

CHAPTER 2

2nd printing 9-3-62

ENGINE MOUNTING AND COWLING

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ENGINE MOUNTING

General

1. The engine mounting is situated at the rear of the fuselage and comprises two welded structures of tubular steel. The tubes are to Specification T.45, and are not repairable at all. Replacement of the mounting or bracing members may be effected if damage makes this necessary. The power plant is dealt with in detail in A.P.4121A & B, Vol. 2, Part 3, to which reference should be made for further information.

Negligible damage

2. Smooth, isolated dents free from cracks, fractures or abrasions which do not exceed $\frac{1}{10}$ th of a tube diameter in depth, may be considered negligible provided they do not occur in the middle third of the affected member. The limit of bowing which may be considered negligible is defined in para. 12, Chap. 1.

Wear limits

3. Wear limits for all male and female parts of the engine mounting are given in the table facing fig. No. 2/1. Reference should be made to para. 15, Chap. 1, for instructions in the application of the data given in this table.

ENGINE COWLING

General

4. The engine cowlings comprises an aluminium alloy and alclad skin reinforced with bulkheads and stringers of the same material. The arresting hook fairing is illustrated on fig. 2/2A.

Negligible and repairable damage

5. The definitions of negligible and repairable damage, will be found in the following table, where also reference is made to the figures illustrating the methods to be adopted in effecting repairs within the limits given.

ENGINE COWLING

Definitions of negligible and repairable damage

Component	Definition of damage		Repair fig. No.	Repair item No.
	Negligible	Repairable		
Skin	Dents or bruises, 3.0 in. dia., 0.15 in. deep, 12.0 in. apart	0.5 in. dia., 12.0 in. apart 1.0 in. dia., 12.0 in. apart 2.0 in. dia., 18.0 in. apart 3.0 in. dia., 24.0 in. apart	2/3	17, 38, 45, 51
Bulkheads	Dents or bruises 1.0 in. dia., 0.1 in. deep, 12.0 in. apart	1.0 in. x 1.0 in., 18.0 in. apart	2/4	17, 29, 54
Stiffeners	Dents or bruises 1.0 in. x 0.5 in., 0.1 in. deep, 12.0 in. apart	1.0 in. long. One repair only for each stiffener	2/5	19, 29, 53

RESTRICTED

ENGINE MOUNTING

Key to items on fig. No. 2/1

Assembly L.0020

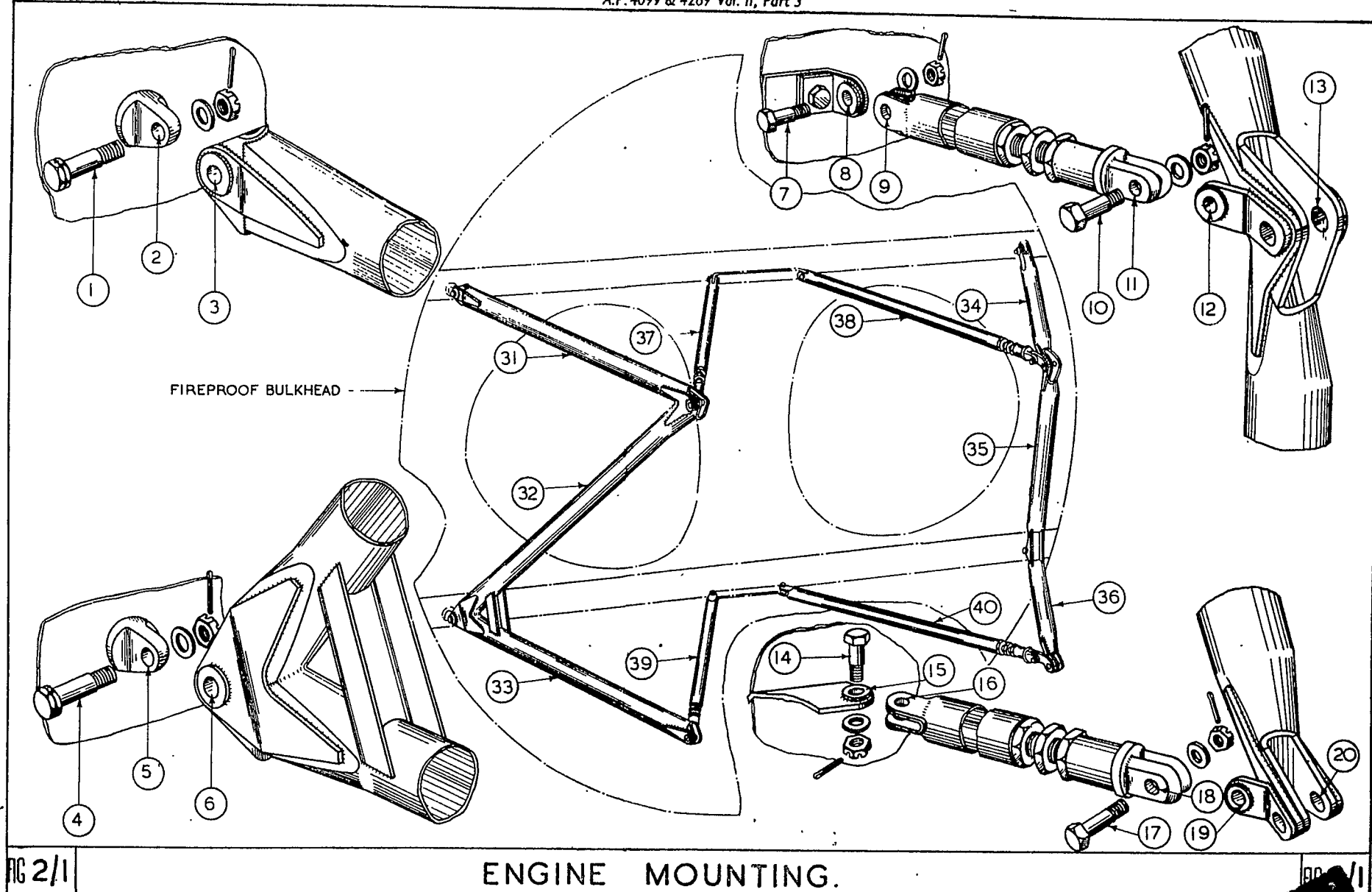
Item No.	Sub-assembly No.	Part No. of tube	Outside diameter	S.W.G.	Specification
31	L.00151	L.00154 ND	1½ in.	17	T.45
32	L.00151	L.00155 ND	1½ in.	17	T.45
33	L.00151	L.00156 ND	1½ in.	17	T.45
34	L.00150	L.00154 ND	1½ in.	17	T.45
35	L.00150	L.00155 ND	1½ in.	17	T.45
36	L.00150	L.00156 ND	1½ in.	17	T.45
37	L.001269	L.001255	1½ in.	17	T.45
38	L.001269	L.001255	1½ in.	17	T.45
39	L.001268	L.001254	1½ in.	17	T.45
40	L.001268	L.001254	1½ in.	17	T.45

ENGINE MOUNTING FITTINGS

Limits of wear for items shown on fig. No. 2/1

Key No.	Part No.	Description of Part	Nominal Diameter	Female High or Male Low Limits	Maximum Limits Wear	Plug Gauge
1	L.00559	Engine mounting pick-up bolt	0.4375	-0.0012	-0.0025	Micrometer
2	A.00802	Eye bolt	0.4375	+0.0004	+0.0020	YB
3	L.00150-I	Side frame—R.H. and L.H.	0.4375	+0.0004	+0.0020	YB
4	L.00559	Engine mounting pick-up bolt	0.4375	-0.0012	-0.0025	Micrometer
5	A.00803	Eye bolt	0.4375	+0.0004	+0.0020	YB
6	L.00150-I	Side frame—R.H. and L.H.	0.4375	+0.0004	+0.0020	YB
7	A.25.5G	Bolt, standard	0.3125	-0.0035	-0.0045	Micrometer
8	L.00168	Bracket, top bracing strut	0.3160	+0.0075	+0.0095	UA
9	L.001255 or L.001263	Bracing struts, top	0.3160	+0.0075	+0.0095	UA
10	A.25.5G	Bolt, standard	0.3125	-0.0035	-0.0045	Micrometer
11	L.00171	Fork-end, bracing struts	0.3160	+0.0075	+0.0095	UA
12	L.00150-I	Bracing strut attachment lug	0.3160	+0.0075	+0.0095	UA
13	L.00150-I	Side frame—R.H. and L.H.	0.4375	+0.0004	+0.0020	YB
14	A.25.5G	Bolt, standard	0.3125	-0.0035	-0.0045	Micrometer
15	L.00169	Bracket, bottom bracing struts	0.3160	+0.0075	+0.0095	UA
16	L.001254 or L.001262	Bracing strut, bottom	0.3160	+0.0075	+0.0095	UA
17	A.25.5G	Bolt, standard	0.3125	-0.0035	-0.0045	Micrometer
18	L.00171	Fork-end, bracing struts	0.3160	+0.0075	+0.0095	UA
19	L.00150-I	Bracing strut attachment lug	0.3160	+0.0075	+0.0095	UA
20	L.00150-I	Side frame—L.H. and R.H.	0.4375	+0.0004	+0.0020	YB

RESTRICTED

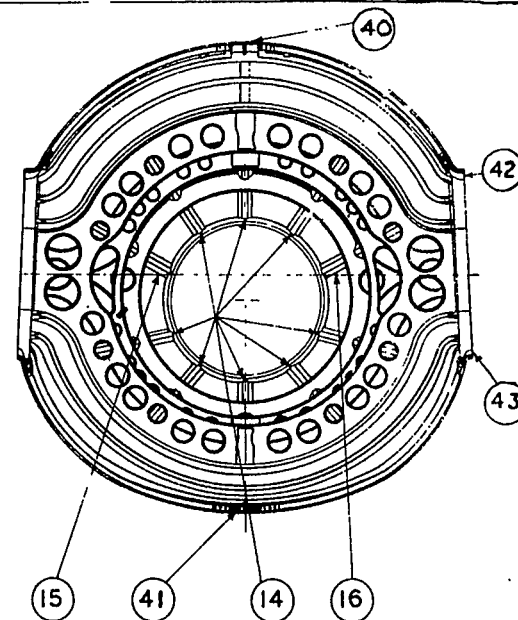
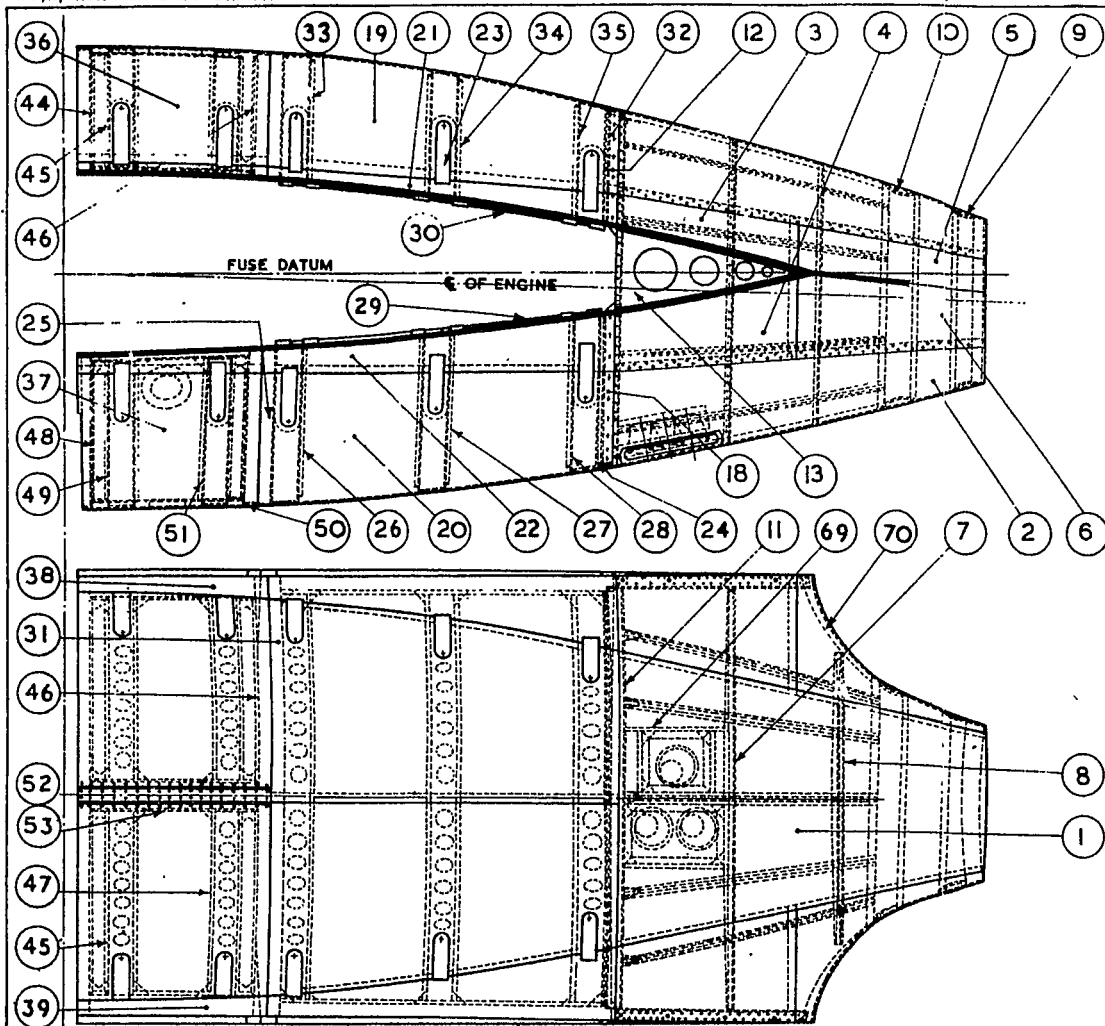


ENGINE COWLING (Assembly L.001A)

Key to items shown on fig. No. 2/2

Key No.	Part No.		Material	Specification	S.W.G.	Description	
	L.H.	R.H.					
1	L.00865ND		Alclad	D.T.D.390 or L.38	20	Upper centre skin	Assembled on L.00853A
2	L.00864ND				20	Lower centre skin	
3	L.00860ND	L.00863ND			20	Upper front skin	
4	L.00867ND	L.00862ND	20	Lower front skin			
5	L.00868ND	L.00869ND	Alum. or Mang. alum.	L.16 or D.T.D.213	20	Upper rear skin	
6	L.00870ND	L.00871ND			20	Lower rear skin	
7	L.0075A		Alclad	D.T.D.390 or L.38	20	Centre bulkhead	Assembled on L.00853A
8	L.00856				18	Rear bulkhead	
9	L.00854		Mang. alum.	D.T.D.213	18	Aft ring	
10	L.00855				18	Forward ring	
11	L.00857		Alclad	D.T.D.390 or L.38	20	Front bulkhead	
12	L.00487ND					Upper landing	
13	L.0085	L.0086	Alclad	D.T.D.390 or L.38	18	End rib	
14		L.00845ND				Stiffener	
15	L.00897ND		Section X.124			Stiffener	
16	L.00896ND					Stiffener	
18	L.00488	L.00488				Stiffener	
19	L.00497ND	L.00498ND	Section X.143		20	Lower landing	
20	L.00505ND	L.00506ND	Alclad	D.T.D.390 or L.38	18	Upper panel skin	
21	L.00499ND	L.00500ND			18	Lower panel skin	
22	L.00507ND	L.00508ND			18	Upper panel skin fillet	
23	L.0053A		Assembly of toggle fastener		18	Lower panel skin fillet	
24	L.00502ND		Alclad	Section Z981481/D		Stiffener	Assembled on L.0057 and 8A
25	L.00501ND					Stiffener	
26	L.00601					Channel	
27	L.00603		Alclad	D.T.D.390 or L.38	18	Channel	
28	L.00605				18	Channel	
29	L.00503ND	L.00504ND				Stiffener	
30	L.00495ND	L.00495ND	Section Z981481/D			Stiffener	
31	L.00493ND			Stiffener			
32	L.00494ND			Stiffener			
33	L.00600			Stiffener			
34	L.00602			18	Channels		
35	L.00604			18	Channels		
36	L.00641ND	L.00647ND	Alclad	D.T.D.390 or L.38	18	Channels	
37	L.00652ND	L.00658ND			18	Upper door skin	
38	L.00643ND	L.00649ND			18	Lower door skin	
39	L.00654ND	L.00660ND		18	Upper skin fillet		
40	L.0065			18	Lower skin fillet		
41	L.0066		Alum. alloy	Section A.690		Hinge rail	Assembled on L.0050 and 51A
42	L.00651ND	L.00645ND				Hinge rail	
43	L.00656ND	L.00662ND	Alclad	D.T.D.390 or L.38	18	Special section-edge stiffener (upper)	
44	L.00644ND	L.00650ND			18	Special section-edge stiffener (lower)	
45	L.00421	L.00422			Section Z981481/D		
46	L.00642ND	L.00648ND	Section Z981481/D		18	Channel stiffener	
47	L.00425	L.00426	Section Z981481/D		18	Stiffening section	
48	L.00655ND	L.00661ND	Section Z981481/D		18	Channel stiffener	
49	L.00423	L.00424	Section Z981481/D		18	Stiffening section	
50	L.00653ND	L.00659ND	Section Z981481/D		18	Channel stiffener	
51	L.00427	L.00428	Section Z981481/D		18	Stiffening section	
52	L.00646ND	L.00646ND	Section Z981481/D		18	Channel stiffener	
53	L.00657ND	L.00657ND	Section X.142			Centre stiffening, upper section	
						Centre stiffening, lower section	
69	L.00950		Mounting of downward identification lamps				Assembled on L.0050 and 51A
70	L.00892		Alclad	D.T.D.390	20	Trailing edge stiffener	

Note . . . Items 54 to 68 are parts of the arresting hook assembly and with item 17 are shown on the table overleaf.

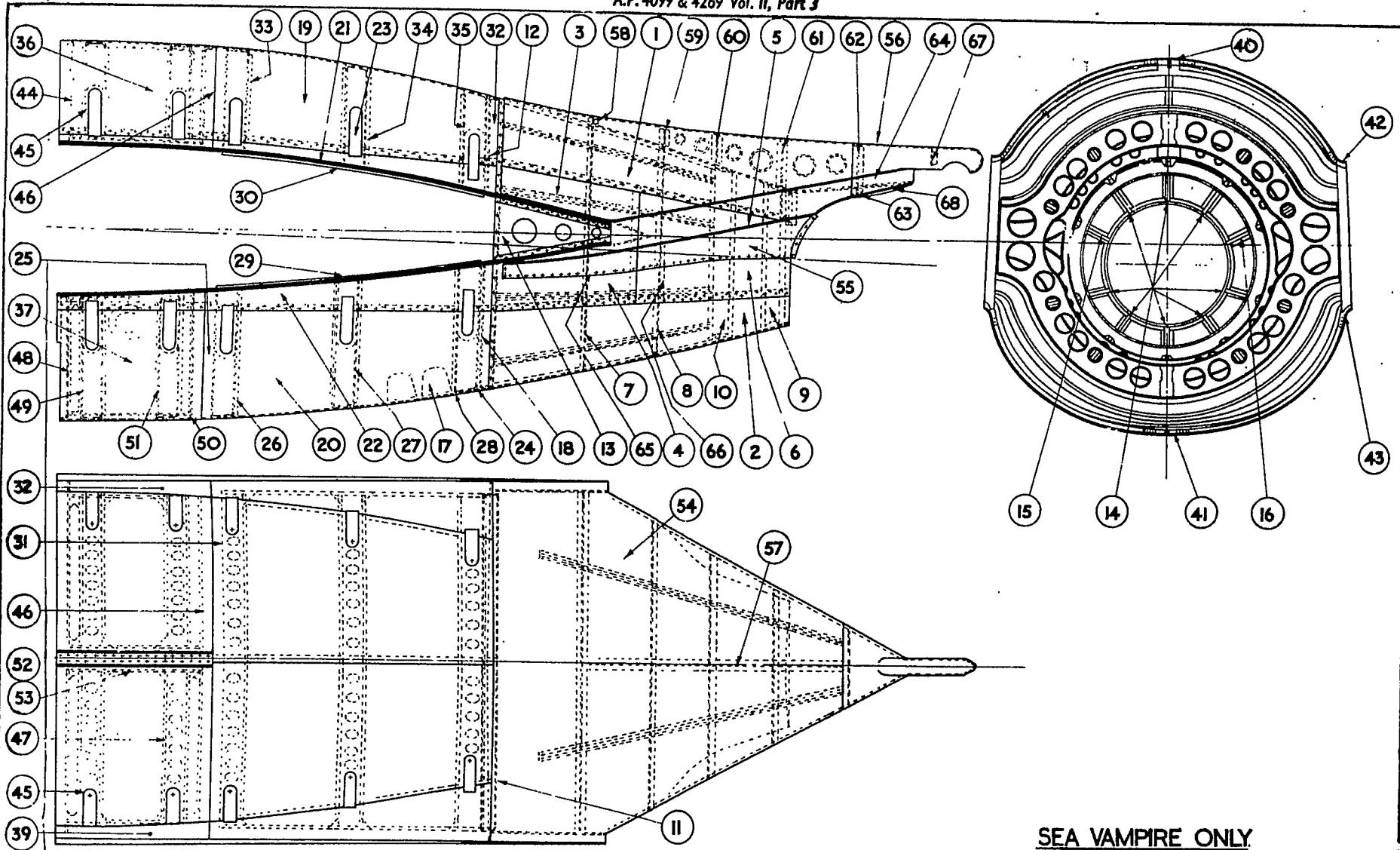


ARRESTING HOOK FAIRING (Assembly L.002216)
Mark 20 Aircraft only

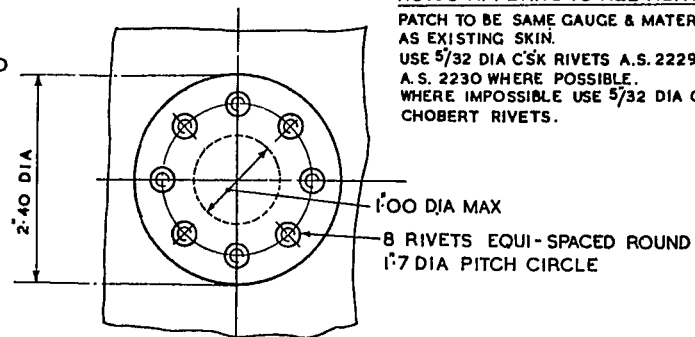
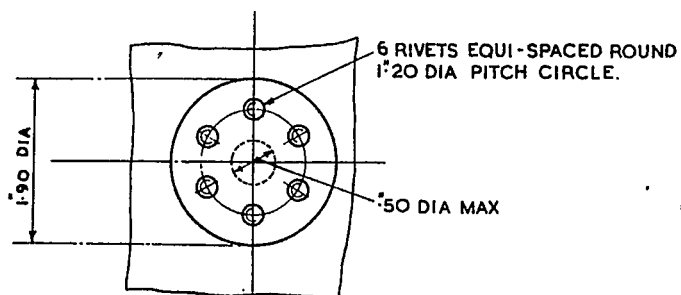
Key to items shown on fig. No. 2/2A

Key No.	Part No.		Material	Specification	S.W.G.	Description
	Port	Starboard				
17	L.002538A	L.002538	Alum. Mag.	D.T.D.213		Mounting of downward identification lamps
54	L.002252ND	L.002252ND			20	Top skin (front)
55	L.002249ND	L.002250ND			20	Lower skin
56	L.002260ND	L.002260ND			16	Rear skin
57	L.002220	L.002220			20	Centre member
58	L.002221	L.002222	Alclad	D.T.D.390	20	Diaphragm No. 1 (top)
59	L.002223	L.002224			20	Diaphragm No. 2 (top)
60	L.002225	L.002226			20	Diaphragm No. 3 (top)
61	L.002227	L.002228			20	Diaphragm No. 4 (top)
62	L.002229	L.002229			20	Diaphragm No. 5 (top)
63	L.002251ND	L.002251ND	Stainless steel	D.T.D.171	20	Bottom skin
64	L.002235ND	L.002236ND	Alclad	D.T.D.390	20	Side channel
65	L.002231	L.002232			20	Diaphragm No. 1 (bottom)
66	L.002233	L.002234			20	Diaphragm No. 2 (bottom)
67	L.002261ND	L.002261ND	Stainless steel	D.T.D.171	18	Rear diaphragm assembled on L.002372
68	L.002371ND	L.002371ND			20	Fairing assembled on L.002370A

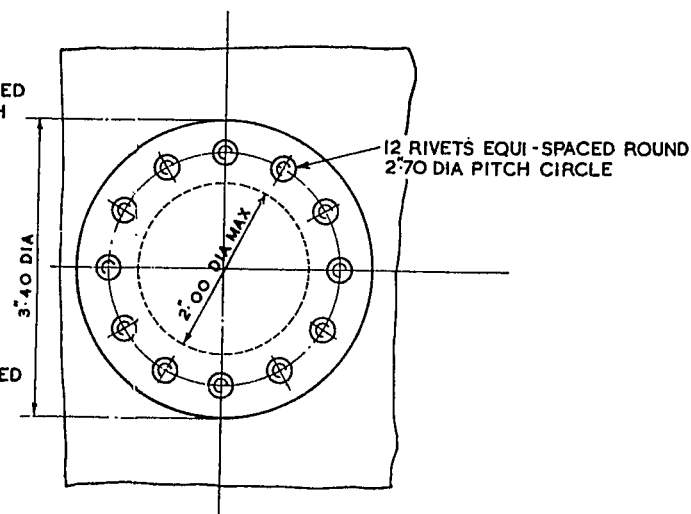
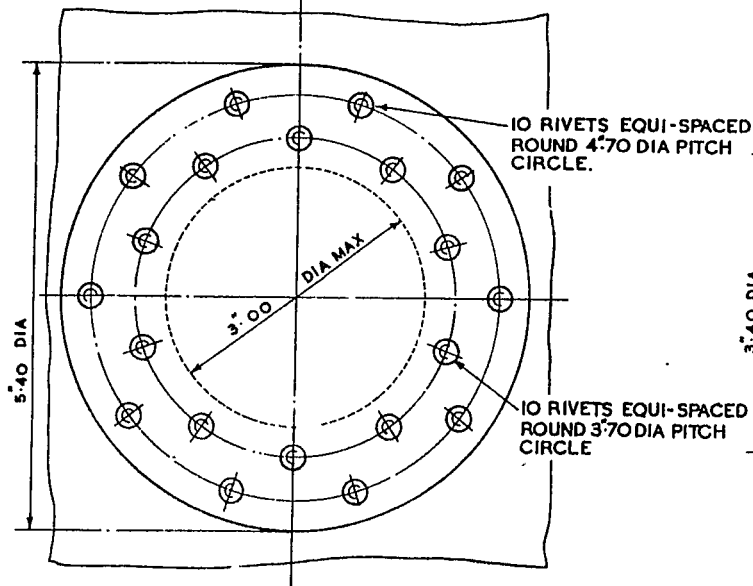
Note . . . The items shown above are exclusive to Sea Vampire Mark 20 Aircraft. For details of the rest of the members of the assembly see key to fig. 2/2.

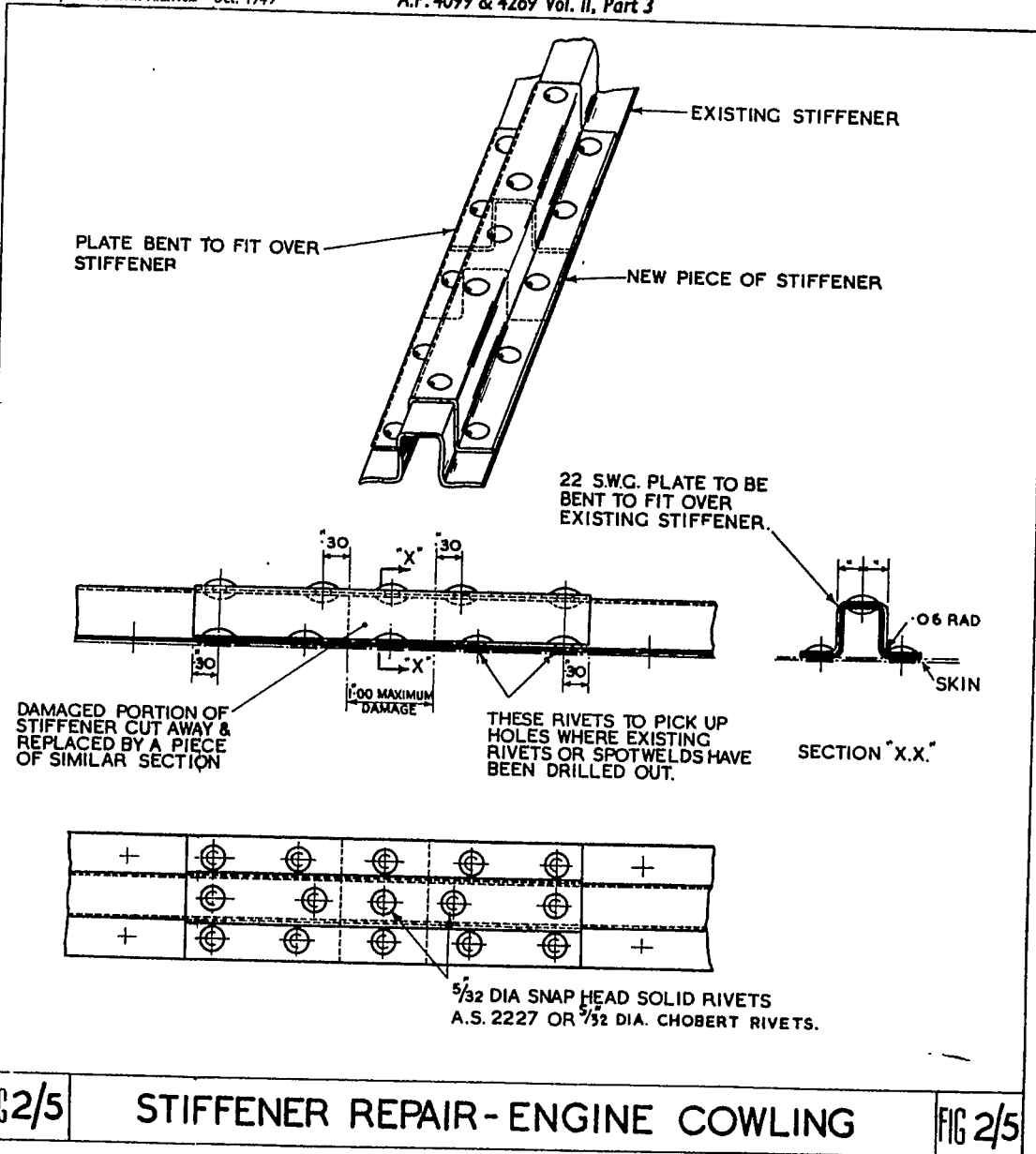


SEA VAMPIRE ONLY



NOTES APPLYING TO ALL REPAIRS.
PATCH TO BE SAME GAUGE & MATERIAL
AS EXISTING SKIN.
USE 5/32 DIA C'SK RIVETS A.S. 2229 OR
A.S. 2230 WHERE POSSIBLE.
WHERE IMPOSSIBLE USE 5/32 DIA C'SK
CHOBERT RIVETS.





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