

Chapter 7
TAIL PLANE AND FINS

LIST OF CONTENTS

	Para.
Introduction	1
Repair prohibitions	2
Negligible damage	3
Material specifications	4

LIST OF TABLES

	Table
Materials for repair of tail plane and fins	1

LIST OF ILLUSTRATIONS

	Fig.
Tail plane and fins	1
Tail plane - skin plating	
Mk.1, Mk.2 and A.E.W. Mk.2	2
Fin - skin plating - Mk.1	3
Fin - skin plating - Mk.2 and A.E.W. Mk.2	3A
Patch repair to tail plane or fin ribs	4
Patch repairs to tail plane spar booms	5
Patch repair to tail plane spar webs	6
Patch repair to fin post booms	7
Tail plane and fins - Mk.3	8
Tail plane-skin plating - Mk.3	9
Fin - skin plating - Mk.3	10

Introduction

1. The tail plane is constructed in two sections, port and starboard, which are bolted together inside the fuselage. Construction, both of the tail plane and the fins, is similar to that of the main plane (Chapter 6).

Repair prohibitions

2. The tail plane spar booms are not repairable, except as shown in fig.5. Damage in excess of that indicated in the illustration will necessitate renewal of the tail plane. Insertion repairs to the fin post (front, intermediate and rear) booms are not considered within the scope of user units, and any damage to the booms in excess of that defined in fig.7, will necessitate an insertion repair.

Negligible damage

3. Reference should be made to Chapter 1, for information on skin plating, fin post webs and booms, ribs and stringers.

Material specifications

4. Certain material specification numbers have been replaced. New specifications should be effective as and when present material stocks become exhausted.

Changes of specifications are as follows:-

Sheet, alum. alloy specification D.T.D.610A is replaced by L.72.

Rivet specification D.T.D.327 is replaced by L.86.

RESTRICTED

TABLE 1

Materials for repair of tail plane and fins

Ref.No.	Part No.	Description	Size	Spec.
30B/9611224	-	Sheet, alum. alloy	24 s.w.g.	L.72
30B/9611222	-	Sheet, alum. alloy	22 s.w.g.	L.72
30B/9611218	-	Sheet, alum. alloy	18 s.w.g.	L.72
30B/9611216	-	Sheet, alum. alloy	16 s.w.g.	L.72
28Q/1017707	SP.85/404	Rivet, mush/hd.	1/8 in. dia. x 1/4 in. long	L.86
28Q/9141065	SP.85/408	Rivet, mush/hd.	1/8 in. dia. x 1/2 in. long	L.86
28Q/18481	SP.85/605	Rivet, mush/hd.	3/16 in. dia. x 5/16 in. long	L.86
28Q/1028817	SP.80/404	Rivet, sn/hd.	1/8 in. dia. x 1/4 in. long	L.86
	4/SS.3790	Rivet, dome/hd. pop	1/8 in. dia. x 0.27 in. long	18% nickel silver bar

NOTE...

Rivets type AS.2227 replaced by SP.80.

Rivets type AS.2228 replaced by SP.85.

RESTRICTED

RESTRICTED

A.P.101B-1700-6A
A.L.35. Mar. 72

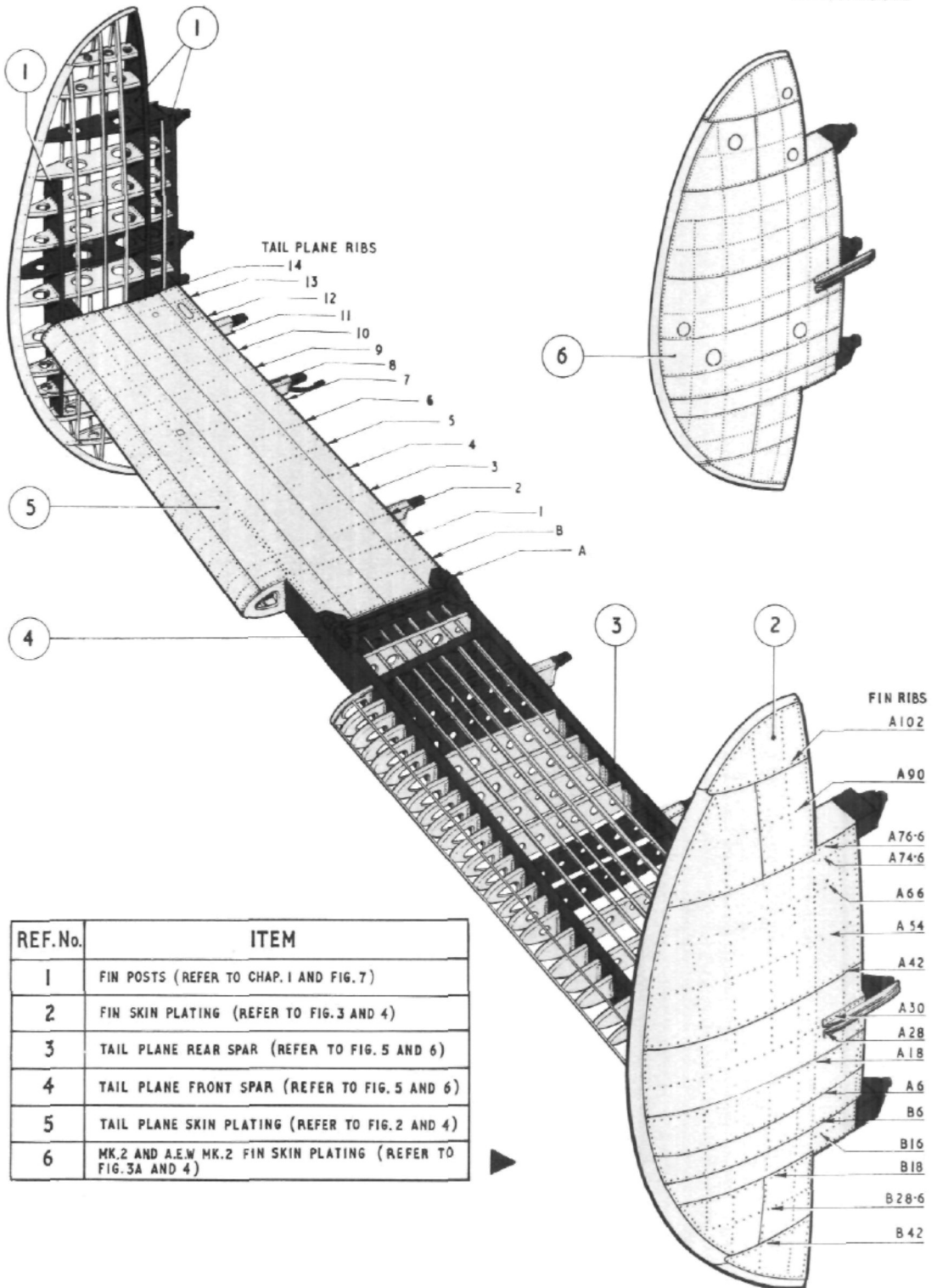
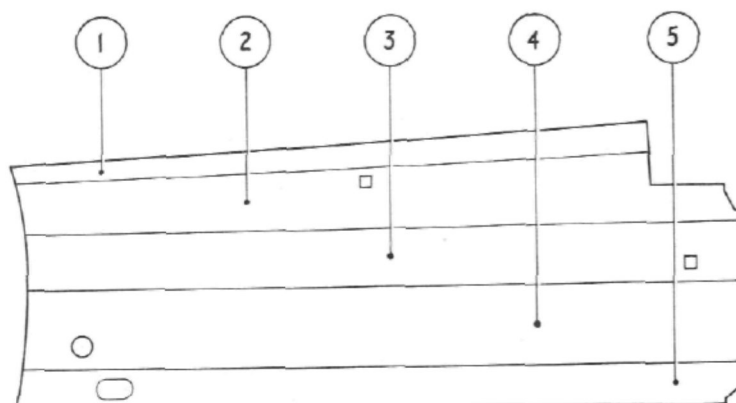


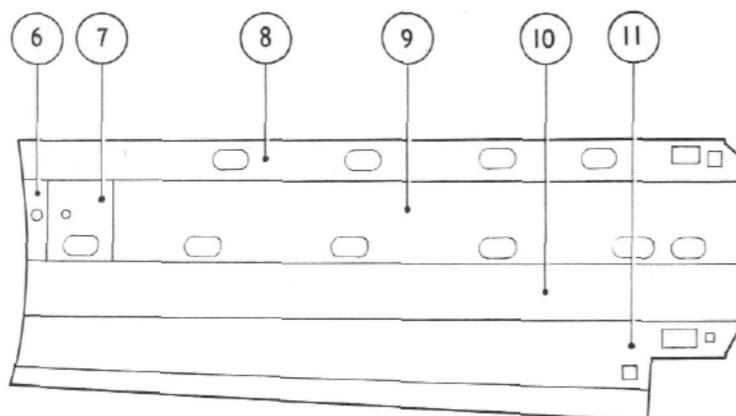
FIG.1 TAIL PLANE AND FINS

RESTRICTED

RESTRICTED



TOP SURFACE



BOTTOM SURFACE

REF. No.	PART No.		S.W.G.	SPEC.
	PORT	STBD.		
1	1/G1898	2/G1898	20	L.72
2	77/G2831	78/G2831	20	L.72
3	75/G2831	76/G2831	20	L.72
4	73/G2831	74/G2831	20	L.72
5	71/G2831	72/G2831	20	L.72
6	98/G2831	99/G2831	20	L.72
7	96/G2831	97/G2831	20	L.72
8	121/G2831	80/G2831	20	L.72
9	81/G2831	82/G2831	20	L.72
10	83/G2831	84/G2831	20	L.72
11	85/G2831	86/G2831	20	L.72

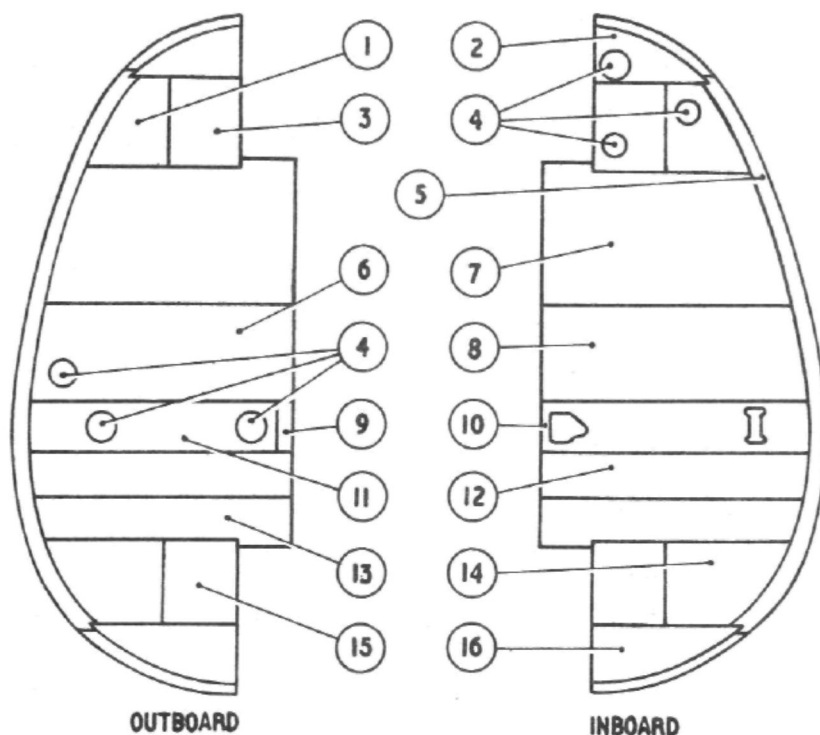
FIG.2 TAIL PLANE-SKIN PLATING MK.1,MK.2 AND A.E.W MK.2

5/76

RESTRICTED

RESTRICTED

A.P.10/B-1700-6A
A.L. 35. Mar. 72

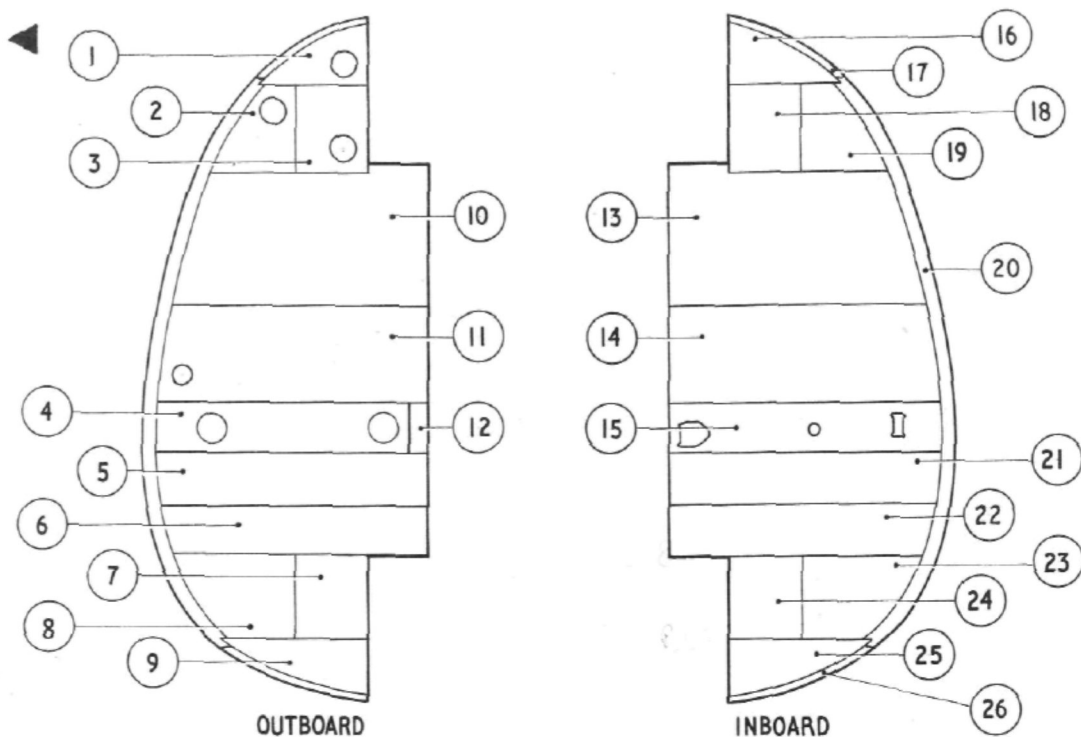


REF. NO.	PART NO.	S.W.G.	SPEC.
1	—	24	L. 72
2	—	24	L. 72
3	—	24	L. 72
4	ACCESS COVERS	18	L. 72
5	1/H2097 PREFORMED	20	L. 72
6	—	22	L. 72
7	—	24	L. 72
8	—	24	L. 72
9	—	22	L. 72
10	—	24	L. 72
11	—	22	L. 72
12	—	24	L. 72
13	—	24	L. 72
14	—	22	L. 72
15	—	22	L. 72
16	—	22	L. 72

FIG. 3 FIN - SKIN PLATING-MK.I.
RESTRICTED

5177

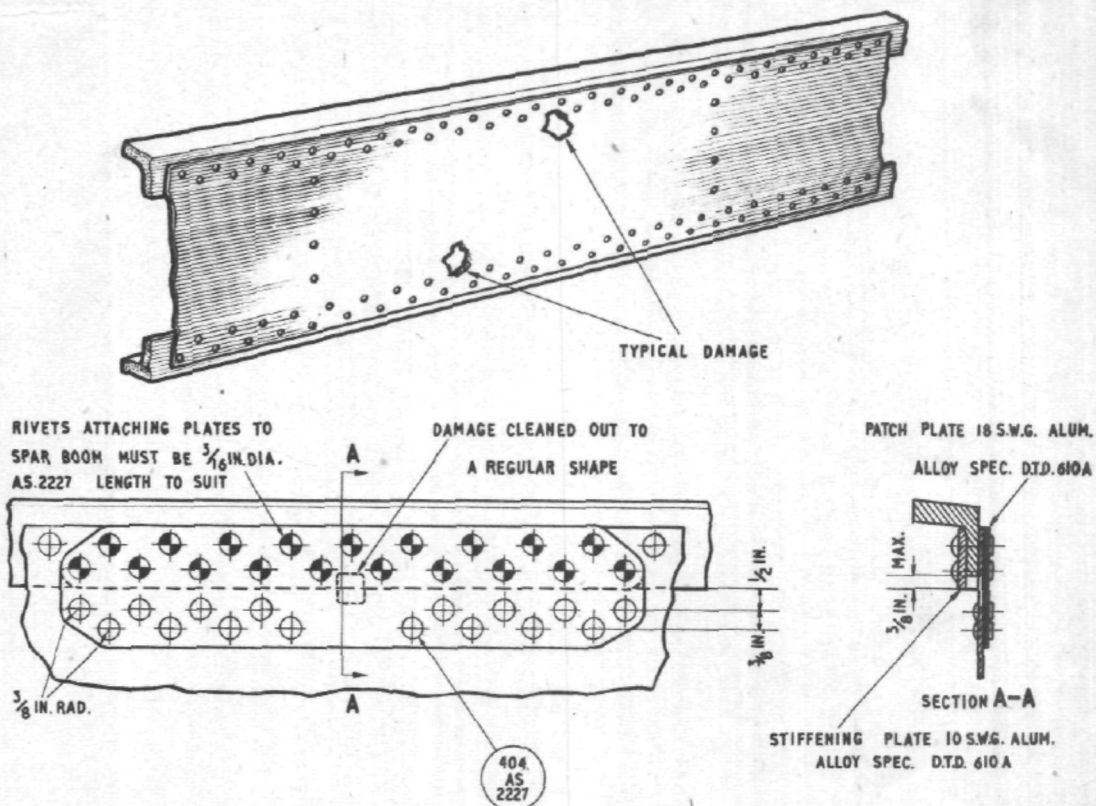
RESTRICTED



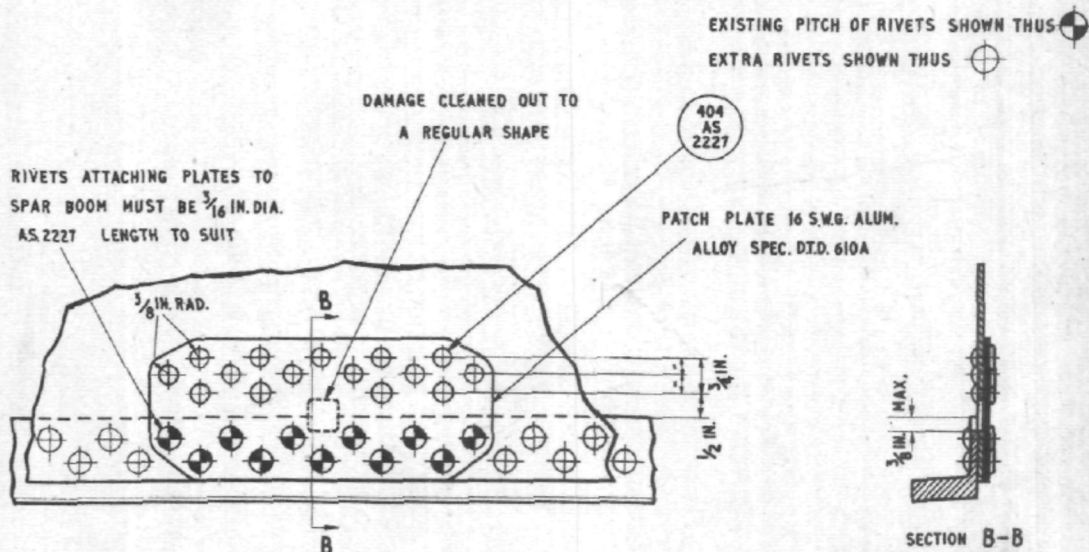
REF. No.	PORT	PART No.	STBD.	S.W.G.	SPEC.
1	30/H2089		31/H2089	24	L72
2	110/H2089		111/H2089	24	L72
3	112/H2089		113/H2089	24	L72
4	16/H2434		17/H2434	22	L72
5	114/H2089		115/H2089	24	L72
6	116/H2089		117/H2089	24	L72
7	101/H2089		102/H2089	22	L72
8	103/H2089		104/H2089	22	L72
9	105/H2089		106/H2089	22	L72
10	34/H2089		35/H2089	24	L72
11	46/H2089		49/H2089	22	L72
12	50/H2089		51/H2089	22	L72
13	35/H2089		34/H2089	24	L72
14	121/H2089		119/H2089	24	L72
15	120/H2089		118/H2089	24	L72
16	31/H2089		30/H2089	24	L72
17	5/H2089 (PREFORMED)			20	L72
18	31/H2434		32/H2434	24	L72
19	29/H2434		30/H2434	24	L72
20	1/H2097 (PREFORMED)			20	L72
21	115/H2089		114/H2089	24	L72
22	117/H2089		116/H2089	24	L72
23	104/H2089		103/H2089	22	L72
24	102/H2089		101/H2089	22	L72
25	106/H2089		105/H2089	22	L72
26	6/H2089 (PREFORMED)			20	L72

FIG.3A FIN-SKIN PLATING-MK.2 AND A.E.W. MK.2

RESTRICTED



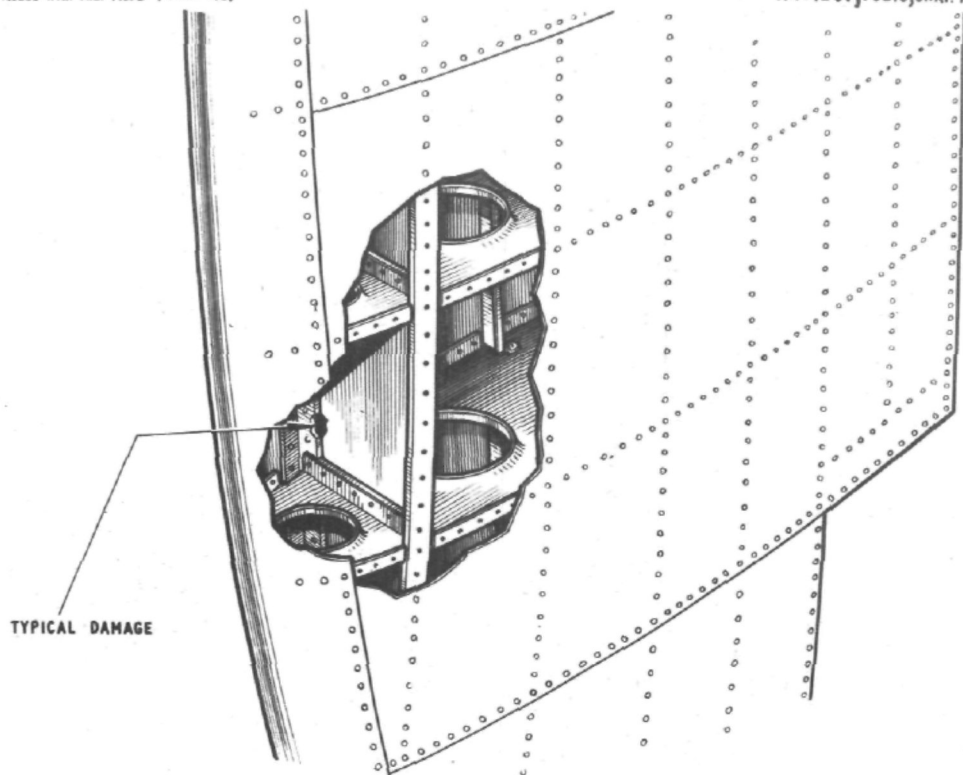
PATCH REPAIR TO FRONT AND REAR SPAR TOP BOOMS



PATCH REPAIR TO FRONT AND REAR SPAR BOTTOM BOOMS

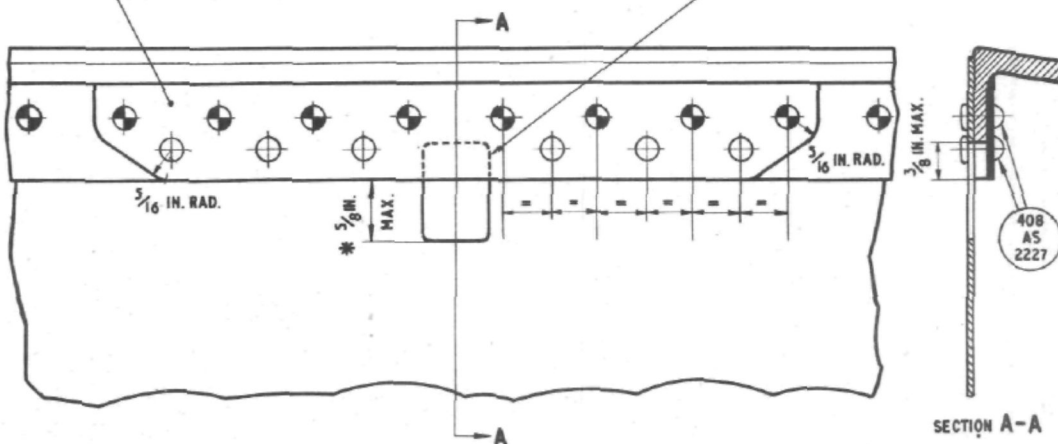
FIG. 5. PATCH REPAIRS TO TAIL PLANE SPAR BOOMS

RESTRICTED



PATCH PLATE TO BE MADE FROM
16 SWG. ALUM. ALLOY SPEC. D.T.D. 610A

DAMAGE TO BE CLEANED OUT
TO A REGULAR SHAPE



* NOTE:—

DAMAGE TO THE FIN POST WEB IN
CONJUNCTION WITH THE FIN POST
BOOM MAY BE IGNORED, PROVIDED
THAT THE DAMAGE DOES NOT EXTEND
MORE THAN $\frac{5}{8}$ IN. FROM THE EDGE
OF THE FIN POST BOOM.

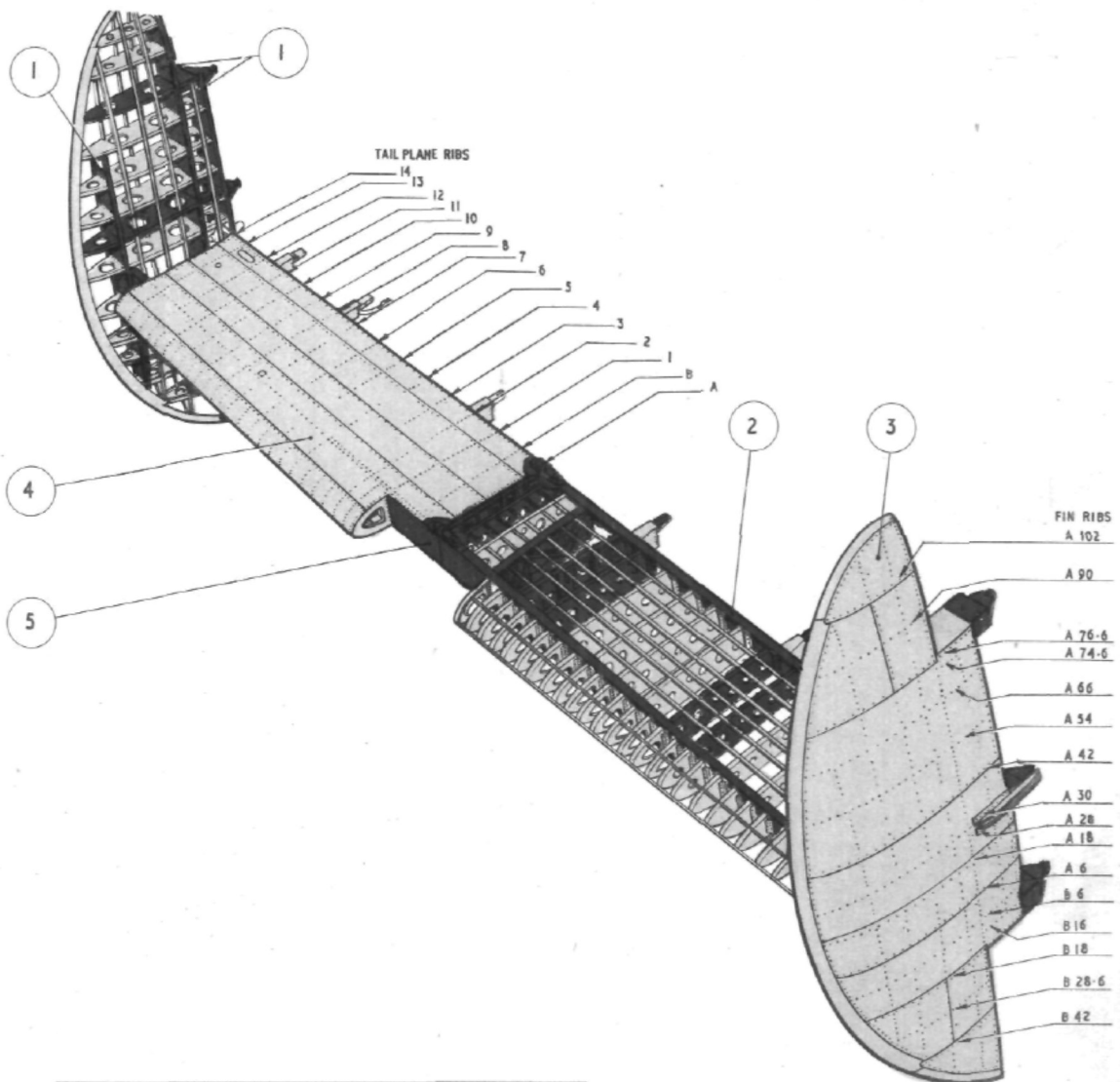
EXISTING RIVET PITCH SHOWN THUS

ADDITIONAL RIVETS SHOWN THUS



FIG. 7. PATCH REPAIR TO FIN POST BOOMS

RESTRICTED

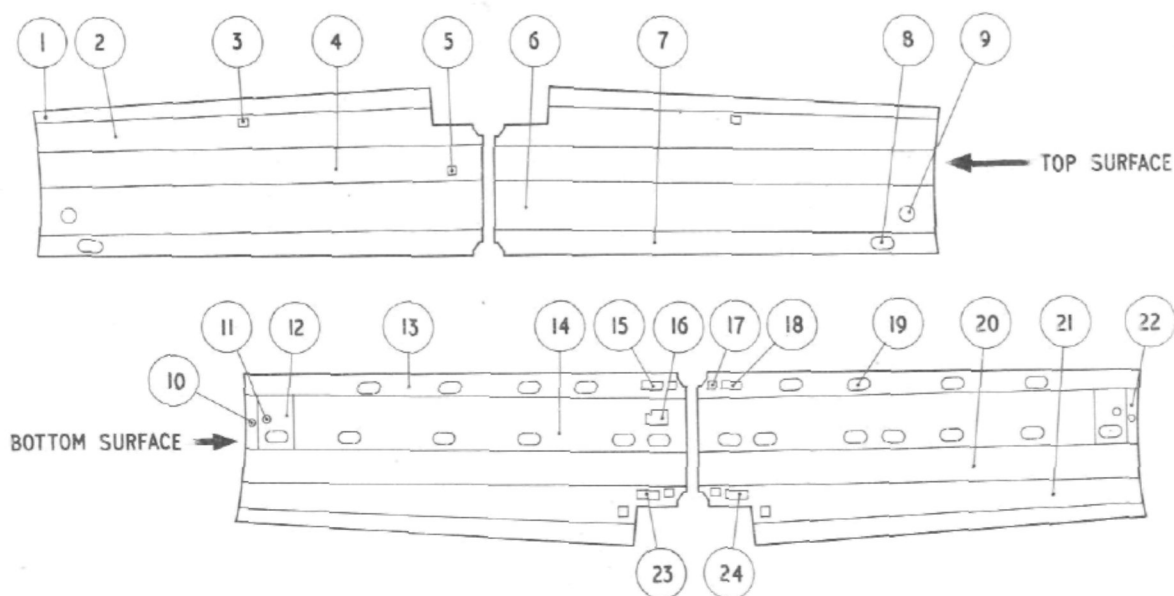


REF N°	ITEM
1	FIN POSTS (REFER TO CHAP.1 & FIG.7)
2	TAIL PLANE REAR SPAR (REFER TO FIG.5 & 6)
3	FIN SKIN PLATING (REFER TO FIG.10)
4	TAIL PLANE SKIN PLATING (REFER TO FIG.9)
5	TAIL PLANE FRONT SPAR (REFER TO FIG.5 & 6)

FIG. 8 TAIL PLANE AND FINS - MK.3

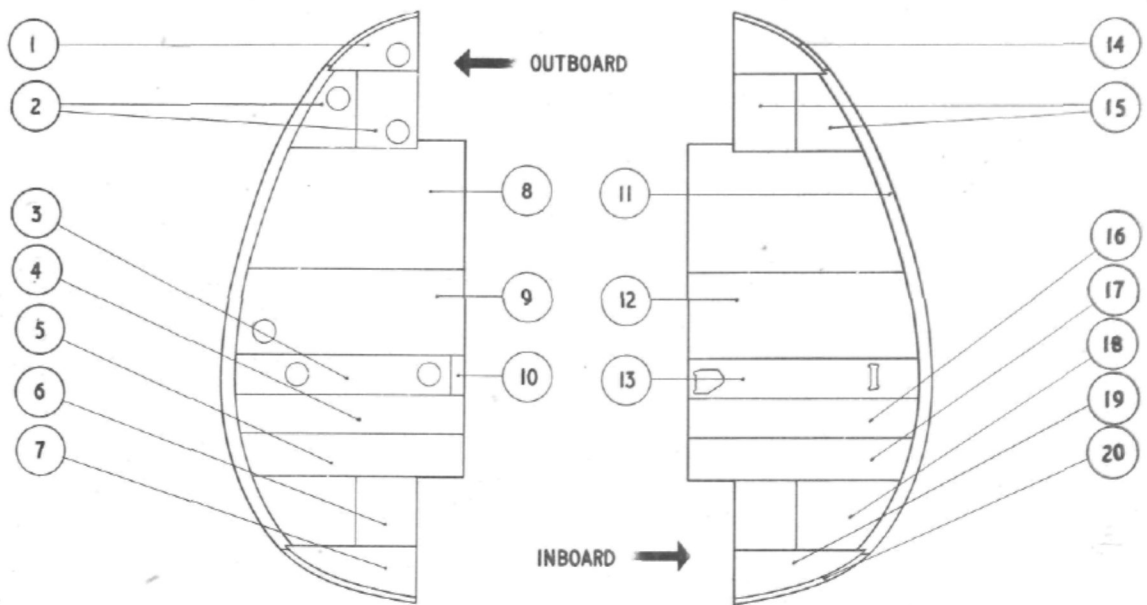
(A.L.19, June 57)

RESTRICTED



REF N°	PART N°	S.W.G.	SPEC.
1	1/G1898 PREFORMED	20	D.T.D. 610A
2	—	20	
3	—	16	
4	—	20	
5	—	20	
6	—	20	
7	—	20	
8	—	18	
9	—	20	
10	—	18	
11	—	18	D.T.D. 610A
12	—	20	
13	—	20	
14	—	20	
15	—	24	
16	—	20	
17	—	16	
18	—	24	
19	—	18	
20	—	20	
21	—	20	
22	—	20	
23	—	24	
24	—	24	

FIG. 9 TAIL PLANE SKIN-PLATING-MK. 3



REF N°	PORT	PART N°	STBD.	S.W.G.	SPEC.
1	—	—	—	24	D.T.D. 610 A.
2	—	—	—	24	
3	16/H 2434	—	17/H 2434	22	
4	—	—	—	24	
5	—	—	—	24	
6	—	—	—	22	
7	—	—	—	22	
8	—	—	—	24	
9	—	—	—	22	
10	—	—	—	22	
11	—	1/H 2097 (PREFORMED)	—	20	D.T.D. 610 A.
12	—	—	—	24	
13	—	—	—	24	
14	—	5/H 2089 (PREFORMED)	—	20	
15	—	—	—	24	
16	—	—	—	24	
17	—	—	—	24	
18	—	—	—	22	
19	—	—	—	22	
20	—	6/H 2089 (PREFORMED)	—	20	

FIG. 10 FIN-SKIN PLATING - MK 3

(A.L.19, June 57)

