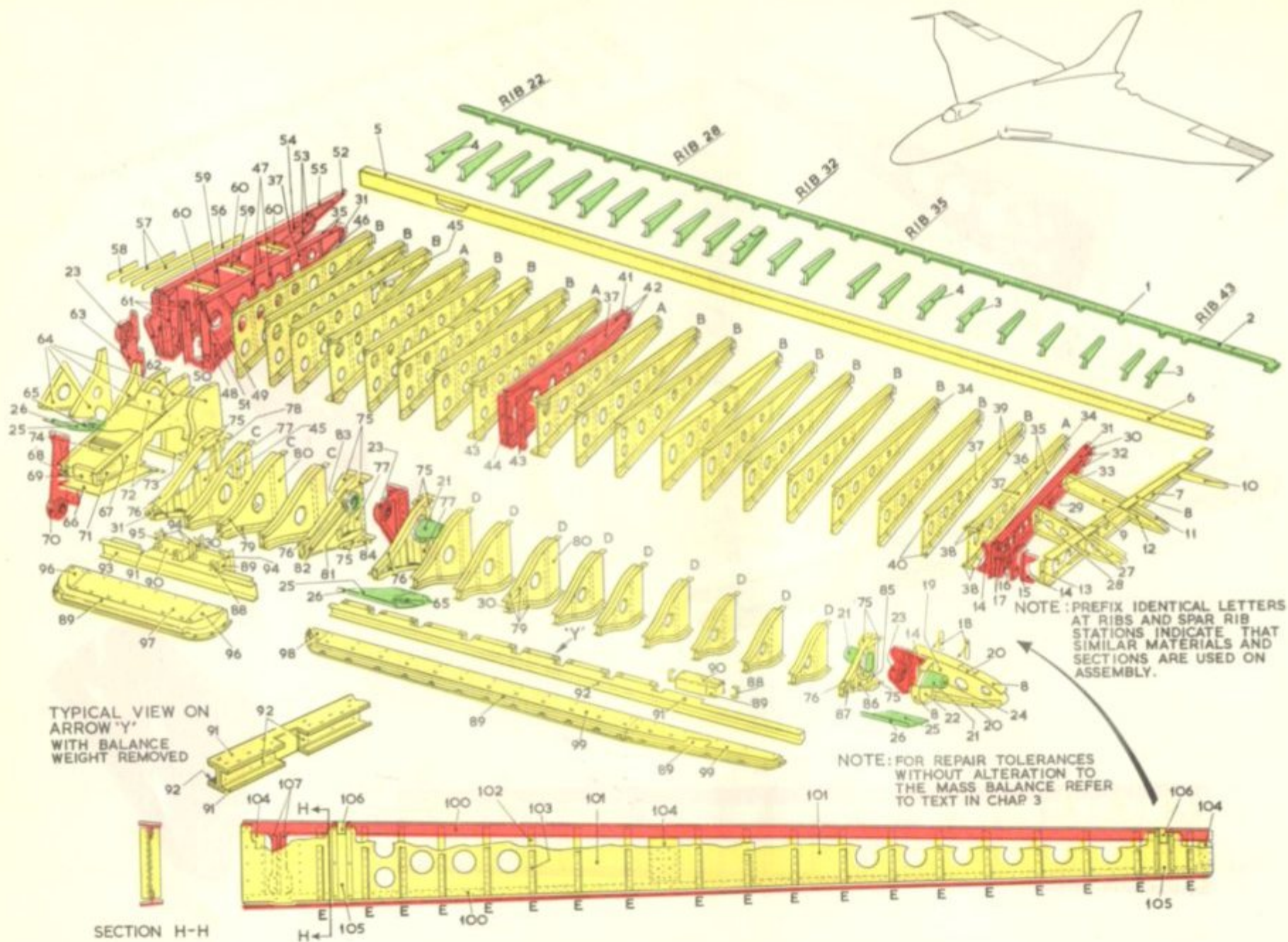


Fig. 334A. Outboard aileron
RESTRICTED

KEY TO FIG.334A

Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Holes			
				Depth	Dist. Apart	Dia.	Pitch Ratio	
1	D.T.D.118	22	Trailing edge member	0.05	6.0	-	-	
2	D.T.D.118	16	Packing	x 0.05	6.0	-	-	
3	L.72	24	Tail rib	0.05	6.0	0.25	8:1	108,115,120
4	D.T.D.118	24	Tail rib	0.05	6.0	0.25	8:1	108,115,120
5	L.72	20	Angle	0.05	8.0	-	-	
6	L.72	20	Angle	0.05	6.0	-	-	
7	L.72	22	Web	0.05	3.0	0.25	8:1	103
8	D.T.D.626	20	Joint strap	x 0.05	3.0	0.25	8:1	103
9	L.72	24	Angle	0.05	3.0	0.125	8:1	113
10	L.72	24	Stiffener	0.05	3.0	0.25	8:1	113
11	L.72	819/SS.1793	Angle	0.05	3.0	0.125	6:1	113
12	L.72	24	Channel member	0.05	3.0	0.25	6:1	103,108
13	L.72	22	Angle	0.05	3.0	0.125	8:1	113
14	L.65	Forging	Angle	*	-	-	-	
15	L.72	16	Plate	x 0.025	6.0	-	-	
16	D.T.D.259	-	Packing	x 0.025	6.0	-	-	
17	D.T.D.259	-	Packing	x 0.025	6.0	-	-	
18	L.72	16	Packing	x 0.025	6.0	-	-	
19	L.72	20	Web	0.05	4.0	0.25	6:1	103
20	L.72	16	Angle	0.05	6.0	0.125	8:1	113
21	S.510	22	Pocket	x 0.1	4.0	-	-	
22	L.72	22	Rib	0.05	6.0	0.25	10:1	103
23	S.96	Forging	Housing	*	-	-	-	
24	S.510	22	Back plate	x 0.1	4.0	-	-	
25	L.72	18	Skin	0.05	8.0	-	-	103
26	L.72	20	Angle	0.05	6.0	-	-	
27	D.T.D.118	24	Angle	0.05	3.0	0.125	6:1	113
28	L.72	22	Angle	0.05	6.0	0.125	6:1	
29	L.72	22	Angle	0.025	8.0	0.125	12:1	
30	L.72	20	Angle	x 0.025	8.0	0.125	12:1	
31	L.72	802/SS.1793	Inboard angle	0.025	10.0	-	-	113
32	L.72	803/SS.1793	Outboard angle	0.025	10.0	-	-	113
33	D.T.D.118	22	Web	0.05	8.0	0.125	10:1	103
34	L.72	22	Angle	x 0.025	6.0	0.125	10:1	
35	L.72	799/SS.1793	Outboard angle	0.025	8.0	0.125	8:1	113
36	L.72	798/SS.1793	Inboard angle	0.025	8.0	0.125	8:1	113
37	D.T.D.118	24	Web	0.05	6.0	0.25	6:1	103
38	L.72	18	Angle	0.05	4.0	0.125	8:1	
39	D.T.D.118	792/SS.1793	Angle	0.025	8.0	0.125	8:1	113
40	L.72	24	Angle	x 0.05	4.0	0.125	8:1	
41	L.72	807/SS.1793	Angle	0.025	10.0	-	-	113
42	L.72	808/SS.1793	Angle	0.025	10.0	-	-	113
43	L.65	Forging	Bracket	*	-	-	-	
44	L.72	-	Packing	x 0.025	6.0	-	-	

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED

KEY TO FIG.334A (contd.)

Item	Material		Description	Depth	Negligible Damage			Repair Fig.
	Spec.	S.W.G. or Section			Dents	Holes		
					Dist. Apart	Dia.	Pitch Ratio	
45	L. 72	789/SS.1793	Angle	0.05	6.0	0.125	8:1	
46	L. 65	306/SS.3075	Bottom boom	-	-	-	-	
47	L. 72	24	Angle	0.025	10.0	0.125	8:1	113
48	L. 72	18	Plate	0.025	8.0	0.125	8:1	
49	D.T.D.687	12	Diffusion strip	0.025	10.0	-	-	
50	S.96	-	Bracket	*	-	-	-	
51	L. 65	-	Bracket	*	-	-	-	
52	B.S.S.668	-	Block	x	-	-	-	
53	L. 72	805/SS.1793	Angle	-	-	-	-	
54	D.T.D.626	20	Web	0.025	10.0	-	-	103
55	L. 72	20	Angle	-	-	-	-	
56	D.T.D.687	14	Diffusion strip	x 0.025	8.0	-	-	
57	D.T.D.687	12	Diffusion strip	x 0.025	8.0	-	-	
58	D.T.D.687	10	Diffusion strip	x 0.025	8.0	-	-	
59	L. 72	22	Angle	0.025	10.0	0.125	8:1	113
60	L. 72	183/SS.1793	Angle	0.05	10.0	0.125	8:1	113
61	D.T.D.363	409/SS.3075	Angle	0.025	10.0	-	-	
62	L. 72	18	Plate	0.025	10.0	-	-	
63	L. 72	16	Channel	0.025	10.0	-	-	
64	L. 72	20	Riblet	0.05	4.0	0.25	6:1	103
65	AS.1878/25	-	Hinge	0.05	6.0	-	-	
66	L. 72	20	Skin	0.025	12.0	-	-	103
67	L. 72	20	Channel	0.05	8.0	0.125	8:1	108
68	L. 72	20	Angle	x 0.05	6.0	0.125	8:1	
69	L. 72	20	Channel	0.05	6.0	0.25	8:1	
70	S.96	-	Bracket	x	-	-	-	
71	Lead	-	Balance weight	0.1	3.0	-	-	
72	L. 72	20	Angle	0.05	6.0	0.125	6:1	
73	L. 72	22	Angle	0.05	6.0	0.125	6:1	113
74	S.510	12	Additional balance weight	0.1	3.0	-	-	
75	L. 72	18	Angle	x 0.05	4.0	0.125	8:1	
76	L. 72	18	Channel	0.05	4.0	0.25	8:1	
77	L. 72	24	Corrugation	0.05	3.0	0.125	12:1	
78	L. 72	18	Packing	x 0.05	3.0	0.25	8:1	
79	L. 72	819/SS.1793	Angle	0.025	8.0	0.125	12:1	113
80	L. 72	24	Web	0.05	6.0	0.125	8:1	103
81	T.45	22	Tube	0.1	4.0	-	-	
82	L. 72	20	Angle	0.05	6.0	0.125	12:1	113
83	L. 72	22	Angle	x 0.05	6.0	0.125	10:1	
84	L. 72	20	Plate	x 0.05	4.0	0.25	8:1	
85	L. 72	2/SS.1793	Stiffener	0.05	6.0	0.25	10:1	
86	L. 72	22	Stiffener	0.05	6.0	0.25	10:1	
87	L. 72	20	Angle	x 0.05	6.0	0.25	10:1	
88	S.511	-	Bracket	x 0.025	6.0	0.125	10:1	

* No repairs permitted
x More expedient to renew than repair
All dimensions are quoted in inches

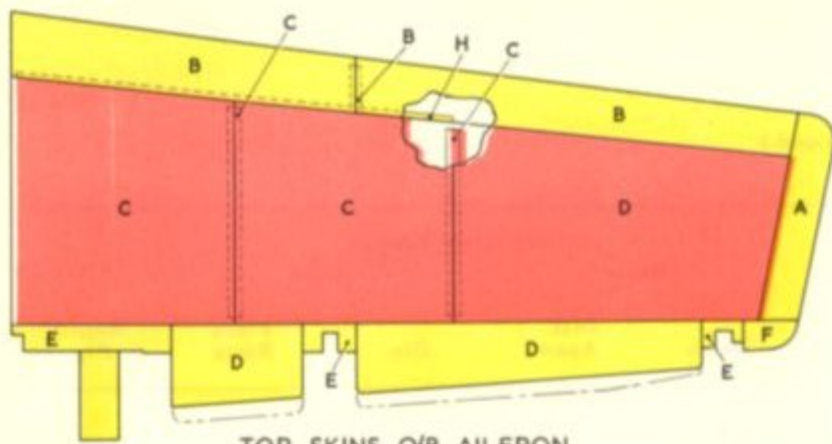
RESTRICTED

KEY TO FIG.334A (contd.)

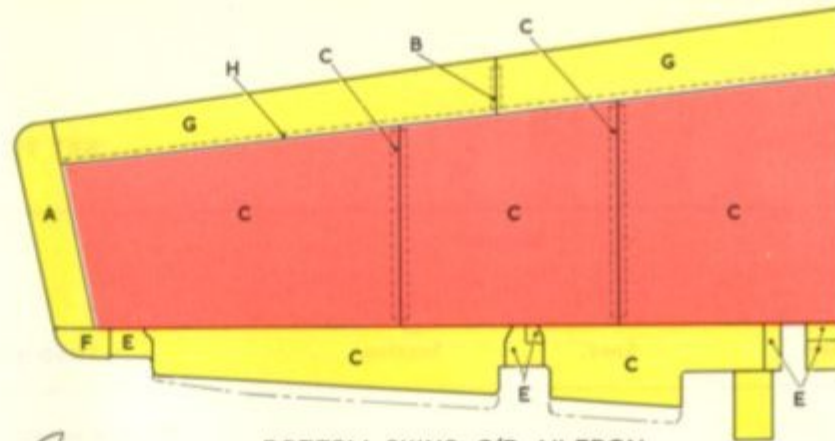
Item	Material		Description	Negligible Damage				Repair Fig.
	Spec.	S.W.G. or Section		Dents	Dist. Apart	Holes	Pitch Ratio	
				Depth		Dia.		
89	Lead	-	Balance weight	0.1	4.0	-	-	
90	S.511	-	Channel	0.025	6.0	0.125	10:1	
91	L.72	20	Strap	x 0.05	8.0	0.25	8:1	
92	L.72	20	Channel	0.05	8.0	-	-	108
93	L.72	18	Channel	0.05	8.0	-	-	108
94	L.72	18	Angle bracket	x 0.05	8.0	0.25	8:1	
95	L.72	24	Packing	x 0.05	4.0	0.25	8:1	
96	S.511	16	End piece	x 0.025	8.0	-	-	
97	S.510	16	Channel	0.025	8.0	-	-	
98	S.510	18	End piece	x 0.025	8.0	-	-	
99	S.510	18	Channel	0.025	8.0	-	-	
100	D.T.D.363	414/SS,3075	Top and bottom booms	-	-	-	-	
101	L.72	16	Web	0.025	6.0	0.125	10:1	103
102	L.72	663/SS,1793	Angle	0.05	8.0	0.125	8:1	113
103	L.72	133/SS,1793	Angle	0.05	8.0	0.125	8:1	113
104	L.72	10	Bearing plate	0.05	3.0	0.125	8:1	
105	L.72	22	Slings bracket	0.05	6.P	0.125	8:1	
106	L.65	-	Block	x 0.1	4.0	-	-	
107	L.72	18	Angle	0.025	10.0	-	-	

x More expedient to renew than repair
All dimensions are quoted in inches

RESTRICTED



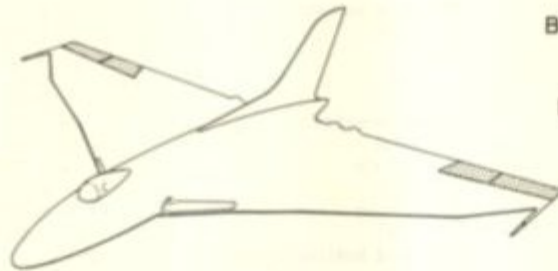
TOP SKINS O/B. AILERON



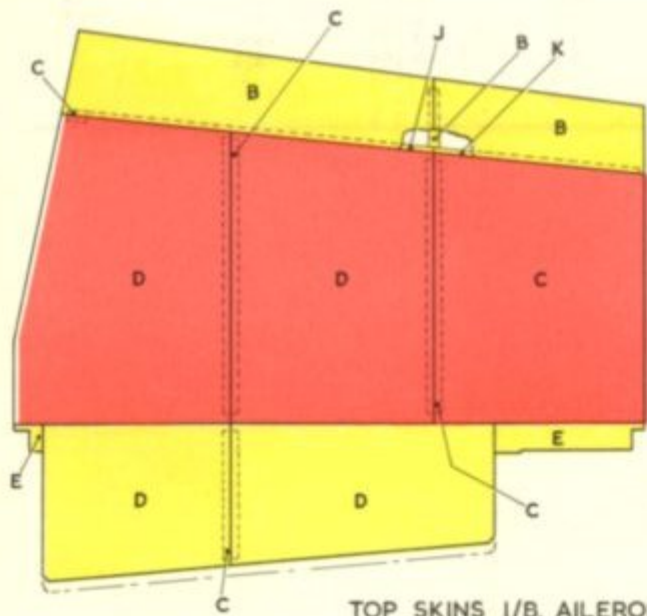
BOTTOM SKINS O/B. AILERON

FOR REPAIRS SEE FIG. 103 & FIG. 104.
DAMAGE IN AREAS OF CONCENTRATED
RIVETING MUST BE REPAIRED WITH
JOINTS ARRANGED OUTSIDE THE AREA.

NOTE: ITEMS H, J & K, ARE PACKING PIECES
FITTED BETWEEN SKIN AND CHANNEL.
REPAIRS ARE NOT PERMITTED TO
BUTT STRAPS.



FOR REPAIR TOLERANCES WITHOUT
ALTERATIONS TO MASS BALANCE
REFER TO TEXT IN CHAP 3

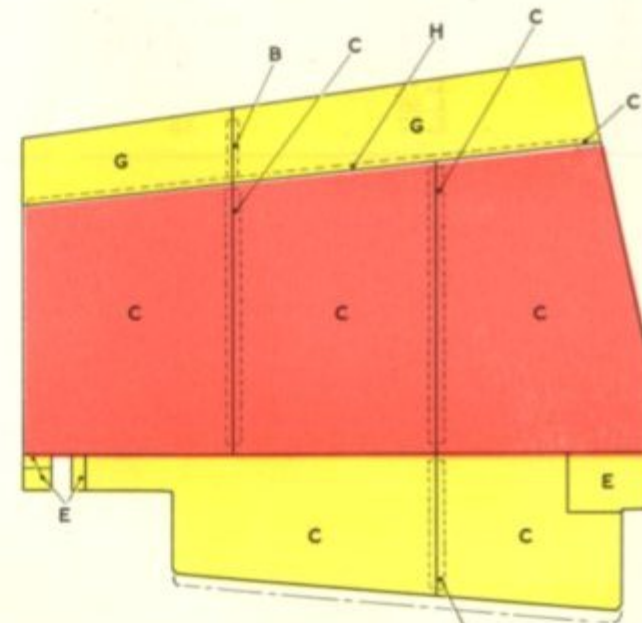


TOP SKINS I/B. AILERON

SKIN REFERENCE		
LETTER	S.W.G.	MAT. SPEC.
A	20	D.T.D. 118A
B	22	D.T.D. 118A
C	18	D.T.D. 626
D	20	D.T.D. 626
E	18	L. 72
F	20	L. 59
G	22	L. 72
H	26	L. 72
J	30	L. 72
K	28	D.T.D. 118A

NEGLECTIBLE DAMAGE		
COLOUR	DENTS	DIST. APART
RED	0.025	6.0
YELLOW	0.05	6.0
GREEN		

ALL DIMENSIONS IN INCHES



BOTTOM SKINS I/B. AILERON

Fig. 334 B. Aileron skins

(RESTRICTED)

Key to Fig. 335. Inboard elevator

Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage			Repair Fig. No.
				Dents Depth	Dist. Apart	Holes Pitch Ratio	
1	DTD.118A	22	Stiffening plates	0-05	4-0	—	—
2	DTD.259	10	Stiffening strip	0-025	4-0	—	—
3	DTD.118A	22	Tail ribs	0-05	4-0	0-25	6:1
4	L.72	853/SS/1793	Stiffeners	† 0-05	4-0	0-25	6:1
5	DTD.118A	18	Auxiliary spar	0-05	6-0	0-25	8:1
6	DTD.118A	18	Butt straps	† 0-05	6-0	0-25	8:1
7	L.73	22	Rib web	0-05	8-0	—	—
8	DTD.363	416/SS/3075	'T' Section booms	0-025	8-0	—	—
9	L.72	66/SS/1793	Bottom booms (Rib 18)	0-025	6-0	—	—
9a	L.72	66/SS/1793	Stiffeners	0-05	6-0	0-25	8:1
10	L.72	763/SS/1793	Stiffeners	0-05	6-0	0-25	8:1
11	L.72	762/SS/1793	Stiffeners	0-05	6-0	0-25	8:1
12	L.72	761/SS/1793	Stiffener	0-05	6-0	0-25	8:1
13	DTD.687	10	Housing plate	* 0-025	8-0	0-125	12:1
14	L.72	16	Channel	0-025	8-0	—	—
15	S.96	H.T.S.	Bearing housing	*	—	—	—
16	L.72	12b/SS/1793	Rib booms	0-025	8-0	—	—
17	L.72	785/SS/1793	Rib stiffeners	† 0-05	6-0	0-25	8:1
18	L.72	12c/SS/1793	Rib stiffener	0-05	6-0	0-25	8:1
19	L.72	207/SS/1793	Rib angle	0-05	8-0	0-25	8:1
20	DTD.626	20	Doubling plate	0-05	6-0	0-25	8:1
21	L.72	18	Doubling plate	† 0-05	6-0	0-25	8:1
22	DTD.118A	20	Angle	0-05	6-0	0-25	6:1
23	L.65	Al. alloy	Attachment bracket	*	—	—	—
24	L.72	20	Former	0-05	4-0	0-25	6:1
25	L.72	788/SS/1793	Angle	† 0-05	6-0	0-25	6:1
26	L.72	18	Angle	† 0-05	6-0	0-25	6:1
27	L.72	112/SS/1793	Angle	† 0-05	6-0	0-25	6:1
28	L.72	852/SS/1793	Angle	† 0-05	6-0	0-25	6:1
29	L.72	18	Skin panel	0-05	8-0	—	—
30	L.72	851/SS/1793	Channel	† 0-05	6-0	0-25	6:1
31	DTD.118A	24	Corrugated rib webs	0-10	6-0	0-25	6:1
32	DTD.118A	865/SS/1793	Top and bottom booms	0-05	6-0	0-25	8:1
33	L.72	20	Channel	† 0-05	6-0	0-25	8:1
34	DTD.118A	24	Reinforcing strip	0-05	6-0	0-25	8:1
35	L.72	884/SS/1793	Top and bottom booms (Rib 14 only)	0-05	6-0	0-25	8:1
36	L.72	18	Channels (Rib 14 only)	† 0-05	6-0	0-25	8:1
37	L.72	18	Stiffening plate (Rib 14 only)	† 0-05	6-0	0-25	8:1
38	L.72	18	Gusset (Rib 14 only)	† 0-05	6-0	0-25	8:1
39	L.72	882/SS/1793	Top and bottom rib booms	0-025	8-0	—	—
40	L.72	20	Doubling channel	† 0-025	8-0	0-25	10:1
41	H.T.S.	S.11	Bearing housing	*	—	—	—
42	DTD.259A	Mag. alloy	Packing block	* 0-05	6-0	0-25	8:1
43	DTD.626	20	End web	0-025	8-0	—	—
44	L.72	761/SS/1793	Top and bottom booms	0-025	8-0	—	—
45	L.72	20	Diaphragms	0-05	6-0	0-25	6:1
46	L.72	22	Diaphragms	0-05	6-0	0-25	6:1
47	DTD.118A	22	Angles	† 0-05	6-0	0-25	6:1
48	DTD.259	Mag alloy	Packing block	† 0-05	6-0	0-25	8:1
49	L.72	18	Former	0-05	6-0	0-25	8:1
50	L.72	20	Angle	0-05	6-0	0-25	6:1
51	L.72	850/SS/1793	Angle	† 0-05	6-0	0-25	6:1
52	L.72	849/SS/1793	Formers	† 0-05	6-0	0-25	8:1

RESTRICTED

Key to Fig. 335. Inboard elevator (contd.)

Item	Spec.	Material S.W.G. or Section	Description	Dents Depth	Negligible Damage		Holes Pitch Ratio	Repair Fig. No.
					Dist. Apart	Dia.		
53	L.72	20	Gusset	0.05	6.0	0.25	6 : 1	—
54	L.72	877/SS/1793	Top and bottom channels	0.05	8.0	0.25	8 : 1	—
55	L.72	664/SS/1793	Sealing angle	0.05	8.0	—	—	—
56	DTD.118A	24	Corrugated web	0.05	6.0	0.25	10 : 1	—
57	L.72	20	Channel	0.05	6.0	0.25	6 : 1	—
58	L.72	12a/SS/1793	Angle (nose rib No. 2 only)	† 0.05	6.0	0.25	6 : 1	—
59	L.72	878/SS/1793	Top and bottom channels	0.05	8.0	0.25	8 : 1	—
60	DTD.118A	22	Rib web plate	0.05	8.0	0.25	8 : 1	—
61	DTD.118A	22	Forward corrugation (Nose rib 3 only)	0.05	6.0	0.25	8 : 1	—
62	DTD.118A	20	Corrugated web	0.05	6.0	0.25	8 : 1	—
63	L.72	20	Attachment bracket	† 0.05	6.0	0.25	6 : 1	—
64	L.72	864/SS/1793	Top and bottom channels (Nose ribs 4 to 13)	0.05	8.0	0.25	8 : 1	—
65	DTD.118A	24	Rib web plate	0.10	6.0	0.25	6 : 1	—
66	L.72	767/SS/1793	Drainage channel	0.05	6.0	—	—	—
67	DTD.118A	22	Rib side web	0.05	8.0	—	—	—
68	L.72	18	Stiffening plate	† 0.05	6.0	0.25	6 : 1	—
69	S.3	Mild steel	Balance strips	† 0.10	6.0	—	—	—
70	L.72	18	Channel	0.05	6.0	0.25	8 : 1	—
71	—	Lead	Balance weight	0.15	5.0	—	—	—
72	S.3	Mild steel	Balance weight shrouds	0.10	6.0	—	—	—
73	L.72	702/SS/1793	Retaining strip	0.10	6.0	0.25	6 : 1	—
74	Indiana/ Cashmere Fabric	1/32" thk.	Shroud seals	—	—	—	—	406
75	L.65	Al. alloy	Top and bottom booms	—	—	—	—	—
76	L.65	249/SS/3075	Attachment angles	—	—	—	—	—
77	L.72	425/SS/1793	Attachment angle	0.05	6.0	0.25	8 : 1	as 113, 114
78	DTD.118A	18	Bracket	† 0.025	8.0	0.25	10 : 1	—
79	L.72	20	Angle	0.05	6.0	0.25	8 : 1	—
80	L.72	314/SS/1793	Angle	0.05	6.0	0.25	8 : 1	—
81	L.72	13b/SS/1793	Angle	0.05	6.0	0.25	8 : 1	113
82	L.72	20	Channel	0.05	6.0	0.25	8 : 1	113
83	L.72	14	Strap plate	* 0.025	8.0	0.25	10 : 1	—
84	L.72	18	Strap plate	* 0.05	6.0	0.25	8 : 1	—
85	DTD.363	428/SS/3075	Rear angle	—	—	—	—	—
86	L.72	12	Spar web	0.025	8.0	—	—	—
87	L.72	14	Spar web	0.025	6.0	0.125	16 : 1	—
88	L.72	18	Spar web	0.025	6.0	0.125	12 : 1	—
89	L.65	277/SS/3075	Bracket	† 0.025	6.0	—	—	—

* No repairs permitted

† More expedient to renew

All dimensions in inches

RESTRICTED

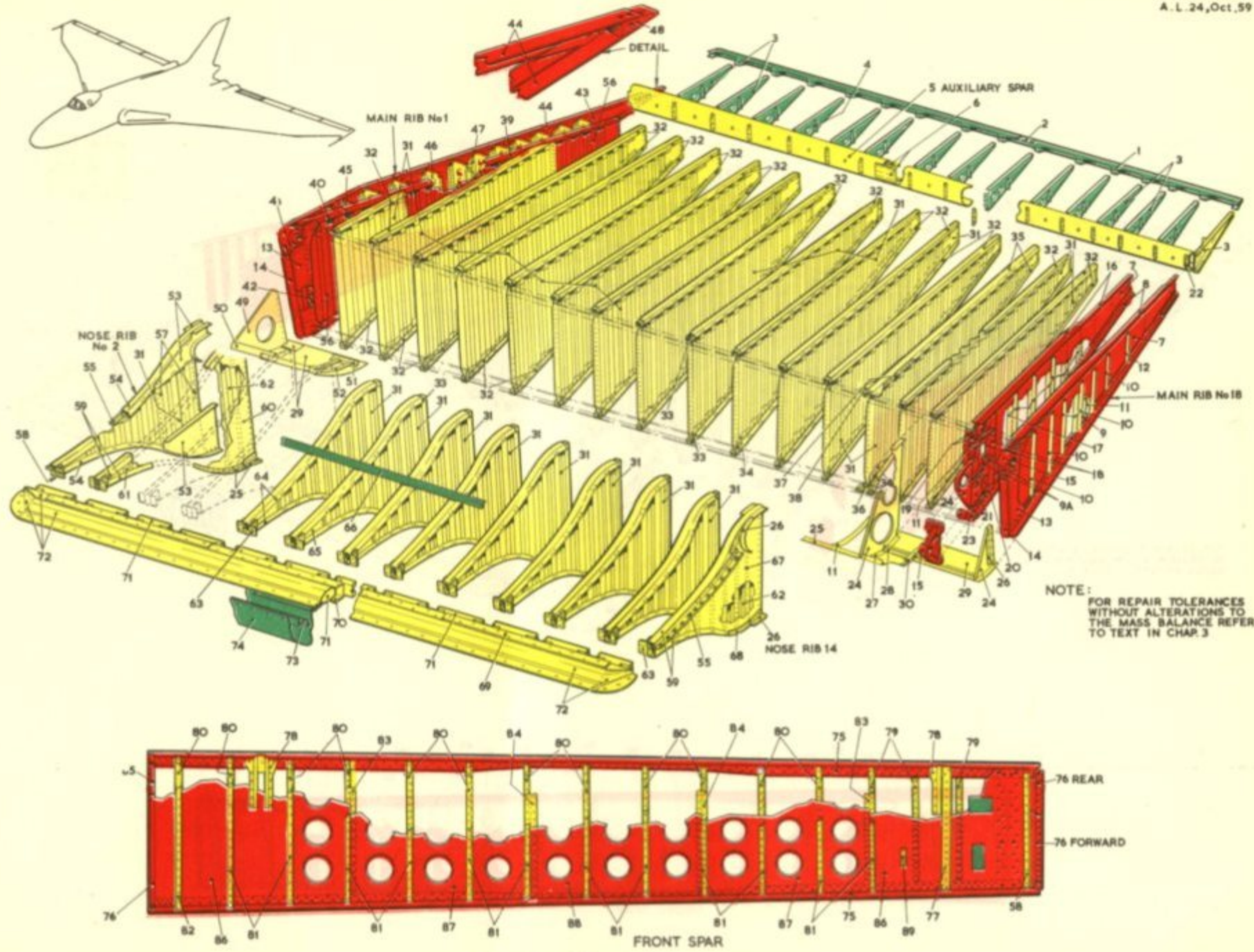
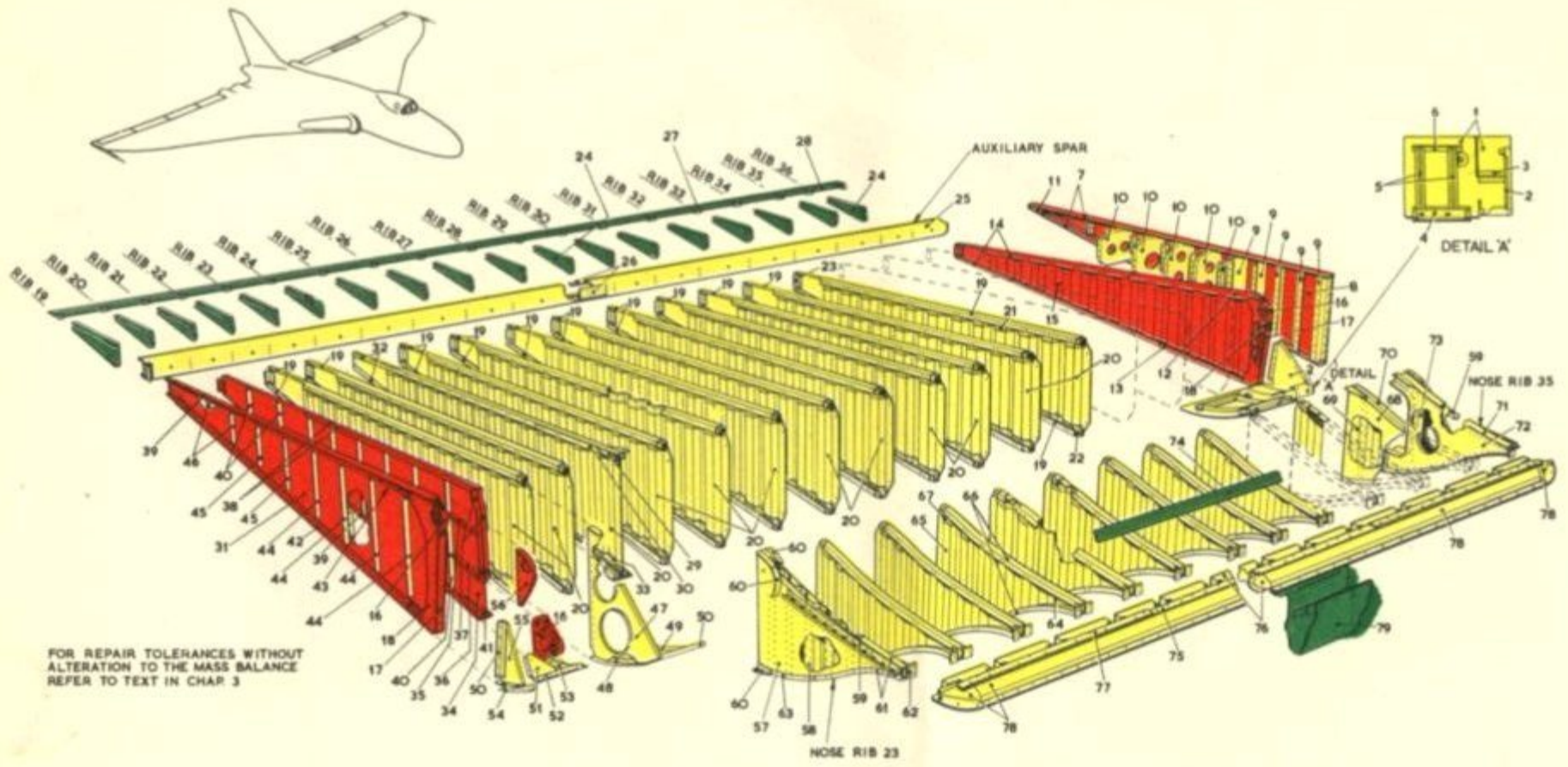


Fig.335 Inboard elevator
 RESTRICTED



FOR REPAIR TOLERANCES WITHOUT ALTERATION TO THE MASS BALANCE REFER TO TEXT IN CHAR 3

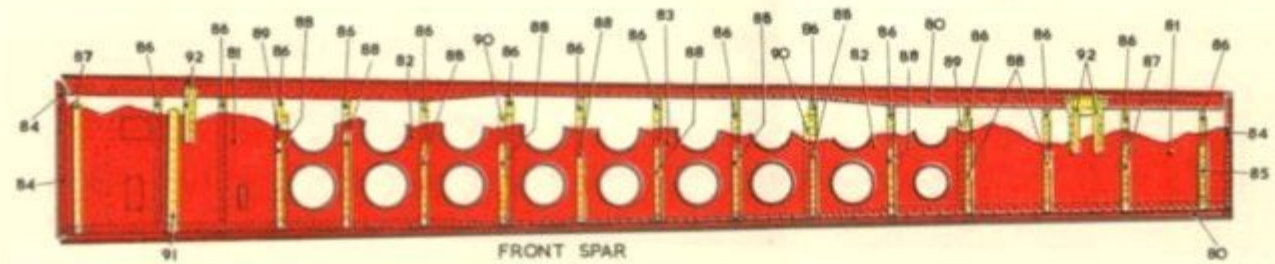


Fig.335A Outboard elevator RESTRICTED

Key Fig. 335A. Outboard elevator

Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage			Holes Pitch Ratio	Repair Fig. No.
				Dents Depth	Dist. Apart	Dia.		
1	L.72	18G	Access panel skins	0.05	8.0	—	—	103
2	L.72	20G	Formers	0.05	6.0	—	—	103
3	—	AS/1878/30	Hinge	0.025	6.0	—	—	—
4	L.72	20G	Angle former	0.05	6.0	0.25	8:1	—
5	L.72	849/SS/1793	Former	0.05	6.0	0.25	8:1	—
6	L.72	850/SS/1793	Angle	0.05	6.0	0.25	8:1	—
7	L.72	22	Top and bottom booms	0.025	8.0	—	—	113
8	DTD.626	20	Web plate	0.05	8.0	0.25	10:1	103
9	L.72	20	Support angles	0.05	6.0	0.25	6:1	—
10	DTD.118A	22	Diaphragms	0.05	6.0	0.25	6:1	103
10A	DTD.118A	22	Angle	0.05	6.0	—	—	—
11	DTD.259	Mag. alloy	Block	0.05	6.0	0.25	8:1	—
12	L.72	18	Doubling channel	0.025	8.0	0.25	10:1	—
13	L.72	20	Doubling channel	0.025	8.0	0.25	10:1	—
14	L.72	883/SS/1793	Top and bottom booms	0.025	6.0	—	—	—
15	DTD.118A	24G. Ref. F9203	Corrugation	0.05	6.0	0.25	10:1	—
16	S.96	H.T.S.	Bearing housing	—	—	—	—	—
17	L.72	16	Channel	0.025	8.0	—	—	—
18	DTD.687	10	Stiffening plate	0.025	8.0	0.125	12:1	—
19	DTD.118A	865/SS/1793	Top and bottom booms (Rib 21-35 less rib 23)	0.05	6.0	0.25	8:1	—
20	DTD.118A	24G. Ref. F9203	Corrugated web (Ribs 21-35)	0.10	6.0	0.25	6:1	—
21	DTD.118A	24	Reinforcing strips (Rib 21-35)	0.05	6.0	0.25	8:1	—
22	L.72	20	Reinforcing channel (Rib 21-35 less rib 23)	0.05	6.0	0.25	8:1	—
23	DTD.118A	22	Attachment angles (Rib 20-36)	0.05	6.0	0.25	6:1	—
24	DTD.118A	22	Tail ribs (19-36)	0.05	4.0	0.25	6:1	103
25	DTD.118A	18	Auxiliary spar	0.05	6.0	0.25	8:1	—
26	DTD.118A	18	Spar butt-straps	0.05	6.0	0.25	8:1	—
27	DTD.118A	22	Stiffening plates	0.05	4.0	—	—	—
28	DTD.259	10	Packing strip	0.025	4.0	—	—	—
29	L.72	18	Angle (rib 23 only)	0.05	6.0	0.25	8:1	—
30	L.72	18	Stiffener (rib 23 only)	0.05	6.0	0.25	8:1	—
31	L.73	22	Rib web (rib 19 only)	0.05	8.0	—	—	103
32	L.72	884/SS/1793	Top and bottom booms (rib 23 only)	0.05	6.0	0.25	8:1	—
33	DTD.118A	AS.404/24	Reinforcing strips (Rib 21 to 35)	0.05	6.0	0.25	8:1	—
34	DTD.118A	22	Rib web (rib 20 only)	0.05	8.0	—	—	103
35	L.72	762/SS/1793	Angle	0.05	8.0	0.25	6:1	—
36	L.72	66/SS/1793	Angle	0.05	8.0	0.25	6:1	—
37	L.72	207b/SS/1793	Attachment angles	0.05	8.0	0.25	8:1	—
38	L.72	12b/SS/1793	Top booms (rib 20 only)	0.025	8.0	—	—	113
39	DTD.363	416/SS/3075	'T' Section booms	0.025	8.0	—	—	—
40	L.72	785/SS/1793	Stiffener	0.05	6.0	0.25	8:1	113
41	L.65	Al. alloy	Attachment bracket	—	—	—	—	—
42	L.72	66/SS/1793	Bottom booms	0.025	6.0	—	—	—
43	DTD.259	Mag. alloy	Packing block	0.025	6.0	0.125	8:1	—
44	L.72	763/SS/1793	Stiffeners	0.05	6.0	0.25	8:1	113
45	L.72	762/SS/1793	Stiffeners	0.05	6.0	0.25	8:1	113
46	L.72	761/SS/1793	Stiffener	0.05	6.0	0.25	8:1	113
47	L.72	20	Former	0.05	6.0	0.25	6:1	103

RESTRICTED

Key to Fig. 335A. Outboard elevator (contd.)

Item	Spec.	Material S.W.G. or Section	Description	Negligible Damage			Holes Pitch Ratio	Repair Fig. No.
				Dents Depth	Dist. Apart	Dia.		
48	L.72	787/SS/1793	Angle	† 0.05	6.0	0.25	6:1	—
49	L.72	762/SS/1793	Angle	† 0.05	6.0	0.25	6:1	113
50	L.72	788/SS/1793	Angle	† 0.05	6.0	0.25	6:1	—
51	L.72	20	Gusset	0.05	6.0	0.25	6:1	103
52	L.72	515/SS/1793	Angle	0.05	6.0	0.25	6:1	—
53	L.72	206/SS/1793	Channel	0.05	6.0	0.25	6:1	—
54	L.72	112/SS/1793	Angle	† 0.05	6.0	0.25	6:1	—
55	L.72	20	Former	0.05	6.0	0.25	6:1	103
56	L.72	20	Former	0.05	4.0	0.25	6:1	103
57	DTD.118A	22	Rib web (Nose rib 23 only)	0.05	8.0	0.25	8:1	—
58	DTD.118A	20	Corrugated web (nose rib 23 only)	0.10	6.0	0.25	6:1	—
59	L.72	664/SS/1793	Sealing angle (nose ribs 23 and 35)	0.25	8.0	—	—	—
60	L.72	18	Angle	† 0.05	6.0	0.25	6:1	—
61	L.72	878/SS/1793	Top and bottom channels (nose rib 23 only)	0.05	8.0	0.25	8:1	—
62	L.72	20	Attachment bracket (nose ribs 23-35)	† 0.05	6.0	0.25	6:1	—
63	L.72	18	Stiffening plate	0.05	6.0	0.25	6:1	—
64	DTD.118A	24	Forward web plates (nose ribs 24-33)	0.10	6.0	0.25	6:1	—
65	DTD.118A	24	Corrugated web (nose ribs 24-33)	0.10	6.0	0.25	6:1	—
66	L.72	864/SS/1793	Top and bottom booms (nose ribs 24-33)	0.05	8.0	0.25	8:1	—
67	L.72	22	Reinforcing strips (nose ribs 24-33)	0.05	6.0	0.25	6:1	—
68	DTD.118A	24	Sealing plate (nose rib 34 only)	0.05	8.0	—	—	—
69	DTD.118A	24	Corrugated web (nose rib 34 only)	0.05	6.0	0.25	8:1	—
70	L.72	876/SS/1793	Top and bottom booms (nose rib 34 only)	0.05	8.0	0.25	8:1	—
71	L.72	877/SS/1793	Top and bottom booms (nose rib 35 only)	0.05	8.0	0.25	8:1	—
72	L.72	20	Side webs (nose rib 35 only)	0.05	8.0	—	—	—
73	DTD.118A	20	Channel (nose rib 35 only)	0.05	6.0	0.25	6:1	—
74	L.72	767/SS/1793	'Z' Section	0.05	6.0	—	—	—
75	L.72	18	Channel	0.05	6.0	0.25	8:1	—
76	—	—	Lead	0.15	5.0	—	—	—
77	S.3	M.S.	Balance strips	† 0.10	6.0	—	—	—
78	S.3	20	Mass balance cover	0.10	6.0	—	—	—
79	Indian	1/32"	Sealing cloth	—	—	—	—	406
80	DTD.363	431/SS/3075	Top and bottom booms	—	—	—	—	—
81	L.72	12	Spar web	0.025	8.0	—	—	—
82	L.72	14	Spar web	0.025	6.0	0.125	16:1	—
83	L.72	18	Spar web	0.025	6.0	0.125	12:1	—
84	DTD.130	249/SS/3075	Attachment angle (rib 36)	—	—	—	—	—
85	L.72	20	Channel	0.05	6.0	0.25	8:1	—
86	L.72	314/SS/1793	Angle	0.05	6.0	0.25	8:1	113
87	L.72	12a/SS/1793	Angle	0.05	6.0	0.25	8:1	113
88	L.72	13b/SS/1793	Angle	0.05	6.0	0.25	8:1	113
89	L.72	14	Strap plate	* 0.025	8.0	0.25	10:1	—
90	L.72	18	Strap plate	* 0.05	6.0	0.25	8:1	—
91	L.72	425/SS/1793	Angle	0.05	6.0	0.25	8:1	as 113, 114
92	DTD.118	18	Slings brackets	† 0.025	8.0	0.25	10:1	—

† More expedient to renew

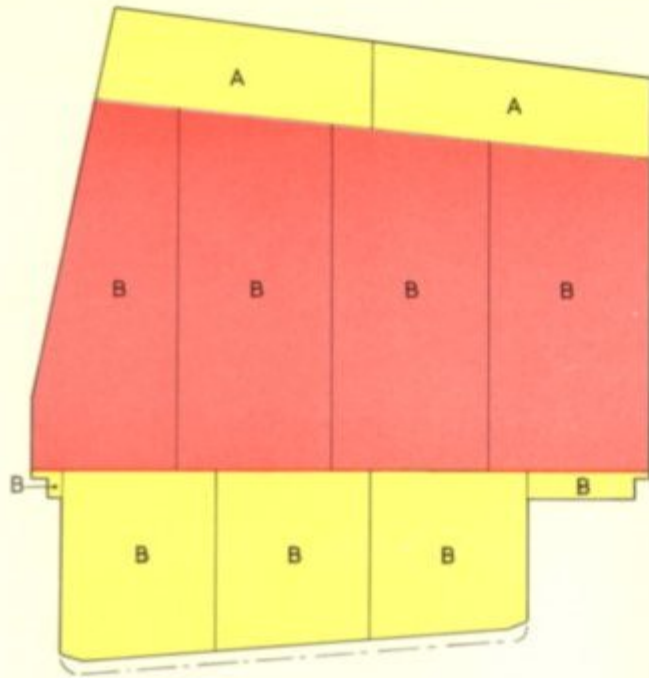
* No repairs permitted

All dimensions in inches

RESTRICTED

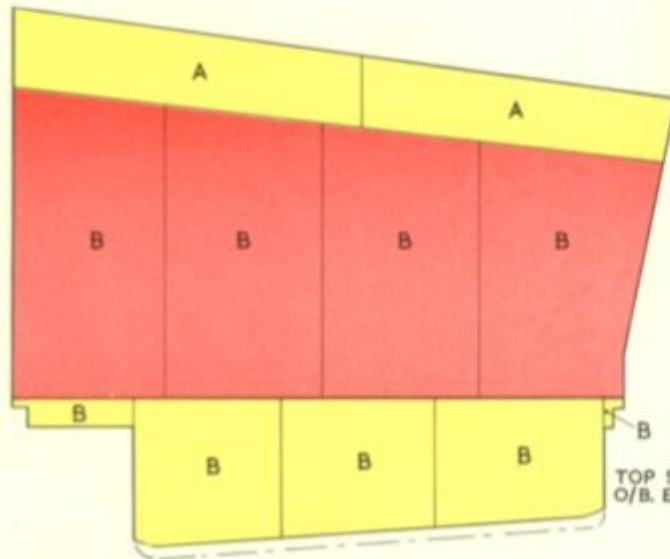
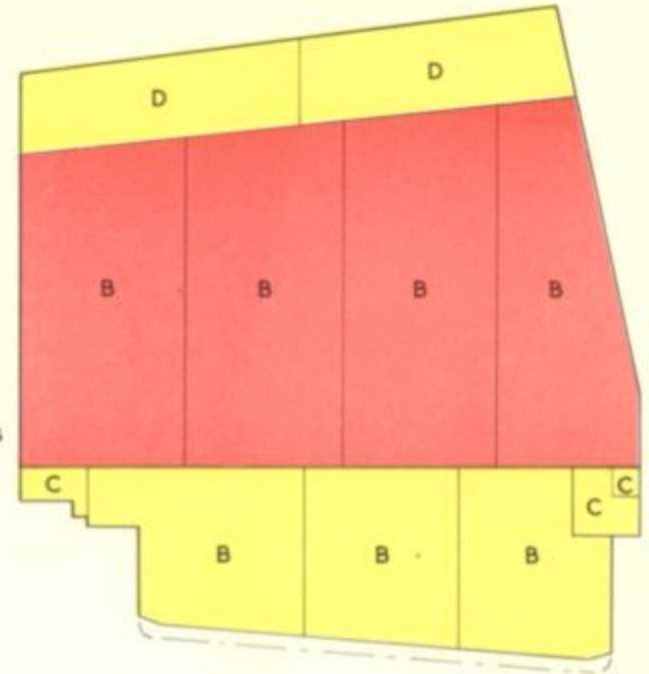
FOR REPAIRS SEE FIG. 103 AND FIG. 104.
DAMAGE IN AREAS OF CONCENTRATED
RIVETING MUST BE REPAIRED WITH
JOINTS ARRANGED OUTSIDE THE AREA.

SKIN REFERENCE		
LETTER	S. W. G.	MAT. SPEC.
A	22	D.T.D. 118 A
B	18	D.T.D. 626
C	18	L72
D	22	L72

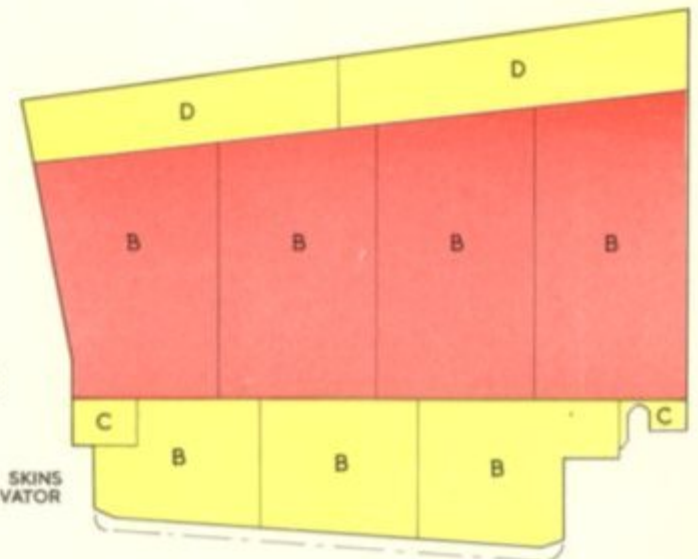


TOP SKINS
I/B. ELEVATOR

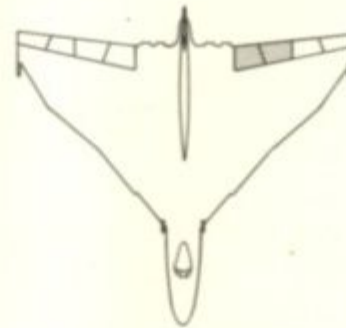
BOTTOM SKINS
I/B. ELEVATOR



TOP SKINS
O/B. ELEVATOR



BOTTOM SKINS
O/B. ELEVATOR



NEGLIGIBLE DAMAGE		
COLOUR	DENTS	DIST. APART
RED	0.025 IN.	6.0 IN.
YELLOW	0.05 IN.	6.0 IN.
GREEN	—	—

FOR REPAIR TOLERANCES WITHOUT
ALTERATION TO THE MASS BALANCE
REFER TO TEXT IN CHAP. 3.

Fig. 335B. Elevator skins

RESTRICTED

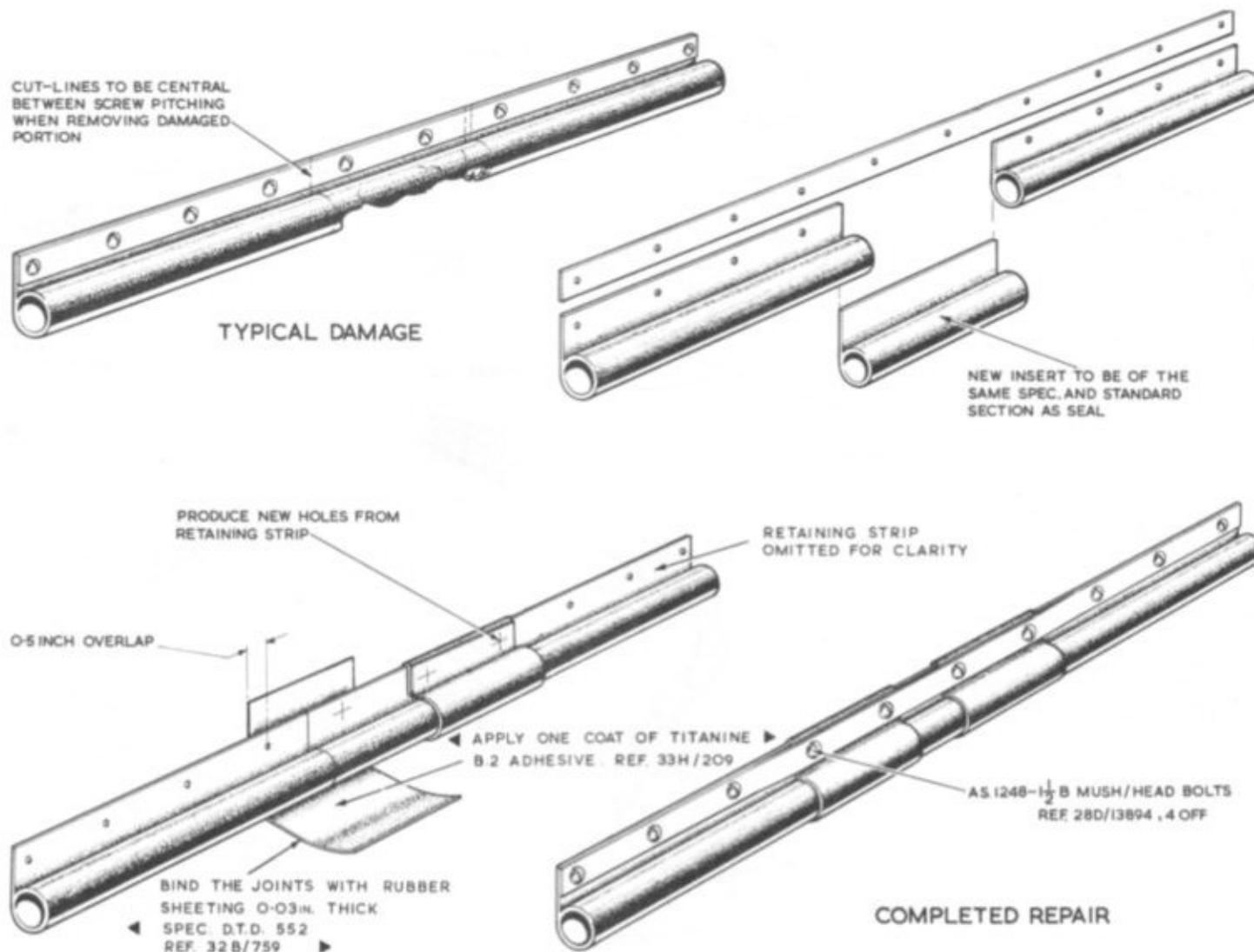


Fig. 341. Typical repair for 'P' type rubber seals.

RESTRICTED

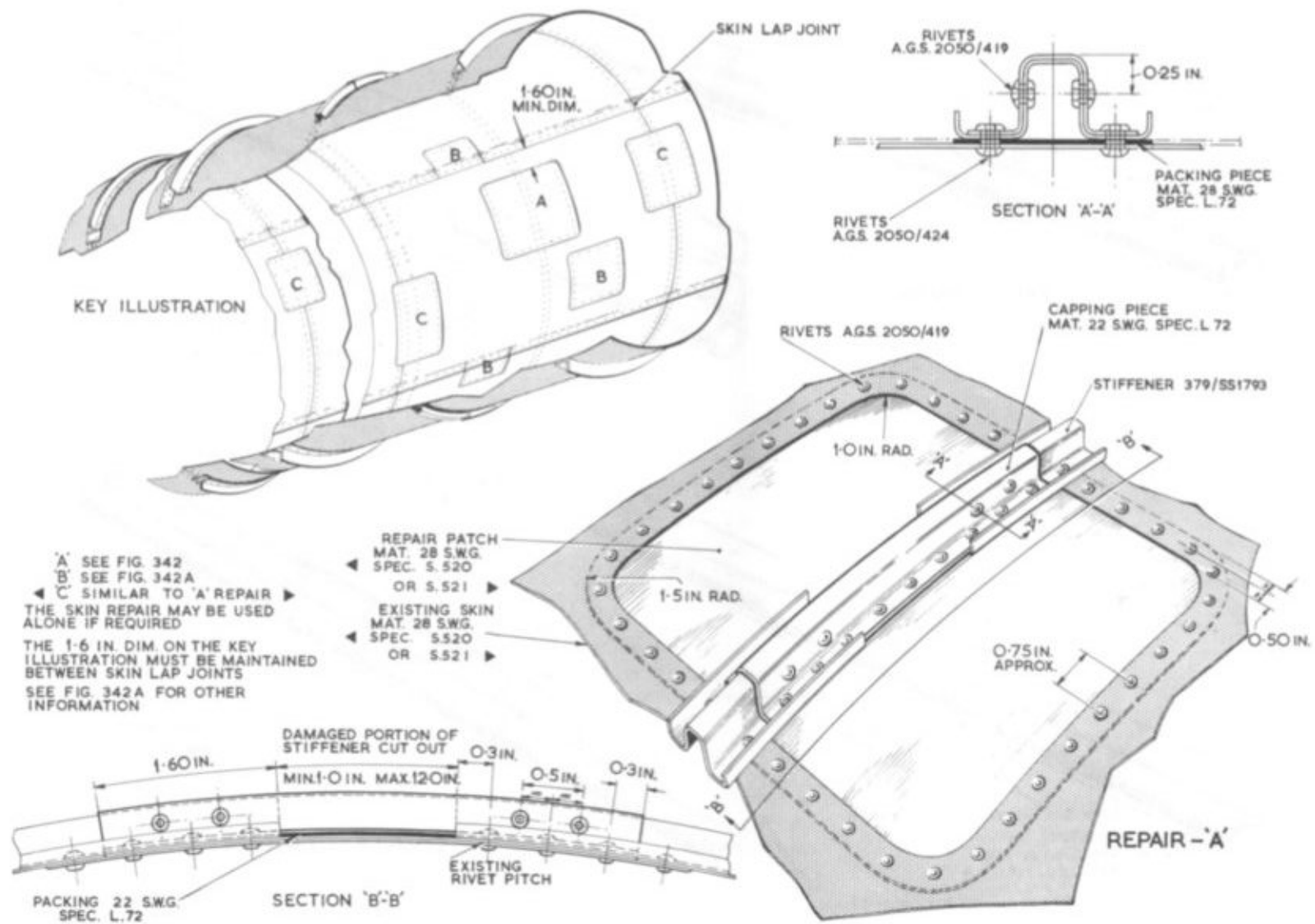
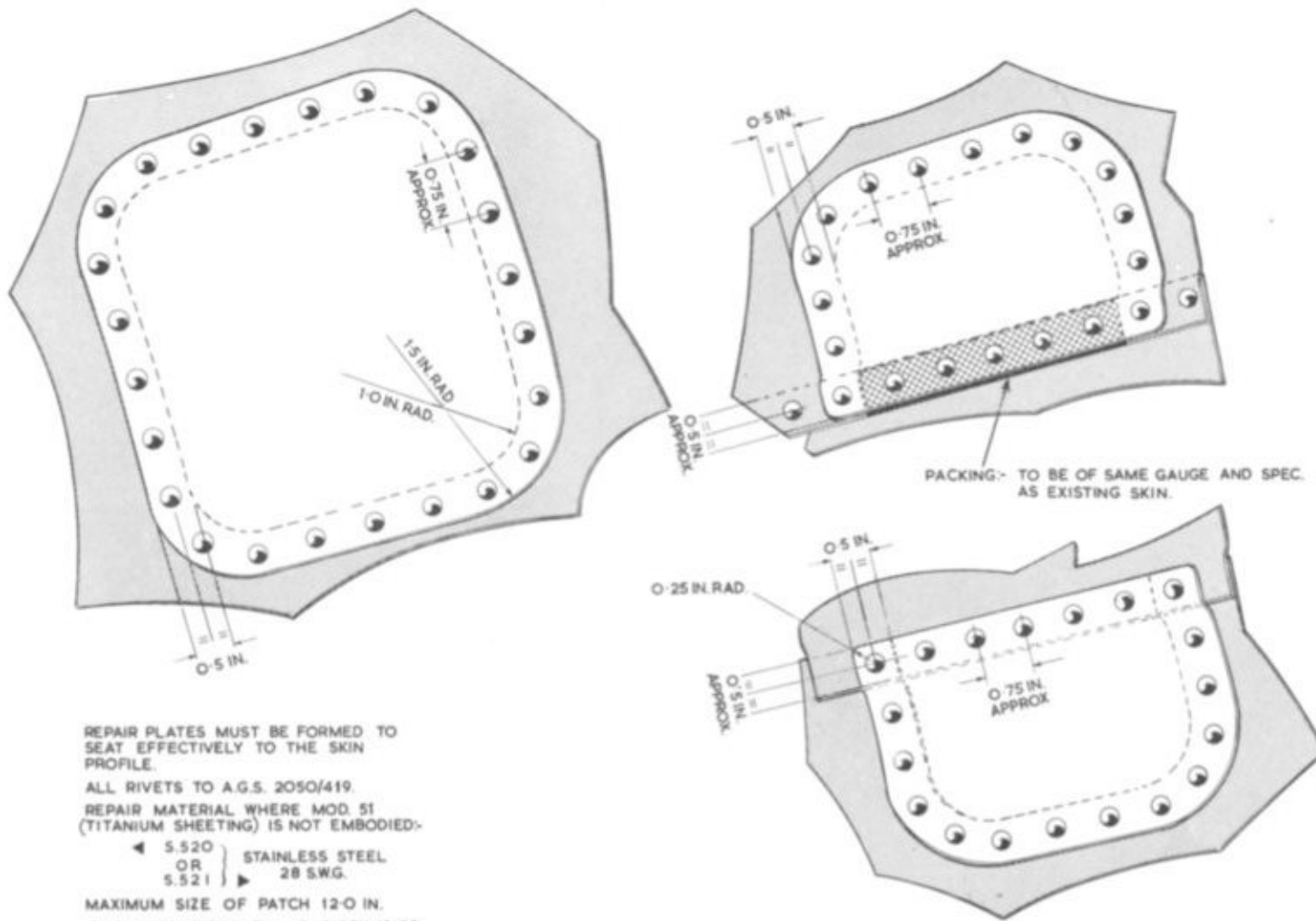


Fig. 342. Jet pipe tunnel and fireproofing repairs.

RESTRICTED



REPAIR PLATES MUST BE FORMED TO SEAT EFFECTIVELY TO THE SKIN PROFILE.

ALL RIVETS TO A.G.S. 2050/419.
REPAIR MATERIAL WHERE MOD. 51 (TITANIUM SHEETING) IS NOT EMBODIED:-

◀ 5.520	} STAINLESS STEEL
OR	
5.521 ▶	

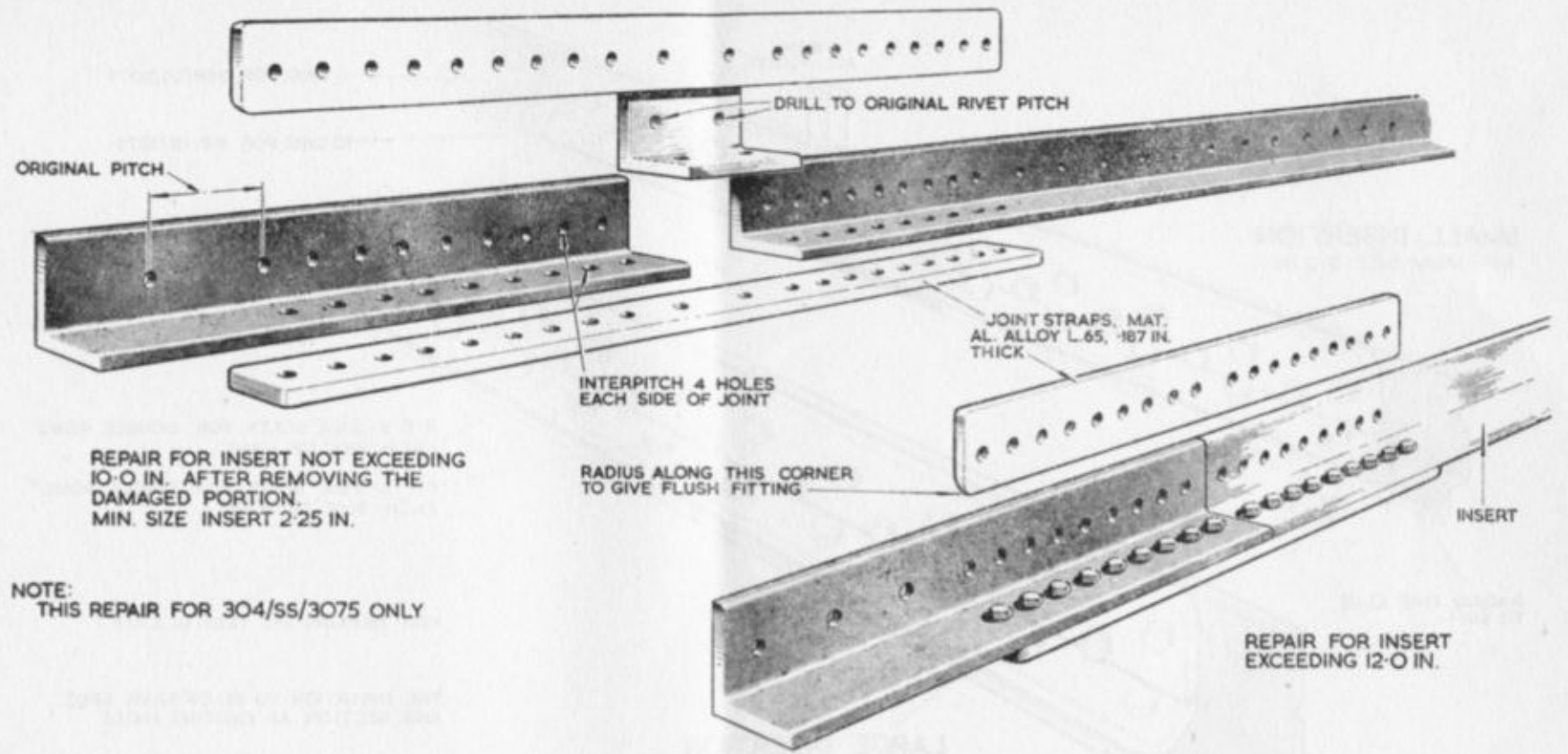
MAXIMUM SIZE OF PATCH 12-0 IN.
WHEREVER POSSIBLE THE PATCH IS TO PICK-UP WITH ANGLES OR STIFFENERS.

PACKING- TO BE OF SAME GAUGE AND SPEC. AS EXISTING SKIN.

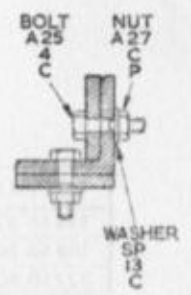
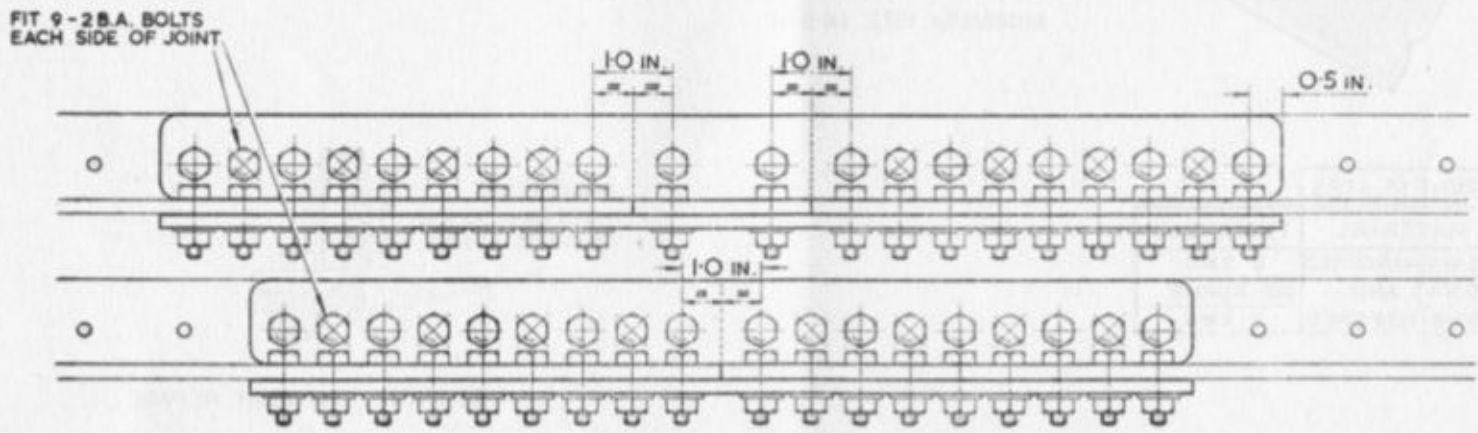
NOTE:-
◀ FOR PERMISSIBLE DISTORTION LIMITS TO JET PIPE TUNNELS, REFER TO THE TEXT IN CHAP. 3 ▶

Fig. 342A. Skin repairs to fireproofing and jet pipe tunnels.

RESTRICTED



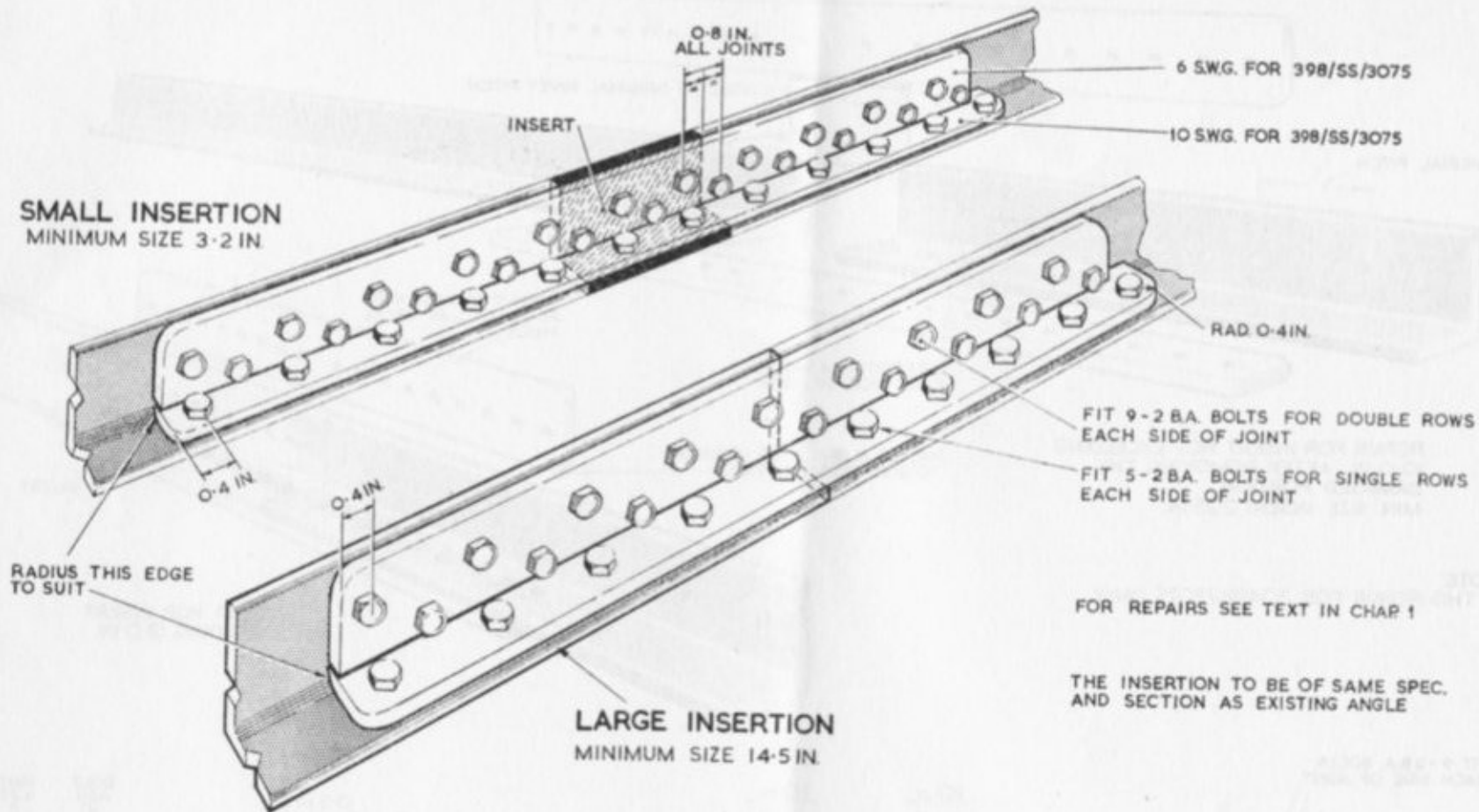
NOTE: THIS REPAIR FOR 304/SS/3075 ONLY



SECTION THROUGH REPAIR

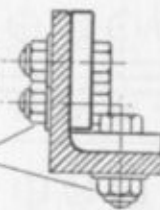
Fig. 343. Medium extruded angle — insertion repair

RESTRICTED



JOINT PLATES		
SECTION	MATERIAL	THICKNESS
394 SS 3075	S514 HARDENED	8 S.W.G.
398 SS 3075	S514 AND	SEE REPAIR
222 SS 3075	S514 TEMPERED	6 S.W.G.

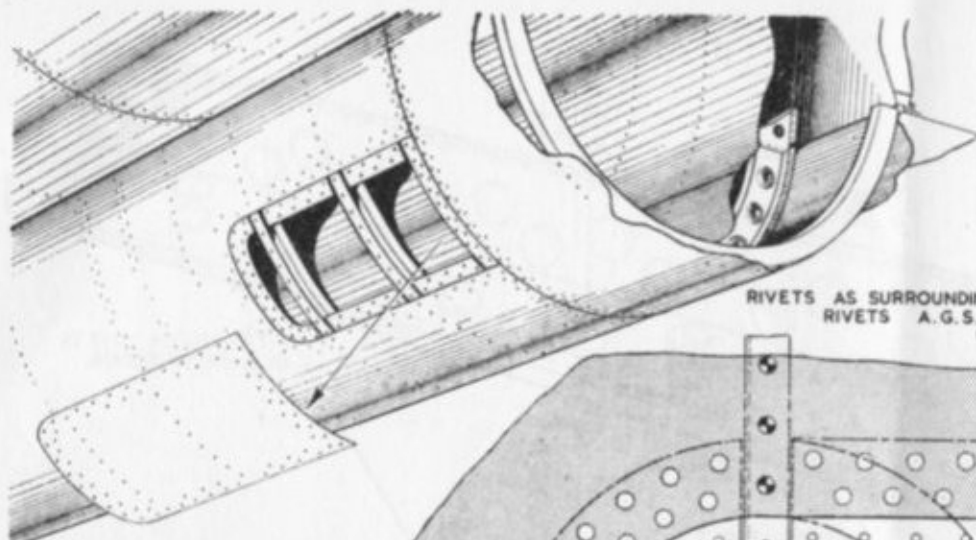
BOLTS A 25/2C
NUTS AGS 2001/C/1
WASHERS SP 10/C



SECTION THROUGH REPAIR

Fig. 344. Insertion repairs to medium extruded angle

RESTRICTED

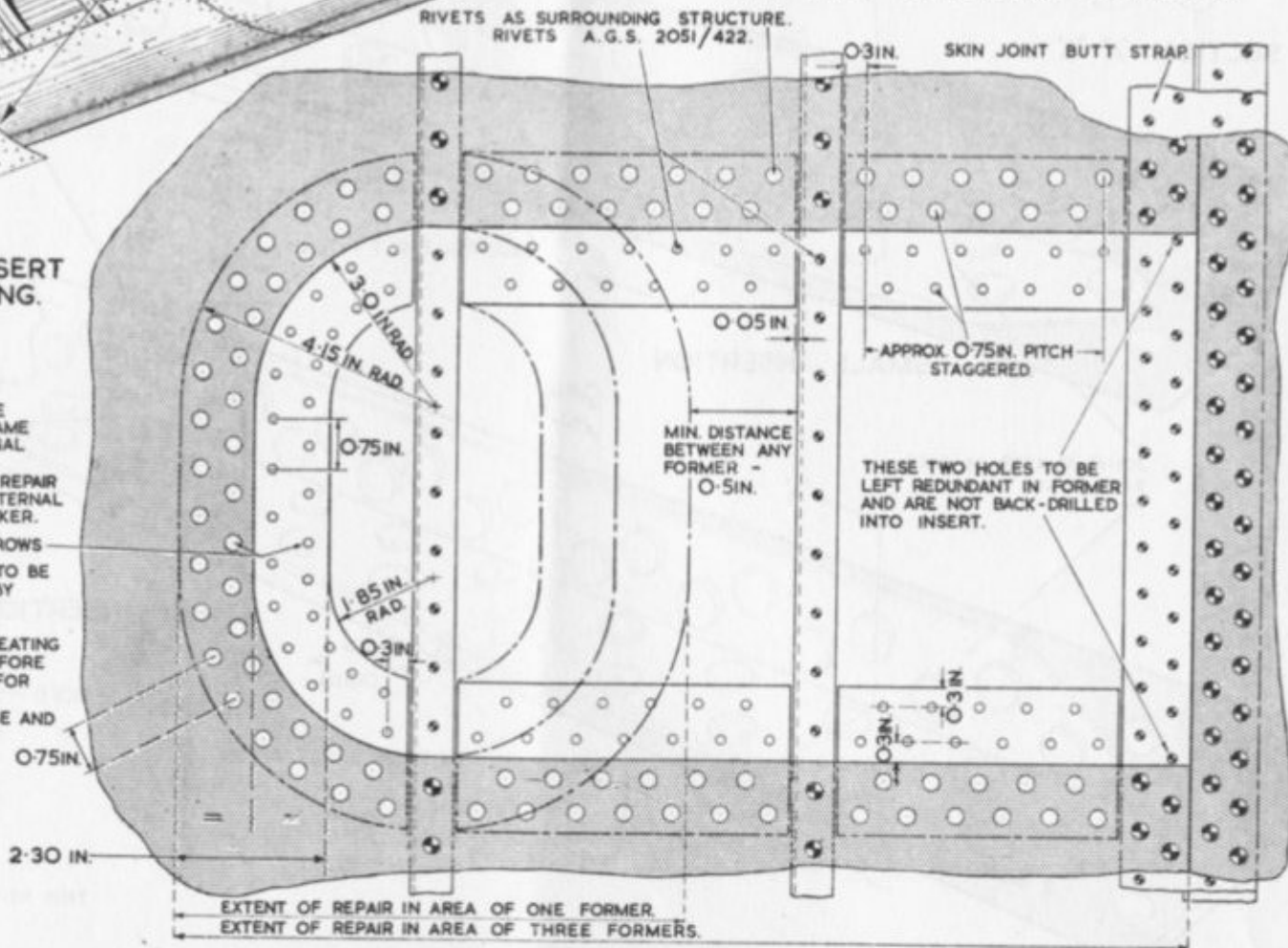


VIEW SHOWING INSERT
READY FOR RIVETING.

SEATING PLATES FOR SINGLE
FORMER REPAIR TO BE OF SAME
GAUGE AND SPEC. AS EXTERNAL
SKIN.
SEATING PLATES FOR LARGE REPAIR
TO BE OF SAME SPEC. AS EXTERNAL
SKIN, BUT TWO GAUGES THICKER.

INTER-PITCH INNER ROWS
EXISTING HOLES IN FORMERS TO BE
BACK-DRILLED INTO INSERT BY
USING A BACK-MARKER.

POSITION, DRILL, AND RIVET SEATING
PLATES TO EXISTING SKIN BEFORE
DRILLING SEATING PLATES FOR
THE INSERT ATTACHMENT.
INSERT TO BE OF SAME GAUGE AND
SPEC. AS EXTERNAL SKIN.



NOTE - THIS REPAIR IS SUITABLE ONLY FOR DAMAGE BETWEEN
THE REAR ENGINE BULKHEAD AND CENTRE SECTION
TRANSPORT FORMER AND WHERE STRINGERS ARE
NOT FITTED BETWEEN THE EXTERNAL SKIN AND JET
PIPE FORMERS.
MAX. SIZE OF INSERT TO BE 15-0 IN. IN ANY DIRECTION,
CHAIN DOTTED LINES INDICATE REPAIR EXTENT
INVOLVING ONE JET PIPE FORMER.
REPAIRS TO BE AS FAR AWAY FROM AREAS OF
CONCENTRATED RIVETING AS POSSIBLE.
SEE TEXT IN CHAP. I FOR PROCEDURE.
REPAIR LENGTH MAY BE VERTICAL OR HORIZONTAL.

Fig. 345. Skin repair—between rear engine bulkhead and transport former Stn. 428-0

RESTRICTED

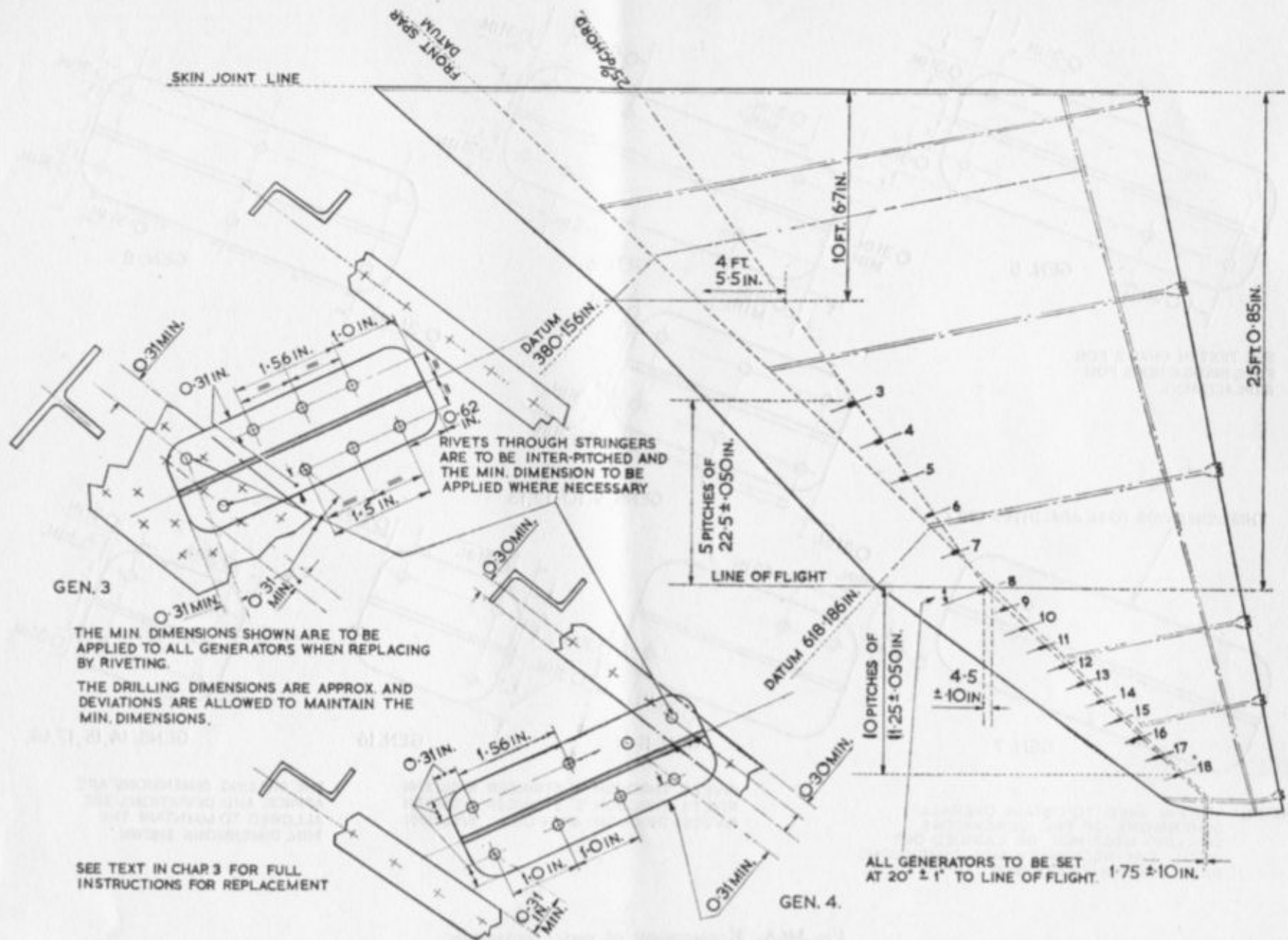
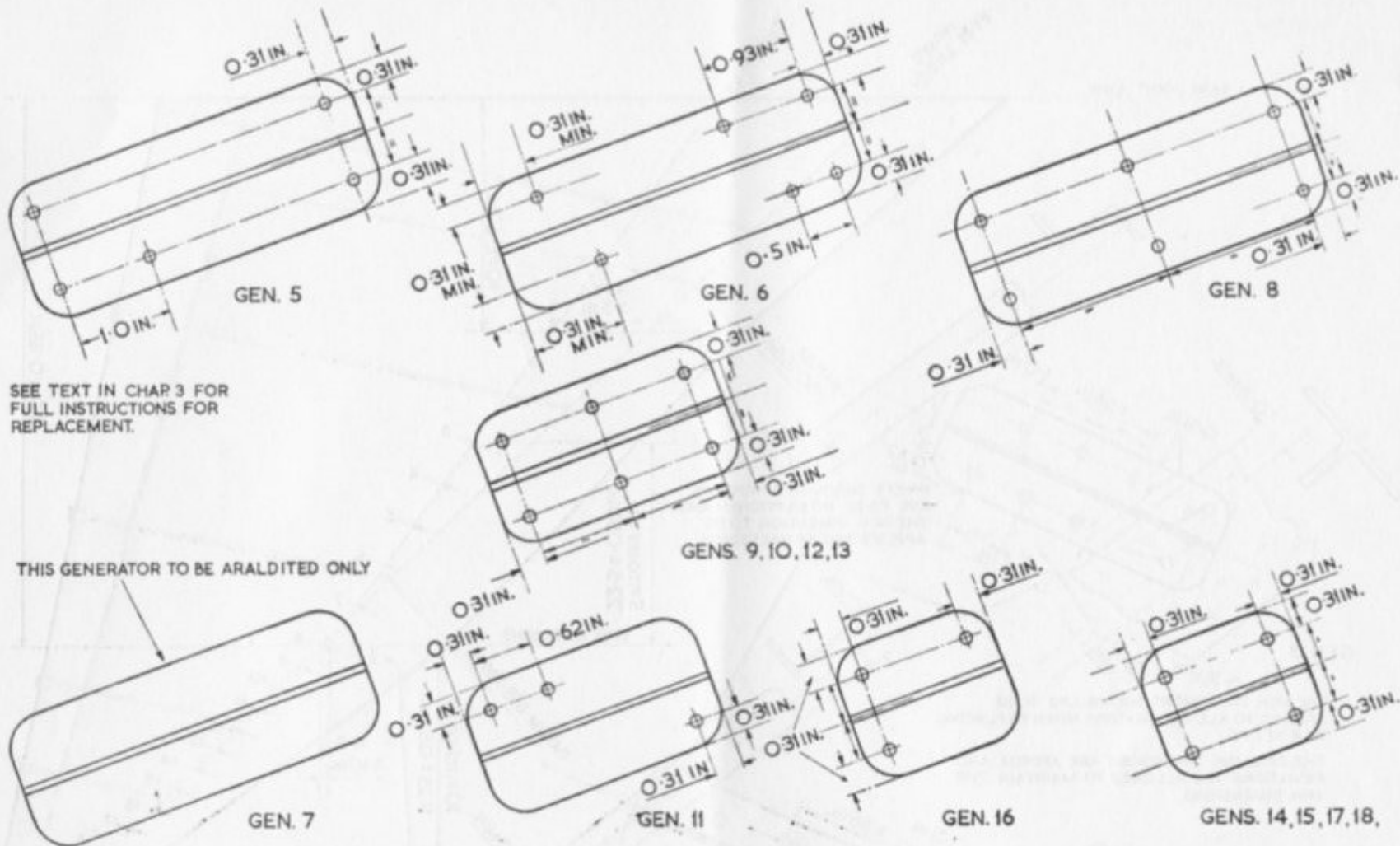


Fig. 346. Replacement of vortex generators

RESTRICTED



SEE TEXT IN CHAP 3 FOR FULL INSTRUCTIONS FOR REPLACEMENT.

THIS GENERATOR TO BE ARALDITED ONLY

NOTE: SEE FIG. 346B TO OBTAIN OVERALL DIMENSIONS OF THE GENERATORS. DRILLING MUST NOT BE CARRIED OUT UNTIL THE NECESSARY MIN. DIMENSIONS HAVE BEEN ASCERTAINED

RIVETS THROUGH 'T' STRINGER 8/SS/3791
 RIVETS THROUGH 'Z' STRINGER 6/SS/3791
 RIVETS THROUGH SKIN ONLY 5/SS/3791

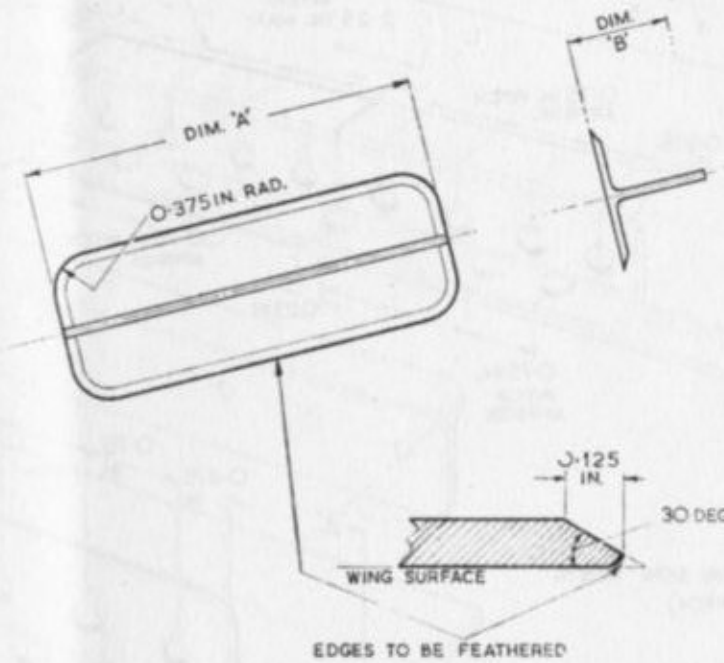
THE DRILLING DIMENSIONS ARE APPROX. AND DEVIATIONS ARE ALLOWED TO MAINTAIN THE MIN. DIMENSIONS SHOWN

Fig. 346A. Replacement of vortex generators

RESTRICTED

GENERATOR	DIM. 'A'	DIM. 'B'
3	4.0 IN.	1.0 IN.
4	4.0 IN.	1.0 IN.
5	4.0 IN.	1.0 IN.
6	4.0 IN.	1.0 IN.
7	4.0 IN.	1.0 IN.
8	4.0 IN.	1.0 IN.
9	2.7 IN.	0.66 IN.
10	2.7 IN.	0.66 IN.
11	2.7 IN.	0.66 IN.
12	2.7 IN.	0.66 IN.
13	2.7 IN.	0.66 IN.
14	1.8 IN.	0.45 IN.
15	1.8 IN.	0.45 IN.
16	1.8 IN.	0.45 IN.
17	1.8 IN.	0.45 IN.
18	1.8 IN.	0.45 IN.

SEE FIG. 346A FOR DRILLING AND RIVETING



MAKE FROM 58/55/3075

Fig. 346B. Replacement of vortex generators

FOR WEATHERPROOFING OF
REPAIR, REFER TO TEXT IN CHAR. I
'L' = 0.38 IN. MINIMUM.
FOR SKIN REPAIRS REFER TO FIG. 116.

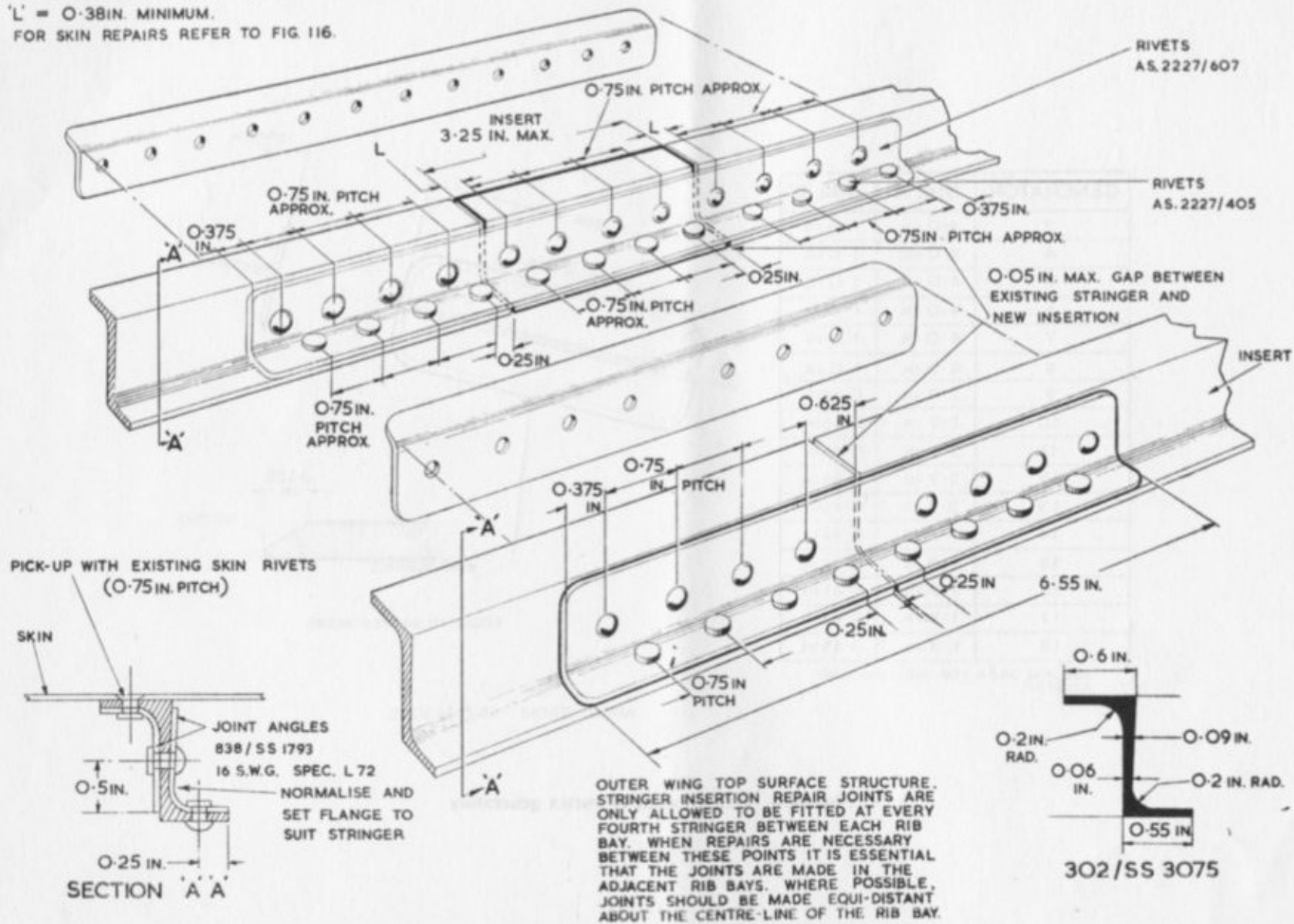


Fig. 347. Extruded section stringer—insertion repair 302/SS 3075

RESTRICTED

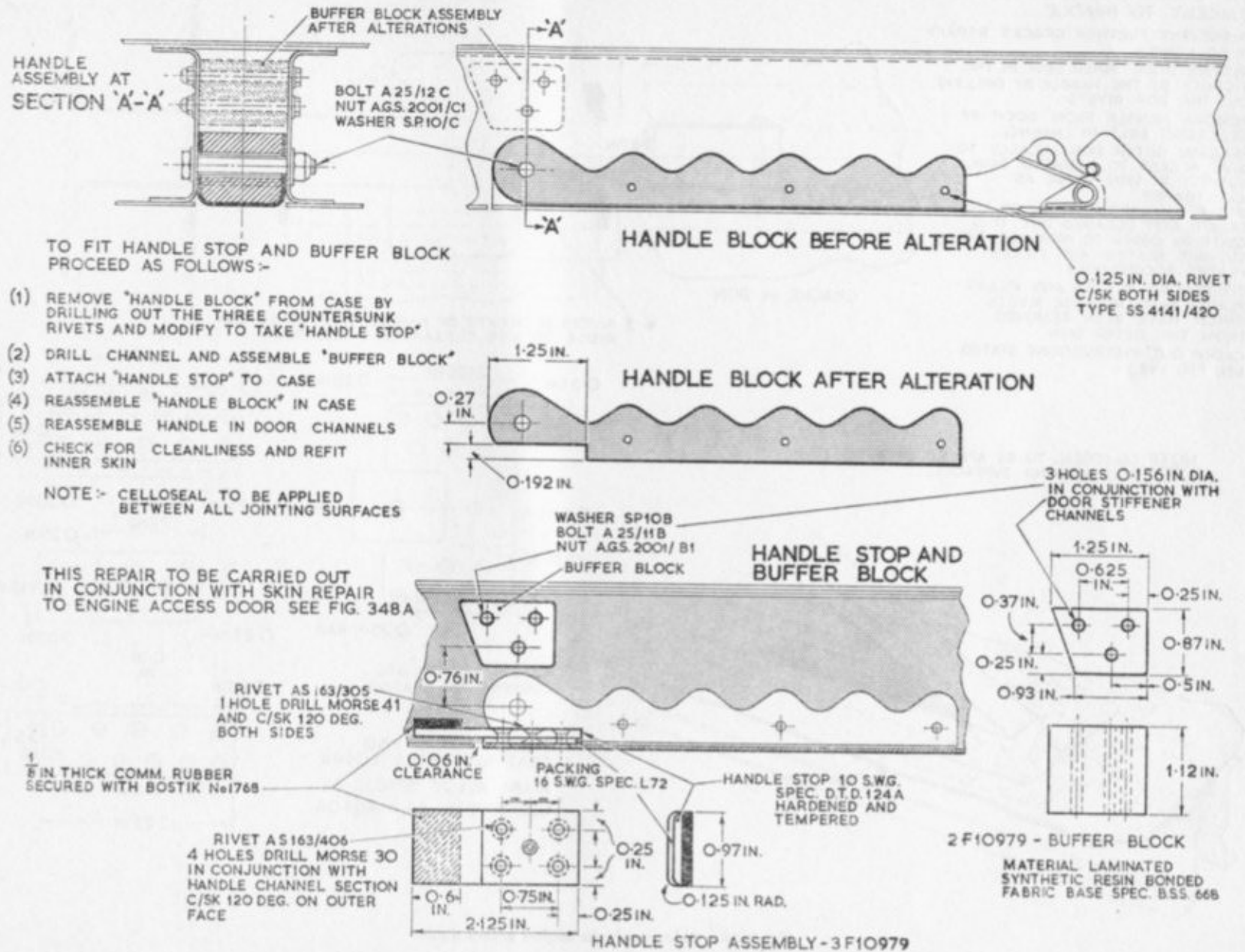


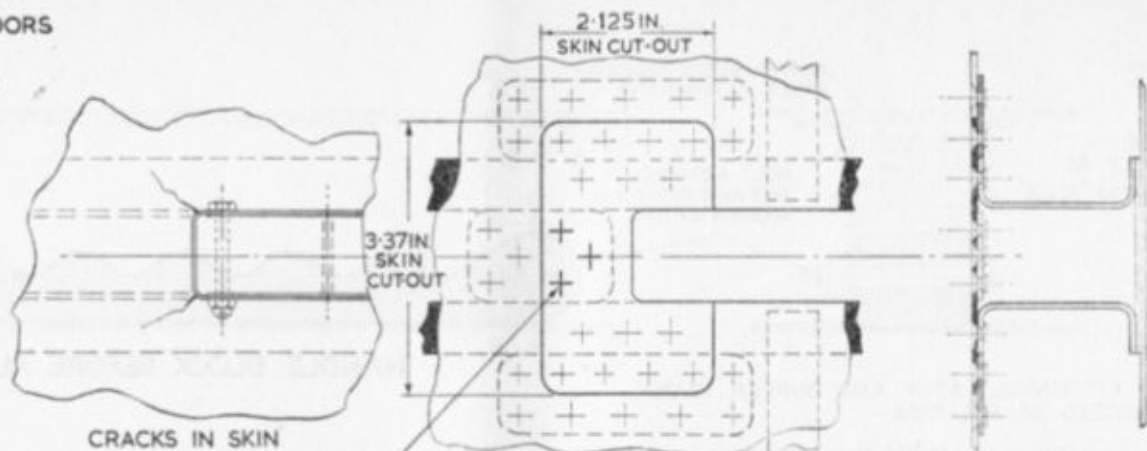
Fig. 348. Repair to prevent further cracks in engine access doors

RESTRICTED

**SKIN CRACKS IN ENGINE ACCESS DOORS
ADJACENT TO HANDLE.**

TO PREVENT FURTHER CRACKS REPAIR
AS FOLLOWS-

- 1 REMOVE DOOR INNER SKIN IN THE VICINITY OF THE HANDLE BY DRILLING OUT THE POP RIVETS.
- 2 REMOVE HANDLE FROM DOOR BY RELEASING BOLT IN CHANNEL.
- 3 RELEASE OUTER SKIN LOCALLY TO GIVE ACCESS TO DAMAGED SKIN. CUT-OUT IN SKIN TO BE AS ILLUSTRATED.
IF THE DAMAGED PORTION OF THE SKIN IS NOT CLEANED OUT, IT IS QUITE IN ORDER TO INCREASE THE CUT-OUT SEATING AND FILLER PLATES ACCORDINGLY.
- 4 FIT SEATING PLATES AND FILLER PLATE, ALSO REPLACE RIVETS WHICH HAVE BEEN REMOVED FROM THE OUTER SKIN.
- 5 CARRY OUT INSTRUCTIONS STATED ON FIG. 348.



* 3 RIVETS IN VICINITY OF HANDLE STOP TO BE C/SK ON INSIDE TO GIVE CLEARANCE IF REQUIRED.

NOTE: CELLOSEAL TO BE APPLIED BETWEEN ALL JOINTING SURFACES.

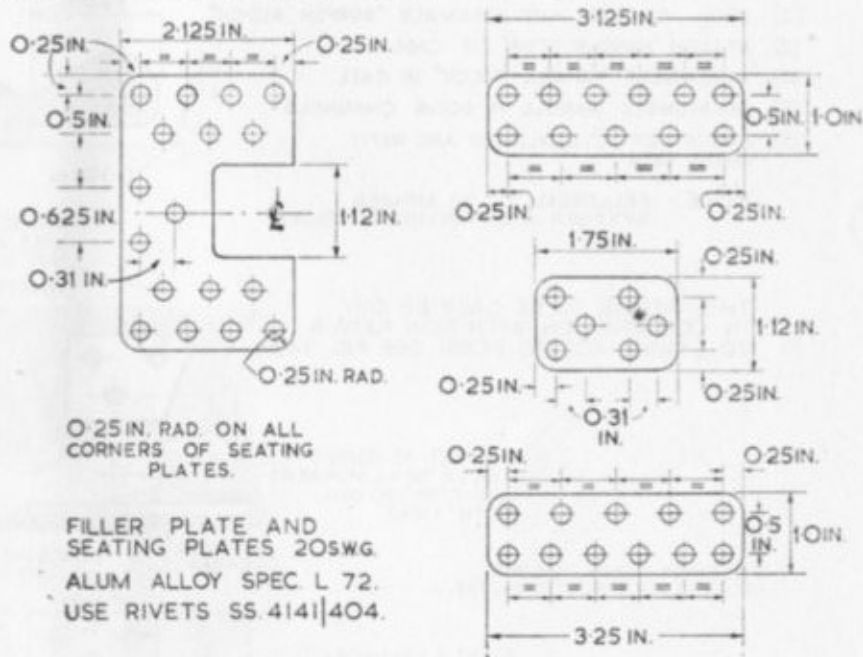
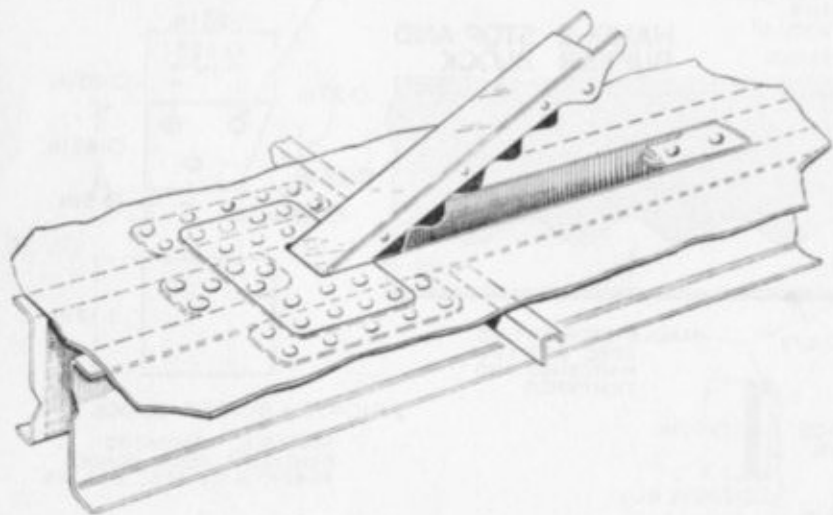


Fig. 348A. Skin repair to engine access door

RESTRICTED

NOTE:- SEE TEXT IN CHAP. 1 PARA. 134 AND 135
FOR REPAIRS
REMOVE ALL SHARP EDGES

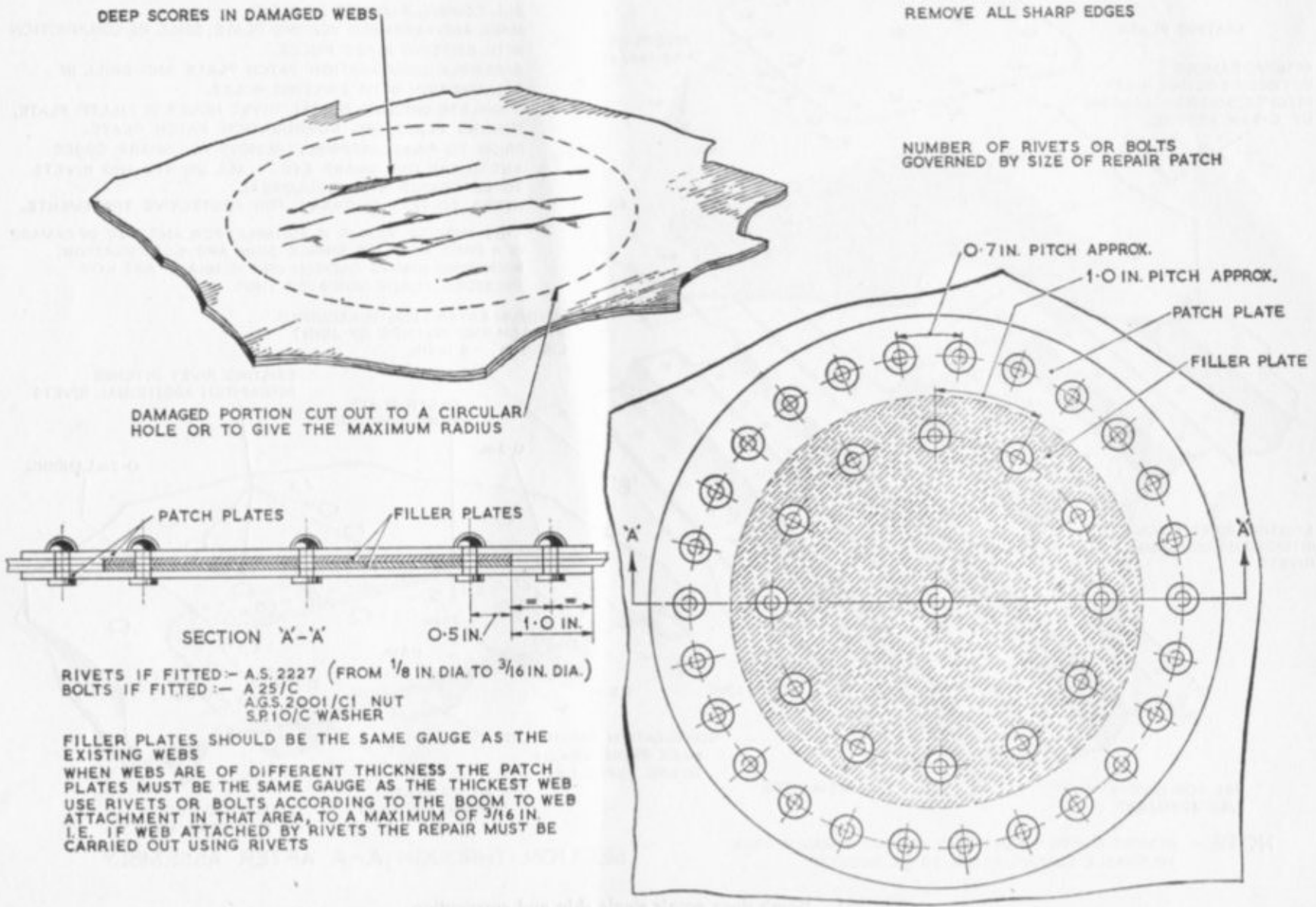


Fig. 349. Double web repairs in free areas

RESTRICTED

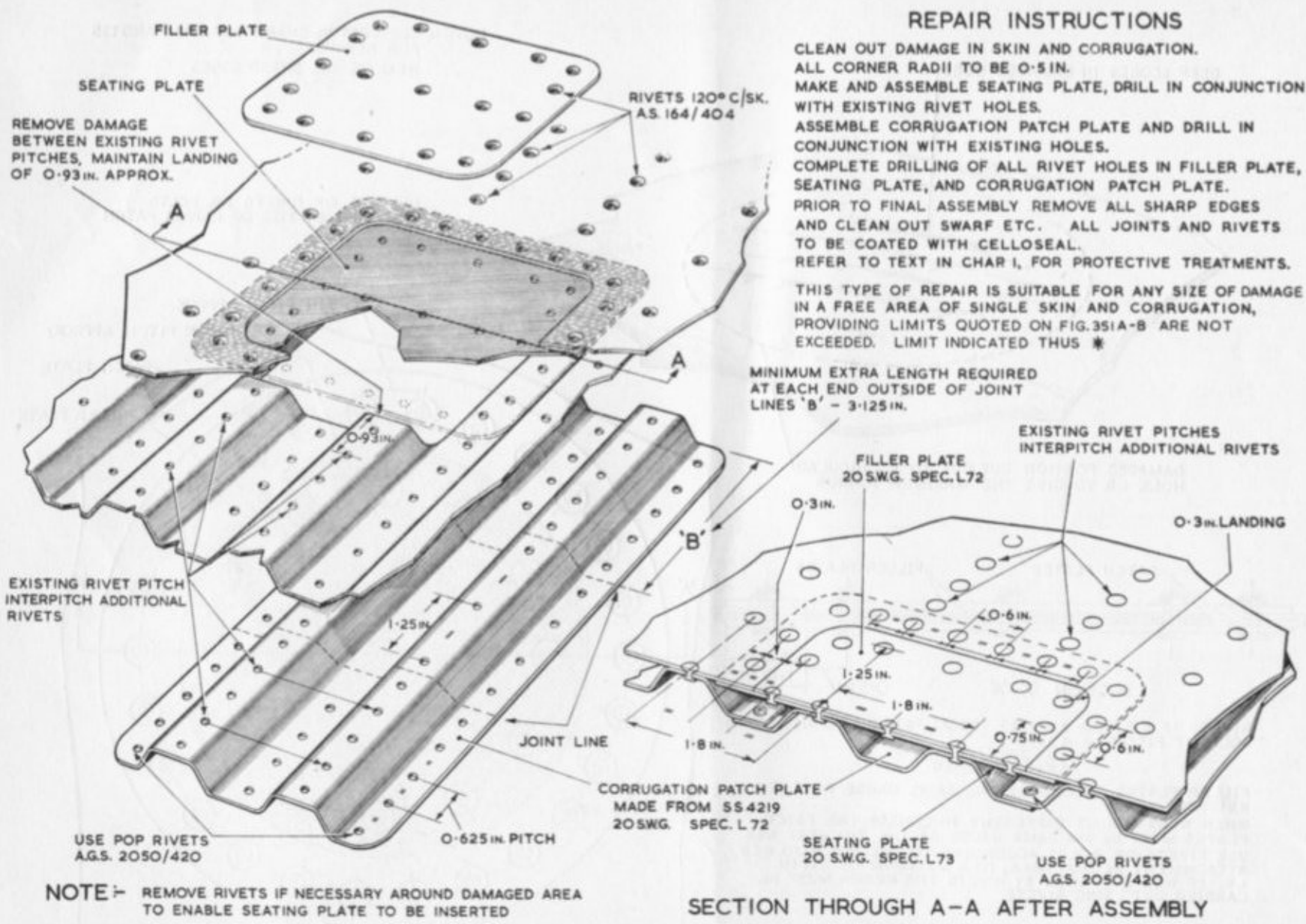
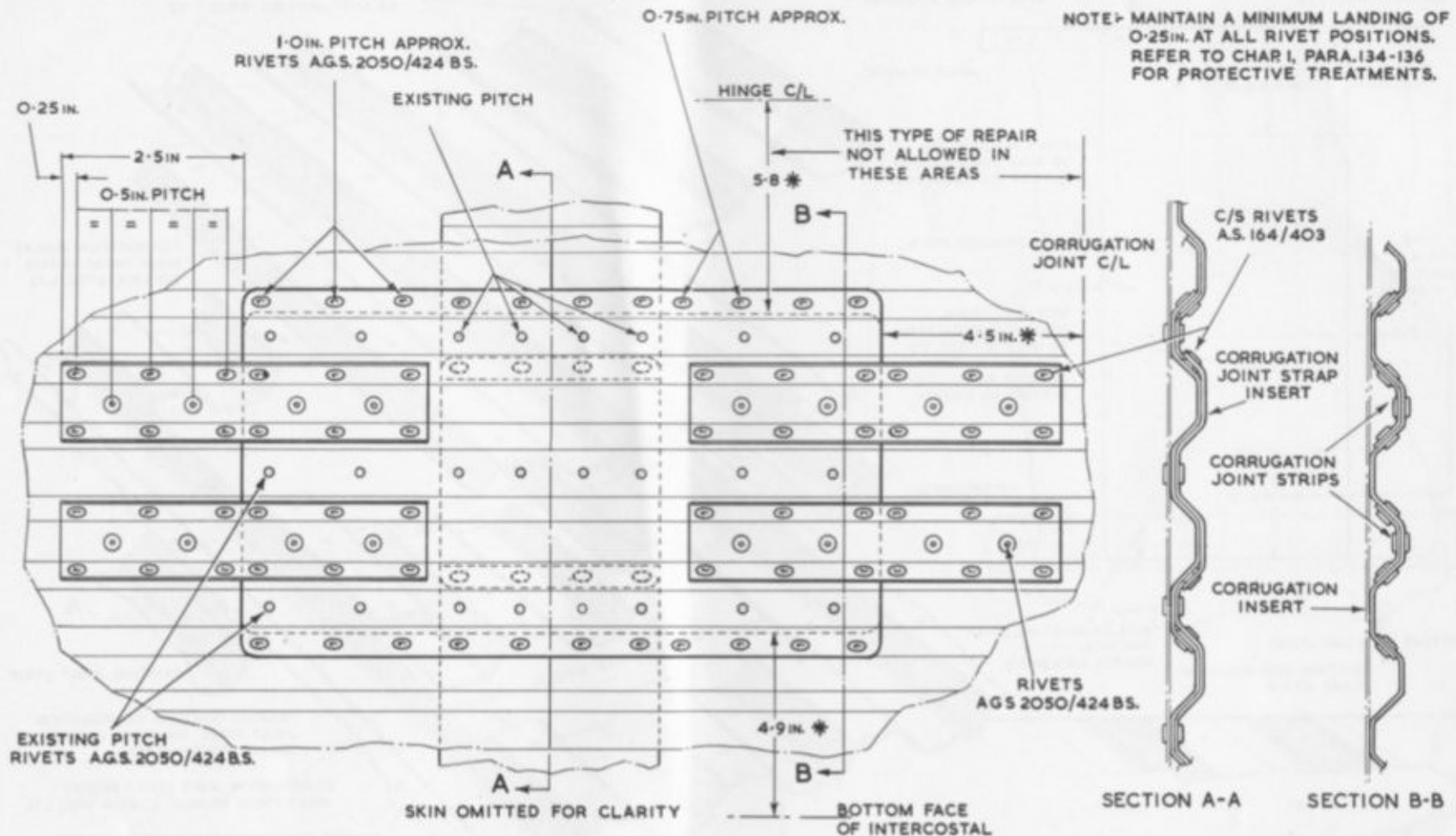


Fig. 351. Bomb door repair single skin and corrugation



REPAIR INSTRUCTIONS

CUT AND REMOVE INNER SKIN PANEL AS SHOWN ON FIG. 351B. CLEAN OUT DAMAGED CORRUGATION, MAINTAIN A MINIMUM RADIUS OF 0.25 in. MAKE CORRUGATION INSERT AND JOINT STRIPS. ASSEMBLE JOINT STRIPS TO INSERT, MAKE REPAIR JOINT STRIP FOR EXISTING CORRUGATION JOINT STRIP PRIOR TO FINAL ASSEMBLY REMOVE ALL SHARP EDGES, COAT ALL JOINTS AND RIVETS WITH CELLOSEAL.

ASSEMBLE INSERT AND CORRUGATION JOINT STRIP RIVET UP LESS SKIN ATTACHMENT RIVETS. FIT NEW SKIN PANEL WITH DOUBLE LAP JOINT AND COMPLETE RIVETING.

REFER TO FIG. 351B
FOR FURTHER DETAILS

REPAIR LIMITS

THIS TYPE OF REPAIR IS SUITABLE FOR DAMAGE TO CORRUGATION SECTIONS UP TO APPROX. 4.5 in. FROM ADJACENT JOINTS. MAXIMUM REPAIRABLE DEPTH 9.625 in. APPROX. DAMAGE ABOVE THESE LIMITS MUST BE REPLACED BY FULL LENGTH CORRUGATION AND SKIN PANELS WITH JOINT STRIPS FITTED

FIG. 351 A BOMB DOOR REPAIR CORRUGATION JOINT AND SINGLE SKIN

RESTRICTED

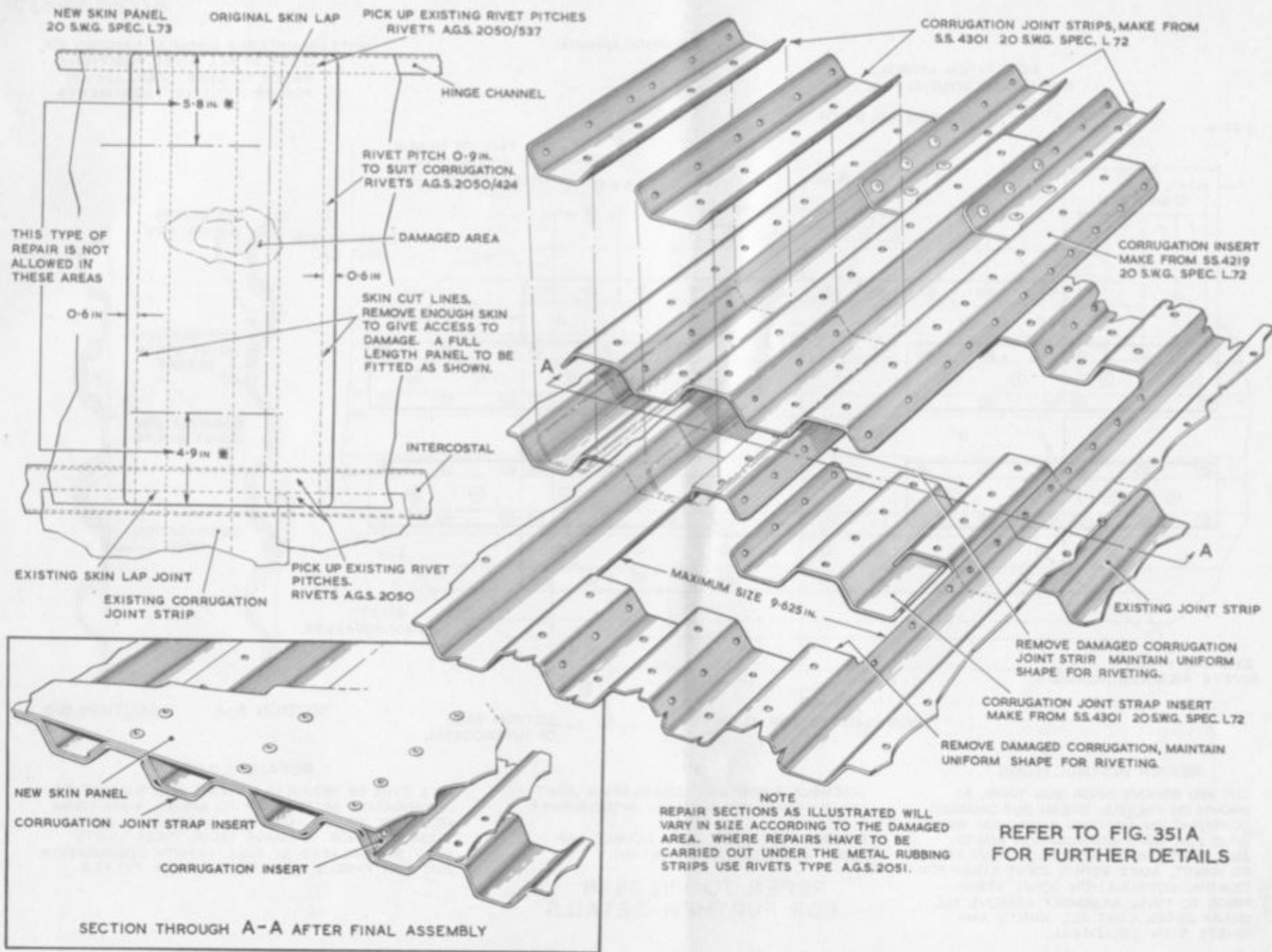


FIG. 351B BOMB DOOR REPAIR CORRUGATION JOINT AND SINGLE SKIN

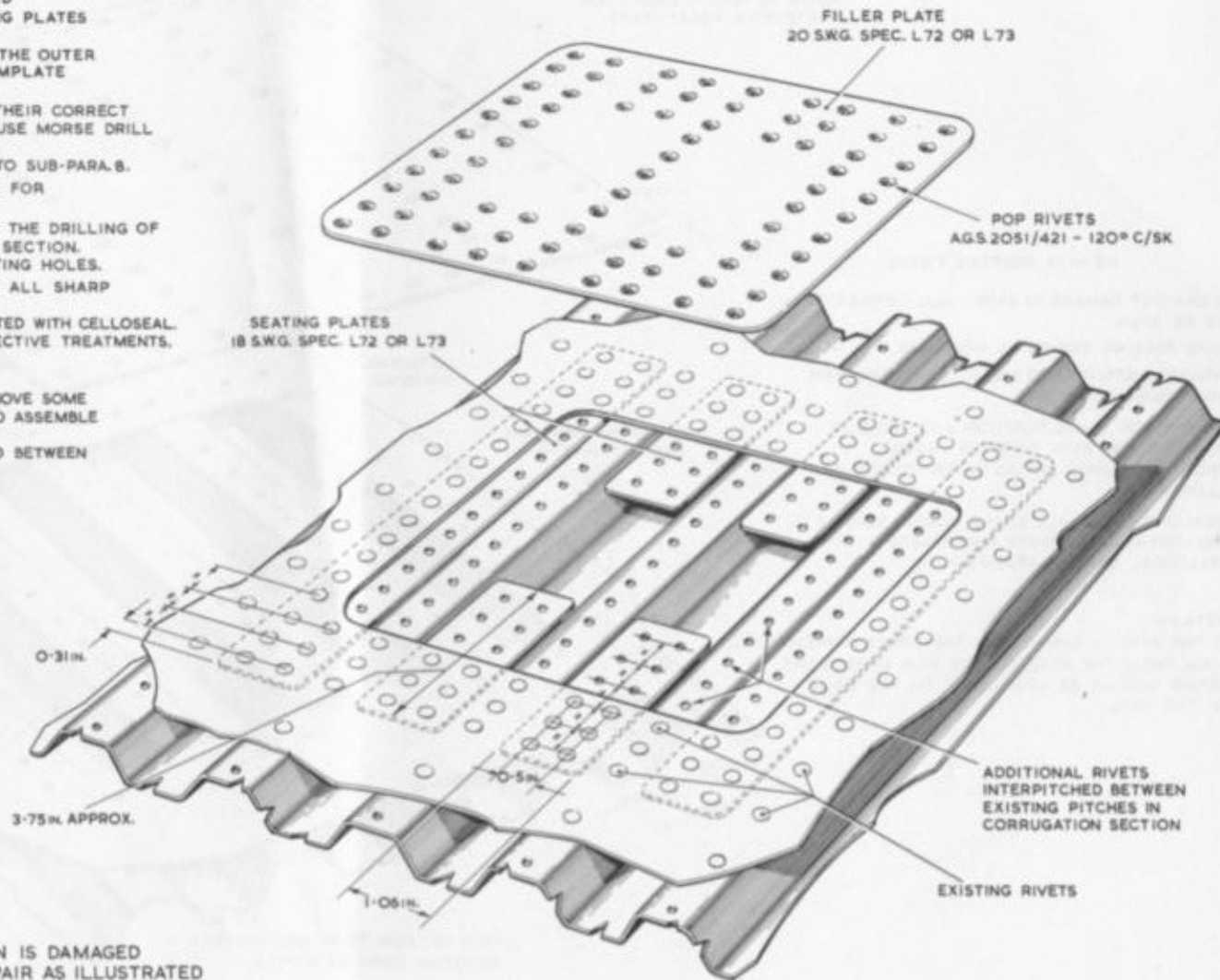
RESTRICTED

REPAIR INSTRUCTIONS

- 1 CLEAN OUT DAMAGE IN SKIN. ALL CORNER RADII TO BE 0.5 IN.
- 2 MAKE SEATING PLATES AS REQUIRED
- 3 DRILL $\frac{3}{32}$ IN. PILOT HOLES IN SEATING PLATES FOR ATTACHMENT TO SKIN.
- 4 POSITION THE SEATING PLATES ON THE OUTER FACE OF THE SKIN AND USE AS TEMPLATE FOR DRILLING.
- 5 ASSEMBLE THE SEATING PLATES IN THEIR CORRECT POSITIONS, OPEN OUT THE HOLES USE MORSE DRILL No. 30 AND COUNTERSINK 120° PRIOR TO RIVETING PLATE, REFER TO SUB-PARA. 6.
- 6 MARK OUT AND DRILL FILLER PLATE FOR ATTACHMENT TO SEATING PLATES.
- 7 POSITION FILLER PLATE, COMPLETE THE DRILLING OF SEATING PLATES AND CORRUGATION SECTION. DRILL IN CONJUNCTION WITH EXISTING HOLES.
- 8 PRIOR TO FINAL ASSEMBLY REMOVE ALL SHARP EDGES AND CLEAN OUT SWarf ETC., ALL JOINTS AND RIVETS TO BE COATED WITH CELLOSEAL. REFER TO TEXT IN CHARI FOR PROTECTIVE TREATMENTS.

NOTE - IT MAY BE NECESSARY TO REMOVE SOME EXISTING RIVETS IN ORDER TO ASSEMBLE THE LONG SEATING PLATES. SEATING PLATES TO BE FITTED BETWEEN EVERY CORRUGATION.

THIS TYPE OF REPAIR IS SUITABLE FOR ANY DAMAGE TO THE SKIN WITHIN THE LIMITS QUOTED ON FIG. 351 A-B LIMITS INDICATED THUS *



IF CORRUGATION IS DAMAGED
CARRY OUT REPAIR AS ILLUSTRATED
ON FIG. 351

FIG. 351C BOMB DOOR REPAIRS EXTERNAL SINGLE SKIN

RESTRICTED

SKIN PATCH PLATE
 MATERIAL 20 SWG. SPEC. L72 OR L73.
 USE POP RIVETS A.G.S.2051/424
 120° C/SK. HEAD FOR ATTACHMENTS.
 REFER TO TEXT IN CHAR 1, FOR
 PROTECTIVE TREATMENTS

REPAIR INSTRUCTIONS

CLEAN OUT DAMAGE IN SKIN. ALL CORNER RADII
 TO BE 0.5 IN.

MAKE PACKING STRIPS AS REQUIRED.

POSITION STRIPS AND DRILL IN CONJUNCTION
 WITH EXISTING HOLES.

MAKE PATCH PLATE, POSITION AND DRILL IN
 CONJUNCTION WITH EXISTING HOLES.
 DRILL ADDITIONAL HOLES INTERPITCHED AS
 ILLUSTRATED.

FINALLY REMOVE ALL SHARP EDGES, SWARP ETC.,
 AND TREAT ALL JOINTS AND RIVETS WITH
 CELLOSEAL BEFORE ASSEMBLY.

NOTE :-

IF THE SKIN IS DAMAGED IN THE AREAS APPROXIMATELY
 4-5 IN. FROM THE EDGE OF THE SKIN PANELS, THE
 REPAIR SHOULD BE CONTINUED TO THE EDGE
 OF THE SKIN.

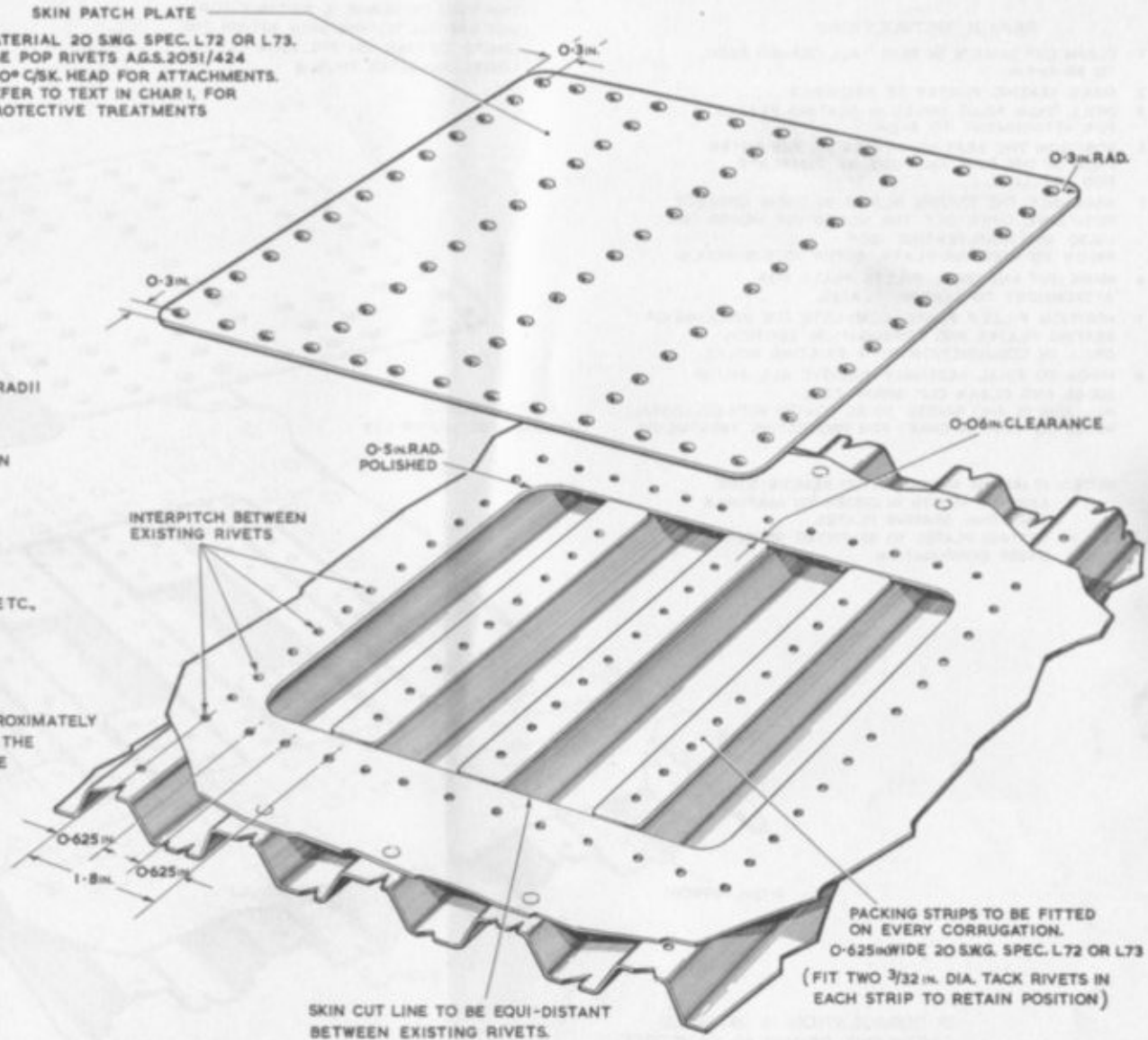


FIG. 351D BOMB DOOR REPAIR - INTERNAL SKIN - FREE AREAS

RESTRICTED

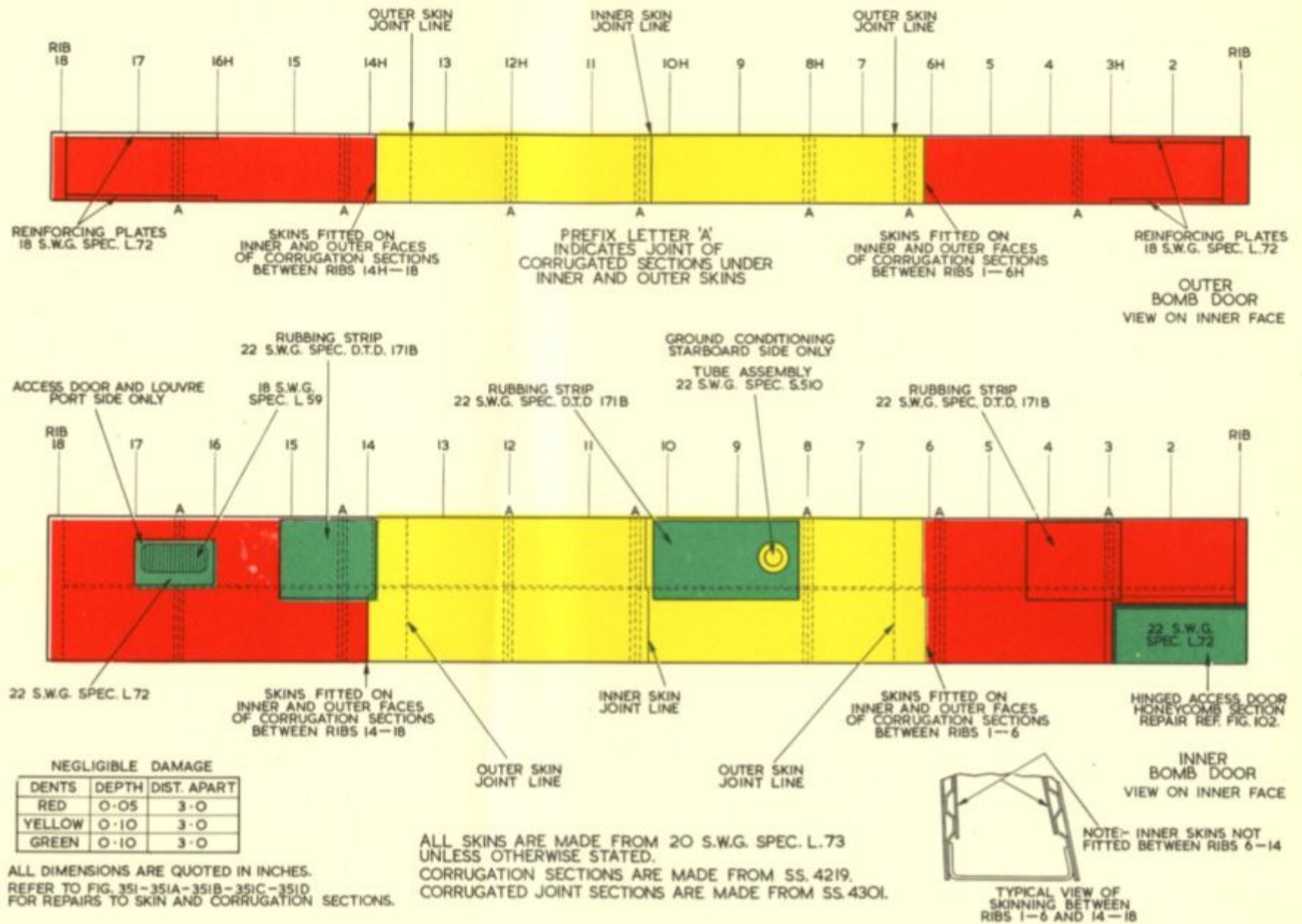
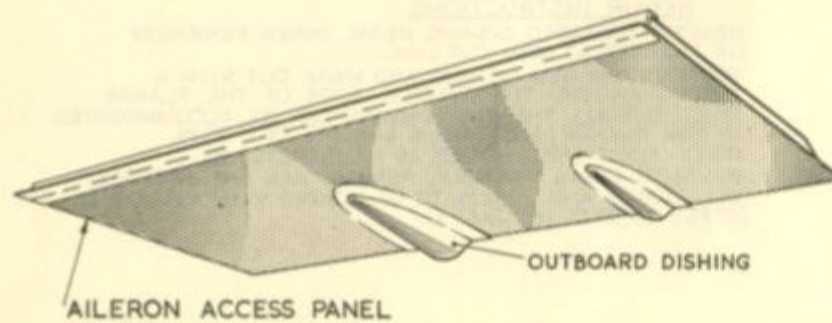
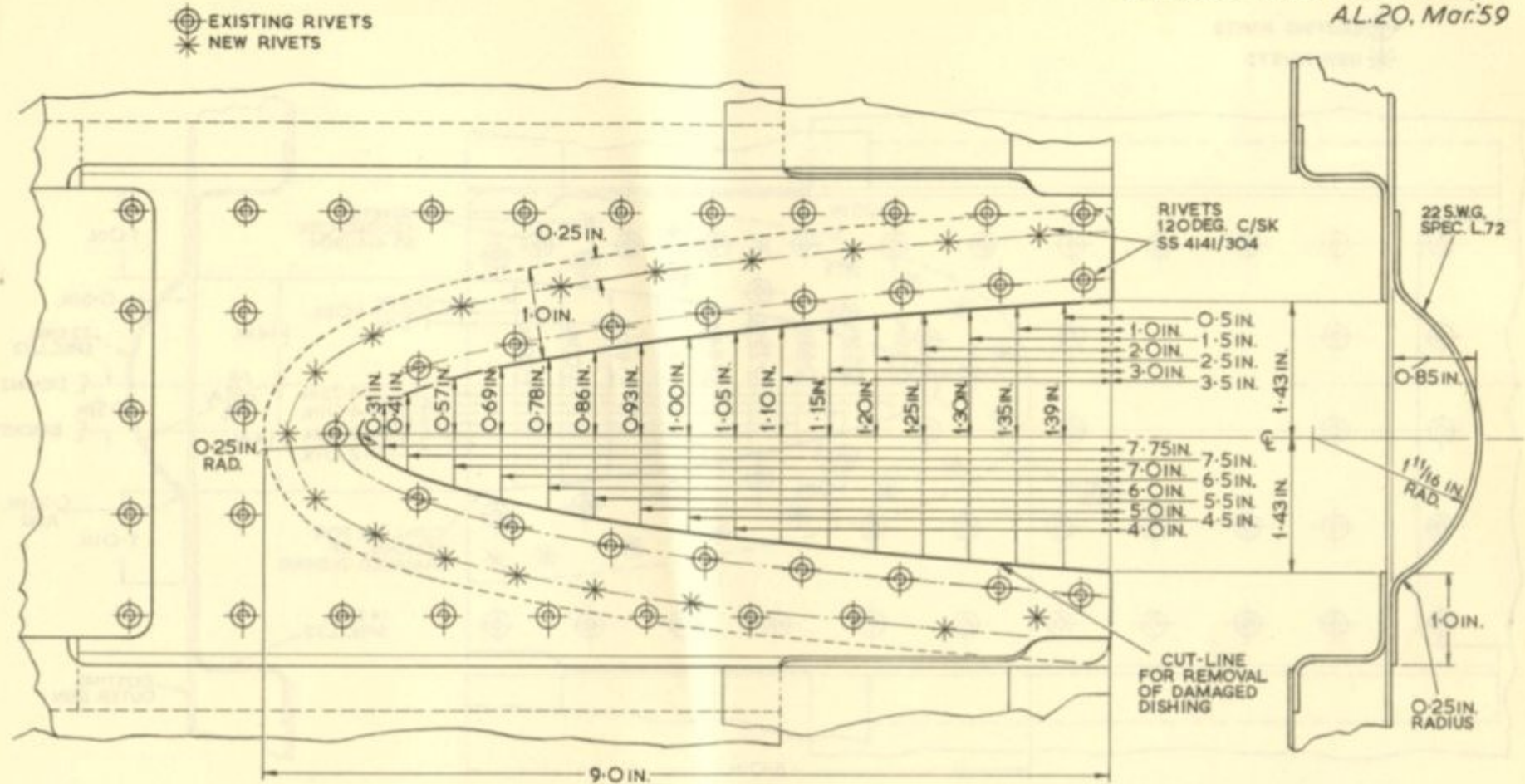


Fig. 351E Bomb door - skinning

RESTRICTED



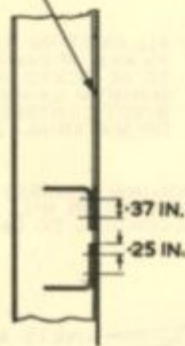
REPAIR INSTRUCTIONS
 REMOVE DAMAGED DISHING USING INNER PERIPHERY OF BRACKET AS SKIN CUT LINE.
 POSITION THE NEW DISHING AND MARK OUT WITH A PENCIL AROUND THE OUTSIDE EDGE OF THE FLANGE.
 DRILL OUT ALL THE RIVETS WHICH CAN BE ACCOMMODATED IN THE FLANGE; MAINTAIN A LANDING OF 0.25 IN.
 DRILL ADDITIONAL HOLES AS ILLUSTRATED *
 PRIOR TO FINAL ASSEMBLY, REMOVE ALL SHARP EDGES.
 ALL RIVETS AND JOINTS TO BE COATED WITH CELLOSEAL (REFER TO TEXT IN CHAP 1).

FIG. 352 AILERON BOTTOM ACCESS PANEL - REPAIR TO OUTBOARD DISHING
RESTRICTED

PATCH PLATE 18 S.W.G SPEC. D.T.D. 626
 PICK-UP EXISTING MOUNTING HOLES
 THUS ●
 NOTE- IF CRACKS DO NOT WARRANT
 INSERTION REPAIR, DRILL OUT ENDS
 OF CRACKS 0.125 IN. DIA. AND
 ASSEMBLE PATCH PLATE.

USE 20 S.W.G D.T.D 626 MATERIAL
 FOR FILLER PLATE INSERTION
 IF REQUIRED, RIVET PITCH
 1.0 IN. STAGGERED.

PATCH PLATE



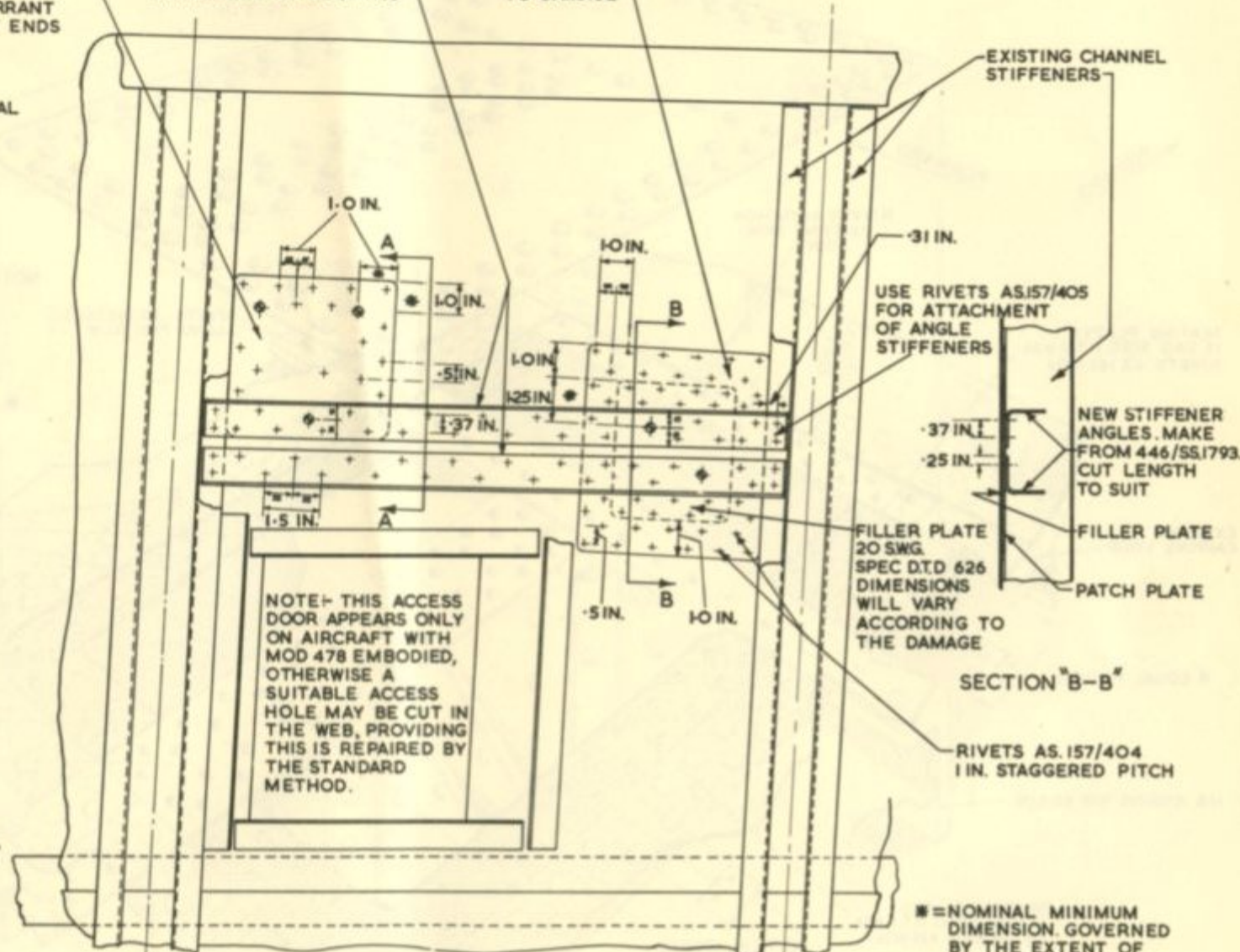
SECTION "A-A"

NOTE- MAINTAIN A 0.25 IN
 RADIUS ON ALL CORNERS OF
 FILLER PLATES, PATCH PLATES,
 AND CLEANED OUT PORTION
 OF DAMAGED WEB.
 A MINIMUM LANDING OF
 0.25 IN. IS REQUIRED AT ALL
 RIVET POSITIONS

ALL JOINTS, AND RIVETS TO
 BE COATED WITH CELLOSEAL.
 REFER TO CHAP. I. PARA 134 TO 136
 FOR PROTECTIVE TREATMENTS

FIT PACKING STRIPS 18 S.W.G
 SPEC. L72 UNDER ANGLE
 STIFFENERS AS REQUIRED

PATCH PLATE 18 S.W.G. SPEC. D.T.D. 626
 DIMENSIONS WILL VARY ACCORDING
 TO DAMAGE



NOTE- THIS ACCESS
 DOOR APPEARS ONLY
 ON AIRCRAFT WITH
 MOD 478 EMBODIED,
 OTHERWISE A
 SUITABLE ACCESS
 HOLE MAY BE CUT IN
 THE WEB, PROVIDING
 THIS IS REPAIRED BY
 THE STANDARD
 METHOD.

EXISTING CHANNEL
 STIFFENERS

USE RIVETS AS.157/405
 FOR ATTACHMENT
 OF ANGLE
 STIFFENERS

NEW STIFFENER
 ANGLES. MAKE
 FROM 446/SS.1793.
 CUT LENGTH
 TO SUIT

FILLER PLATE
 20 SWG
 SPEC D.T.D 626
 DIMENSIONS
 WILL VARY
 ACCORDING TO
 THE DAMAGE

SECTION "B-B"

RIVETS AS.157/404
 1 IN. STAGGERED PITCH

● = NOMINAL MINIMUM
 DIMENSION. GOVERNED
 BY THE EXTENT OF
 DAMAGE

FIG.354. REPAIR TO WEB ON MAIN U/C. RIB 212.5 IN. [FOR MOUNTING OF SELECTOR UNIT AND JETTISON VALVE.]

RESTRICTED

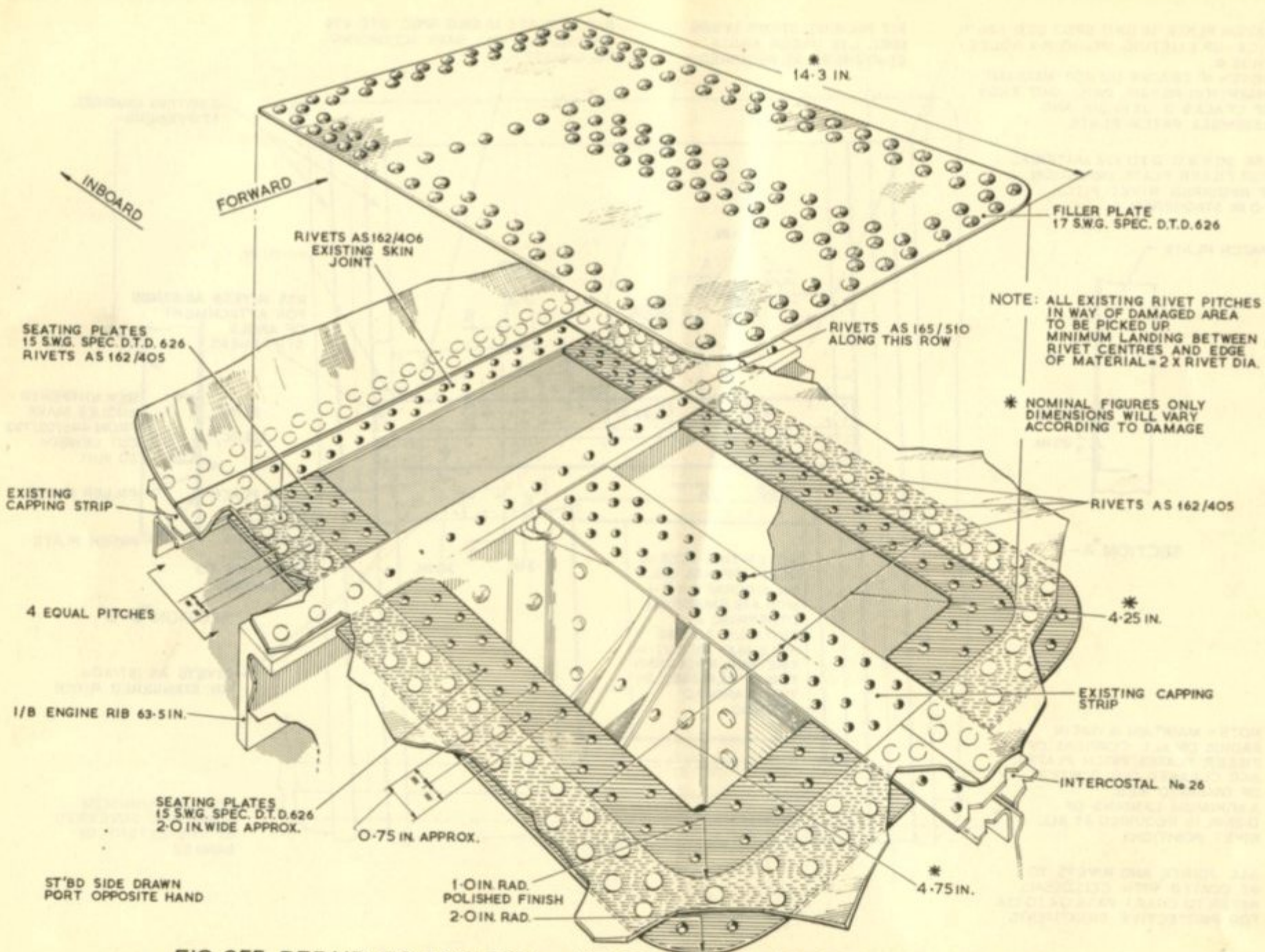
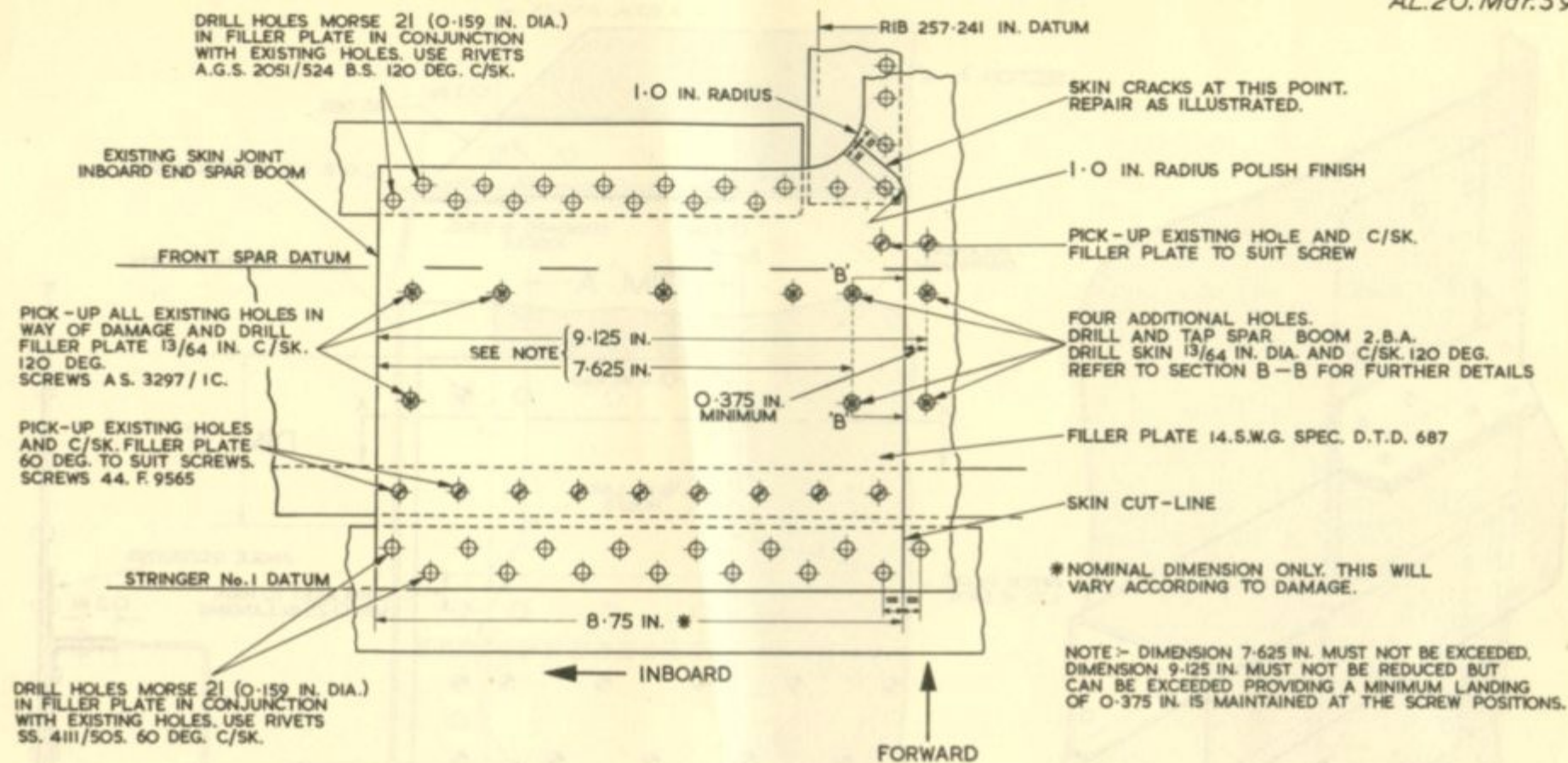
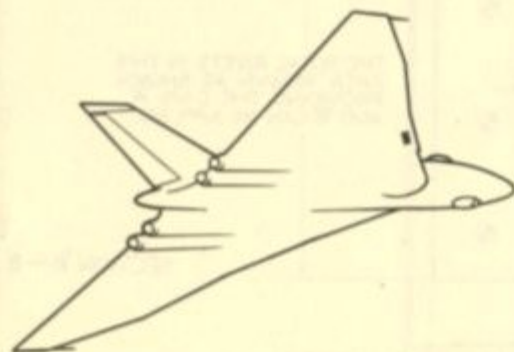


FIG. 355 REPAIR TO TOP SKIN - AT REAR 1/8 ENGINE LIFTING POINT
RESTRICTED



VIEW ON UNDERSIDE OF WING LOOKING UP PORT SIDE AS DRAWN



THIS REPAIR IS SUITABLE FOR SKIN DAMAGE AT THE REAR OUTBOARD CORNER OF THE WING TRANSPORT JOINT ACCESS DOOR. PORT OR ST'BD. SIDE.

REFER TO CHAP. I. FOR PROTECTIVE TREATMENT INSTRUCTIONS.

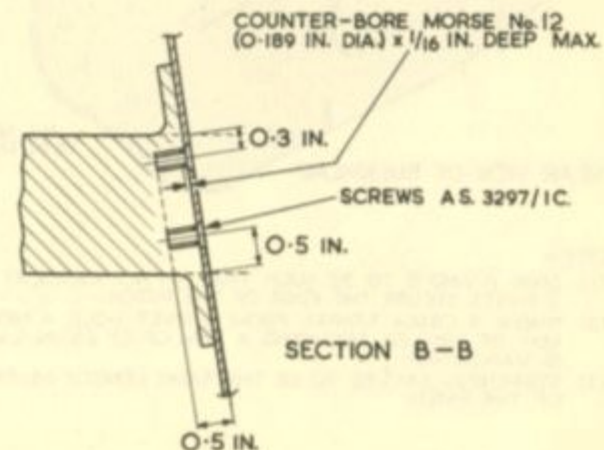
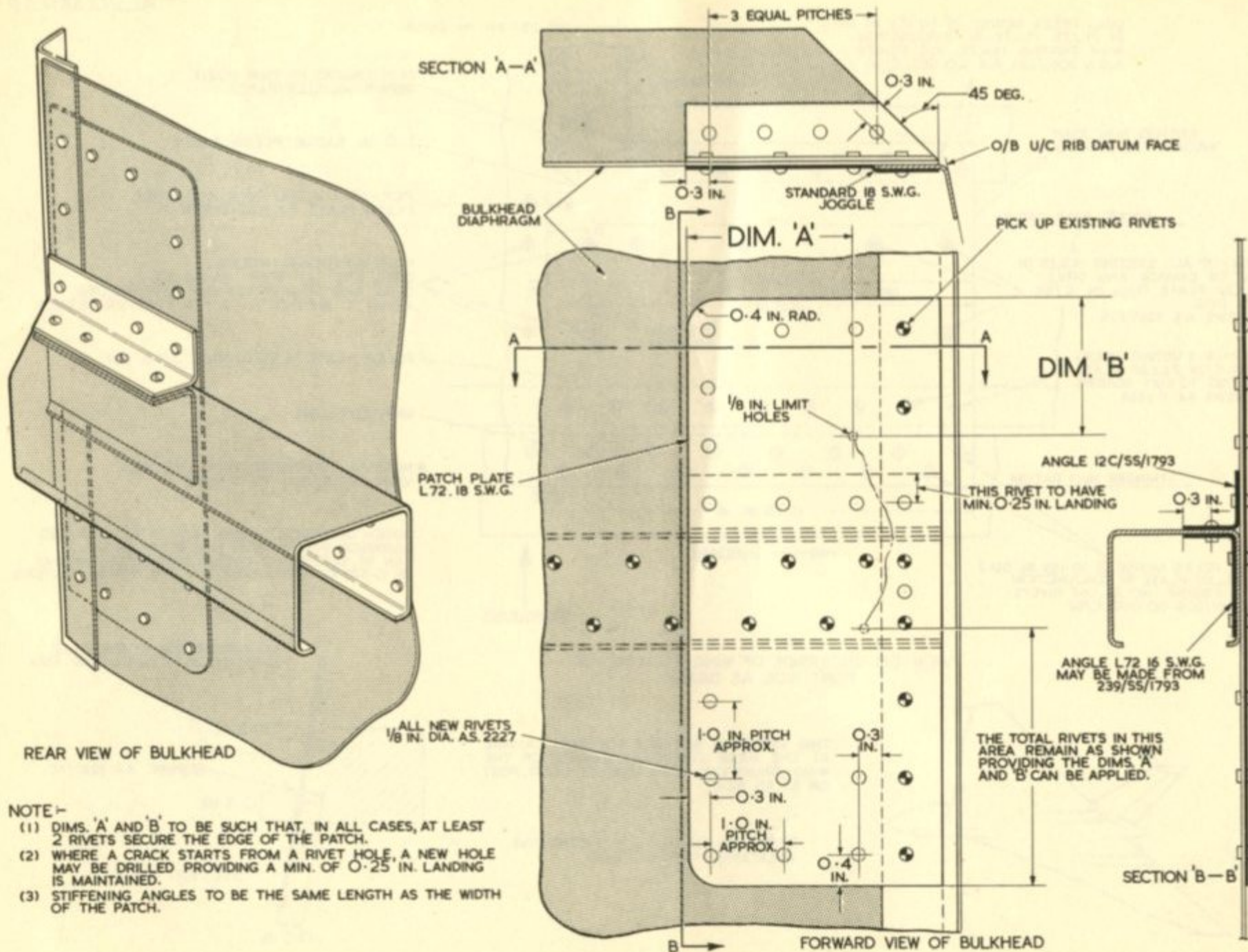


FIG. 356. SKIN REPAIR TO WING L/EDGE BOTTOM SKIN

RESTRICTED



NOTE:-

- (1) DIMS. 'A' AND 'B' TO BE SUCH THAT, IN ALL CASES, AT LEAST 2 RIVETS SECURE THE EDGE OF THE PATCH.
- (2) WHERE A CRACK STARTS FROM A RIVET HOLE, A NEW HOLE MAY BE DRILLED PROVIDING A MIN. OF 0.25 IN. LANDING IS MAINTAINED.
- (3) STIFFENING ANGLES TO BE THE SAME LENGTH AS THE WIDTH OF THE PATCH.

FIG. 357. STIFFENING REPAIR TO CRACKED REAR BULKHEAD — M/W BAY

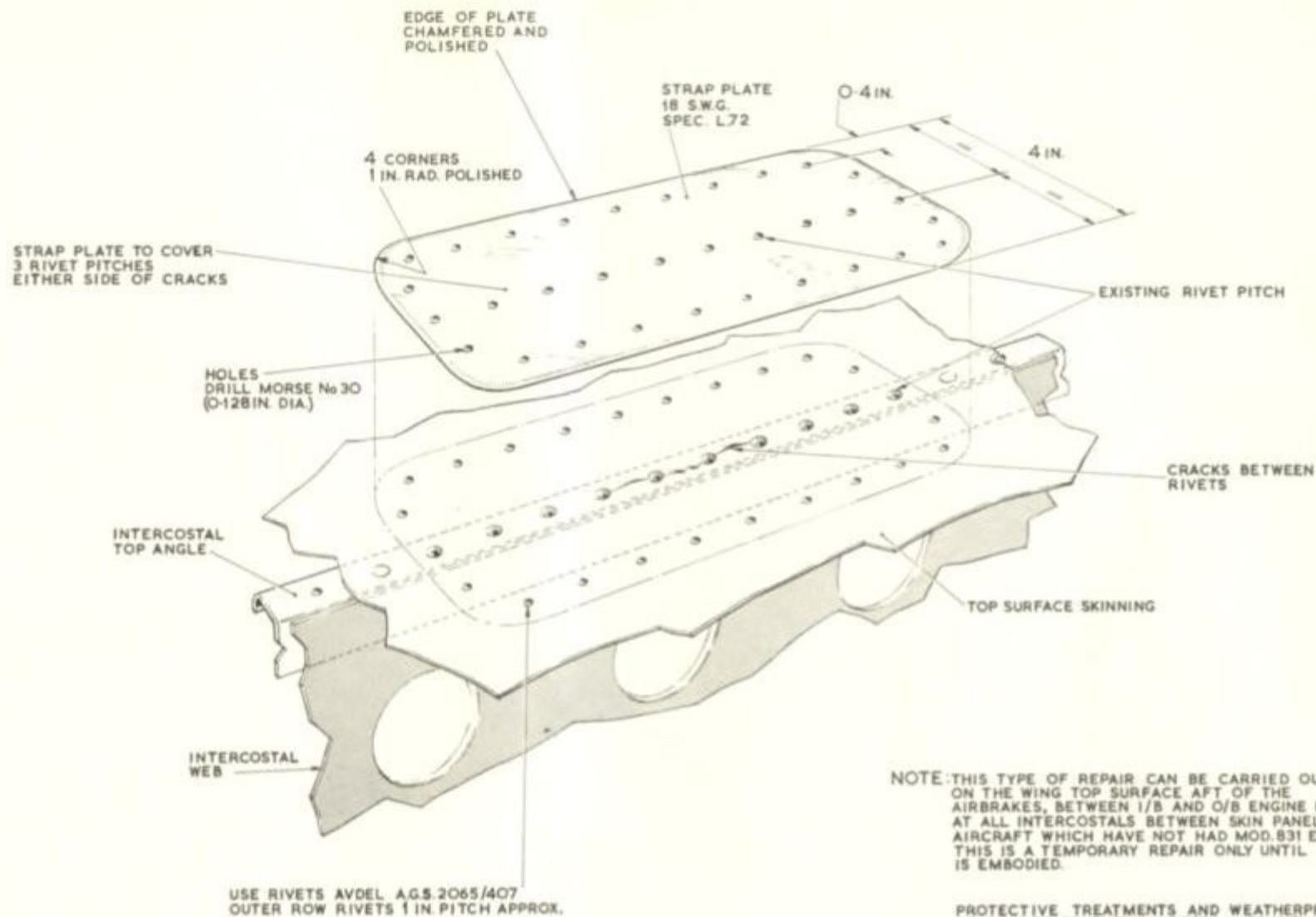


Fig.358. Wing top skin repairs to aircraft (Pre Mod. 831)

RESTRICTED

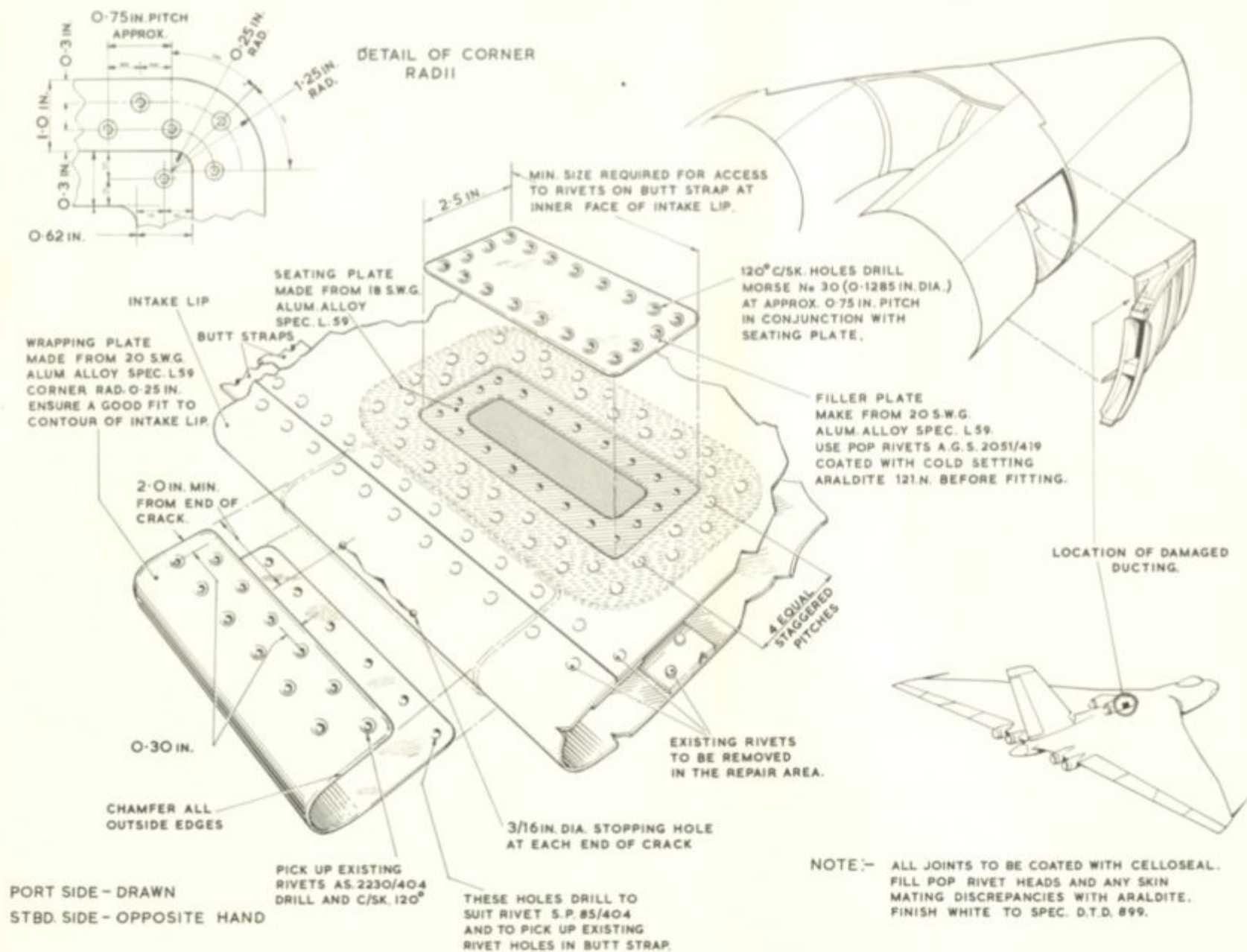


Fig. 359. Repair to crack in lip of air intake boundary layer bleed duct.

RESTRICTED

This file was downloaded
from the RTFM Library.

Link: www.scottbouch.com/rtfm

Please see site for usage terms,
and more aircraft documents.

