

RESTRICTED

Australian Air Publication **721.79**

Volume 2, Part 2
Book 2

ROYAL AUSTRALIAN AIR FORCE



VAMPIRE MODIFICATIONS

(Nos 101 to 200)

ISSUED FOR THE INFORMATION AND GUIDANCE OF ALL CONCERNED,

BY COMMAND OF THE AIR BOARD,

A handwritten signature in black ink, appearing to read 'L. Evans', is written over a horizontal line.

Secretary,

DEPARTMENT OF AIR
CANBERRA ACT

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WARNING

1. Information contained herein is for official use only.
2. Attention is drawn to Section 70 of the Commonwealth Crimes Act which provides heavy penalties for the unauthorized disclosure of official matter.

$N^{02.101 \text{ to } 200}$

I GORDON JARVIS RANK FSGT

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A.A.P. 721.79, Vol. 2, Pt. 2.
(Books 1, 2, 3, 4 and 5)

VAMPIRE MODIFICATIONS

INTRODUCTION

1. Vampire Modifications are now contained in 5 Books as follows:-
Book 1 - Modifications Nos. 1 to 100 inclusive.
Book 2 - Modifications Nos. 101 to 200 inclusive.
Book 3 - Modifications Nos. 201 to 300 inclusive.
Book 4 - Modifications Nos. 301 to 400 inclusive.
Book 5 - Modifications Nos. 401 and subsequent.
2. One series of amendments will cover the five Books and all amendments are to be recorded in the Amendment Certificate contained in Book 1.
3. The index to the complete set of Vampire Modifications is at the front of Book 1.

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A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 101

Class 2

LIGHT WEIGHT PACKING IN WING TANK BAYS - INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to eliminate the possibility of the wing tanks moving and imposing undue strain upon the various fuel pipe-connections, and at the same time providing support for the wing tanks against the slight positive pressure in the tanks introduced by Royal Australian Air Force Vampire Modification No. 100 or No. 106 as applicable.

This modification authorises the introduction of light weight packings of hard grade expanded Hycar sheet in the wing tank bays to fill up the excessive spaces between the tank walls and the wing structure.

Application

2. This modification is applicable to Vampire Mk's 30, 31 and 33 aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) modification V.181.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. Nil.

Equivalent Modifications

6. The equivalent modifications are De Havilland (Aust.) Modification V.181 and Air Ministry Modification Vampire 3045.

Supply

7. The following parts are required to complete one modification set:-

Item	Part	No. Off per A/c	Stores Class
(a) Parag 17c-			
(1)	Item 1, insert "OOD1459ND" in lieu of "D007719ND".	1	
(11)	Item 2, insert "COD1461ND" in lieu of "D007721ND".	1	

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 101

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per A/c	Stores Class
		<u>TANK BAY NO.1 PORT (Cont'd)</u>			
3		DOO7723ND	Packing	1	
4		DOO7725ND	Packing	1	
		<u>TANK BAY NO.1 STARBOARD</u>			
5	5, insert	"OOD1460ND" in		1	
6	of	"D007720ND".		1	
7	6, insert	"OOD1462ND" in		1	
8	of	"D007722ND".		1	
		<u>TANK BAY NO.2 PORT</u>			
9		DOO7757ND	Packing	1	
10		DOO7759ND	Packing	1	
11		DOO7805ND	Packing	1	
12		DOO7807ND	Packing	1	
13		DOO7815ND	Packing	1	
		<u>TANK BAY NO.2 STARBOARD</u>			
14		DOO7758ND	Packing	1	
15		DOO7760ND	Packing	1	
16		DOO7762ND	Packing	1	
17		DOO7764ND	Packing	1	
18		DOO7772ND	Packing	1	
		<u>TANK BAY NO.3 & 4 PORT</u>			
19		DOO7727ND	Packing	1	
20		DOO7729ND	Packing	1	
21		DOO7731ND	Packing	1	
22		DOO7733ND	Packing	1	
23		DOO7735ND	Packing	1	
24		DOO7737ND	Packing	1	
25		DOO7739ND	Packing	1	
26		DOO7741ND	Packing	1	
27		DOO7743ND	Packing	1	
28		DOO7745ND	Packing	1	
29		DOO7747ND	Packing	1	
30		DOO7749ND	Packing	1	

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per A/c	Stores Class
<u>TANK BAY NO.3 & 4 PORT (Cont.)</u>					
31		DO07751ND	Packing	1	
32		DO07753ND	Packing	1	
33		DO07755ND	Packing	1	
34		DO07809ND	Packing	1	
35		DO07811ND	Packing	1	
36		DO07813ND	Packing	1	
37		DO07817ND	Packing	1	
38		DO07819ND	Packing	1	
39		DO07821ND	Packing	1	
40		DO07823ND	Packing	1	
41		DO07825ND	Packing	1	
42		DO07827ND	Packing	1	
43		DO07829ND	Packing	1	
44		ODD1411ND	Packing	1	
<u>TANK BAYS NOS.3 & 4 STARBOARD</u>					
45		DO07728ND	Packing	1	
46		DO07730ND	Packing	1	
47		DO07732ND	Packing	1	
48		DO07734ND	Packing	1	
49		DO07736ND	Packing	1	
50		DO07738ND	Packing	1	
51		DO07740ND	Packing	1	
52		DO07742ND	Packing	1	
53		DO07744ND	Packing	1	
54		DO07746ND	Packing	1	
55		DO07748ND	Packing	1	
56		DO07750ND	Packing	1	
57		DO07752ND	Packing	1	
58		DO07754ND	Packing	1	
59		DO07756ND	Packing	1	
60		DO07770ND	Packing	1	
61		DO07774ND	Packing	1	

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per A/c	Stores Class
TANK BAYS NOS. 3 & 4 STARBOARD (Cont'd)					
62		DOO7782ND	Packing	1	
63		DOO7784ND	Packing	1	
64		OOD1412	Packing	1	
65		DOO7810ND	Packing	1	
66		DOO7812ND	Packing	1	
67		DOO7820ND	Packing	1	
68		DOO7822ND	Packing	1	
69		DOO7824ND	Packing	1	
70		DOO7830ND	Packing	1	
71	K4/10963		Bostik cleaner No.1	AR	
72	K4/10962		Bostik cement spec. 1754 or Araldite, 120	AR	

(v) After Note (b) add

"(c) Forty (40) Modification Sets were delivered with items 1, 2, 5 and 6, 1" thick in lieu of 1/2" thick. These early Modification Sets are to be reduced in thickness before use. Later Modification Sets are supplied in the correct thickness."

to be delivered from d., to Sub-modification which is to issue these items

own from unit stores.

t by the incorporation of this

(Issued with A/L.48 - March, 1956)

9. Not applicable.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than at next minor inspection after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately forty-two (42) man-hours are required to incorporate this modification.

(b) Special tools, jigs, &c. : Nil.

Method of Incorporation (Cont'd)

(c) Sequence of operations :

- (i) Refer Australian Air Publication 828, section 5, paragraph 151 and 153 to 155. Drain and remove the wing tanks as detailed therein.
- (ii) Refer drawing A.12142, sheet 1. Offer up in turn each individual packing piece as required for the tank bay in question. Inspect and ensure that each piece fits snugly against the ribs and spars and tightly against the stringers on the top skin. Refer drawing A.12142, sheet 2, showing fitment of packings. If necessary to obtain this fit, the packing may be cut by hand as indicated.

Note: Where wing tank No.1, Part No. AM1400P and AM1400S (Mks. 30 and 31) and Part No.

AM1402P and AM1402S (Mks. 32-33) are installed to paragraph 11 (c) (ii) insert "sheet 2, also Bostick a small piece of packing over exposed tail of bolts which are not covered by packing, items 44 and 64. " in lieu of "Sheet 2. " . AL 19

- (iii) When the best possible fits have been obtained, clean the mating surfaces of the packing pieces and aircraft structure with Bostik cleaner No.1, item 71. Then apply a liberal coating of the kerosene resisting Bostik cement, specification 1754, item 72 to the cleansed surfaces. Firmly press each packing piece in its correct position.
- (iv) Allow the Bostik to dry for a period of about fifteen (15) minutes, then replace the wing tanks.

(d) Tests : Not applicable.

(e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. Drawing A.12142, sheets 1 and 2 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/459 and 150/4/8704

Attachment : Drawing A.12142, sheets 1 and 2

Date of Issue : 12th May, 1954.

(b) Drawing A.12142, Sheet 1, after Part Nos. in Table for Tank Bay No.1 as follows:-

- (i) Insert "OOD1461ND" in lieu of "D007721ND".
- (ii) Insert "OOD1459ND" in lieu of "D007719ND".
- (iii) Insert "OOD1462ND" in lieu of "D007722ND".
- (iv) Insert "OOD1460ND" in lieu of "D007720ND".

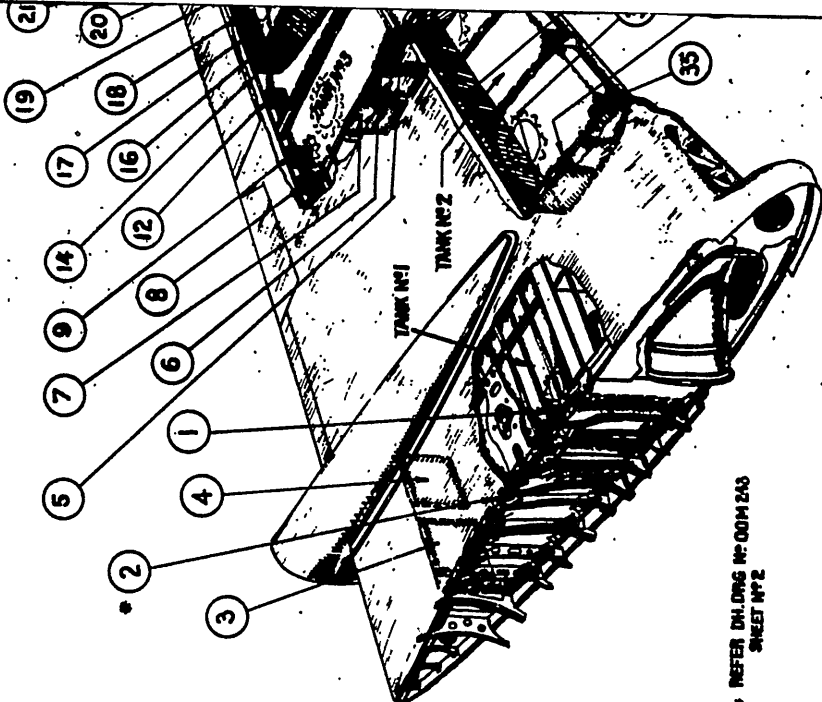
2.

When the above amendment has been incorporated, make the necessary entry in the amendment certificate.

Reference: File Department of Air 150/48704

Date of Issue: 28th March, 1956.

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
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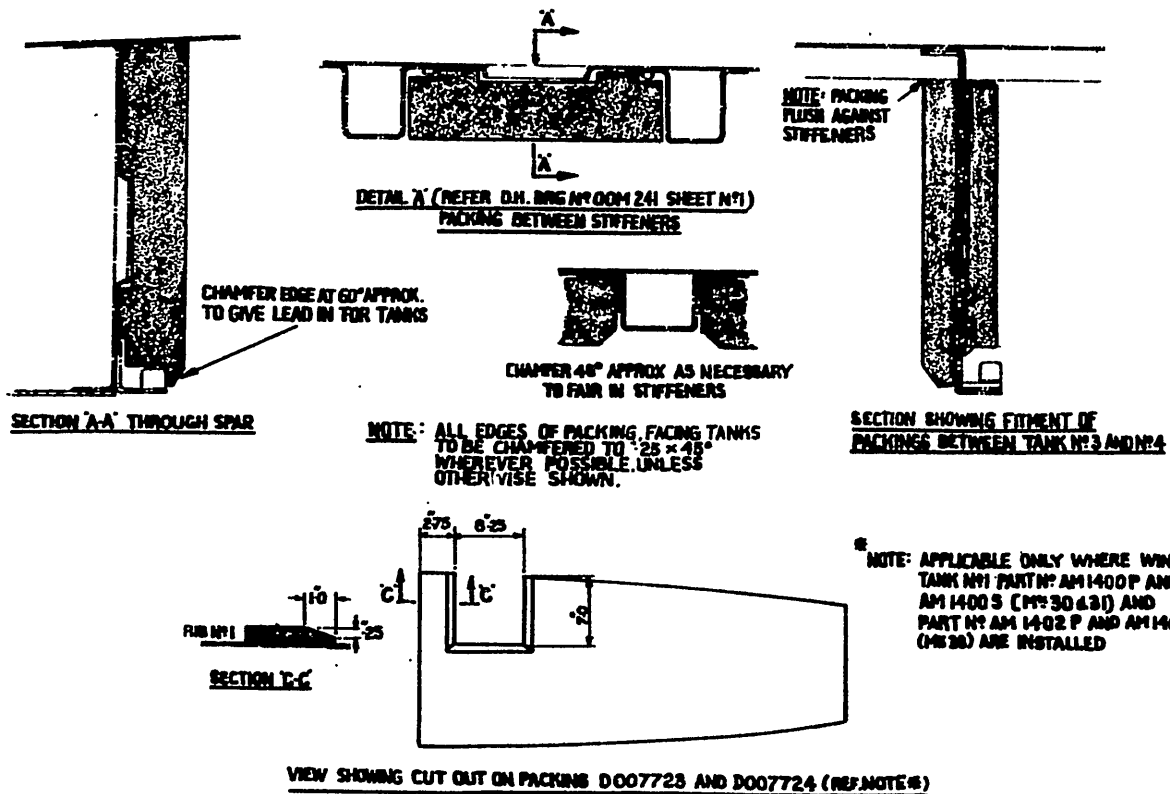


REFER DRAWING NO. OOM 243
SHEET NO. 2

ASSEMBLY OF PACKING IN TANK BAYS

DE HAVILLAND DRG. NO. OOM 243		SHEET 1 OF 2 SHEETS	
REFERENCE	ISSUED BY	TITLE	
	<i>Directorate of Technical Services, R.A.A.F.</i>	LIGHT WEIGHT PACKING IN WING TANK BAYS - INTRODUCTION -	
LIMITS UNLESS STATED	MATERIAL	COMPONENT OF	<i>Fuel system.</i>
DETAILED ± .010"	SPEC.	MACHINE	<i>Vampire Mk's 30, 31, & 33</i>
POSITIONS ± .005"	TRE	ENGINE	<i>Nene 2VH & Goblin</i>
ANGLES ± 1°		TECH. ORDER	<i>Vampire Mod. No. 101</i>
SURFACE FINISH		DRAWING NO.	<i>A-12142 Sh. 1</i>
AUSTRALIAN STANDARD		APPROVED	 A-12142 Sh. 1
ENG. (S.E. PRACTICE A.S. 62)		CHECKED	

ORIGINAL FILE



REFERENCE		ISSUED BY		TITLE	
		DIRECTORATE of Technical Services, R.A.A.F.		LIGHT WEIGHT PACKING IN WING TANK BAYS - INTRODUCTION -	
LIMITS UNLESS STATED		MATERIAL		COMPONENT	
DIMENSIONS		SPEC.		L.G. DRIVE	
TOLERANCES		TREATMENT		ENGINE	
ANGLES		FINISH		TECH. ORDER	
SURFACE FINISH		SCALE		DRAWING NO.	
AUSTRALIAN STANDARD AND CORR. PRACTICE AUSTN		DRAWN		APPROVED	
		TRACED		DATE	
				A-12142 SH22	

Restricted

Air Force Head-Quarters

VAMPIRE MODIFICATION NO. 102

Technical Order

Class 2

POSITIVE LOCKING OF UNDERCARRIAGE SELECTOR LEVER AND
REDESIGNED HANDLE FOR THE DIVE BRAKE SELECTOR LEVER

Reason for and Description of Modification

1. This modification is introduced to prevent inadvertent selection and lowering of the undercarriage instead of the dive brake.
2. This modification introduces in the port or first pilot's engine control box an undercarriage selector lever with positive locking in the 'up' and 'down' positions, and a dive brake selector lever with a knob of altered shape.

Application

3. This modification is to be incorporated on Vampire Mk.33 aircraft and Ground Training Equipment not incorporating the approved equivalent modification, De Havillands (Aust.) modification V.636.

This modification is divided into two parts viz.

- (a) Part "A" is the modification of the Undercarriage Selector Lever incorporated by operations detailed in paragraphs 13 to 15, 17 to 29 inclusive, 34, 35 and 37 to 40 inclusive.

Notes: (i) Items 1, 3 to 5, 7, 8, 12, 13 and 15 to 19 of paragraph 8 are required for the incorporation of Part A.

(ii) Items 22 to 25 of paragraph 9 are rendered redundant by Part A.

- (b) Part "B" is the modification of the Dive Brake Lever incorporated by operations detailed in paragraphs 13, 15, 16 and 30 to 33 inclusive.

Notes: (i) Items 2, 6, 9 to 11, 14 and 16 to 18 inclusive of paragraph 8 are required for the incorporation of Part B.

(ii) Items 20 and 21 of paragraph 9 are rendered redundant by the incorporation of Part B.

Responsibility for Incorporation

4. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

VAMPIRE MODIFICATION NO. 102

Action in Respect of Spares

5. Spares will be modified at the factory prior to delivery to the Service.

Orders Superseded or Cancelled

6. Nil.

Equivalent Modifications

7. De Havilland (Aust.) Modification V.636 is the equivalent modification.

Supply

8. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class.
1		CE15-71AND	Undercarriage Selector Lever Sub-assy.	1	
2	A79/503470	L00847A	Dive Brake Lever Knob	1	
3		CE15-53ND	Rubbing Strip	1	
4		N15-53	Clip, for electric cables	1	
5	H28/7272	A25/2B	Bolt, H.Ts.Hex.HD 4 Bar 55" long	4	
6	H28/778	A16Y/GT	Nut, Hex. thin MS 5/16" B.S.F.	1	
7	H128F/15099	AS2227-304	Rivet, All Alloy 3/32 x 1/4" lg.	3	
8	H28/11021	AS1242-8B	Bolt, C'sk HTS 4BA x 1.15 long	2	
9	H28/13018	AGS2031/2	Cirolip, external 1/2" shaft	1	
10	H28/13091	AGS2031/6	Cirolip, external 5/8" shaft	1	
11	H28/12729	AGS2031/9	Cirolip, external 3/4" shaft	1	
12	H28C/2642	AGS253/19	Screws, wood M/S Rd.Hd. No.4 x 3/8"	1	
13	H28B/5032	AGS784/3	Pins, split 1/16" x 1" lg.	3	
14	H28B/5031	AGS784/2	Pins, split 1/16" x 3/4" lg.	1	
15		DTD36B	Dowel, spruce	AR	
16	K2/65	DTD577	Grease	AR	
17	K3/175		Zinc Chromate primer	AR	
18	K3/321		Enamel, Black	AR	
19	K4/180		Glue, Casein	AR	

VAMPIRE MODIFICATION No. 102

☒ Alternatives must not be used for these items without first referring to Air Force Head-Quarters.

Notes: (a) Items 1 to 15 inclusive are to be delivered from De Havillands Aircraft Pty. Ltd. to sub-modification section, 2 Aircraft Depot, who is to issue to units on demand.

(b) Items 16 to 19 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

9. The following parts are redundant:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class.
20	A79/502775	13.GE.305	Knob, Halves, Dive Brake Lever.	2	
21	A79/502776	15.GE.623	Thimble, Dive Brake Lever	2	
22	A79/502777	15.GE.385A) L00805 AS2229/304)	Undercarriage Selector Lever Complete with Saddle	1	
23	A79/500920	L002344	Undercarriage Knob	1	
24	A79/500921	L002345	Undercarriage Knob	1	
25	A79/500837	L00337	Contact Stud	1	

Notes: (a) Items 20 and 21 are to be returned to stores for use on Mk.33 Vampire aircraft.

(b) Items 23, 24 and 25 are to be returned to stores for use on Mk.30 and 31 Vampire aircraft.

(c) Item 22 is to be scrapped and disposed of in accordance with current authorised procedure.

Disposal of Parts in Stock

10. Items 20 and 21 are to be held as spares for the second pilot's throttle.

When Modification is to be Incorporated

11. This modification is to be incorporated as soon as practicable, but not later than at next minor inspection after receipt of modification sets.

Method of Incorporation

12. (a) Man-hours involved : Approximately twenty-five (25) man-hours are required to incorporate this modification.

Method of Incorporation (Cont'd)

(b) Special tools, jigs, &c. : Nil.

Sequence of Operations

13. The following instructions refer to the port or first pilot's engine control box only.

14. Remove first pilot's seat.

Important: Release hydraulic accumulator pressure.

15. Locate undercarriage selector lever, dive brake lever, flap selector lever and elevator trim wheel.

These parts are identified in Figure 4 of Section 4, Chapter 1 of Vampire Trainer Maintenance and Repair Manual.

16. Remove and retain elevator trim wheel by releasing circlip. Remove and retain control box cover by unscrewing five 2 B.A. c's'k bolts. Free dive brake connecting rod from bell crank and free bell crank from control box by releasing circlip.

17. Release undercarriage and flap connecting rods from the levers in control box.

18. Remove and discard knob and micro switch contact stud (items 23, 24 and 25) from undercarriage lever. Remove and retain knob from flap lever.

19. Disconnect electric lead to undercarriage micro switch and remove gate by undoing four 4 BA round head bolts in front face and four in back face.

Note: The bolts in back face can be unscrewed with the aid of a thin metal strip to engage the slots in the bolt heads and a universal box spanner passed through the slots of the gate). Retain gate and micro switch assembly for reworking.

20. Remove and discard undercarriage selector lever (item 22) by unscrewing the 2 BA. c's'k bolt on which the lever pivots sideways, leaving the lever boss in its shaft in the control box.

Note: This bolt is to be unscrewed to free it from the lever after removing lock nut.

21. Refer to drawing A.12132, sheet 1.

Take new undercarriage selector lever sub-assembly (item 1), check that lock tongue is free to slide and return under action of spring. Dismantle lever by removing knobs and micro switch contact stud, retain parts for re-assembly after fitting gate.

22. Assemble bare undercarriage lever to its boss in control box. Lightly grease with (item 16), 2 BA. c's'k bolt supplied with lever and check lever is free to swing sideways before tightening lock nut.

23. Take gate and remove and retain micro switch, spring and bracket assembly. Refer to drawing A.12132 sheet 2, rivet rubbing strip (item 3) to gate with 3/32" an.hd. rivets (item 7). Erase old Part No. and stamp CE15-75AND. Coat with zinc chromate primer (item 17) as required.

24. Dismantle micro switch and bracket assembly. Refer to drawing A.12132 sheet 2. Take bracket and file .05 inch from concave and convex edges, countersink two bolt holes as shown in drawing. Erase old Part No. and stamp CE15-59. Coat bright faces with zinc chromate primer (item 17).

25. Re-assemble micro switch and spring to bracket using 4 BA. c's'k bolts (item 8) in place of original hex. bolts. Re-assemble bracket assembly to gate using original bolts. Restore matt black finish where necessary.

26. Re-assemble gate to control box using four original bolts on inboard face and 4 BA. hex. bolts (item 5) in place of original bolts on face to fuselage side.

27. Take parts dismantled from undercarriage selector lever in operation 21, lightly grease (item 16) and re-assemble to lever.

28. Move undercarriage lever its full travel and see that locking tongue falls in to slot in gate of its own accord in both 'up' and 'down' positions and that it is impossible to move the lever from these positions without first withdrawing the locking tongue.

29. When satisfied with functioning of undercarriage lever, lock with centre punch nuts holding lever knobs and micro switch contact stud. Replace flap lever knob and lock with centre punch. Reconnect micro switch wiring.

30. Take control box front cover and remove dive brake lever by releasing circlip. Remove push rod and bell-crack assembly from lever by freeing top ball joint.

31. Take dive brake lever and remove knob (item 20), which together with ferrules (item 21) and screws return to stores. Refer to drawing A.12132, sheet 2. Open out end 3/16 inch hole with letter O (.316 inch) drill, c's'k .04 inch x 45° and either file .03 inch deep or counter bore .625 inch x .03 inch deep face of lever to fuselage side as shown in drawing. Fit knob (item 2) with 5/16 inch thin nut (item 6) and lock with centre punch. Erase old Part No. and stamp CE15-51A. Coat bright faces with zinc chromate primer (item 17) and restore matt black finish (item 18) as required.

32. Take modified dive brake lever and lightly grease (item 16) bearing and replace lever in front cover of control box using circlip (item II) in place of original. Lightly grease and re-make ball joint in push-rod assembly using split pin (item 14) in place of original.

33. Re-assemble front cover to control box using original bolts and lightly grease and replace bell crank on shaft securing with circlip (item 10) in place of original.

34. Re-assemble undercarriage, dive brake and flap connecting rods to their levers in control box, lightly grease joints and use original shackle pins and washers, but fit new split pins (item 13).

Note: Undercarriage connecting rod is to be assembled on outboard face and flap connecting rod on inboard face of their respective levers.

35. Operate undercarriage lever and if due to positioning of undercarriage connecting rod as in operation 34 the rod in any part of its travel comes in contact with (1) the electric cables or (2) the three terminal blocks in the fuselage side.

(a) Replace the 'P' clip holding electric cables with bridge type clip (item 4) and flatten cables against fuselage side. Secure new clip with original bolt to ferrule at top end and screw bottom end with 3/8 inch No.4 round head woodscrew (item 12) to top rear corner of ply mounting block for terminals.

(b) Remove terminals, plug woodscrew holes with spruce dowels (item 15) and glue (item 19). Position terminals to clear connecting rod fixing with original woodscrews and making sure they land on ply block.

36. Replace elevator trim wheel using circlip (item 9) in place of original.

37. Check correct functioning of undercarriage, dive brake; flap and elevator trim controls from control box.

38. Restore matt black finish (item 18) as necessary.

39. Replace first pilot's seat.

Tests

40. Recharge hydraulic accumulator and carry out normal hydraulic functioning test.

Recording

41. Record the modification in the Airframe log book.

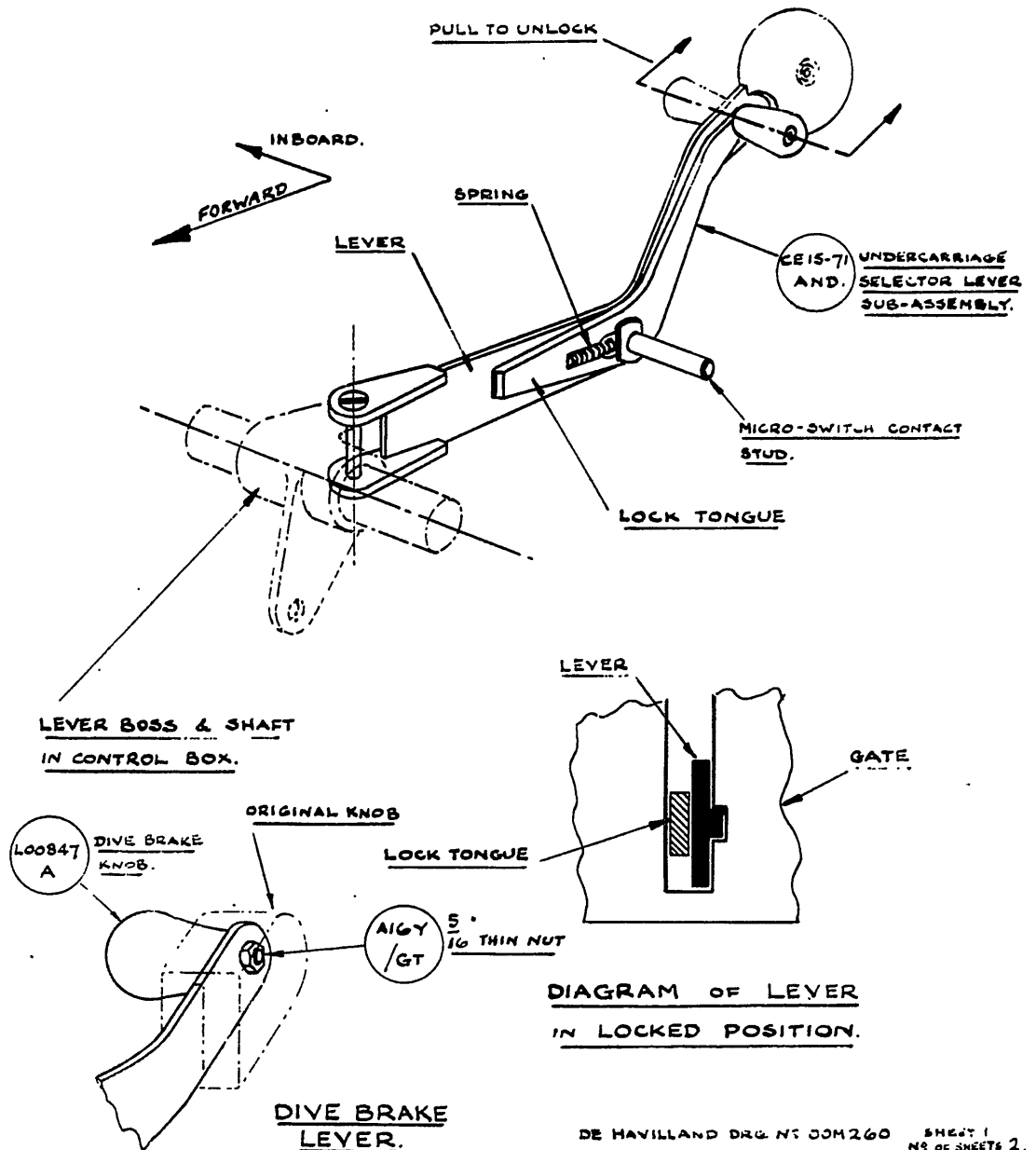
Drawings

42. Drawing A.12132, sheets 1 and 2, is attached.

Effect on Weight and Balance

43. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/16 and 150/4/8712.
Attachment : Drawing A.12132 sheets 1 and 2.
Date of Issue : 8th March, 1954.



DE HAVILLAND DRG. NO. DDM260 SHEET 1 OF 2 SHEETS 2.

DIRECTORATE OF TECHNICAL SERVICES, R.A.A.F.

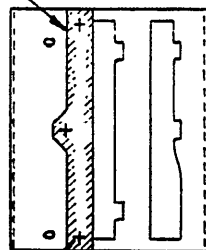
POSITIVE LOCKING OF UNDERCARRIAGE SELECTOR LEVER & REDESIGNED HANDLE FOR DIVE BRAKE SELECTOR LEVER. INTRODUCTION VAMPIRE TRAINER.

COCKPIT CONTROLS.
VAMPIRE MK 39.
GOBLIN
VAMPIRE MOD. N°102

A12132
SHT 1 OF 2 SHTS.

CEIS-53
ND RUBBING
STRIP.

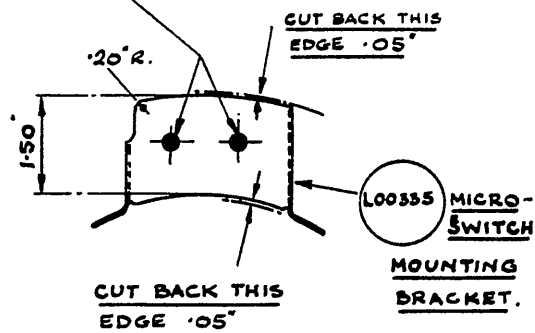
15CE369 GATE



AS
2227
-304 3/32 SNAP H'D
RIVET.

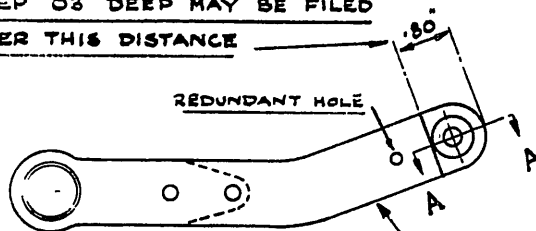
RIVETTING OF RUBBING STRIP TO GATE

COUNTER SINK EXISTING
HOLES .25" DIA. X 90°



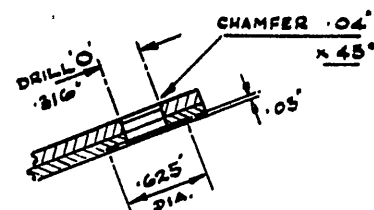
MODIFICATION TO MICRO- SWITCH MOUNTING BRACKET.

AS ALTERNATIVE TO .625" C/BORE
SHOWN AT SECTION A-A
STEP .03" DEEP MAY BE FILED
OVER THIS DISTANCE



MODIFICATION TO DIVE BRAKE LEVER.

15CE349 DIVE BRAKE
LEVER.



SECTION A-A FULL SIZE

DE HAVILLAND DRG NO 00M260 SHEET 2
NO OF SHEETS 2.

DIRECTORATE OF TECHNICAL
SERVICES. R.A.A.F.

POSITIVE LOCKING OF UNDERCARRIAGE
SELECTOR LEVER & REDESIGNED HANDLE
FOR DIVE BRAKE SELECTOR LEVER.
INTRODUCTION VAMPIRE TRAINER.

COCKPIT CONTROLS
VAMPIRE MK 33
GOBLIN.
VAMPIRE MOD. N° 102

A12132
SHT. 2 OF 2 SHTS.

Restricted

Air Force Head-Quarters

VAMPIRE MODIFICATION NO. 103

Technical Order

Class. 2

TO RESET THE CABIN AIR TEMPERATURE - CONTROL
VAMPIRE TRAINER

Reason for and Description of Modification

1. Cases have occurred overseas, where it is not possible to obtain the correct range of air temperature control and this has been attributed to incorrect marking of temperature control handwheel, resulting in incorrect setting of the cams.
2. This modification introduces markings on the periphery of the handwheel and gives instructions for the correct setting of the cams.

Application

3. This modification is applicable to Vampire Mk.33 aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) Modification V.650.

Responsibility for Incorporation

4. Units holding relevant aircraft are responsible for the incorporation of the modification. The trade mastering responsible is airframe fitter.

Action in Respect of Spares

5. Spares will be modified before delivery to the Service.

Orders Superseded or Cancelled

6. This order supersedes D.T.S. Special Instruction Vampire/61.
7. Any handwheels marked to above Special Instruction are to have markings checked against this order and if not in agreement are to have old markings erased and be re-marked in accordance with this order.
8. Any cams set to above Special Instruction are to be checked to see they agree with this order and re-set if necessary.

Equivalent Modification

9. De Havilland (Aust.) Mod. V650 is the equivalent modification.

Supply

10. No parts are required to complete this modification, but the following are to be drawn from Unit Stores for remarking of handwheel:-

VAMPIRE MODIFICATION NO. 103

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per A/C	Stores Class
1	K3/174	-	Thinners	A.R.	
2	K3/321	-	Matt. Black	A.R.	
3	K3/342	-	White Enamel	A.R.	

Disposal of Parts Removed

11. No parts are rendered redundant by this modification.

Disposal of Parts in Stock

12. No action required.

When Modification is to be Incorporated

13. This modification is to be incorporated as soon as possible, but not later than the next minor inspection after receipt of modification sets.

Method of Incorporation

14. (a) Man-hours involved : Approximately ten (10) man-hours are required to carry out this modification.
- (b) Special Tools, Jigs, &c. : None required.
- (c) Sequence of Operations :
- (i) Locate cabin air control handwheel between and to rear of pilots' seats, this is identified as item 17 in Figure 4, Section 1, Chapter 1 of Vampire Trainer Maintenance and Repair Manual.
- Locate Air valves and cams assembly on port side frame of engine mounting top tube. This assembly is identified as item 1 on Figure 9a, Section 4, Chapter 1, of the Manual. Further, identify forward valve and cam as hot and aft valve and cam as cold.
- (ii) Refer to drawing A.12128 and check markings on handwheel and setting of cams, if these are in agreement with drawing no further action is necessary, but if alterations are necessary to bring either handwheel or cams or both into line with drawing proceed as follows:-

Method of Incorporation (Cont'd)

Cabin Air Control Handwheel

- (iii) Remove handwheel by taking out 4BA hex. bolt through boss and sliding handwheel off splines.

Note: Before removal note position of wheel so that it can be put back on same splines.
- (iv) Erase with thinners (item 1) and matt black (item 2) all markings on handwheel.
- (v) With white enamel (item 3) mark periphery of handwheel as shown on drawing, making lettering approximately 7/32 inch high.
- (vi) Replace handwheel on splines of teleflex control box using original 4BA hex. bolt and stiffnut making sure handwheel is in its original position.

Cam Settings :-

- (vii) Refer to drawing and with handwheel at 'OFF' set cams as shown with scribed lines on cams vertical i.e. parallel to valves.

Note: Hot cam (forward) has a line scribed on its side face and along its longest axis and when cam is correctly assembled, this line is to be on the face towards the front of the aircraft. Cold cam (aft) has a line similarly scribed, but along its shortest axis and when correctly assembled, this line is to be on the face towards the rear of the aircraft.

- (d) Tests : Move handwheel through its full range checking at each position that valves will then give supply of air appropriate to the markings on the handwheel.
- (e) Recording : Record this modification in the Airframe Log Book.

Drawings

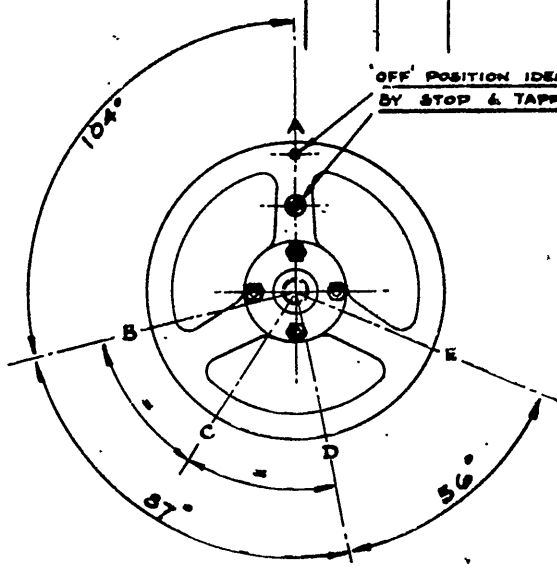
15. Drawing A.12128 is attached.

Effect on Weight and Balance

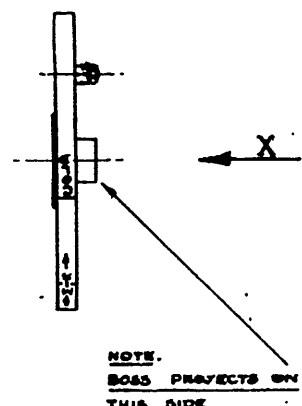
16. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/275 and 150/4/8718.
Attachment : Drawing A.12128.
Date of Issue : 8th March, 1954.

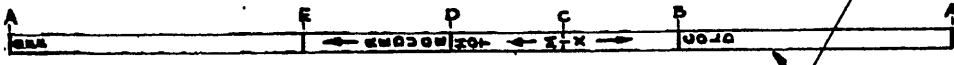
ISSUE	DATE	ALTERATION	D.I.L.	INITIALS	APPR.
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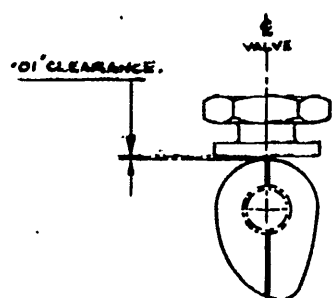
VIEW ON X



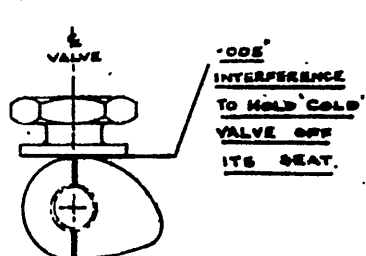
NOTE.
BOSS PROJECTIONS ON
THIS SIDE.



DEVELOPMENT OF MARKINGS ON HANDWHEEL PERIPHERY.



HOT
LOOKING AFT.



COLD
LOOKING FORWARD

CAMS SET IN 'OFF' POSITION

25 HANWHEEL 254-0001263 17 SHEETS 1

REFERENCE	ISSUED BY	TITLE
	DIRECTORATE OF TECHNICAL SERVICES. R.A.A.F.	RESETTING CABIN AIR TEMPERATURE CONTROL - VAMPIRE TRAINER.
LIMITS UNLESS STATED DECIMALS $\pm .010$	MATERIAL SPEC.	COMPONENT OF COCKPIT
FRACTIONS $\pm \frac{1}{32}$	TREATMENT	MACHINE VAMPIRE MK. 33
ANGLES $\pm \frac{1}{2}^\circ$	FINISH	ENGINE GOBLIN
SURFACE FINISH AUSTRALIAN STANDARD ENG. DRAWING PRACTICE A. S. C. 1	SCALE	TECH. ORD. VAMPIRE MOD. 103
	DRAWN	DRAWING NO. A12128
	TRACED	
	APPROVED	
	CHECKED	

Restricted

Air Force Head-Quarters

VAMPIRE MODIFICATION NO. 104

Technical Order

Class 2

STARTER TIMING CIRCUIT - MODIFICATION

Reason for and Description of Modification

1. This modification authorises the introduction of a circuit breaker and a cover in lieu of the existing fuse in the starter timing circuit, and alters the wiring to prevent damage to the slow engagement relay by attempting to start the engine without the starter circuit breaker closed, and to prevent the cutting out of the booster coil and subsequent fire hazard, due to the overloading and failure of the existing 10 amp. fuse during engine starting.

Application

2. This modification is applicable to Vampire Aircraft A79-801 to 811 inclusive.

Responsibility for Incorporation

3. The work is to be carried out by electrical personnel at units or contractors holding relevant vampire aircraft.

Action in Respect of Spare (Engines)

4. Not applicable.

Orders Superseded or Cancelled

5. Not applicable.

Equivalent Modification

6. De Havilland (Aust.) Modification V.635 is the manufacturer's equivalent modification.

Supply

7. The following parts are required to modify one aircraft:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class.
1	G5C./2560	A32/48	Circuit Breaker Type A2.	1	A
2	G5C./4520		Circuit Breaker Cover	1	A
3	H28./3501		Screw M.S. Round Head GRAX 1/4 long	2	C
4	G5E./30155		Cable, AN18, one core vin	3"	C
5	G5F./500001		Tape, insulating, P.V.C. 5/8 wide	As Reqd.	

VAMPIRE MODIFICATION NO. 104

- Notes: (a) Items 1 to 4 are to be supplied to sub-modification Section, 2 A.D. by the Controller of Equipment, Air Force Head-Quarters.
- (b) Sub-modification Section are to make up sets comprising of items 1 to 4, who will automatically distribute modification kits to units holding aircraft.

Disposal of Parts Removed

8. The following parts are redundant:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class.
6	G5C./2561		Circuit Breaker Type A3.	1	A
7	G5C./881		Fuse 10 amp.	1	C

Note: Items 6 and 7 are to be conditioned and returned to stores equipment section.

Disposal of Parts in Stock

9. Not applicable.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than at next minor inspection, following the receipt of modification kits.

Method of Incorporation

11. (a) Man-hours involved : Approximately ten (10) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : Nil.
- (c) Sequence of Operations :
- (i) Refer to drawing No.A1214.1. Gain access to the starter panel on the lower R.H. half of the rear face of bulkhead No.4 by opening the lower engine inspection door.
- (ii) Locate and remove cable, coded "SA+" which is connected between the 2 way terminal block and the relay at the R.H. side of the panel.
- (iii) Change Part No. of panel from 13.N. 751A to 15N. 1219A.

Method of Incorporation (Cont'd)

- (iv) Close the lower engine inspection door.
- (v) Locate junction box No.1 on the lower R.H. side of the cockpit wall and disconnect the loom sockets from their associated plugs. Remove the "P" clips securing the junction box floodlight cable and the undercarriage override switch cable to the cockpit wall, and then disconnect the latter cable from its terminal block.
- (vi) Unscrew the 2 woodscrews securing the floodlight to the cockpit wall and then proceed to remove the junction box from the aircraft.
- (vii) Remove both the front and rear panels from the junction box and disconnect the two link cables coded "GA2+" from the existing No.2 circuit breaker, which is at present spare.
- (viii) Replace this circuit breaker (item 6) with new circuit breaker (item 1).
- (ix) Locate the fuze No.30, disconnect the two (2) links coded "SA2" from the fuse and re-route them to the newly installed circuit breaker. Also connect up the original link cable "GA2+" (refer paragraph (vii)).
- (x) Locate the fuse transfer on the fuse box containing fuse No.30 and blank out the '10 starter' against fuse No.30.
- (xi) Fit the cover (item 2) over the new circuit breaker No.2 with round head screws (item 3).
- (xii) Replace the front and rear covers of the junction box with their original attachments. Alter the Part No. of the junction box 15.N. 625/1 to read 15.N. 625A/2.
- (xiii) Assemble the junction box in the aircraft, adopting the reverse procedure to that followed in paragraphs (ix) and (x).
- (xiv) At rear of the upper instrument panel, disconnect the cable coded "SA3+" from the starter master switch. Insulate the cable with tape (item 5) and tie back.
- (xv) Install a new link cable (item 4) coded "SA2+" between the master switch terminal, left vacant and the terminal on the adjacent switch, to which the existing cable, coded "SA2+" is connected as shown on drawing.

VAMPIRE MODIFICATION NO. 104

Method of Incorporation (Cont'd)

- (xvi) Gain access to the junction box 2 on the upper R.H. half of the rear face of bulkhead No. 4 by opening the upper engine inspection door. Locate and remove the fuse, No. 41 (item 7).

- (d) Tests : Functionally test circuit.
(e) Recording : Log Book Action is required.

Drawings

12. Nil.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weights and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/36 and 150/4/8738

Date of Issue : 7th April, 1954.

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 105

Class 2

**SELF-SEALING COUPLINGS IN HYDRAULIC PUMP CIRCUIT
AT ENGINE - REPOSITIONING**

Reason for and Description of Modification

1. This modification authorises the repositioning of the self-sealing hydraulic couplings in the engine bay. These are at present inaccessible, making their use, during an engine change, impossible.

Application

2. This modification is applicable to Vampire Mk.33 Aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) modification V.639.

This work must be carried out prior to, or concurrently with Vampire Modification No.100, as the fuel vent relief valve cannot be fitted, until the self-sealing couplings have been repositioned.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modification

6. De Havilland (Aust.) Modification V.639 and Air Ministry Modification VAM.996 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per A/c	Stores Class
1		Q003693	Adapter, in pump housing	1	
2		Q003695	Adapter, in pump housing	1	
3	H28/72741	A25/ ¹⁸ 25	Bolt, ^{H.T.S. HEX. AD 4BA X.5} 4 BA X.6" long, hex, H.T.S. LONG	8	

AK2

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 105

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per A/c	Stores Class
4		L003689	Bracket, coupling support	1	
5	T27M/8762	AVA.58/C	Coupling, flanged, half 3/8" dia. pipe	1	
6	T27M/8900	AVA.58/D	Coupling, flanged half 1/2"	1	
7	H28/27138	SE40/A10	Grommet, for 7/16" dia. hole	1	
8	H28/27024	AGS.2001/B/1	Nut, 4BA, M.S.	8	
9	H128F/30312	AS2228/405	Rivet, 1/8" dia. x 5/16" long, mushroom head, alum. alloy	4	
10	H128F/30313	AS2228/406	Rivet, 1/8" dia. x 3/8" long, mushroom head, alum. alloy	2	
11	H128F/63524	AS2228/407	Rivet, 1/8" dia. x 7/16" long, mushroom head alum. alloy	1	
12	H128F/30324	AS2228/506	Rivet, 5/32" dia. x 3/8" long, mushroom head, alum. alloy	1	
13	H128F/30325	AS2228/507	Rivet 5/32" dia. x 7/16" long, mushroom head, alum. alloy	1	
14	H128F/63365	AS2229/404	Rivet, 1/8" dia. x 1/4" long, C'S'K 90°, alum. alloy	3	
15	H128F/62509	AS2229/405	Rivet, 1/8" dia. x 5/16" long, c's'k 90° alum. alloy	4	
16	H128F/5725	AS2230/405	Rivet, 1/8" dia. x 5/16" long, c's'k 120° alum. alloy	4	
17	H128F/6040	AS2230/505	Rivet, 5/32" dia. x 5/16" long, c's'k 120° alum. alloy	1	
18		AGS.2048/429/BS	Rivet, tucker pop, 1/8" dia. x .29" long, sn.hd., alum. alloy	3	

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VAMPIRE MODIFICATION NO. 105

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per A/c	Stores Class
19		Q003701AND	Pipe assy., pump suction	1	
20		Q003697AND	Pipe assy., pump press	1	
21	II/2188		Wire locking, 22 SWG, nickel alloy	AR	
22	K3/353		Compound, Jointing, to spec. DTD. 369A	AR	
23	132A/2006		Twine, waxed, coreless	AR	
24		15.E.IND	Pipe, air filter	1	
25		15.V.361	Pipe assy.	1	
26	A79/500076	AS487/10	Clip	1	
27	A79/502911	13.E.17A	Bracket, for air filter	1	
28	H28/7278	A25/7C	Bolt, hex. H.T.S., 2 BA, 1.15 long	2	
29	H28C/12296	SP15C	Washer, alum.alloy .2" i/d x .39" o/d x .05" thick	3	
29A	H28C/12306	SP15/B	WASHER AL. ALLOY, PLAIN, THIN, 4BA		
30	H28/27025	AGS.2001/C/1	Nut, nyloc, 2 BA	3	
31	H28/27114	AS3181/5C	Clip, 'P', 5/16" i/d x 1/2" wide	1	
32	H28/14055	AS3181/8C	Clip, 'P', 1/2" i/d x 1/2" wide	1	

Notes: (a) Items 1 to 20 inclusive and 24 to 32 inclusive are to be delivered from De Havilland Aircraft Pty. Ltd., to Sub-modification Section, 2 Aircraft Depot, which is to issue these items on demand.

(b) Items 21 to 23 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts are rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per A/c	Stores Class
33		Q001010	Adapter, hose press	1	
34		Q002104	Adapter, hose suction	1	

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VAMPIRE MODIFICATION NO. 105

Disposal of Parts Removed (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off Per A/c	Stores Class
35		L0094A	Angle, reinforcing	1	
36		Q002131	Block, clamp	1	
37		Q002132	Block, clamp	1	
38	H28/7151	6A1/18C	Bolt, 2 BA x 2.2" long, hex, L.T.S.	1	
39	T27M/9011	AVX.553	Coupling, stud half, self-sealing	1	
40		AVX.554	Coupling, stud half, self-sealing	1	
41		Q002281AND	Pipe assy., pump suction	1	
42		Q002280AND	Pipe assy., pump pressure	1	
43	H28C/12296	SP15/C	Washer, alum. alloy., .2" i/d x .39" o/d x .05" thick	1	
44	H128F/30312	AS2228/405	Rivet, $\frac{1}{8}$ " dia. x 5/16" long, mushroom head, alum. alloy	1	
45	H128F/30323	AS2228/505	Rivet, 5/32" dia. x 5/16" long, mushroom head, alum. alloy	2	
46		AS2228/506	Rivet, 5/32" dia. x $\frac{3}{8}$ " long, mushroom head, alum. alloy	1	
47	H128F/30237	AS2229/405	Rivet, $\frac{1}{8}$ " dia. x 5/16" long, c's'k 90°, alum. alloy	5	
48	H128F/5725	AS2230/405	Rivet, $\frac{1}{8}$ " dia. x 5/16" long, c's'k 120°, alum. alloy	4	
49		13.V.115ND	Pipe assy.	1	
50		15.Z.93ND	Pipe, air filter	1	

Note: Items 33 to 42 and 49 to 50 inclusive are obsolete and are to be disposed of in accordance with current authorised procedure.
Items 43 to 48 are to be discarded as being of no value.

Disposal of Parts in Stock

9, Dispose of items 33 to 42 and 49 to 50 inclusive in accordance with current authorised procedure.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor inspection after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately twenty-five man-hours are required to incorporate this modification, excluding removal of engine and testing.
- (b) Special Tools, Jigs, &c. : No special tools are required.
- (c) Sequence of Operations :
- (i) Remove the engine as detailed in the Vampire Trainer Maintenance and Repair Manual, section 4, chapter 1, paragraphs 18 and 19.
 - (ii) Release ^{THE} ~~in~~ hydraulic accumulator pressure and drain the hydraulic fluid from the aircraft in accordance with current authorised procedure. AL 19
 - (iii) Remove the pressure and suction flexible hoses (Part Nos. Q003717 AND and Q002233AND) from their adapters at the bottom of the rear face of the fireproof bulkhead and retain them for future reassembly.
 - (iv) Seal all disconnected hydraulic pipe ends and adapters in accordance with Australian Air Publication 702.1, Aircraft Engineering Instruction General, Part 6, Section 1, paragraph 14.
 - (v) Locate the engine driven pump on the lower portside of the wheel case. Remove the now redundant self-sealing stud half couplings, items 39 and 40 from the 'in' and 'out' ports in the pump housing and replace them with the new adapters, items 1 and 2.
 - (vi) Connect the two flexible hoses, removed in operation (iii) to the new adapters in the pump housing. The tubular nuts that connected the pipes to the adapters on the bulkhead are now used to connect them to the pump housing adapters.
 - (vii) Wirelock the adapters and the tubular nuts with 22 SWG nickel alloy wire, item 21.

Method of Incorporation (Cont'd)

- (viii) Disconnect the now redundant hydraulic pipe assemblies, items 41 and 42 from the ground test connection block on the portside of the rear face of the firewall. Completely remove the two pipe assemblies and their redundant hose adapters, items 33 and 34 by releasing the three clamp blocks along the bottom of the bulkhead. Retain all the clamp blocks and their attachments items for future re-assembly with the exception of those on the starboard reinforcing angle, items 36, 37, 38 and 43.
- (ix) When the clamp blocks are released so also are the pipe clips securing the barometric pressure control pipes to the clamp blocks. Completely remove the existing total head airline that runs from the starboard wing root to the banjo total head air connection on the B.P.C. Unit, retaining the following items for re-assembly:-

Flexible hose pipe between the B.P.C. pipe and banjo connection on the B.P.C. Unit, hose joints and associated clips, 'P' clip, Vokes air filter and attachment clip and the drain pipe assembly complete with its down pipe, hose and clips.

Temporarily blank off the upper-most filter connection to prevent dust and dirt from entering the system.
- (x) Remove the fuel drain pipe assembly from its connections at the main fuel tank and collector box and from its attachments at the aft face of the fireproof bulkhead. Plug the adapters from which the fuel pipe is removed and retain the pipe for future re-assembly. Now remove and retain the nine 2BA bolts attaching the armament relay panel to the forward face of the fireproof bulkhead. Lift the bottom of the panel forward and upward to gain access to the rivets attaching the starboard vertical stiffener to the bulkhead. Support the panel in this position.
- (xi) At the bottom of the lower starboard cowling support channel, drill out the first four countersunk $\frac{1}{8}$ inch diameter rivets, item 48 attaching the Ferrodo bonnet tape to the support channel, using a No. 30 drill.
- (xii) Remove the now redundant starboard reinforcing angle, item 35 by drilling out the five rivets, item 47 again using the No. 30 drill.
- (xiii) Refer drawing A.12143. Offer up the new coupling support bracket, item 4 and mark off its position on the bulkhead.

Remove the bracket and drill out any existing rivets in the bulkhead necessary to pick up on or to permit the bracket to seat flush against the bulkhead.

Method of Incorporation (Cont'd)

Use a No. 30 drill for the $\frac{1}{8}$ inch diameter rivets, item 44 and a No. 21 drill for the $\frac{5}{32}$ inch diameter rivets items 45 and 46.

Note: If Vampire Modification No. 100 is being embodied concurrently, the cutting back of the vertical stiffener on which the new bracket picks up should be carried out at this stage of the operations.

- (xiv) Fill the redundant rivet holes in the bulkhead and channel (previously used for the redundant reinforcing angle) with three $\frac{1}{8}$ inch diameter countersunk rivets, item 14 and two $\frac{1}{8}$ inch diameter countersunk rivets, item 15.
- (xv) Refer drawing A.12143 and locate the 5.32 inch diameter hole through the bulkhead and channel that cannot be used to attach the new coupling support bracket. On the rear face of the bulkhead countersink this hole 120° on a depth of .045 inch. Rivet up using one rivet, item 17.
- (xvi) Refer the drawing once more and again offer up the new coupling support bracket to the bulkhead and drill off the thirteen (13) holes using a No. 30 drill for the 11 $\frac{1}{8}$ inch diameter rivets and a No. 21 drill for the two $\frac{5}{32}$ inch rivets. When drilling out the three holes at the top of the bracket for the three buker pop rivets, do not permit the drill to enter more than 0.30 inch through the bulkhead to avoid fouling the channel section on the forward face of the bulkhead.
- (xvii) Release the bracket, deburr all holes, coat the mating surfaces with seaming compound, item 22 and attach the bracket with the rivets, items 9, 10, 11, 12, 13, 15 and 18 as detailed on the drawing.
- (xviii) Reassemble all items removed in operation (X)

Note: If Vampire Modification No. 100 is embodied concurrently, the fitment of the fuel vent relief valve and the necessary cutting back of the bonnet tape is most conveniently carried out at this stage of the operations.

- (xix) Re-attach the bonnet tape to the cowling support channel using four rivets, item 16.
- (xx) Attach the two new half couplings, items 5 and 6 to the new bracket with their flanges outboard of the bracket with their flanges outboard of the bolts, washers and nuts, items 3, 29A and 8" 3 and 8. in lieu of "using eight bolts and nuts, items 3 and 8".

Method of Incorporation (Cont'd)

Coat the mating surfaces with seaming compound, item 22.

- (xxi) Fit the two new pipe assemblies, items 19 and 20, thoroughly cleaned, to the ground test connecting block and the new flanged half coupling at the support bracket. Wirelock all connections with 22 SWG nickel alloy locking wire, item 21.
- (xxii) Re-assemble the original port and central clamp blocks and their attaching parts, retained in operation (iii) to secure the two new pipe assemblies along the bottom of the bulkhead.
- (xxiii) Refer to drawing and attach the Vokes filter retained in operation (ix) to the new bracket, item 27 using the hose clip also retained in operation (ix). Temporarily attach this assembly to the port engine mounting, at the approximate dimension shown on drawing, using two each of items 26, 28, 29 and 30.
- Note: Ensure that the new barometric pressure control pipes and the down pipe assembly are internally clean and free from obstruction before carrying out operations (xxiv), (xxv) and (xxvi).
- (xxiv) Insert the new grommet, item 7 in the 7/16 inch diameter hole in the new coupling bracket, item 4. Offer up the new starboard pipe, item 25, pass it through the grommet and connect it to the existing pipe at the starboard wing root. Refer to drawing and secure the new pipe firmly to the existing central clamp block using the 'P' clip salvaged in operation (ix). Bind with waxed coreless cord, item 23 to adjacent pipes where necessary to eliminate vibration.
- (xxv) Next offer up the existing drain pipe assembly with its down pipe assembly and connect to the new pipe, item 25 positioned in the last operation using the existing hose clips and hose couplings.
- (xxvi) Refer to drawing and place a 'P' clip, item 32 around the existing $\frac{1}{2}$ inch diameter pump suction pipe positioned in operation (xxi). Slide a 'P' clip, item 31 on to the port air filter pipe, item 24 and connect these two 'P' clips with bolt, washer and stiffnut, items 28, 29 and 30.

Method of Incorporation (Cont'd)

Now connect the new pipe, item 24 to the Vokes filter and the drain pipe assembly, using the hose joints and clips retained in operation (ix). Firmly secure the bracket item 27 positioned in operation (xxiii) to the port engine mounting.

(xxvii) Refer to drawing and cut the flexible hose retained in operation (ix) to an approximate length of 8 inches. Report No.13.E.25ND. Connect to the Vokes filter (after removing the protective covering placed on the filter in operation (ix)) and to the banjo connection on the repositioned B.P.C. unit using the existing clips.

(xxviii) Finish in accordance with Australian Air Publication 702.1, Aircraft Engineering Instruction General, Section 1, Instruction 10.

(xxix) Re-install the engine in accordance with the Vampire Trainer Maintenance and Repair Manual, section 4, chapter 1, paragraph 20.

(xxx) When the engine is replaced, connect the union half couplings on the two hydraulic flexible pipes from the engine driven pump to the flanged half couplings on the support bracket and wirelock them with 22 SWG nickel alloy wire, item 21.

(d) Tests : Fill, prime and functional test the system in accordance with current authorised procedure.

(e) Recording : Record the modification in the Airframe Log Book and on the form E/E.77.

Drawings

12. Drawing A.12143, sheets 1 and 2 is attached.

Effect on Weight and Balance

13. The effect of this modification on the weight and balance of the aircraft is negligible.

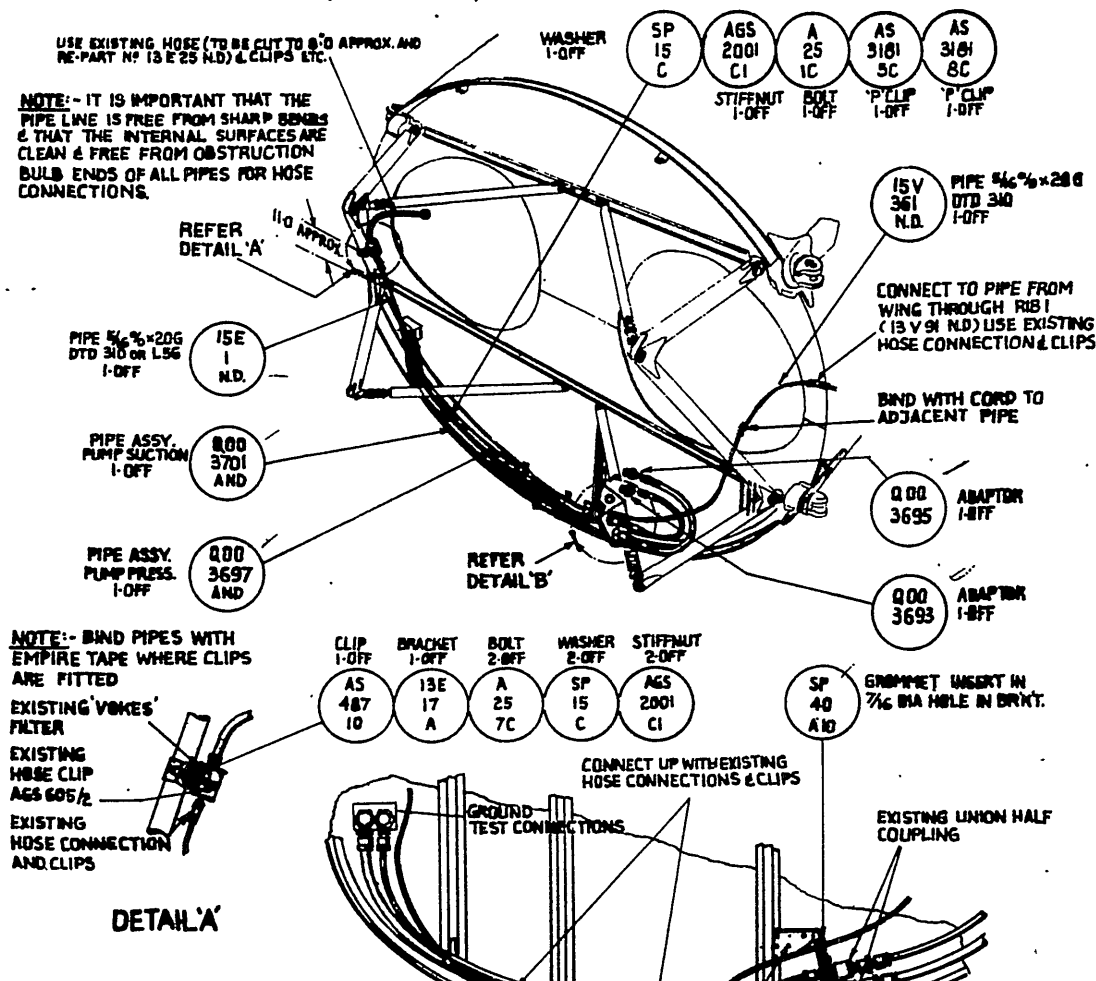
References : Files R.A.A.F. 9/84/74 and 150/4/8750.

Attachment : Drawing A.12143, sheets 1 and 2.

Date of Issue : 12th May, 1954.

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	BY	INITIALS	REMARKS



(c) Drawing A.12143, Sheet 1, at the lower right hand corner -

(1) Insert "A25/1B, Bolt 8 off" in lieu of "A25/2B, Bolt, 8 off".

(11) Insert "SP15/B, Washer, 8 off".

2.

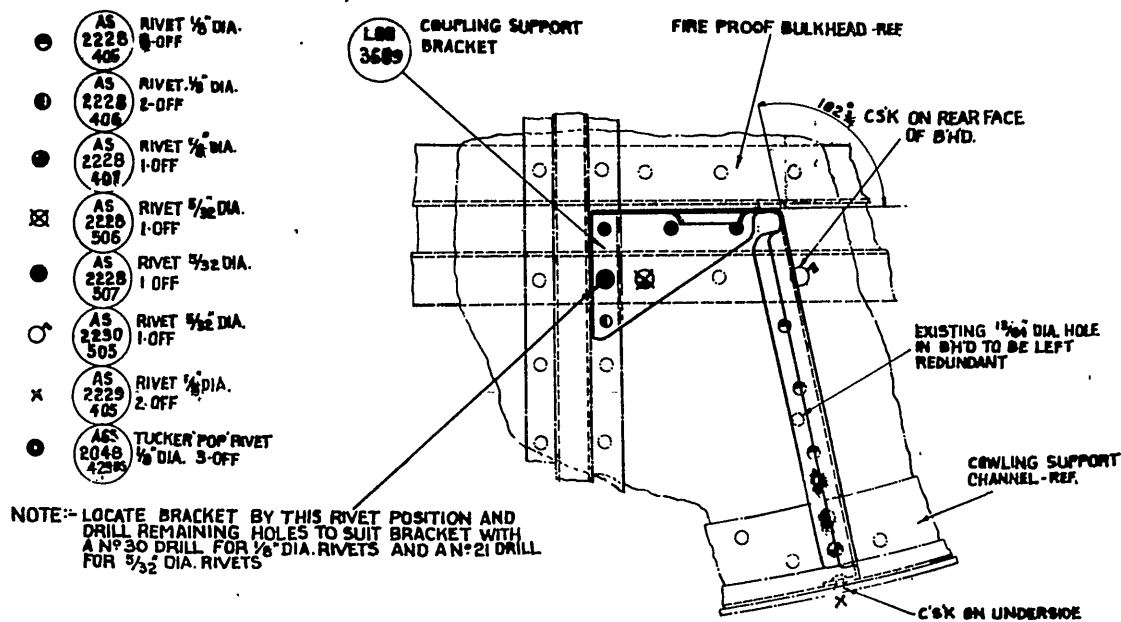
When the above amendments have been incorporated, make the necessary entry in the Amendment Certificate.

Reference : File R.A.A.F. 150/4/8750

Date of Issue : 5th August, 1954.

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	B. I. L.	INITIALS	APPROVED



REFERENCE

ISSUED BY

DE HAVILLAND DRE. N° 00M 252 SHEET N° 2

TITLE

SELF-SEALING COUPLINGS IN HYDRAULIC PUMP CIRCUIT AT ENGINE - REPOSITIONING -

LIMITS UNLESS STATED	MATERIAL	COMPONENT OF
DECIMALS ± .010"	SPEC.	MACHINE
FRACTIONS ± 1/32"	TREATMENT	ENGINE
ANGLES ± 1°	FINISH	TECH. ORDER
SURFACE FINISH	SCALE	DRAWING NO.
ASSEMBLY STAMPING	DATE	
WELDED PARTS ALLOY	THICKNESS	
	APPROVED	
	CHECKED	

Fuel system.

Vampire MK.33

Godlin

Vampire Mod. No. 105

A-12143 5442

SIZE A

Restricted

A.A.P.721:79, Vol.2, Part 2.

VAMPIRE MODIFICATION NO. 106

Class 2.

RELIEF VALVE IN FUEL SYSTEM VENT LINE -- INTRODUCTION
'VAMPIRE' FIGHTER MK. 30 & MK. 31

Reason for and Description of Modification

1. (a) This modification authorises the introduction of a relief valve in the fuel vent line to maintain a slightly positive pressure throughout the system, thereby preventing the wing fuel tanks from panting.
- (b) It is essential that Royal Australian Air Force Vampire Modification No. 101 (which introduces light weight packing to fill the space between the tank walls and wing structure, thus preventing movement of the tank and straining of tank connections), is incorporated prior to or concurrently with this modification.
- (c) For the installation of the relief valve on Vampire Trainer Mk.33 refer Royal Australian Air Force Vampire Modification No. 100.

Application

2. This work is to be carried out on all Mk.30 and Mk.31 Aircraft, with the exception of aircraft serial No. A79-89 on which D.H. (Aust.) Modification V.174 has already been incorporated.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Refer to paragraph 9. No unmodified lower bulkheads have been supplied by De Havilland Aircraft Pty. Ltd.

Orders Superseded or Cancelled

5. Royal Australian Air Force Vampire Modification No.26 is superseded and cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.184 is the manufacturer's equivalent modification.

A.A.P.721:79, Vol.2, Part 2.

VAMPIRE MODIFICATION NO. 106

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1		OOL309ND	Angle, reinforcing.	1	
2		OOP163ND	Packing, fibre.	1	
3		OOP165	Packing, fibre.	1	
4	A79/503461	OOP167A	Bracket, vent assy.	1	
5	A79/503460	OOP169A	Valve, vent relief assy.	1	
6	A79/503462	OOP171AND	Pipe, drain assy.	1	
7	T320/500049	D.H.S.160/ F 20	Pipe coupling, Hose, 1.0", I.D. x 2.0" long.	1	
8	G5A/26678	D.H.S.47/10	Bonding, flexible.	1	
9	G5A/26683	D.H.S. 47/20	Bonding, flexible.	1	
10	H28/7271	A25/1B	Bolt, H.T.S., Hex. Hd., 4 B.A. x .50" long.	6	
	or				
	H28/7013	6A1/1B	Bolt, M.S., Hex. Hd., 4 B.A. x .45" long.	6	
11	H28/8183	A.G.S. 605/1	Clip, Hose Pipe, Mkr.1 (7/8" to 1 1/2" O/D).	2	
12	H28/27024	A.G.S. 2001/ B/1	Nut, Stiff, M.S., Hex. Thick 4 B.A.	14	
13	H28/9562 (0)	AS1882/2/B	Bolt, M/S., Csk. Hd., 90°, 4 B.A. x .55"	8	
	or				
	H28/8301	AS1242/2/B	Bolt, 4 B.A. x .55" long Csk. Hd., 90° H.T.S.		
14	H128F/63365	AS2229/404	Rivet, Al. Alloy, Csk. Hd., 90°, 1/8" D. x 1/4" long.	15	
15	H128F/62510 30238	AS2229/406	Rivet, Al. Alloy, Csk. Hd., 90°, 1/8" D. x 3/8" long.	30	
16	H128F/5725	AS2230/405	Rivet, Al. Alloy, Csk. Hd., 120° 1/8" D. x 5/16" long.	4	
17	H28C/12305	SP.13/B	Washer, M.S., Plain, Thin, 4 B.A.	14	

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VAMPIRE MODIFICATION NO. 106

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
18	K4/10880		Bostik 'C'.	A.R.	
19	K3/353		Compound, Jointing to spec. D.T.D. 369A.	A.R.	
20	K3/322		Enamel, cellulose, green.	A.R.	

Notes: (a) Items 1 to 17 inclusive will be delivered from De Havilland Aircraft Pty. Ltd., to Sub-modification Section, 2 Aircraft Depot, which will issue these items on demand.

(b) Items 18 to 20 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
21	A79/502052	A00986	Packing, fibre.	1	
	or	A004927	Packing, fibre.	1	
22	A79/501733	00A73A	Bracket, vent assy. (Post Mod. D.H. Aust. V.80).	1	
	or	A003125A	Bracket, vent assy. (Pre Mod. D.H. Aust. V.80).	1	
23	A79/501568	P002680AND	Pipe, drain, assy.	1	
24	G5A/26665	D.H.S. 1/9	Bonding, flexible.	1	
25	G5A/26684	D.H.S. 1/3	Bonding, flexible.	1	
26	H28/7013	6A1/1B	Bolt, M.S., Hex. Hd., 4 B.A. x .45" long.	2	
27	H28/8449	AS1882/1B	Bolt, M.S., Csk. Hd., 90°, 4 B.A. x .45" long	4	

Note: (a) Items 21 to 23 inclusive are obsolete and are to be scrapped.

(b) Items 24 and 25 are to be inspected and if serviceable are to be returned to stores.

(c) Items 26 and 27 are to be scrapped as being damaged.

Disposal of Parts in Stock

9. Items 21, 22 and 23 are obsolete and are to be disposed of in accordance with the authorised current procedure.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately eighteen (18) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required.
- (c) Sequence of Operations :
- (i) Remove the lower engine cowling panel, also gun access doors from the aircraft to gain access to both faces of bulkhead No. 4.
 - (ii) Locate the vent assembly bracket, item 22, which is fitted to the cowling support channel at the port side.
 - (iii) Disconnect and retain the two hose clips, together with the hose joint, which connects the fuel vent pipe to the bracket assembly.
 - (iv) Remove the lower pipe assembly, item 23, of the fuel vent line from the aircraft, but retain the parts with which it is attached to the engine mounting brace. Also retain the bonding clip. Discard the two bonding flexibles, items 24 and 25.
 - (v) Carefully drill out the eight $\frac{1}{8}$ inch diameter rivets attaching the vent bracket assembly to the bulkhead and the cowling support channel, using a No.32 drill. Remove the vent bracket assembly, item 22, from the aircraft together with the fibre packing, item 21. Drill out the rivets securing the bonnet tape over an area as shown on Drawing A12242, sheet 1.
 - (vi) Refer to this drawing and offer up the new vent relief valve assembly, item 5, on the cowling support channel as shown in the same position as the redundant vent bracket. To do this, it will be necessary to enlarge the hold in the channel to suit the outlet pipe of the valve. Remove all the sharp edges.
 - (vii) Line up the valve assembly with the four existing holes in the channel. Spot through from the front face of the bulkhead into the bracket using a No. 27 drill, also mark off and drill a third hole in the firewall and bracket, (this hole to clear the existing countersunk rivets).

Method of Incorporation (Cont'd)

- (viii) Temporarily remove the valve assembly. Again refer to the drawing and determine the position of the vent bracket, item 4, on the cowling channel inboard of the new valve.
- (ix) Carefully drill out the two rivets in the way of the new bracket also mark off and cut out portion of the channel to clear the vent pipe protrusion as dimensioned in scrap view on arrow 'B' on Drawing A-12242, sheet 1.
- (x) Position the vent bracket and spot through from existing rivet holes, left open in operation (ix), into the bracket using a No.27 drill, also mark off and drill a third hole in the firewall and bracket as shown on drawing. Providing the edge distance on the bracket is satisfactory, spot through the existing rivet holes in the channel, suitably position two remaining holes and drill through channel and bracket using a No. 27 drill.
- (xi) Temporarily remove the vent bracket. Offer up the reinforcing angle, item 1, to fit snugly into position as shown on drawing, to bottom cowling panel, and mark and drill three 9/32 inch diameter holes. Line up on the channel with the three existing holes and mark off the cut outs obtained in operations (vi) and (ix). Temporarily assemble the vent bracket to obtain fitment as shown in Section 'A' - 'A' on sheet 1 of the Drawing A-12242.

Note: It is advisable to first cut the reinforcing angle, item 1, to shape and then modify the cowling panel using the angle as a template.

- (xii) Assemble the reinforcing angle to the cowling panel and providing that the edge distance on the angle is satisfactory (min .25 inch), spot through the existing rivet holes. Additional rivets are to be added at an approximate .75 inch pitch. Attach to the panel using rivets, item 15, countersinking 90° both sides, also rivets, item 14, countersinking 90° on the reinforcing angle. Trim back the reinforcing angle to suit the cowling edge.
- (xiii) Assemble the vent relief valve, item 5, with jointing compound, item 19, between the mating surfaces, to the channel using 3 bolts, item 10, washers, item 17, and nuts, item 12. Fit hose joint, item 7, and two clips, item 11, to the vent bracket, item 4, which is also treated with jointing compound and secured to the channel with 3 bolts, item 10, washers, item 17, and nuts, item 12.

Method of Incorporation (Cont'd)

- (xiv) Offer up the fibre packing, item 2, butt against scoop, and mark off the 9/32 inch diameter hole from inside the channel also the two holes from the bracket, which are to be drilled and countersunk in the packing to suit 4 B.A. bolts, item 13. Repeat similar operations with the fibre packing, item 3.
 - (xv) Assemble both the fibre packings using eight (8) bolts, item 13, washers, item 17, and nuts, item 12. Drill extra holes in packings to dimensions shown in scrap view on Arrow "B" and rivet to channel using rivets, item 16. Mark off the existing bonnet tape to butt against these fibre packings and secure to the channel using Bostik 'C', item 18.
 - (xvi) Fit the hose joint and the two hose clips retained from operation (iii), between the new pipe assembly, item 6, and the vent bracket, item 4. Tighten the bonding clip retained from operation (iv), connect the two new bonding flexibles, items 8 and 9, to the pipe and connect the other pipe ends to their original attachments. Tighten all hose clips.
 - (xvii) Repair the finish locally where required. Replace the engine cowling panel. Alter the part No. of the bottom half of the fireproof bulkhead A004187AND (Ident. No. A79/502042), to read 00A229AND (Ident. No. A79/503540). Replace the gun access doors.
- (d) Tests : Check all pipe connections.
 - (e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. Drawing No. A-12242, sheet 1 is attached.

Effect on Weight and Balance

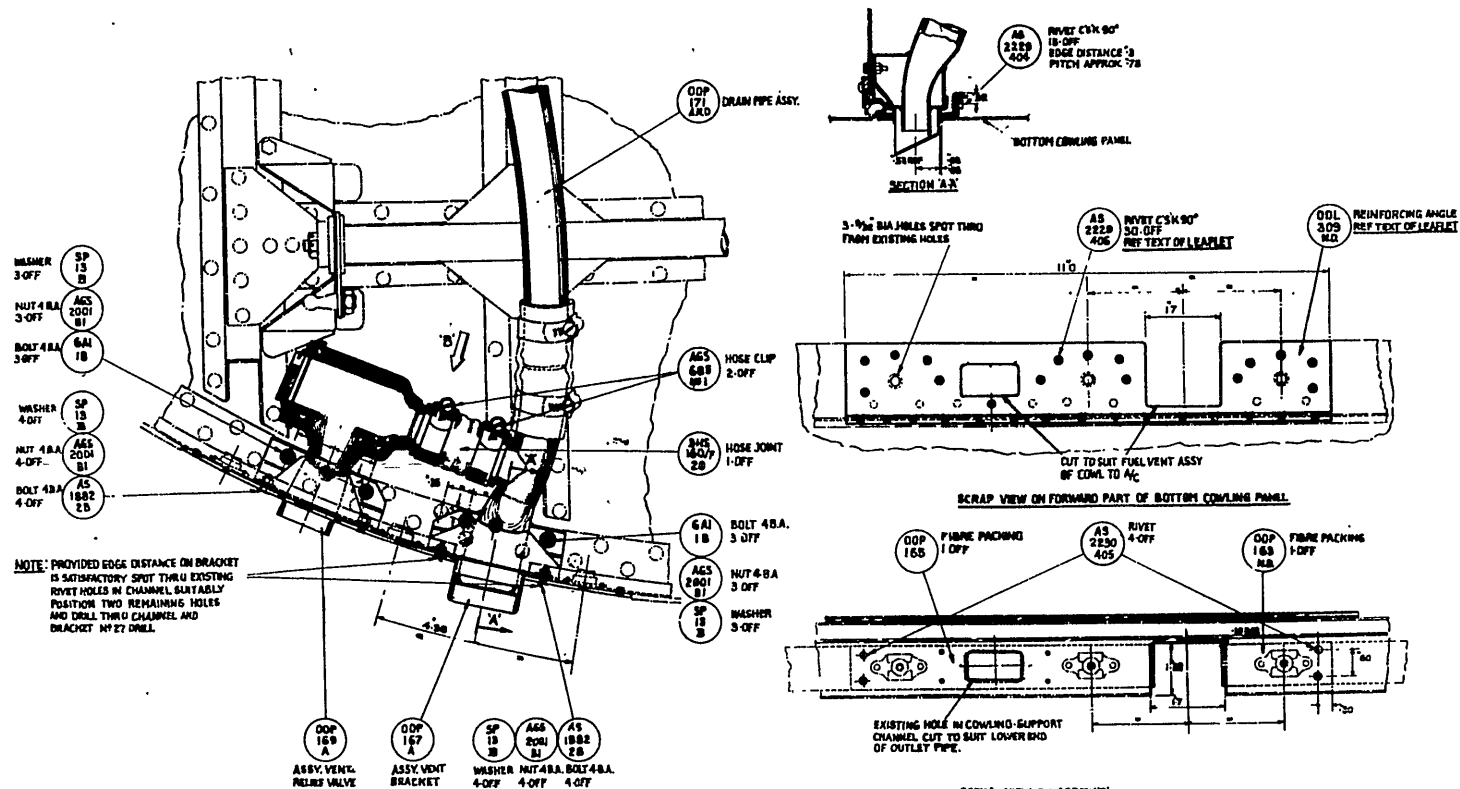
13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/74 and 150/4/8749.

Attachment : Drawing A.12242, sheet 1.

Date of Issue : 2nd September, 1954.

DO NOT SCALE



DE HAVILLAND DRG NO 00M 280 SHEET NO 1 OF 1

DATE	ALTERATION	D.L.L.	INITIALS	APPROVED	REFERENCE	ISSUED BY	TITLE
						DIRECTORATE OF TECHNICAL SERVICES R.A.A.F.	RELIEF VALVE IN FUEL SYSTEM VENT LINE INTRODUCTION-VAMPIRE FIGHTER
					LIMITS UNLESS STATED		COMPONENT
					PERMANENT ± .010"	SPEC.	FUEL SYSTEM
					FRACTURE ± 1/16"	TOLERANCE	WASHER
					ANGLES ± 1°	FINISH	ENGINE
					SURFACE FINISH	SCALE	TECH. ORDER
					AUSTRIAN ST/RECORD	ORIGIN	WING NO.
					ENL. DIMS. PARTIAL 43.25	THICKNESS	APPROVED
							CHECKED
							DATE
							SIZE

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 107

Class 2

REPLACEMENT OF BOLTS - SKIN ATTACHMENT

Reason for and Description of Modification

1. This modification authorises the replacement of the existing bolts and rivets at the skin attachment to wing root, with bolts in fitted holes to obviate bolts working loose and rivets tilting.

Application

2. This modification is applicable to Vampire Mk. 30 aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) modification V.70.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. Nil.

Equivalent Modifications

6. The equivalent modifications are De Havilland (Aust.) Modification V.70 and Air Ministry Modification Vam. 805.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
1	A79/501706	D007383	Bolt Special C'S'K	36	
2	A79/501707	D007385	Bolt Special C'S'K	26	
3	A79/501708	D007387	Bolt Special C'S'K	32	
4	A79/501709	D007389	Bolt Special C'S'K	2	
5		D007391	Washer Special	140	
6	A79/501710	D007393	Bolt Special C'S'K	26	
7	H28/10288	AGS2001/C-1	Nuts, 2BA Metal Insert	122	

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 107

Supply (Cont'd)

Note: Items 1 to 7 are to be delivered from De Havilland Aircraft Pty. Ltd. to Sub-modification section, No.2 Aircraft Depot, which is to issue these items on demand.

Disposal of Parts Removed

8. The following parts are rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
8	H28/8459	AS1882/4C	Bolt, 2BA x 80 Long C'S'K.	12	
9	H28/8461	AS1882/6C	Bolt 2BA x 1.0" Long C'S'K.	12	
10	H28/9498	AS1882/7C	Bolt 2BA x 1.1 Long C'S'K	32	
11	H28/753	AL6Y/CT	Nut, 2BA Thin	56	
12	H28C/8084	AS471/C	Washer, 2BA x .10 Thick	56	
13	H128F/62074	AS2229/616	Rivet, 3/16" Dia. x 1" long C'S'K Hd.	20	
14	H128F/62269	AS2229/618	Rivet, 3/16" Dia. x 1 1/8" long C'S'K Hd.	32	
15	H128F/62266	AS2229/610	Rivet, 3/16" dia. x 5/8" long C'S'K Hd.	6	
16	H128F/62268	AS2229/612	Rivet, 3/16" dia. x 3/4" long C'S'K Hd.	6	
17	H128F/62270	AS2229/620	Rivet, 3/16" dia. x 1 1/4" long C'S'K Hd.	2	

Note: Items 8 to 17 inclusive are to be disposed of in accordance with the current authorised procedure.

Disposal of Parts in Stock

9. Not applicable.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than next major inspection, after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately three hundred (300) man-hours are required to incorporate this modification.

Method of Incorporation (Cont'd)

(b) Special tools, jigs, &c. : The following special tools are required:-

- (i) Spotface Pilot Cutter : D.H. Part No. A.S.T. 408
- (ii) Adjustable Countersink : D.H. Part No. A.S.T. 400
Cutter
- (iii) Piloted Roughing Reamer: D.H. Part No. V.M.T. 5290
- (iv) Piloted Finishing : D.H. Part No. V.M.T. 5291
Reamer

(c) Sequence of Operation :

- (i) Trestle the aircraft (as per figure 9 Australian Air Publication 828) to give ease of access on the underside of the wings.
- (ii) Drain the fuel system (see Australian Air Publication 828, section 5, paragraph 151).
- (iii) Remove the small wing root fairing from top of wing on port and starboard sides.
- (iv) Disconnect and completely remove the port and starboard wing fuel tanks No.1 in accordance with Australian Air Publication 828, section 5, paragraph 153.

Note: The following operations ((v) to (xviii)) are similar for port and starboard wings.

- (v) Unbolt and remove the fuel tank guard structure to gain access to the forward side of the main spar via the lightening holes.

Note: To prevent any undue distortion of skin and to retain rigidity during reaming, it is important that only alternate bolts and rivets be removed firstly as stated below, the remainder are to be removed only after fitment of new fitted bolts in holes from which rivets or bolts were previously removed.

- (vi) Locate and carefully drill out existing rivets and remove existing bolts (see note above) on the top surface of the wing, attaching skin to the main spar at the root end (refer drawing A.12179, sheet 1). Discard items 8 to 17.
- (vii) Increase size of existing holes to 13/64 inch using standard drill.

Method of Incorporation (Cont'd)

- (viii) Operating from inside No.1 Tank bay with pilot cutter A.S.T.408, cut away spar web flange on aft side of spar to allow clearance and seating for special washer, item 5.
- (ix) Rough ream holes to .213 inch diameter with piloted reamer VMT.5290.
- (x) Countersink wing skin using depth controlled countersink cutter A.S.T.400. The depth is then controlled so that it ensures that the outside face of the screw is flush with the wing skin, when screws are properly seated.
- (xi) Finish ream holes to $.2187 \pm .0004$ inch diameter using piloted reamer V.M.T.5291.

Notes:- (a) To eliminate the possibility of elongated or bellmouth holes, roughing and finishing reamers mentioned above should be hand operated.

(b) Where drilling or reaming operations are taking place, care is to be taken to ensure that spar web is not damaged by tool protruding so far through spar booms as to cut into web on the forward face of spar.

- (xii) Trial fit new bolts as per drawing A.12179, sheet 1 and ensure that they do not foul spar web, as referred to in Note (b) of sub-paragraph (xi). Trim bolt lengths, if necessary. Fit washers and nuts. Tighten up so that slots in the heads of new bolts in line with centre line of spar. As shown on drawing this is important. Check that bolts are in safety.

Note: Bolt heads must not project above skin by more than .005 inch.

- (xiii) Repeat operations (vi) to (xii) for remaining bolts and rivets.
- (xiv) Repeat operations (vi) to (xii) for underside of wing (refer drawing A.12179, sheet 2).
- (xv) Reassemble the fuel tank guard structure using the original attachment items.
- (xvi) Reassemble the fuel tanks to the aircraft and replace the fuel tank doors by reversing the series of operations in section 5, paragraph 153, Australian Air Publication 828.

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 107

Method of Incorporation (Cont'd)

- (xvii) Restore external finish to wing, damaged by removal of spar bolts as per Australian Air Publication 702.1, A.E.I.G., Part 2, Section 1, Instruction 10, Appendix "E".
- (xviii) Replace the wing root fairings, remove trestles.
- (d) Tests : Not applicable.
- (e) Recording : Record the modification in the airframe log book.

Drawings

- 12. Drawing A-12179, sheets 1 and 2 is attached.

Effect on weight and Balance

- 13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/242 and 150/4/8751

Attachment : Drawing A.12179, sheets 1 and 2.

Date of Issue : 12th May, 1954.

DO NOT SCALE

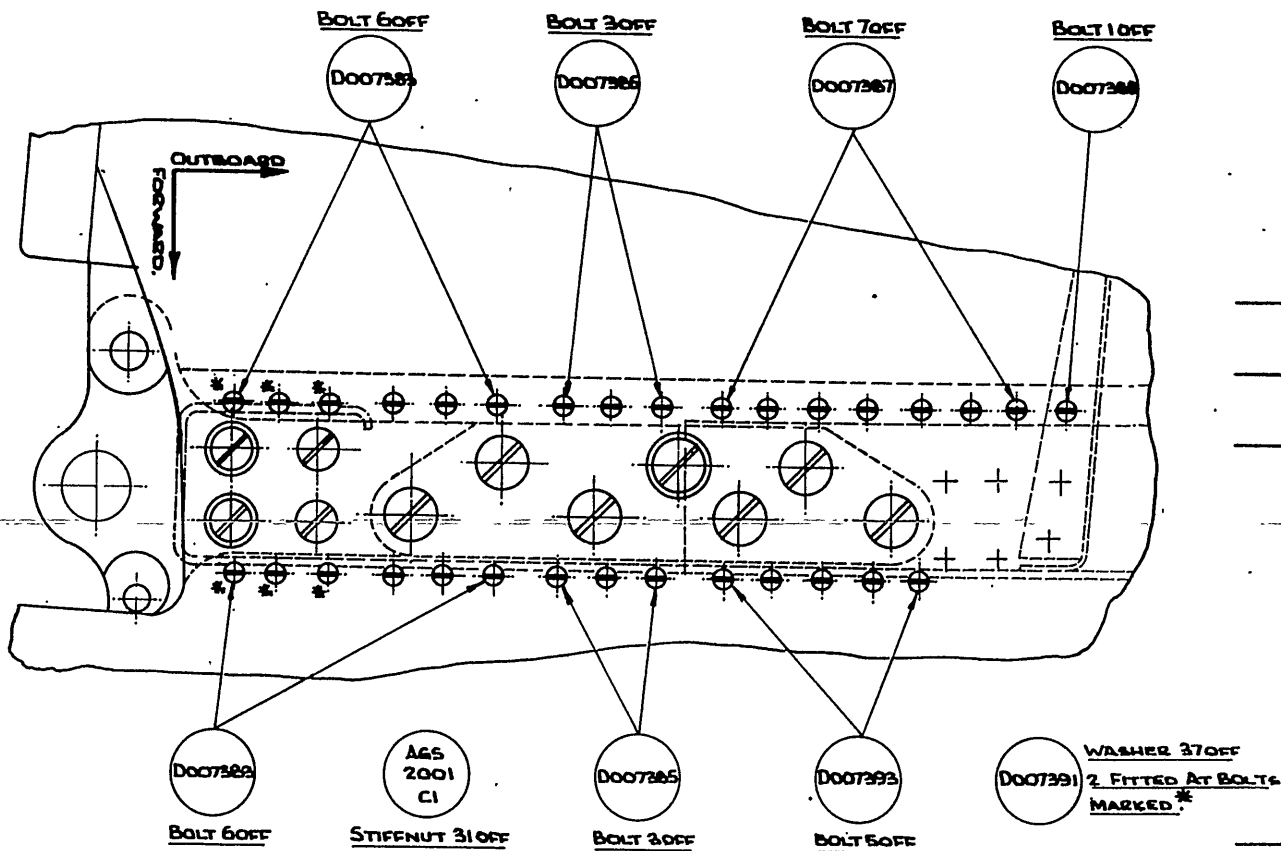
ISSUE NO. DATE

ALTERATION

3.1.1

INITIALS

27/03/68



IMPORTANT.

ALL SCREWDRIVER SLOTS IN NEW BOLTS TO BE AS SHOWN.
I.E. IN LINE WITH $\frac{1}{2}$ OF SPAR. THE FINAL TIGHTENING UP
BEING CARRIED OUT ON THE NUT. BOLT HEADS MUST NOT
PROJECT ABOVE THE SKIN BY MORE THAN .005"

VIEW ON TOP SURFACE OF WING AT MAIN SPAR ROOT END.

L.H. DRAWN

REFERENCE

ISSUED BY

TITLE

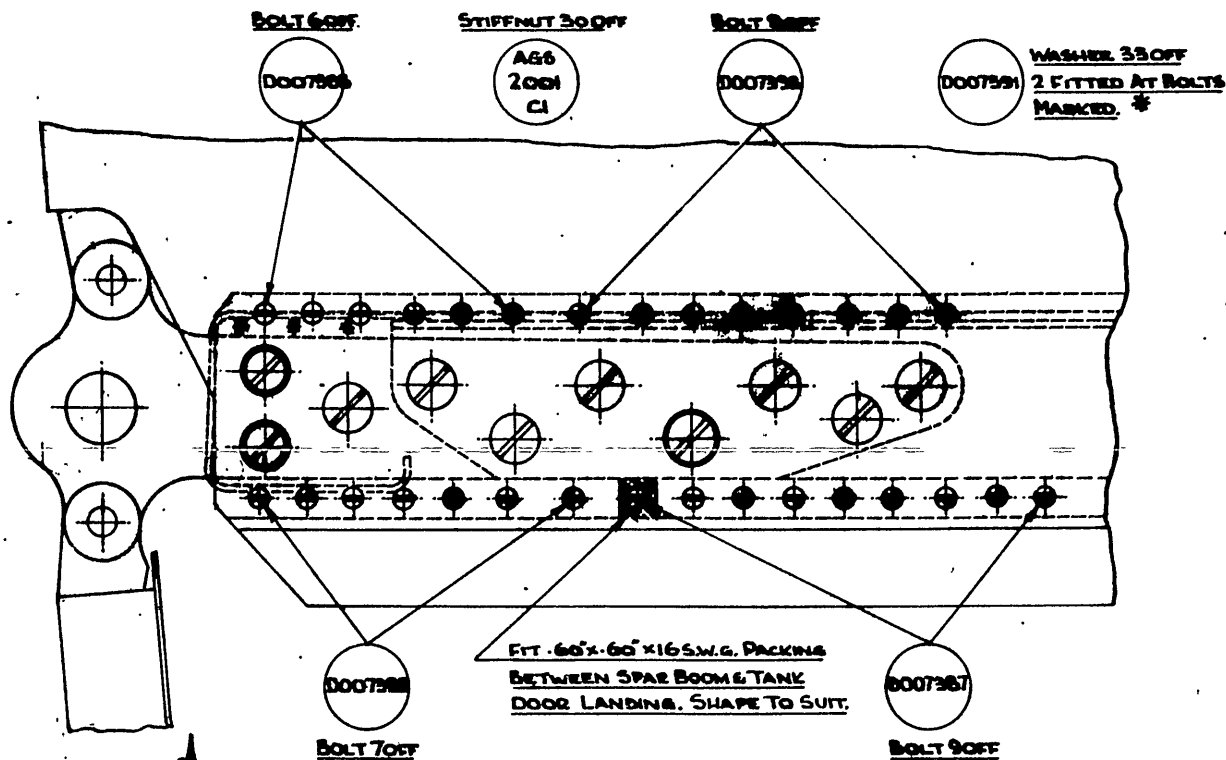
DE HAVILLAND DRAWING COM167 SHEET 1

REPLACEMENT OF BOLTS & RIVETS BY BOLTS
AT WING SKIN ATTACHMENT - TOP ROOT END.

LIMITS UNLESS STATED	MATERIAL	COMPONENT OF	MAIN PLANE
DECIMALS $\pm .010"$	SPEC.	MACHINE	Vampire Mk. 30.
FRACTIONS $\pm \frac{1}{16}"$	TREATMENT	ENGINE	Vampire - 2 V.H.
ANGLES $\pm \frac{1}{2}^\circ$	FINISH	TECH. ORDER	Vampire Mod No. 107
SURFACE FINISH	SCALE	DRAWING NO.	A12179 shldz
AUSTRALIAN STANDARD	MAINT	APPROVED	DMG.
ENG. DESK. NUMBER 11461	THICK	CHECKED	A SIZE

DO NOT SCALE

NAME NO.	DATE	ALTERATION	D.I.L.	INITIALS	APPROVED



IMPORTANT.

ALL SCREWDRIVER SLOTS IN NEW BOLTS TO BE AS SHOWN, I.E. IN LINE WITH C OF SPAR. THE FINAL TIGHTENING UP BEING CARRIED OUT ON THE NUT. BOLT HEADS MUST NOT PROJECT ABOVE THE SKIN BY MORE THAN .005"

VIEW ON UNDERSIDE OF WING AT MAIN SPAR- ROOT END.

L.H. DRAWN.

REFERENCE	ISSUED BY	TITLE
		DE HAVILLAND DRAWING D00M57 PART 2
LANDING WHEEL STATION MATERIAL DIMENSIONS FINISHES ANGLE SURFACE FINISH ANNOTATION STANDARD DIM. LINE, THEORY LINE	MATERIAL SPEC. TREATMENT FINISH DIM. THEORY LINE	COMPONENT MACHINE ENGINE TECH. ORDER DRAWING NO. PART 2 A12179 SH224 A SIZE

REPLACEMENT OF BOLTS, RIVETS BY BOLTS AT WHEEL STATION ATT'T. BOTTOM ROOT END.

**ACCESS LADDER - INTRODUCTION OF STOWAGE
AND STRENGTHENING OF TOP PLATFORM****Reason for and Description of Modification**

1. (a) This modification is introduced to provide access to aircraft when ground facilities are not available, and to overcome distortion of the ladder platform.
- (b) This modification introduces stowage for the access ladder in the aircraft and strengthens the top platform of the ladder.

Application

2. This modification is applicable to Mk.33 aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) modification V634.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Spare ladders will be modified before delivery from the manufacturer.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V634 is the equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
1		M15-3A	Cradle Ladder Stowage.	1	
2		M15-21	Stop Block-Telescopic Ladder.	1	

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VAMPIRE MODIFICATION NO. 108

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
3		A1/11C	Bolt L.TS.Hex. 2BA 1.50" long	1	
	or H28/7281	A25/11C	Bolt HTS.hex. 2BA 1.55" long.	1	
4	H28C/5316	A16Y/CP	Nut M.S.Plain 2BA.	1	
5	H28/12252	SP/13C	Washer M.S.Thin 2 BA.	1	
6	H28/12738	AS2920/17E	Bolt SS Csk. 90° 1/4" BSF. 2.15" long	2	
	or H28/10784	AS1242/17E	Bolt HTS. Csk. 90° 1/4" BSF. 2.15" long.	2	
7	H28/10290	AGS2001/E/1	Nut stiff M.S. thick Hex. 1/4" BSF.	2	
8		DHS57/4C	Washer Cropped Alclad 16G 1/4" BSF (cut .40" from centre) 1.25 dia.	2	
9	H28C/12298	SP.18E	Washer 16G 1.25" dia. 1/4" BSF. M.S.	2	
	or H28C/35830	DHS34D	Washer Alclad 16G 1.25" dia. 1/4" BSF.	2	
10		M15-15ND	Block Birch Fly	1	
11		M15-17ND	Block - Birch Fly.	1	
12	H28C/9660	AGS250/47	Screw, wood, Brass csk. No.6 2.5" long.	4	
13		M15-41ND	Block Birch Fly 3/4" thick.	1	
14	H28C/2218	AGS250/26	Screw wood Brass csk. No.4 1.5" long.	3	
15		M15-11ND	Strap-Leather Brass or N.P. Buckle 1/2" x 10" long.	1	
16		M15-13ND	Plate	1	
17	H28C/2204	AGS250/24	Screw Wood Brass csk. No.4 1.0" long.	3	
18	A79/503185	13M-1A	Ladder - Telescopic.	1	
19		M15-35ND	Plate.	1	
20	H128F/62509	AS2229/405	Rivet, Al.Alloy csk. 90° 1/8" dia. 5/16" long.	15	

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
21	H128F/63365	AS2229/404	Rivet Al.Alloy csk. 90° 1/8" dia. 1/4" long.	4	
22	H128F/30311	AS2228/404	Rivet, Al.Alloy Mush.hd. 1/8" dia. 1/4" long.	10	
23		DHS94/4/65	Pin HTS. 1/8" dia. .65" long.	1	
24		M15-37ND	Pad Rubber Commercial .10" thick.	2	
25	H128F/62532	AS2229/508	Rivet Al.Alloy csk. 90° 5/32" dia. 1/2" long.	8	
26	H28G/5799	A31/B6	Screw M.S. Cheese hd. 4BA 3/16" long.	2	
27	K4/180		Glue Case in Cement (Spec. B.S. 1444)	As Req.	
28	K4/10974		Bostic 'B' Cement	As Req.	

Note: Items 1 to 26 inclusive with the exception of item 18 are to be supplied by the Manufacturers to Master Modification Centre. Master Modification Centre is to issue these items on demand. Items 18, 27 and 28 are to be drawn from Unit Stores (one ladder is allotted with each aircraft).

Disposal of Parts Removed

8. The following parts are rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
29	A79/501138	S0075A	Frame Ammo. Box Cover.	2	
30		13M41ND	Plate, 14G Alclad.	1	
31		13M47ND	Pad, Rubber Commercial 3/16" thick.	2	

Note: Item 29 is to be retained and returned to stock for Mk. 30 and 31 Vampires. Items 30 and 31 are to be scrapped.

Disposal of Parts in Stock

9. No action is required in as much as Ladder item 18 will be issued on demand when required to be modified.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as possible, but not later than the next minor inspection after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately fifteen (15) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools are required.
- (c) Sequence of Operations :
- (i) Obtain access to the port ammunition boxes and remove the rear frame Pt. No. S0075A, item 29.
 - (ii) Refer to sheet 2 of drawing A12154 and install cradle, item 1 by using the two redundant holes reserved for cannon stirrups 7.10 inch apart in ammunition floor. The cradle is to be butted hard against bulkhead No.3 and ammunition chute when being drilled from the ammunition floor. Drill two (2) letter 'F' holes in cradle and attach to ammunition floor by means of bolts, stiffnuts and washers, items 6 to 9 inclusive. The standard washer, item 9 may be cut .40 inch from centre to miss rubber padding strip.
 - (iii) Refer to sheet 1 of drawing A12154 and rework the ladder, item 18 Pt. No. 13M1A at the top corner of the side tube which fouls the fuse, when ladder is strapped into position, by cutting off the side tube at 45° as in sketch. Detail 'A' and blank off by welding to lug on bottom rung of ladder.

Note: It is only necessary to modify one corner which is fouling.

- (iv) As the ladder is liable to fall open when placing it in position for stowage, a means of locking same is as follows:-

Fully close top and 2nd rung to maximum extent and while in this position, drill a 5/16 inch diameter hole through outer and inner tubes on side of ladder where locking device is situated; this hole is to be centralised and positioned 1.08 inch from the centre line of 2nd ladder rung.

Open and close to ensure that locking device now snaps into position when ladder is fully telescoped.

Method of Incorporation (Cont'd)

While ladder is locked into position, a yellow stripe, (1/2 inch wide approximately 1.1 inch long) is painted across the first three sections and a note painted on, in 1/4 inch high white letters as follows:-

"Before stowing, telescope ladder until all yellow stripes meet and ladder is locked at this end".

- (v) To ensure top platform remains at constant angle when closed to fit stowage cradle, item 1, a stop block, item 2, is fitted as follows:-

Stop block, item 2 is to be placed in central position along 7/8 inch diameter tube of platform and platform closed until it makes an angle of 24° with the centre line of ladder side tubes, and while in this position a No.11 hole is to be drilled through stop block, item 2 and 7/8 inch diameter tube and block attached to tube by means of bolt, nut and washer, items 3, 4 and 5).

Note: It is essential that platform rests against stop block when both platform and ladder, item 18 are fully closed - if necessary channel stiffeners on platform may be relieved locally to clear the 2nd rung in closed position.

- (vi) Disconnect the springs which operate the folding of the ladder platform to render them ineffective. It will be sufficient only to unhook the ends of the springs which engage with the channel stiffeners on top platform.

- (vii) To rework the top platform (Pt. No. 13M31 ref.) proceed as follows:-

File and punch out 1/8 inch diameter steel pin releasing fastener and plate. Remove two (2) grub screws and discard. Remove circular plate, item 30 1/4" Alclad which is attached at central position by three (3) rivets. Remove rubber pads, (item 31), also drill out eight (8) rivets attaching blocks to platform and the six (6) rivets attaching the end flanges to edge stiffeners.

- (viii) Cut away flanges at both ends for a distance of .35 inch as shown on drawing also .30 inch flange on platform plate to be chamfered back .75 inch from each end (see detail 'B' Sheet 1).

Method of Incorporation (Cont'd)

- (ix) Position plate, item 19 by locating it to the dimensions quoted on drawing A12154 Sheet 1. Spot through from plate into platform and secure using four (4) rivets, Item 21, ten (10) rivets, item 22, and fifteen (15) rivets, item 20. Drill and tap 4BA to suit two (2) cheese head screws, item 26 and rivet to lock. Re-assemble fastener and plate using pin item 23 and lightly rivet over.
- (x) Drill through from existing holes in platform to re-locate blocks removed in operation (vii), and rivet by means of eight (8) rivets, item 25. Attach new pads, item 24 by cementing to blocks with "Bostik" B, item 28.
- (xi) Obliterate Part No. 13M-1A on ladder and re-part No. M15-19A/E.O.I.2235.
- (xii) Telescope the ladder and place into position in its cradle.

When snugly in position, block item 13 is to be located 18.50 inch to datum aircraft and glued to bulkhead and screwed into position on centre line of ladder by means of three (3) screws, item 14. Strap leather, item 15 is now positioned with centre of buckle at top and 3.75 inch from centre line of block, item 13 and secured by plate, item 16 and three (3) screws, item 17.

To stop sideways movement block, item 11 is glued and screwed to bulkhead by two (2) woodscrews, item 12.

To stop up and down movement a block; item 10 is glued and screwed to bulkhead by two (2) woodscrews, item 12.

- (d) Tests : No tests are necessary.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. D.H. Drawing No. A12154, Sheets 1 and 2 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft :-

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VAMPIRE MODIFICATION NO. 108

Effect on Weight and Balance (Cont'd)

Fixed Equipment

Item	Weight (lb.) ±	Arm (in.) ±	Moment (min.) ±
Ladder	+ 8.5	- 27.5	- 234
Cradle Block, &c.	+ 1.5	- 27.5	- 41
Total:	+ 10.0		- 275

Amendments to Weight Sheet Summaries will be consolidated and issued by Air Force Head-Quarters.

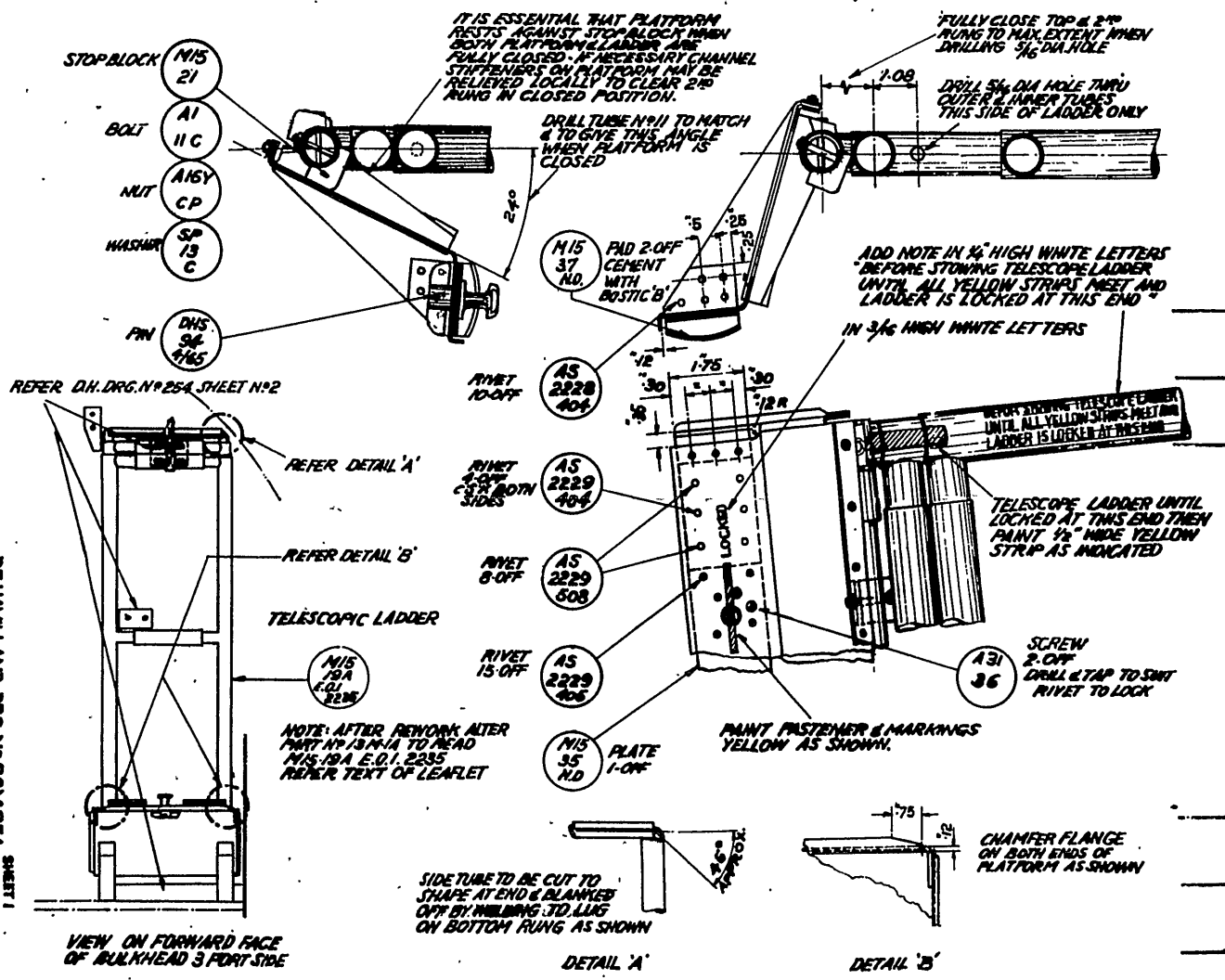
References : Files R.A.A.F. 9/84/16 and 150/4/8754
Attachment : Drawing A.12154, sheets 1 and 2.
Date of Issue : 3rd June, 1954.

DO NOT SCALE

ISSUE NO. DATE

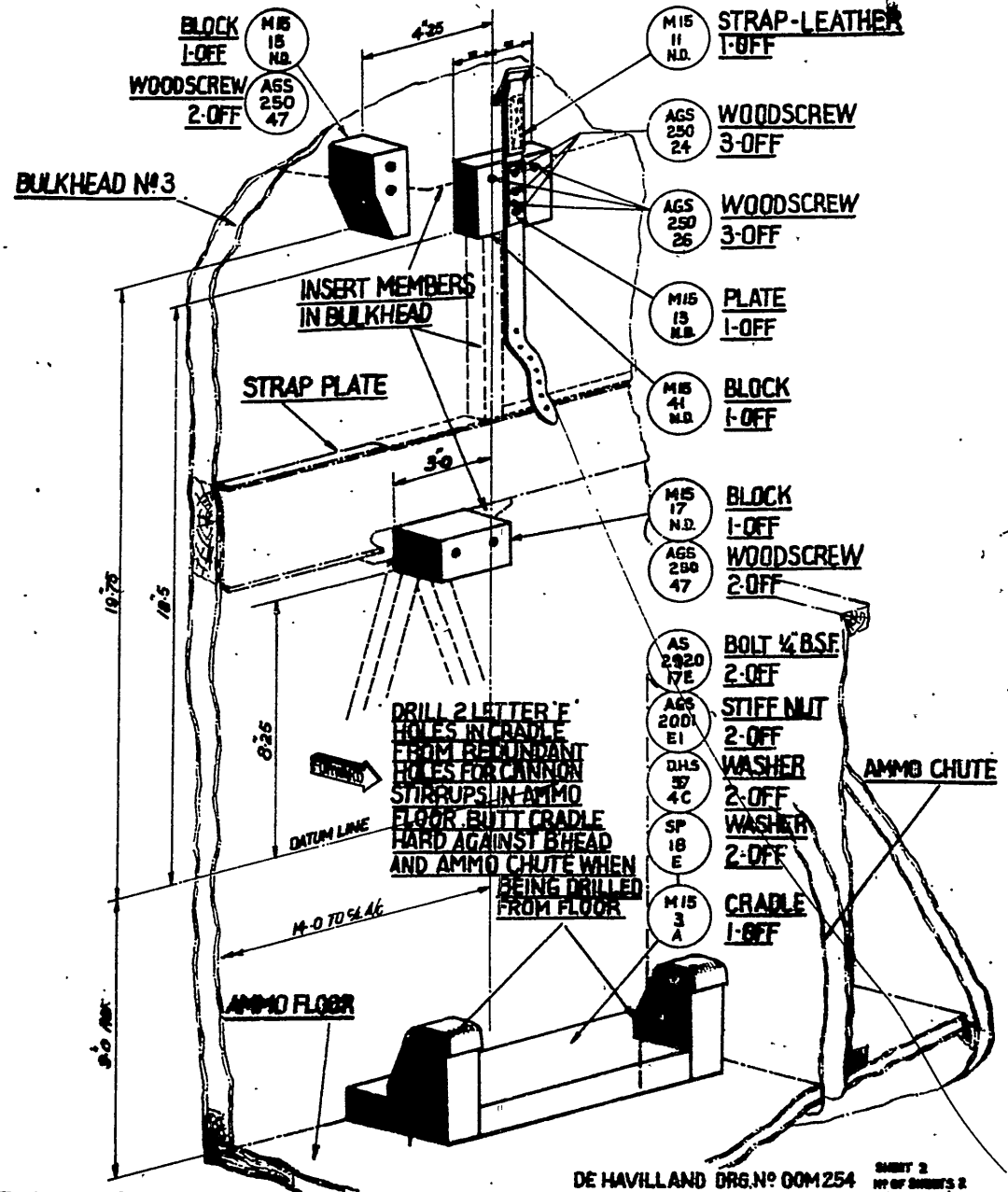
ALTERNATION

D. I. I. INITIALS



REFERENCE	ISSUED BY				TITLE	
	Directorate of Technical Services. R.A.A.F.				ACCESS LADDER, ATTACHMENT OF STORAGE AND STRENGTHENING OF TOP PLATFORM	
LIMITS UNLESS STATED	MATERIAL	COMPONENT OF		Fuelage		
DECIMALS ± .010"	SPEC.	MACHINE		Vampire Mk. 39		
FRACTIONS ± 1/32"	TREATMENT	ENGINE		Galling		
ANGLES ± 3°	FINISH	TECH. ORDER		Vampire Mod. No. 108		
SURFACE FINISH	SCALE					
AUTOLAMIN STANDARD	GAUGE					
ENG. DWG. MACHINE ALLEN	THROAT	APPROVED	CHECKED	DRAWING NO. A12154 SH.1		

DO NOT SCALE



DE HAVILLAND DRS. No 00M254

SHEET 2
NO OF SHEETS 2

REFERENCE	ISSUED BY		TITLE	
	Directorate of Technical Services, R.A.A.F.		ACCESS LADDER - INTRODUCTION OF STOWAGE AND STRENGTHENING OF TOP PLATFORM	
LIMITS UNLESS STATED	MATERIAL		COMPONENT OF	Fuselage.
DECIMALS ± .010"	SPEC.		MACHINE	Vampire. Mk. 33.
FRACTIONS ± 1/32"	TREATMENT		ENGINE	Roller.
ANGLES ± 1°	FINISH		TECH. ORDER	Vampire Mod. No. 108
SURFACE FINISH AUSTRALIAN STANDARD ENG. DWG. PRACTICE A.3.21	SCALE		DRAWING NO.	A12154 SH2
	APPROVED			DRWG.
	CHECKED			

LINK CHUTE EXTENSIONS - INTRODUCTION

Reason for and Description of Modification

1. This modification authorises the introduction of link chute extensions on the cannon doors to carry the links away from the aircraft and thus prevent damage to the undersurface.

Application

2. This modification is applicable to Vampire Mk.33 aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) modification V.632.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. Nil.

Equivalent Modifications

6. The equivalent modifications are De Havilland (Aust.) Modification V632 and Air Ministry Modification Vampire 3235.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
1	A79/503358	12.A.521A	Extensions, Link Chute, Port Inner	1	
2	A79/503360	12.A.522A	Extensions, Link chute, Starboard Inner	1	
3	H28/9354	AS1248/6C	Bolt, Mushroom HD H.T.S., 2BA x 1"	4	

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VAMPIRE MODIFICATION NO. 109

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
4	H28/27025	AGS2001/C	Nut, M.S. HEX Nyloc insert	8	
5	H28/26452	AS1248/21C	Bolt, H.T.S. Mushroom HD 2BA x 2.5 long	4	
6		DHS.56/19	Washer	4	
7		DHS.56/4	Washer	4	
8		AS3360/C5B	Strip, Bonding, 5" long	2	

Note: Items 1 to 8 inclusive are to be delivered by De Havilland (Aust.) Pty. Ltd. to Sub-modification section, No.2 aircraft depot, which is to issue these items on demand.

Disposal of Parts Removed

8. No parts are rendered redundant by the incorporation of this Modification.

Disposal of Parts in Stock

9. Not applicable.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than at next minor inspection, after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately eight (8) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : Nil.
- (c) Sequence of operations :
- (i) Open and remove the gun bay doors.
 - (ii) Refer drawing A.12165 and lightly scribe a line on the outer surface of the cannon door that is both parallel to and on the centre line of the existing door rib, just in front of the existing forward inner link chutes.
 - (iii) Replace the cannon doors and position the portside inner extension chute, item 1 on the external face of the cannon door, so that the inner mouth of the extension chute is centrally about the cartridge link ejector of

Method of Incorporation (Cont'd)

the belt feed mechanism and that, at the same time, the centres of the two forward holes in the chute attachment plate lie on the line previously scribed on the cannon door.

- (iv) Attach the chute temporarily to the door by means of brads or small woodscrews. Swing the door about its hinges to ensure that it is not prevented from opening or closing as a result of the inner mouth of the chute fouling the cartridge link ejector. If an adjustment to the position of the chute is then found to be necessary, move the chute inboard sufficient only to eliminate fouling and not enough to impair its efficiency.
- (v) When the chute has been correctly aligned, support it carefully in position and, using a No.11 drill (0.191 inch diameter), mark out the centres of the four attachment holes using the existing holes in the chute plates as guides. Remove the chute and drill four holes in the door.
- (vi) Repeat the operations for the starboard inner link chute extension, item 2.
- (vii) When all holes are drilled, again remove the cannon doors and deburr all holes.
- (viii) Secure the chute extensions in position using the attaching parts, items 3 to 7, as detailed on the drawing. A bonding cable, item 8 should be connected between any one of the link chute bolts and one of the new link chute extension bolts on each of the two assemblies.

Note: It is suggested that before final assembly, the bonding cables should be spiralled on a bar of approximately $\frac{1}{4}$ inch diameter. This will effectively take up any slack and considerably increase the cables resistance to fatigue.

- (ix) Check empty case chute opening for obstruction by flange on extension chutes and trim flange if found necessary.
- (x) Replace the cannon doors and check if the internal mouth of the extensions lines up with the cartridge ejectors.

(d) Tests : Not applicable.

(e) Recording : Record the modification in the airframe log book.

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VAMPIRE MODIFICATION NO. 109

Drawings

12. Drawing A.12165 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/452 and 150/4/8758
Attachment : Drawing A.12165
Date of Issue : 12th May, 1954.

REPORT NO.	DATE	ALTERNATION	R. I. I.	INITIALS	APPROVAL



AAP 721 79 V2 P2 B2 Vampire Mods 101-200 OCR

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 110

Class 2

STIFFENING IN VICINITY OF DIVE BRAKE AND
OUTER FLAP SHROUDS - INTRODUCTION

Reason for and Description of Modification

1. To prevent cracking of dive brake and outer flap shroud skins, this modification introduces a stiffening angle between T.E. Rib 3 and dive brake shroud skin and stiffener brackets at two places on the outer flap shroud.

Application

2. This modification is applicable to Vampire Mk. 30, 31 and 33 aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) modification V.185.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Spare wings Ident. Nos. Mk.30 A79/500240, A79/501916 and Mk.31 A79/501851, A79/501852 are to be modified by arrangements of Headquarters, Maintenance Command.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this order.

Equivalent Modification

6. De Havilland (Aust.) Modification V185 is the equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per A/c	Stores Class
1		OOD1399	Bracket Stiffener Outb'd.	2	
2		OOD1401	Bracket Stiffener Outb'd	2	
3		OOD1403	Bracket Stiffener Inboard	2	
4		OOD1405	Bracket Stiffener Inboard	2	

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VAMPIRE MODIFICATION NO. 110

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per A/c	Stores Class.
5		OOD1407ND	Angle Stiffening L.H.	1	
6		OOD1408ND	Angle Stiffening R.H.	1	
7	H128F/30280	AS2227/505	Rivet 5/32" dia. x 5/16" long snap hd. alum. alloy	4	
8	H128F/30267	AS2227/404	Rivet 1/8" dia. x 1/4" long snap hd. alum. alloy	38	
9	H128F/10412	AS2230/404	Rivet 1/8" dia. x 1/4" long csk.hd. alum. alloy	20	
10	K3/175		Zinc chromate primer	A.R.	
11	K3/162		Aluminium enamel	A.R.	
12.	H28/11937	AS.1246-1-B	Bolt H.T.S. Round Hd. 1/4 BA x .45" lg.	A.R.	
		or			
	H28/10001	AS.1884-1-B	Bolt M.S. Round Hd. 1/4 BA x .45" lg.	A.R.	
13.	H28/27024	AGS.2001/B/1	Nut M.S. Stiff Nut 1/4 BA	A.R.	
14.	H28C/12305	SP.15/B	Washer M.S. thin 1/4 BA	A.R.	

Disposal of Parts in Stock

9. None affected.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as possible, but not later than next minor inspection after receipt of the modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately four (4) man-hours per aircraft.
- (b) Special Tools, Jigs, &c. : None required.
- (c) Sequence of Operations :
- (i) The following instructions apply to both port and starboard wings.
- (ii) Lower flaps, put dive brakes 'on' and then release pressure in hydraulic accumulator.

Method of Incorporation (Cont'd)

- (iii) Remove and retain bottom panels two (2) off of dive brake shroud.
- (iv) Refer to drawing A-12166. Locate trailing edge Rib 3 between dive brake and outer flap.
- (v) Locate joints A and B on outer flap shroud, they are at the inter-section of the two spanwise stiffeners with the first chord-wise stiffener inboard of T.E. Rib 3. Joint A is further identified by the clamp blocks holding hydraulic lines to the dive brake jack.
- (vi) Remove and retain clamp block on hydraulic lines to dive brake jack.
- (vii) Refer to drawing A-12166 Detail C drill out 1/8 inch rivets, two (2) off securing spanwise stiffeners to T.E. Rib 3.
- (viii) Take stiffening angle (item 5, port wing, item 6 starboard wing), place on T.E. Rib 3 so that flange with 45° chamfer is to rib and chamfer is at aft end. Drill through angle and rib opening pilot holes to No.30 for 1/8 inch rivets and opening holes in stiffener lugs to No.21 for 5/32 inch rivets. Drill through angle and dive brake shroud skin and dimple countersink for 1/8 inch rivets position as shown on drawing.
- (ix) Coat mating surfaces with zinc chromate primer, item 10 and secure stiffening angle with 1/8 inch rivets, item 8 and 5/32 inch rivets, item 7 to rib and 1/8 inch rivets, item 9 to skin (see drawing A-12166).
- (x) Take stiffener brackets, items 1, 2, 3 and 4 position at joints A and B - shown in drawing, drill through pilot holes No.30 for 1/8 inch rivets. Coat mating surfaces with zinc chromate primer, item 10. Secure with 1/8 inch rivets, item 8.

Note: Inboard brackets (closed angle) should have pilot holes to spanwise stiffener, undrilled arm of brackets being drilled through from pilot holes in outboard brackets.
- (xi) Restore finish with zinc chromate primer, item 10 and aluminium enamel, item 11 as required.
- (xii) Replace clamp block for hydraulic pipes.
- (xiii) Replace bottom panels of dive brake shroud.

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VAMPIRE MODIFICATION NO. 110

Method of Incorporation (Cont'd)

(xiv) Recharge hydraulic accumulator.

(xv) Put dive brake to 'Off' and flaps as required.

: None required.

: Record this modification on wing modification plate and Airframe Book.

(a) If difficulty is found in making a satisfactory riveted joint or operation (x), drill No. 29 and use 1/4 B.A. bolts, item 12, stiff nuts, item 13, and pack with washers, item 14, in places of 1/2 inch rivets called for above.

Drawings

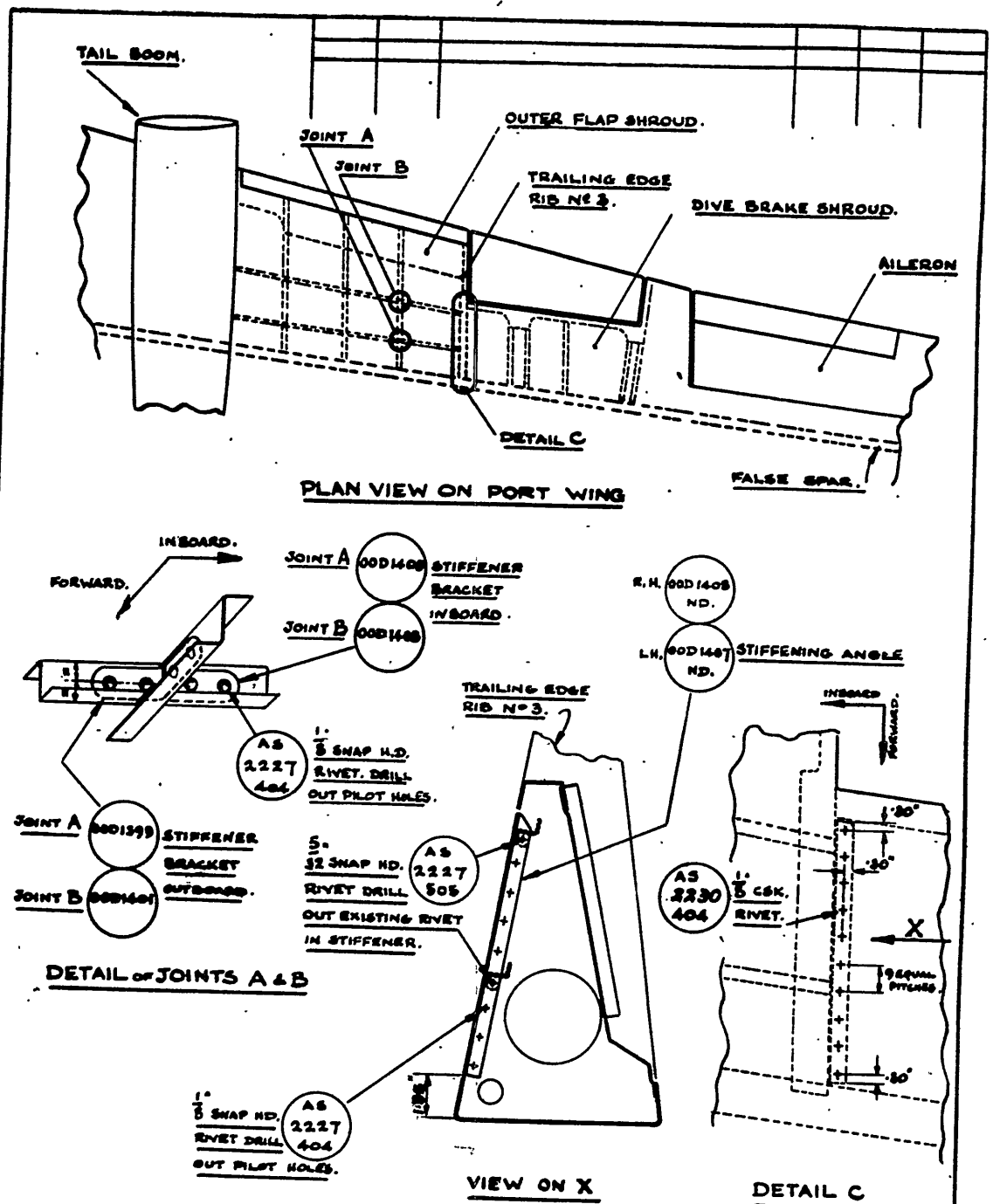
12. Drawing A-12166 is attached

Effect on Weight and Balance

13. The effect of this modification in aircraft is negligible.

A-12166

References : Files R.A.A.F. 9/84/242 and 150/4/8757
Attachment : Drawing A.12166
Date of Issue : 12th May, 1954.



Reference		Designed by		DE HAVILLAND D ² 00M262.		SHEET 1	
		Directorate of		Title		HE SHEETS 1	
		Technical Services. R.A.A.F.		STIFFENING OF OUTER FLAP SHROUD & DIVE BRAKE SHROUD.			
				INTRODUCTION VAMPIRE MK 30, 31 & 32.			
Limits unless stated	Material			Component of	Mainplane		
Decimals $\pm .010"$	Spec.			Machine	Vampires' Mk. 30, 31 & 32		
Fractions $\pm \frac{1}{32}"$	Treatment			Engine	Mk. 24H - 600HP		
Angles $\pm \frac{1}{2}^\circ$	Finish			Tech. Order	Vampire Mod. No. 110		
Surface Finish	Scale			Drawing No.	A12166		
Australian Standard	Drawn		Approved				
Eng. Draw. Practice A.S.C.	Traced		Checked				

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 111

Class 2

CANOPY HATCH - IMPROVED JETTISON ARRANGEMENTS - INTRODUCTION

Reason for and Description of Modification

1. This modification introduces improved type jettison arrangements.

Reports from overseas jettison trials showed that this alteration was desirable and more positive mechanism has been introduced accordingly.

Application

2. This modification is applicable to Vampire Mk.33 aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) Modification V.633.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in respect of Spares

4. All spares are to ^{THE AL18} be modified standard except A79/502553 Pin, Hinge. This cannot be modified and will be scrapped when all Mk.33 aircraft are modified.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V633 and Air Ministry Modification VAM3126 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class.
1	A79/502171	15FC153A/1	Hatch Assembly (Modified)	1	
2	A79/503401	15FC1155	Bolt Special	1	
3		15FC2709	Bracket	1	
4		15FC1163A	Bracket	1	
5	A79/503395	15FC1165A	Lever Assembly	1	
6		15FC1169	Pin	2	
7		15FC1173A	Cam	2	
8	A79/503393	15FC1175	Bush	2	

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VAMPIRE MODIFICATION NO. 111

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
9		15FC1177	Sleeve	4	
10	A79/503444	15FC2707	Plunger	4	
11		15FC1183	Link	1	
12	A79/503394	15FC1185	Bush	2	
13		15FC1187	Bracket	1	
14	A79/503400	15FC1189	Spring	1	
15		15FC1199AND	Cable Assembly	1	
16	A79/5032712	15FC1249A/1	Valve Air Assy.	1	
17		15FC1281	Strap	1	
18		15FC1283	Pad	2	
19	A79/503399	15FC1287	Spring	4	
20	A79/503266	15FC1819AND	Strut Bare Assy.	1	
21	H28C/36330	DHS69/D	Shim Washer Brass 1/32" thick .60D 1/4"	8	
22	H28/767	A16Y/CS	Nut Steel M Hex. Hd. slotted 2BA	1	
23	A79/503447	15FC2561	Bolt Hinge	2	
24	A79/503448	15FC2563	Pin Hinge	2	
25	H28/768	A16Y/ES	Nut steel M.Hex hd. slotted 1/4" B.S.F.	2	
26	H28/7273	A25/3B	Bolt steel H.T. Hex. hd. 4BA .70" long	2	
27	H28/7283	A25/13C	Bolt steel H.T. Hex. hd. 2BA 1.75" long.	2	
28	H28/10287	AGS2001/B/1	Nut stiff steel M.Hex. hd. thick 4BA.	8	
29	H28/10288	AGS2001/C/1	Nut stiff steel M.Hex. hd. thick 2BA.	2	
30	H28/10327	AGS2002/B/1	Nut stiff steel M.Hex. hd. thin 4BA.	5	
31	H28/8303	AS1242/4B	Bolt steel H.T. csk. hd. 90° 4BA .75" long	2	
32	H28/12282	AS1242/10B	Bolt steel H.T. csk. hd. 90° 4BA 1.35" lg.	2	
33		AS1242/17B	Bolt steel H.T. csk. hd. 90° 4BA 2.05" long	6	
34	H28/12119	AS1242/19B	Bolt steel H.T. csk. hd. 90° 4BA 2.25" long.	1	
35		SP9/A5	Pins, split 1/32" dia. x 5/8" long.	3	
36	H28B/5032	SP9/C8	Pins, split 1/16" dia. x 1" long.	7	
37	H28C/12429	SP10/A	Washer steel plain 6BA.	1	
38	H28C/12346	SP10/B	Washer steel plain 4BA.	13	
39	H28C/12305	SP13/B	Washer steel mild Plain 4BA	13	
40	H28C/12252	SP13/C	Washer steel M. plain 18G 2BA.	2	

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 111

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
41	H28C/12253	SP13/E	Washer steel M. plain 1/4" BSF.	3	
42	H28C/12296	SP15/C	Washer alum.alloy plain 2BA.	1	
43			Tape, insulating or Nylax or Cellulose.	As Req.	
44	11/103		Wire locking tinned soft iron 18G.	As Req.	
45	K2/65		Grease, anti-freeze.	As Req.	

Notes: (a) The supply of item 1 will be arranged on a pool basis and the existing hatch Pt. No. 15FC153A must be returned to the manufacturer for modification and re-issued as ident. No. A79/502171 Part No. 15FC153A/1.

(A) (b) Items 2 to 42 inclusive will be delivered from De Havilland (Aust.) Aircraft Pty. Ltd., to Sub-modification Section, No. 2 Aircraft Depot, which will issue these items on demand.

(B) (c) Items 43 to 45 inclusive are to be drawn from unit stores.

Disposal of Parts removed

8. The following parts are rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
46	A79/502553	15FC153A	Hatch Assembly	1	
47		13FC977	Lever Assembly	1	
48		15FC269			
		or			
		15FC1171	Bolt Hinge.	2	
49		15FC729AND	Strut Hatch. Support.	1	
50		15FC913A	Valve Air Assy.	1	
51	A79/502553	15FC773	Pin Hinge.	2	

Notes: (a) Item 46 is to be returned to the manufacturer for modification. Deleted A79/502553

(B) (b) Items 47 to 50 inclusive are to be disposed of in accordance with current authorised procedure.

(B) (c) Item 51 is to be inspected and if serviceable returned to store till all Mk.33 aircraft are modified. The pins will then be redundant.

Disposal of Parts in Stock

9. No action required.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as possible, but not later than the minor inspection after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately forty (45) man-hours AL 58

Note (a)

One set of these tools will be made available to the De Havilland Modification Centre Store and can be obtained from there under special arrangements through the R.Tech.O. at De Havilland". AL 5

(Issued with A/L 58 - August, 1956.)

- (i) Refer to sheet 6 of the drawing, and place the new strap, item 17 around the existing hatch support strut, after marking off the bolt hole positions on the hydraulic reservoir support block, remove the strap from the aircraft.
- (ii) Remove the canopy hatch from the aircraft (Detailed in ~~Air Publication 4099, Volume 2, Section 3, Chapter 1~~ ^{AL 51} ~~PARA. 21~~ ^{AL 5} and then remove the two hinge pins and the hinge eyebolts from the hatch. Remove also the hatch support strut from the aircraft. ^{AL 5} ~~RETAIN HATCH FOR WORK AS IN para 11(c) (XIII)(e)~~
- (iii) Drill two No.11 (0.191 inch) holes and deburr at the positions determined in Operation (i).
- (iv) Suitably support the hatch jettison hydraulic jack, and remove both sets of attachment items holding it, and the connecting rod (13FC975 Ref.) to the lever (13FC977). Now proceed to remove the lever from the aircraft, but retain all the attachment items for future reassembly.
- (v) Refer to sheet 1 of the drawing and locate the existing air valve assembly, item 50 mounted on the canopy frame. After disconnecting the hatch seal flexible connection from the adapter, and the pipe connection from the pressure reducing valve, remove the valve assembly from the aircraft. Now utilise the original attachment items to locate the new air valve assembly, item 16 in a similar position. Reconnect the pipe coupling and firmly reattach the rubber tube; end of the tube should be bound with transparent adhesive tape, item 43 and then wired in an approved manner with binding wire, item 44.

Method of Incorporation (Cont'd)

- (vi) Refer to sheet 1 and to Section 'Z-Z' on sheet 2 of the drawing and locate the position for the new bracket, item 3 beneath the starboard longitudinal stiffener. Now unscrew and remove the two existing bolts and nipples in the way of the bracket, and open out the nipples with a No.26 (0.147 inch) diameter drill. Now offer up the new bracket and attach it as shown (with the flange facing inboard) with two new bolts, nuts and washers, items 32, 28 and 38 and with the modified nipples to act as washers.
- (vii) Locate next the position for the bracket, item 4 beneath the external hatch release handle housing. After removing the two nuts and bolts in the way of the bracket, offer it up, with the web facing inboard, and firmly secure it with two new bolts and nuts, items 31 and 28 and with five new washers, item 38 positioned as shown at section 'Y-Y' on sheet 2 of drawing.
- (viii) Locate the hatch hinge recesses on the canopy rear arch, and mark off and drill two holes each ~~5/32~~ 19/64 inch diameter parallel to, and 5/8 inch on either side of the two existing hinge bolt holes, *new drill*
Fig T.F.M. 3158
- 9-58* Note: It is absolutely essential that these holes are drilled accurately. Now ~~carefully open these holes up with a 19/64 inch (0.2969 inch) drill,~~ and insert the four new sleeves, item 9 ~~expand~~ *expand* the lower end as shown on sheet 3 of the drawing.
- 9-58* (ix) Refer to this sheet and unscrew and remove the seven bolts and nipples on the rear arch which are called for replacement. Attach now the springs, item 19 to the plunger, item 10 and assemble them as shown with four new bolts, washers and nuts, items 33, 39 and 30, and with four of the nipples removed at the beginning of this operation, drilled with a No. 26 (0.147 inch) drill and acting as washers as previously detailed.
- (x) Offer up now the new bracket, item 13 and attach it (with the flange outboard) to the rear arch, with two bolts, nuts and washers, item 33, 28 and 38 and with two more modified nipples acting as washers.
- (xi) Offer up next the new spring, item 14 and attach it to the rear arch in the position shown on sheet 3, with a new bolt and nut, items 34 and 30 five new washers, item 39 and with the last of the nipples removed in operation (ix) and modified as before - acting as a washer.

Method of Incorporation (Cont'd)

- (xii) Proceed now to attach one end of the new cable assembly, item 15 to the spigot on the new lever assembly, item 5 with a new washer and split pin, items 37 and 35. Now attach the lever to the pin on the horizontal stiffening tube as shown at section 'X-X' on sheet 2 of the drawing using
- (xiii) (a) Refer to Sheet 7 of the drawing. Using End Mill T.F.M.3249 and Milling Jig T.F.M.3152 in conjunction with a low revving Electric Hand Drilling Machine as a driver for the End Mill T.F.M. 3249, produce the elongated holes in the Hatch Hinge. Alter the Part No. of the modified Hatch to 15F.C.153A/1.

(Issued with A/L 58 - August, 1956.)

- (xiv) Assemble the two new hinge bolts, item 23 and the new hinge pins, item 24 to the modified hatch, item 1 and then replace the hatch on the canopy.

Note: The hinge eyebolts may be shimmed, should the locating pins not coincide with the corresponding holes in the canopy.

Re-assemble the hatch bracket to the new support strut, using the original attachment items and a new split pin, item 36 and reconnect the flexible tube to the inflator union (refer to operation (v) for the method of attachment).

- (xv) Refer to section 'D-D' on sheet 4 of the drawing, and insert a new bush, item 12 in each of the two 1/4 inch diameter reamed holes in the new link, item 11. Now attach the link to the two cam assemblies, item 7 with two bolts, nuts and washers, item 26, 28 and 38.

Note: It is imperative that the cams are assembled relative to each other as shown.

Proceed now to attach the link to the spring positioned in operation (xi).

- (xvi) Place four shims, item 21 and a bush, item 8 around each hinge bolt, and then connect up the assembly of link and cams attaching each cam to its respective hinge bolt, with a washer nut and split pin, items 41, 25 and 36.

Method of Incorporation (Cont'd)

- (xvii) Now adjust and route the cable assembly, attached to the lever in operation (xii) through the brackets, positioned in operations (vi) and (x) and connect it to the link with two washers, item 39 fitting between the shackle (and in the way which best affords the free movement of the inner cable, through the adjuster) and a pin, a washer and a split pin, items 6, 38 and 35.

Notes: (a) The cable should be adjusted so that the cam stops, engage with the plungers.

- (b) The cam shims should be adjusted so that the plungers fully engage in the hatch hinge recesses when the jettison gear is operated.

- (xviii) Now route the loose end of the cable assembly (Pt. No. 15FC-1197AND Ref.) (which protrudes from the new hatch support strut) through the bracket, positioned in operation (vii), and connect it to the extension on the new lever, using two washers, item 39 as in operation (xvii), and a new pin, washer and split pin items 6, 38 and 35.

- (xix) Offer up now the new strap referred to in operation 1, place it around the hatch strut and firmly bolt it to the hydraulic reservoir support block using two pads, item 18 and two bolts, washers, and stiffnuts, items 27, 40 and 29.

- (d) Tests : Finally, check the installation of the modified canopy jettison equipment.
- (e) Recording : Record the modification in the airframe log book.

Drawings

12. Drawing A12192, Sheets 1 to 6 is attached. A-58

Effect on Weight and Balance

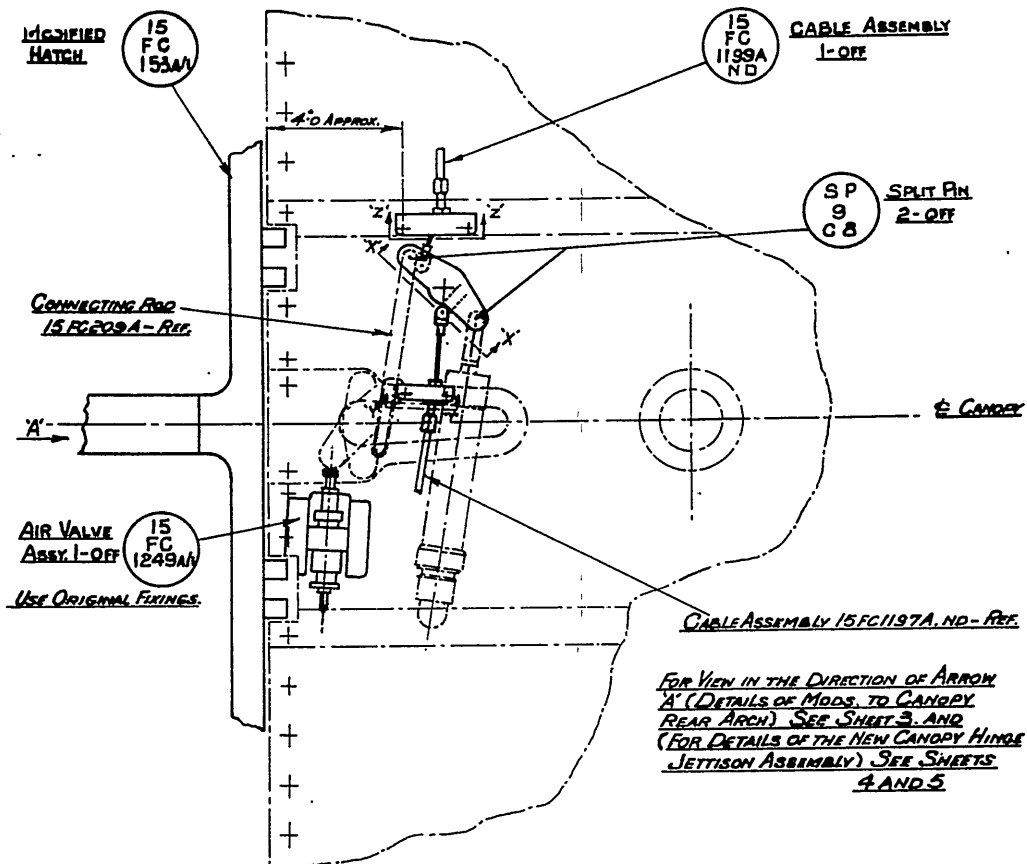
13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

- References : Files R.A.A.F. 9/84/67 and 150/4/8763
- Attachment : Drawing A.12192, sheets 1 to 6 A-58
- Date of Issue : 3rd June, 1954.

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED

NOTE: ALL MOVING PARTS ARE TO BE ASSEMBLED WITH NON-FREEZE GREASE.



FOR SECTIONS X-X, Y-Y AND Z-Z
SEE SHEET 2

FOR DETAILS OF THE HATCH
SUPPORT STRUT SEE SHEET 6.

GENERAL ARRANGEMENT OF IMPROVED JETTISON MECHANISM

DEHAVILLAND DRG. 00M 258. SHEET No 1. No OF SHEETS 6.

REFERENCE	ISSUED BY		TITLE	
	Directorate of Technical Services. R.A.A.F.		CANOPY JETTISON ARRANGEMENTS IMPROVEMENTS TO	
LIMITS UNLESS STATED	MATERIAL		CONFORM	Cockpit
DECIMALS $\pm .010"$	SPFC.		MACH	Vampire Mk.33
FRACTIONS $\pm \frac{1}{32}"$	TREATMENT		ENGIN	Goblin
ANGLES $\pm \frac{1}{2}^\circ$	FINISH		TECH	Vampire Mod. No.111
SURFACE FINISH	SCALE		A-12192 5th. 1066	
AUSTRALIAN STANDARD	DRAWN	APPROVED		
ENC. 33WG. PRACTICE A.S. 221	TRACED	CHECKED		

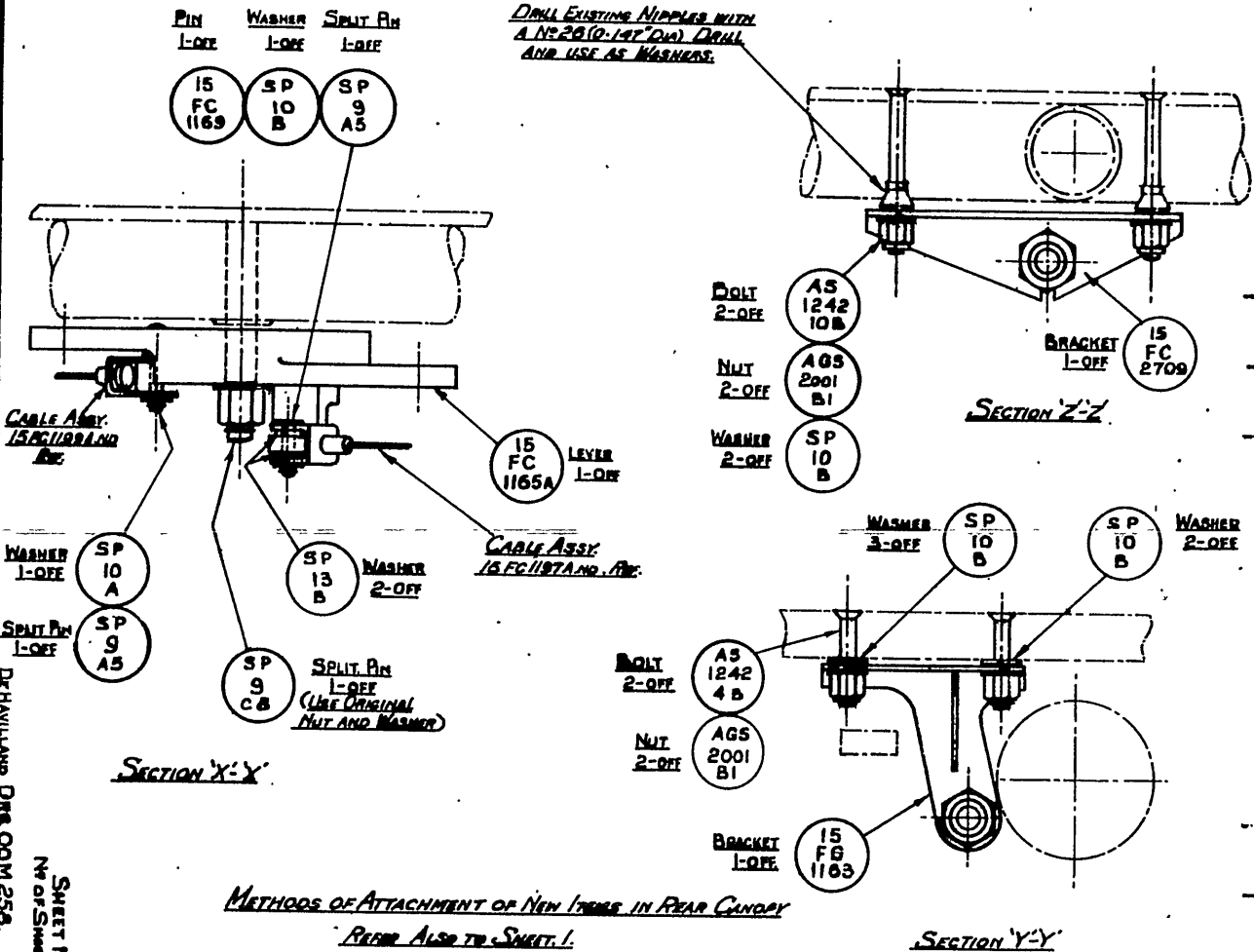
DO NOT SCALE

ISSUE NO. DATE

ALTERATION

B. I. L. INITIALS APPROV.

DRILL EXISTING NIPPLES WITH
A NO. 20 (0.147" DIA) DRILL
AND USE AS WASHERS.



METHODS OF ATTACHMENT OF NEW ITEMS IN REAR CANOPY
REFER ALSO TO SHEET 1.

REFERENCE

ISSUED BY

TITLE

SHEET No 2
No of Sheets 6.
DE HAVILLAND DATA COM 255.

Directorate of
Technical Services R.A.A.F.

Canopy Lettering Arrangements
Instructions to

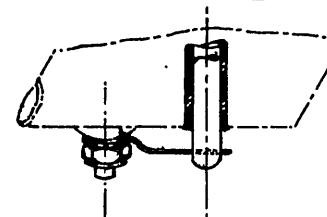
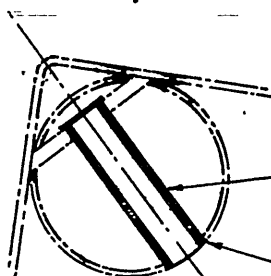
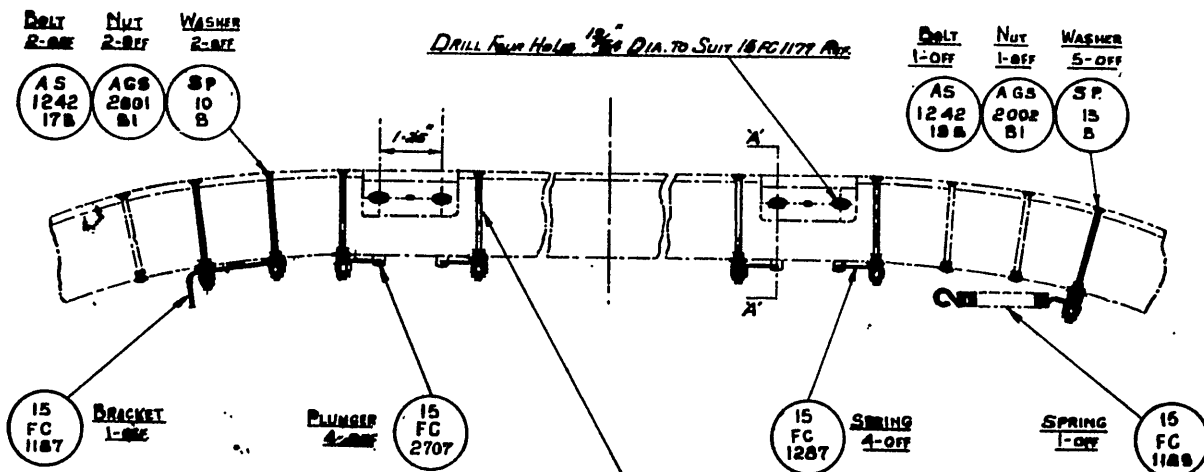
LIMITS UNLESS STATED	MATERIAL	COMPONENT
DECIMALS ± .010"	SPEC.	COCKPIT
FRACTIONS ± 1/16"	TREATMENT	ENGINE
ANGLES ± 1°	FINISH	TECH. ORDER
SURFACE FINISH	SCALE	ENGINEERING NO.
ASSEMBLY STIMULATED	SCALE	A-12192 SH226
EN. DIM. PICTURE PLAN	SCALE	SIZE

DO NOT SCALE

ISSUE NO. DATE

ALTERATION

D. I. L. INITIALS



NOTE: EXISTING HINGE ARE TO BE DRILLED WITH A $\frac{1}{8}$ " DIA. (0-147) D. DRILL AND USED AS WASHERS.

MODIFICATIONS TO CANOPY REAR ARCH.

REFERENCE

ISSUED BY

De Havilland Doc. No. DOM 258 No. of Sheets 6

SHEET No. 3.

Directorate of Technical Services, R.A.F.

Canopy/Jettison Arrangements

MATERIAL

COMPONENT

DETAILS

MEASURE

FINISH

ENGINE

SCALE

TECH. ORDER

APPROVED

DRAWING

A-12192 41346

SIZE

AUSTRALIAN STANDARD
ENG. DRAW. PRACTICE ASSOC.

FINISH

SCALE

APPROVED

DRAWING

TECH. ORDER

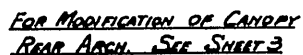
MEASURE

DETAILS

MATERIAL

REFERENCE

ISSUE NO.	DATE	ALTERATION	D.I.L.	INITIALS	APPROVED



FOR TRUE VIEW IN DIRECTION
OF ARROW 'E' AND FOR SECTIONS
'B'-'B' AND 'C'-'C' SEE SHEET. 5



- ADJUSTMENT (REFER TO SHEET 5)
1. ADJUST CABLE TO ENSURE THAT THE CAM STOPS ENGAGE WITH THE PLUNGERS
2. ADJUST CAM SWIMS SO THAT THE PLUNGERS FULLY ENGAGE IN THE HATCH KINSE PROCESS WHEN THE JETTISON GEAR IS OPERATED

CANDY HINGE LATTISON ASSEMBLY

[illegible]

DO NOT SCALE

FORM NO.	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED

DHS 69 D SHIM 2-OFF

15 FC 1173A CAM 2-OFF

A 16Y E5 NUT 2-OFF

SP 13 E WASHER 2-OFF

SP 9 C8 SPLIT PIN 2-OFF

15 FC 2561 HINGEBOLT 2-OFF

15 FC 2563 HINGE PIN 2-OFF

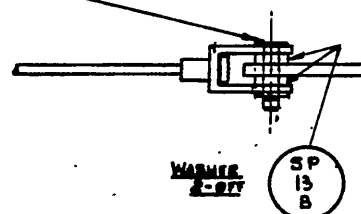
15 FC 1175 BUSH 2-OFF

REFER TO SHEET 4 FOR GENERAL ARRANGEMENT AND ADJUSTMENT DETAILS.

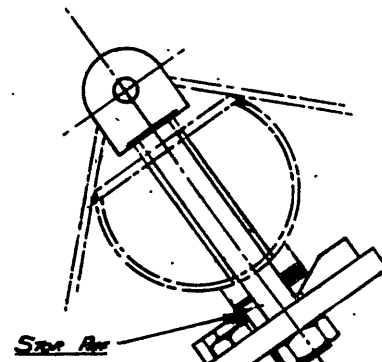
NOTE THAT IN SECTION C-C THE CAM SHAFT ENGADES WITH THE PLUNGERS.

SECTION B-B

PIN 1-OFF 15 FC 1169
WASHER 1-OFF SP 10 B
SPLIT PIN 1-OFF SP 9 AS



VIEW IN DIRECTION OF ARROW 'E'



LINK 1-OFF

BOLT 2-OFF A 25 38
NUT 2-OFF AGS 2001 81
WASHER 2-OFF SP 10 B

SECTION C-C

FURTHER DETAILS OF CANOPY HINGE JETTISON ASSEMBLY.

DEHAVILLAND DRG. NO. OOM258 SHEET NO. 5 NO. OF SHEETS 6

REFERENCE		ISSUED BY		TITLE	
		Directorate of Technical Services. R.A.A.F.		CANOPY JETTISON ARRANGEMENTS IMPROVEMENTS TO	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	Cockpit
DECIMALS	$\pm .010''$	SPEC.		MACHINE	Vampire Mk. 33
FRACTIONS	$\pm \frac{1}{32}''$	TREATMENT		ENGINE	Goblin
ANGLES	$\pm \frac{1}{2}^\circ$	FINISH		TECH. ORDER	Vampire Mod. No. III
SURFACE FINISH AUSTRALIAN STANDARDS (ENG. CODE. PRACTICE A.S.22)		SCALE		DRAWING NO. A-12192 Sh1506	
		DOWN			
		THROU			
			APPROVED		
			CHECKED		

DO NOT SCALE

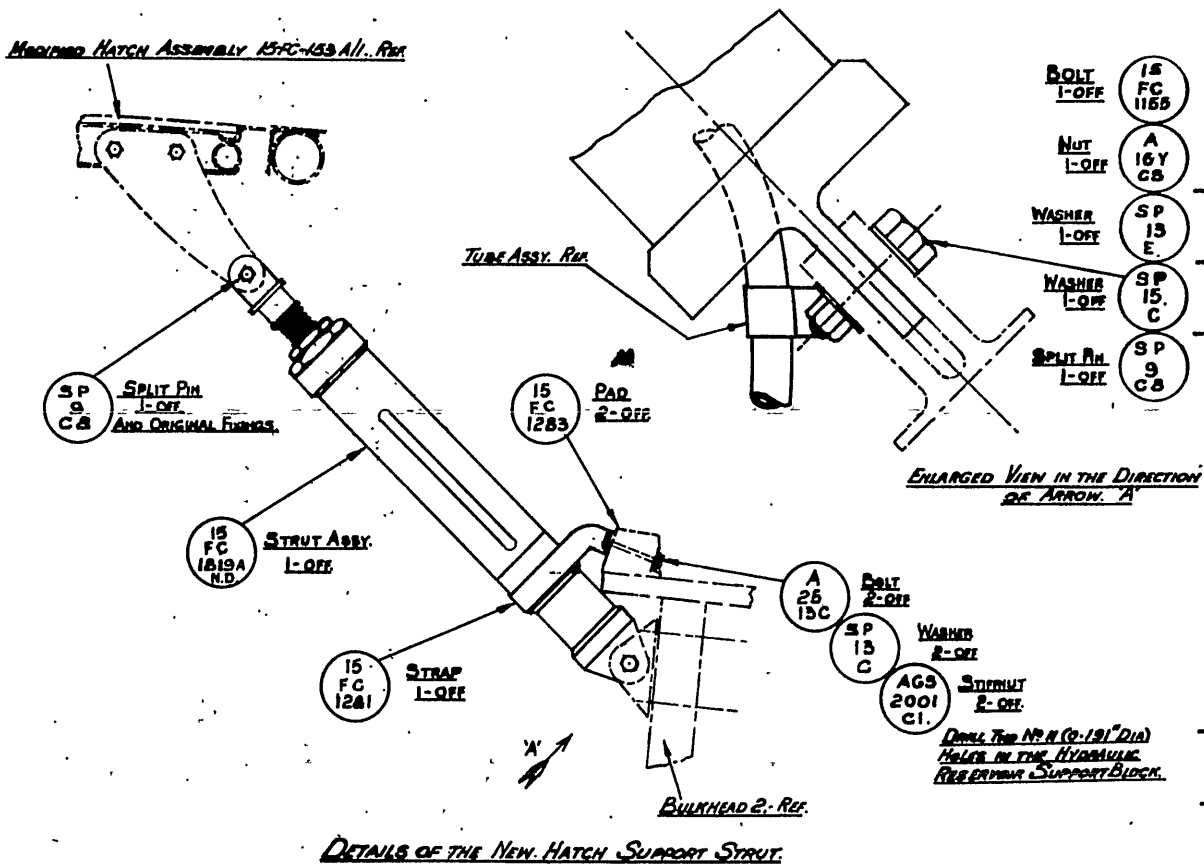
ISSUE NO. DATE

ALTERATION

M. L. L.

INITIALS

APP'D



DE HAVILLAND DRG. NO. COM 250. SHEET NO. 6

REFERENCE

ISSUED BY

TITLE

*Directorate of
Technical Services, R.A.A.F.*

*CANOE LIFTING ARRANGEMENTS
INDEPENDENTS 12.*

LIMITS UNLESS STATED

MATERIAL

COMPONENT

Cockpit

DECIMALS $\pm .010"$

SPEC.

MACHINE

Vintage MK-35

FRACTIONS $\pm \frac{1}{32}"$

TREATMENT

ENGINE

*Coastlin
Vampire Mod. No. 111*

ANGLES $\pm 3^\circ$

FINISH

TECH. ORDER

412/192 54646

SURFACE FINISH

SCALE

REMARKS NO.

412/192 54646

AUSTRALIAN STANDARD

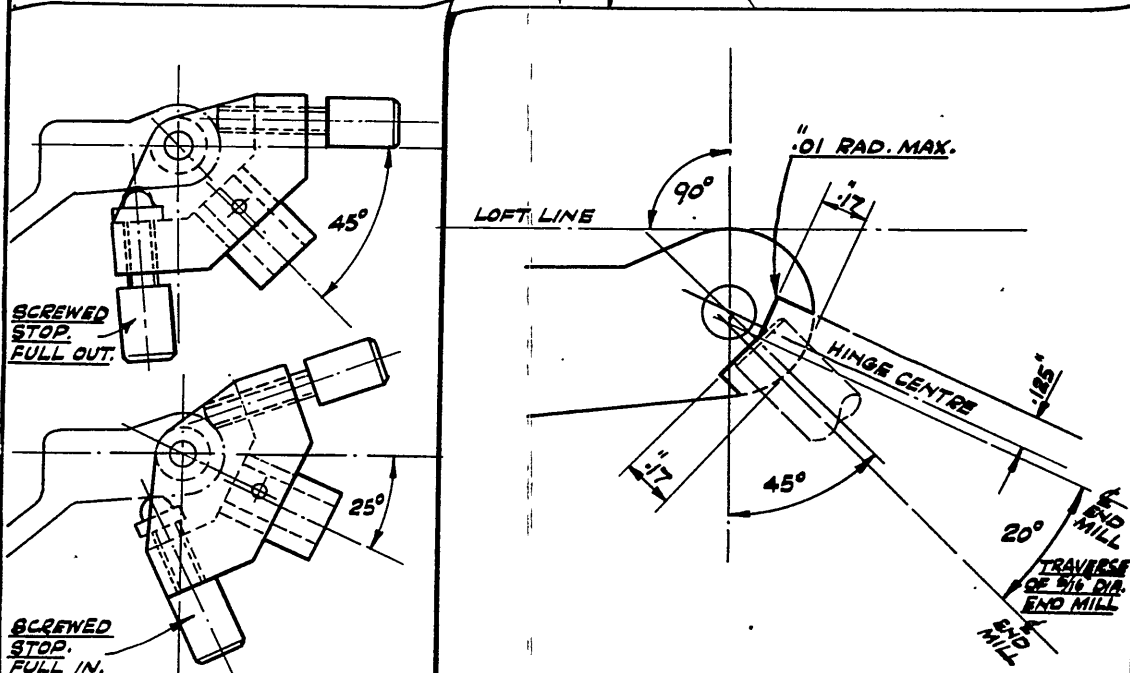
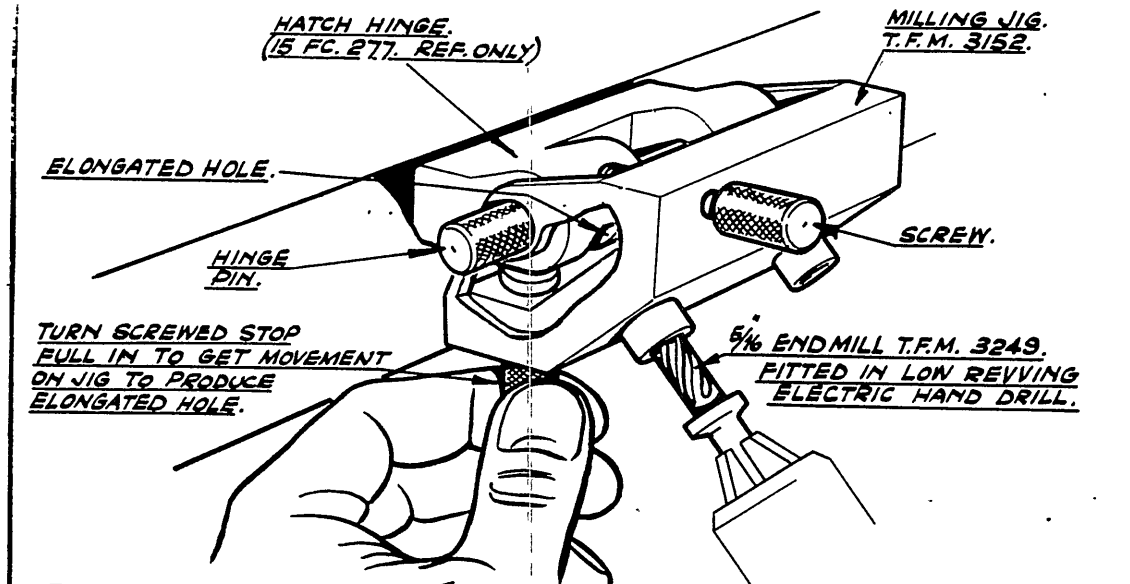
ENG. MARK. PRACTICE A421

THICK

412/192 54646

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D.T.L.	INITIALS	APPROVED



DE HAVILLAND DRWG. 00M258 NO. OF SHEETS 7. SHEET No. 7.

REFERENCE		ISSUED BY		TITLE	
				<u>CANOPY JETTISON ARRANGEMENTS -</u> <u>IMPROVEMENTS TO -</u>	
LIMITS UNLESS STATED	MATERIAL			COMPONENT OF	COCKPIT
DECIMALS $\pm .010"$	SPEC.			MACHINE	VAMPIRE MK 55
FRACTIONS $\pm \frac{1}{32}"$	TREATMENT			ENGINE	GOBLIN
ANGLES $\pm \frac{1}{2}^\circ$	FINISH			TECH. ORDER	VAMPIRE MOD. N° 117 (111)
SURFACE FINISH	SCALE			DRAWING NO.	A 12192
AUSTRALIAN STANDARD	DRAWN				SWG. A SIZE
ENG. DRWG. PRACTICE A.S. 21	TRACED				
		APPROVED			
		CHECKED			

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 112

Class 2

A RETAINING SPRING ON THE H.P. FUEL COCK
INTRODUCTION OF.

Reason for and Description of Modification

1. This modification is necessary when the H.P. Fuel Cock Handle is reworked to Vampire Modification No.49. To restrict the free movement of the H.P. Cock, this retaining spring prevents creep of the Fuel Cock Handle and also prevents inadvertent movement of the handle with throttle movement.

Application

2. This modification is to be carried out on all Vampire Mk.30 and 31 aircraft and ground training equipment that has Vampire Modification No.49 incorporated, but has not the manufacturer's modification V187.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in respect of Spares

4. No spare complete Engine Control Box Assemblies have been delivered.

Orders Superseded or Cancelled

5. Nil.

Equivalent Modification

6. D.H. Australia Modification V187 is the equivalent modification.

7. The following parts are required for one modification set:-

AL32

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
1	A79/503533	00L228	Spring Catch	1	
2	-	L002264ND	Screw 2BA (Make from H28C/2766)	1	
3	A79/503533	L002263ND	Sleeve	1	
4	H28C/12252	SP13/C	Washer 2BA	1	
5	11/2188		Wire, locking 22G Nickel Alloy.	AR	

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 112

Notes: (a) Items 1 to 4 are to be supplied by De Havilland Aircraft Pty. Ltd. to Sub-modification Section, 2 Aircraft Depot, which is to issue these items on demand.

(b) Item 5 is to be drawn from unit stores.

Disposal of Parts Removed

8. No parts are rendered redundant by this order.

Disposal of Parts in Stock

9. No action required.

When Modification is to be Incorporated

10. If Vampire Modification No.49 is incorporated, this modification is to be embodied as early as possible. Otherwise, it is to be incorporated at the same time as Vampire Modification No.49.

Method of Incorporation

11. (a) Man-hours involved : Approximately one (1) man-hour is required for this modification.

(b) Special Tools, Jigs, &c. : None required.

(c) Sequence of Operations :

- (i) Refer to drawing A-12202.
Locate 2BA hole tapped in control box casting between throttle and H.P. cock levers. This tapped hole is 1.9 inches aft of the front screws securing the H.P. Cock label. Locate also the .128 inch diameter hole which is .75 inch forward of the 2BA tapped hole.
- (ii) Take spring catch, item 1, sleeve, item 3 and 2BA screw, item 2 and assemble to casting with spigot of spring in .128 inch hole.
- (iii) With scriber lightly mark outline of spring where it lands on H.P. cock label.
- (iv) Remove and retain spring.
Remove label by unscrewing 4 P.K. screws and file to scribed line so that, when assembled, the spring will seat down on the control box casting.
- (v) Reassemble label. Reassemble spring.
- (vi) Move H.P. cock lever and check action of spring in restraining the movement of the lever. If necessary bend spring to give more or less clamping effect to lever.

Note: On levers pre D.H. (Aust.) Modification V189 "Provision for High Energy Ignition", ensure that the electrical cable on the H.P. cock lever is not damaged by the spring.

(vii) When satisfied with feel of H.P. cock control, tighten 2BA screw holding spring catch and lock with 22G. wire, item 5.

(viii) Restore matt black finish where necessary.

(d) Tests : Covered by paragraph 11(c) (vi) above.

(e) Recording : Record this modification in the Air Frame Log Book.

Drawings

12. Drawing A.12202 is attached.

Effect on Weight and Balance

13. The effect on weight and balance of this modification is negligible.

References : Files R.A.A.F. 9/84/16 and 150/4/8777

Attachment : Drawing A.12202

Date of Issue : 14th June, 1954.

DO NOT SCALE

ROUTE NO.	DATE	ALTERATION	D.T.L.	INITIALS	APPROVED

H.P. COCK LEVER

SPRING CATCH
SEE DETAIL BELOW.

THROTTLE

ENGINE CONTROL BOX.



LOCK TO SPRING WITH
22 G NICKEL ALLOY WIRE.

CUT H.P. COCK LABEL AS SHOWN
TO CLEAR SPRING.

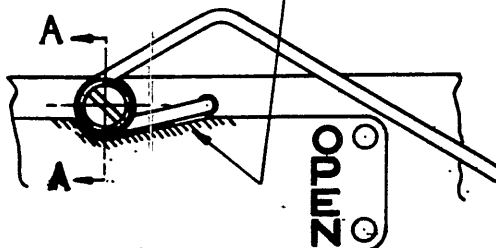
1002264 2 BA. SCREW
ND

0012187 SPRING CATCH.

SP13 C WASHER.

SECTION A-A

1002263 SLEEVE.
ND



REFERENCE		ISSUED BY		TITLE	
		Directorate of Technical Services. R.A.A.F.		RETAINING SPRING ON H.P. COCK LEVER - INTRODUCTION VAMPIRE MK 30 & 31.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	Cockpit.
DECIMALS $\pm .010"$		SPEC.		MACHINE	Vampire MK. 30 & 31
FRACTIONS $\pm \frac{1}{32}"$		TREATMENT		ENGINE	None - 2VH
ANGLES $\pm \frac{1}{2}^\circ$		FINISH		TECH. ORDER	Vampire Mod. 112
SURFACE FINISH AUSTRALIAN STANDARD ENG. DWTG. PRACTICE 4.3.42		SCALE		DRAWING NO.	A-12202
		DRAWN			
		TRACES			

DW.
A
SIZE

Restricted

A.A.P.721:79, VOL.2, PART 2, SECT.2.

VAMPIRE MODIFICATION NO. 113
Class 2.

**FUEL CONTENTS FLOAT ARM - REWORK
INNER AND OUTER TANKS. PORT AND STARBOARD**

Reason for and Description of Modification

1. During the manufacture of Vampire Aircraft and subsequently, it was found due to collapsing tanks that the tank unit arm was sticking to the top of the tank. To prevent this, tank unit arms were bent. Since that time the collapsing of the fuel tanks has been remedied. This modification authorized the straightening of the tank arms and calibration check to the tank unit. This modification is supplementary to Vampire Modification 40 introducing fuel contents gauges correct for the 5° nose up position, and Vampire Modification 59 introducing a reworked arm in the main fuel tank. The three modifications when incorporated will give correct fuel contents reading for the average flying position namely 5° nose up.

Application

2. This modification is to be incorporated in Vampire Aircraft Mk.30 having De Havilland Serial Nos. 1 to 34 inclusive. On all other Mk.30 and Mk.31 Vampire aircraft, a calibration check is to be carried out when incorporating Modification Nos. 40 and 59.

In the case of incorrect readings and if necessary, Modification No.113 is to be incorporated as directed by Maintenance Command, or as directed by an authority delegated by Maintenance Command.

The appropriate R.A.A.F. Nos. corresponding to the De Havilland Nos. are:- A79-1, 2, 484, 687, 973, 309, 375, 24, 109, 762, 153, 18, 263, 529, 737, 796, 89, 650, 321, 14, 165, 876, 942, 872 and 333.

Responsibility for Incorporation

3. The modification is to be carried out as directed by Maintenance Command.

Action in respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. Not applicable.

Equivalent Modifications

6. Not applicable.

A.A.P.721:79, VOL.2, PART 2, SECT.2

VAMPIRE MODIFICATION NO. 113

Supply

7. The following parts are required:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
1	G6A/1975 (Modified)	917FG	Tank Units Type 237 Inner Tank	2	A
2	G6A/2040 (Modified)	955FG	Tank Units Type 251 Outer Tank	2	A

Notes: (a) Items 1 and 2 will be obtained by reworking items 3 and 4 as directed by Maintenance Command.

(b) A pool of the modified arms will be created at the Sub-modification Centre No.2 Aircraft Depot.

Disposal of Parts Removed

8. The following parts are redundant:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
3	G6A/1975 Unmodified	917FG	Tank Units Type 237 Inner Tank	2	A
4	G6A/2040 Unmodified	955FG	Tank Units Type 255 Outer Tank	2	A

Note: Items 3 and 4 are to be reworked as items 1 and 2 as directed by Maintenance Command.

Disposal of Parts in Stock

9. Stocks of items 3 and 4 are to be reworked as directed by Maintenance Command.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, as arranged between Home Command and Training Command.

Method of Incorporation

11. (a) Man-hours involved : Approximately five (5) man-hours are required to incorporate this modification.

(b) Special tools, jigs, &c. : Nil.

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VAMPIRE MODIFICATION NO. 113

Method of Incorporation (Cont'd)

(c) Sequence of Operations :

- (i) Remove the unmodified tank unit and return for modification to sub-modification section 2 Aircraft Depot.
- (ii) Install the modified tank unit.

(d) Tests : Check for correct functioning and calibration. Check tanks for correct sealing.

(e) Recording : Record in Airframe Log Book.

Drawings

12. Nil.

Effect on Weight and Balance

13. The effect on this modification on weight and balance of aircraft is negligible.

References : Files R.A.A.F. 9/84/203 and 150/4/8781

Date of Issue : 12th October, 1954.

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 114

Classification 2.

COLD AIR UNIT OIL SUPPLY - IMPROVEMENTS TO -
INTRODUCTION.

Reason for and Description of Modification

1. Overseas experience indicates that unit bearings have been damaged by the entry of sand and grit into the oil supply. Also grit thrown up during formation take-offs necessitates the introduction of a filter into the oil-tank inlet neck, and the reduction in size of the air vent hole.

Application

2. This modification is applicable to Vampire Mk.33 aircraft not incorporating the approved equivalent modification, De Havillands (Aust.) Modification V.645.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is Airframe Fitter.

Action in respect of Spares

4. No unmodified spares have been supplied by the De Havilland aircraft Pty. Ltd.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.645 and Air Ministry Modification VAM. 3265.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Ref.
1	A79/503513	ROO2619A	Dipstick assy.	1	
2		12V.667A	Filter C.A.U. Oil Tank	1	
3	K2/214		Oil, OEP.71 Spec. DED. 2479/1	A.R.	

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VAMPIRE MODIFICATION NO. 114

Supply (Cont'd)

Notes: (a) Items 1 and 2 are to be delivered from De Havilland Aircraft Pty. Ltd. to Sub-modification Section, 2 Aircraft Depot, which is to issue these items on demand.

(b) Item 3 is to be drawn from unit stores.

Disposal of Parts removed

8. The following part is rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
4	A79/503003	R001893A	Dipstick assy.	1	

Note: Item 4 is obsolete and is to be disposed of in accordance with the authorised current procedure.

Disposal of Parts in Stock

9. Refer paragraph 4.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor inspection after receipt of the modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately three (3) man-hours are required to incorporate this modification.

(b) Special tools, jigs, &c. : No special tools, or jigs are required to incorporate this modification.

(c) Sequence of Operations :

(i) Remove the cold air unit access panel and oil reservoir situated at Rib 1B, retaining the parts removed for future use.

Note: When releasing the jubilee clip which secures the hose to the reservoir, allow the oil from the hose and reservoir to drain into a suitable receptacle.

Method of Incorporation (Cont'd)

- (ii) Located at approximately .80 inch from the face of the mounting flange of the reservoir is a 1/16 inch diameter drilled hole. Seal this hole by soft soldering and drill a 1/64 inch diameter hole on the same longitudinal centre line as the 1/16 inch diameter hole, but at a dimension of .48 inch from the mounting flange face. Ensure no swarf enters the reservoir and that scrupulous cleanliness is observed throughout this operation. Alter Part No. of the reservoir to R002621A/EOI2276, the original Part No. being R002047A before modification.
- (iii) Insert the filter, item 2 with the rivet uppermost and enclose it by lightly screwing the new dipstick assembly, item 1 into position.
- (iv) Replace the reservoir and access panel, using the reverse of the removal procedure and utilising the original attachment items.
- (v) Refill the reservoir to the level indicated on the dipstick with oil, item 3.
- (d) Tests : No tests are necessary except to check the hose joint for leaks.
- (e) Recording : Record this modification on the wing modification plate and Airframe Log Book.

Drawings

12. No drawings are required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/276 and 150/4/8784.

Date of Issue : 14th June, 1954.

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 115

Class 2

**G.B COMPASS AMPLIFIER AND MASTER INDICATOR COVER
PLATE - INTRODUCTION**

Reason for and Description of Modification

1. To prevent the entry of water into the compass units when opening the canopy under adverse weather conditions, this modification introduces a cover for the canopy.

Application

2. This modification is applicable to Vampire Mk. 33 Aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) Modification V652. On Aircraft A79-801 to A79-809 inclusive, the compass amplifier is at present in a different location and the covers must be trimmed to suit as detailed in paragraph 11 (c) (iv).

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V652 is the equivalent Modification.

Supply

7. The following part is required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1		N15-99A	Plate - Amplifier Cover	1	

Note: Item 1 is to be delivered from De Havilland Aircraft Pty. Ltd., to Sub-modification Section, 2 Aircraft Depot, which is to issue this item on demand.

Disposal of Parts Removed

8. No part is rendered redundant by the incorporation of this modification.

Disposal of Parts in Stock

9. No action is required.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor inspection after receipt of the modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately one (1) man-hour is required to incorporate this modification.
- (b) Special Tools, Jigs, &c. : No special tools, or jigs are required.
- (c) Sequence of Operations :
- (i) Locate the G4B Compass Amplifier which is attached to the fuselage bulkhead 2 on the port side and 10 inch from the centre line of the aircraft. The master indicator is situated directly below the amplifier.
 - (ii) Unscrew the two N.P. knurled nuts which are located on top of the compass amplifier and approximately 8.40 inch apart and retain.
 - (iii) Attach the new cover plate, item 1, with the cutaway corner to the left and nearest the bulkhead, and secure into position with the two knurled nuts removed in operation (ii).
 - (iv) On aircraft A79-801 to A79-809 inclusive, the compass amplifier is mounted directly on No.2 bulkhead on the starboard side, and the back edge of the cover plate is to be trimmed off to allow fitment. The correct cover plates will be fitted to these aircraft, (thus also shielding the Master Indicator) when the amplifier is relocated at a later date on D.H. (Anst.) Mod. V607.
- (d) Tests : No tests are required.
- (e) Recording : Record the modification in the Airframe Log Book.

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VAMPIRE MODIFICATION NO. 115

Drawings

12. No drawings are required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/16 and 150/4/8785.
Date of Issue : 30th June, 1954.

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 116

Class: 2.

BLOW OFF VALVE IN DROP TANK AIR TRANSFER LINES - INTRODUCTION

Reason for and Description of Modification

1. To prevent excessive pressure build up and possibility of damage to the drop tanks, this modification introduces a Blow Off Valve on each of the "Dunlop" Pressure Reducing Valves in the Air Pressurising System, which is used to transfer the fuel.

Application

2. The modification is applicable to all Vampire Aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) Modification V.171.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is Airframe Fitter.

Action in Respect of Spares

4. No spares have been supplied by De Havillands. Any spares of T27G/2081 (Pt. No. AHO.19208) or (Pt. No. ACO.4798) which are to be used on Vampire Aircraft are to be reworked to T27VA/3400 (Pt. No. ACM.16314).

Orders Superseded or Cancelled

5. Royal Australian Air Force Vampire Modification No. 4 (D.H. Must. Mod. V28) is to be modified to call for T27VA/3400. (Pt. No. ACM.16314) in lieu of T27G/2081 (Pt. No. AHO.19208).

Equivalent Modification

6. De Havilland (Aust.) Modification V171 and Air Ministry Modification V.A.M.3068 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	T27VA/500,000	ACM.17031	Relief Valve Sensitive	2	
2	T27VA/3978	ACO.7374	Ring Sealing	4	
3	T27VA/3974	ACO.7798	Bolt-banjo	2	
4	T27VA/3979	ACO.7261	Screw adjusting	2	

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VAMPIRE MODIFICATION NO. 116

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
5		ACO.7262	Nut-lock	2	
6		AHO.19169/ 97	Plate-Indicator (Delivery)	2	
7		AHO.19168/ 98	Plate-Indicator (Supply)	2	
8		AHO.4710/201	Plate Code	2	

Note: Items 1 to 8 inclusive are to be delivered from De Havilland Aircraft Pty. Ltd., to Sub-modification Section, 2 Aircraft Depot, which is to issue these items on demand.

Disposal of Parts Removed

8. The following parts are rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
9	T27G/2088	A.H.O.19249	Body Blow off Valve	2	
10	T27G/2086	A.H.O.19217	Blank Blow off Valve	2	
11	T27G/2038	A.H.O.15523	Blank Washer	2	
12			Plate Indicator (Delivery)	2	
13			Plate Indicator (Supply)	2	
14			Plate Code	2	

Note: The above Items 9 to 11 inclusive are to be returned to store. Items 12 to 14 inclusive are of no further use, and are to be disposed of in accordance with current authorised procedure.

Disposal of Parts in Stock

9. For action on complete valve assemblies, see paragraph 4 above.
For action on details see paragraph 8 above.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of the modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately eight (8) man-hours are required to incorporate this modification.

Method of Incorporation (Cont'd)

(b) Special Tools, Jigs, &c. : No special tools are required.
(Other than normal Test Room Equipment.)

(c) Sequence of Operations :

- (i) Remove the upper engine cowling panel to gain access to the engine mounting stays, and locate the "Dunlop" reducing valves in the drop tank fuel transfer air feed line, which are mounted on the engine mounting cross tubes, both port and starboard.
- (ii) Break the locking wire and disconnect the two pipe assemblies running from the "T" piece to the reducing valves at their valve end. Remove the reducing valve A.H.O.19208 (Ident. No. T27G/2081) or A.C.O. 4798 and proceed with the modification as follows:-
- (iii) Remove locking wire from blow-off valve body complete with spring adjuster A.H.O.19249, item 9, and also blow-off valve blank A.H.O. 19217, item 10, and blank washer A.H.O.15523, item 11.
- (iv) Fit the sensitive relief valve A.C.M.17031, item 1, assembled complete with banjo bolt A.C.O.7798, item 3, and sealing rings A.C.O.7374, item 2.
- (v) Replace the adjusting screw and lock nut in the main valve by the new parts adjusting screw ACO7261, item 4, and lock nut ACO.7262, item 5, to ensure positive locking of the adjusting screw once they have been set to meet the correct delivery pressure.
- (vi) Remove the indicator supply plate, item 13, indicator delivery plate, item 12, and the code No. plate, item 14, and replace them by indicator supply plate, item 7, indicator delivery plate, item 6, and code plate, item 8.

Note: Following this conversion, the "Dunlop" pressure reducing valve is now known as Part ACM.16314, Ident. No. T27VA/3400.

(d) Tests : Tests are to be carried out as called for on the attached Drawing A-12206.

(e) Recording : Record the modification in the Airframe Log Book.

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 116

Drawings

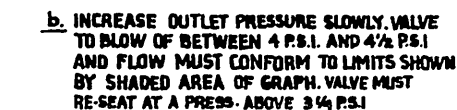
12. Drawing No. A-12206 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References	:	Files R.A.A.F. 9/84/505 and 150/4/8786
Attachment	:	Drawing A.12206
Date of Issue	:	20th July, 1954.

DE HAVILLAND DRG No 00M 247 SHEET NO 1 OF 5 SHEETS 1	
TITLE:	
BLOW OFF VALVE IN DROP TANK AIR TRANSFER LINES - INTRODUCTION	
30 FEBRUARY 1954	FUEL SYSTEM
100% 100% 100% 100%	VAMPIRE MK. 30, 31, & 33 <i>Nene RBH & Godlin</i>
100% 100% 100% 100%	VAMPIRE MOD. No 116.
100% 100% 100% 100%	A-12206



CONVERSION OF PRESSURE REDUCING VALVE AHO 19208 AND ACO 4798 TO ACM16314



Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 117

Class 2.

HYDRAULIC HAND PUMP - MOUNTING BRACKET REDESIGNED

Reason for and Description of Modifications

1. This modification is introduced to overcome defects experienced in service and to provide ease of maintenance, should the hydraulic hand-pump become unserviceable. This modification involves the removal of the existing mounting bracket and the installation of a redesigned mounting bracket and the replacement of rivets by bolts.

Application

2. This modification is to be incorporated on Vampire Mk.33 Aircraft, Serial Nos. A79-801 to A79-824 inclusive. Subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

3. Units holding relevant aircraft are responsible for the incorporation of this modification. The trade mustering responsible is Airframe Fitter.

Action in Respect of Spares

4. No unmodified spares have been supplied by De Havilland Aircraft Pty. Ltd.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.651 is the equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
1	H28/7301	S15-81ND	Mounting Pump L.H.	1	
2		S15-82ND	Mounting Pump R.H.	1	
3		S15-83ND	Plate, stop	1	
4		S15-85ND	Plate, stop	1	
5		A25/20E	Bolt, Steel, H.T., Hex Hd 1/4" B.S.F. 2.5" long	3	

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VAMPIRE MODIFICATION NO. 117

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
6	H28/27024	AGS2001/B/1/ Nyloc	Nut, Stiff, M.S. Hex thick, 4BA	14	
7	H28/8300	AS1242/1B	Bolt, Steel, H.T., Csk Hd., 90°, 4BA, .45" long.	8	
8	H28/8337	AS1248/1B	Bolt, Steel, H.T., Mush. Hd., 4BA, .45" long.	6	
9	H28C/12305	SP13/B	Washer, M.S., Plain 18G, 4BA.	14	
10	H28/7288	A25/21C	Bolt, Steel, H.T., Hex. Hd., 2BA, 2.55" long.	4	
11	H28/5316	A16Y/CP	Nut. Steel, Hex., 2BA.	4	

Note: Items 1 to 11 inclusive will be delivered from De Havilland Aircraft Pty. Ltd. to Sub-modification Section, 2 Aircraft Depot, Which will issue these items on demand.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
12		15S407ND	Mounting, Pump. L.H.	1	
13		15S408ND	Mounting, Pump. R.H.	1	
14		15S427ND	Plate, stop	1	
15		15S429ND	Plate, stop	1	
16	H28/7300	A25/19E	Bolt, Steel, H.T., Hex. Hd., 1/4" B.S.F. 2.4" long	3	
17	H28/7288	A25/21C	Bolt, Steel, H.T., Hex., Hd., 2BA 2.55" long.	4	

Notes: (a) Items 12 to 15 inclusive are obsolete and are to be scrapped.

(b) Item 16 is to be examined and, if serviceable, returned to stock.

(c) Item 17 is to be scrapped as being damaged.

Disposal of Parts in Stock

9. No action is required.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately four (4) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools, or jigs are required.
- (c) Sequence of operations :
- (i) Locate the hydraulic hand-pump mounting, centrally positioned on the cockpit tie beams and attached by four 2BA bolts at the forward end.
 - (ii) Undo the four bolts, item 17 and discard with the nuts, retaining the four washers, thus releasing the two brackets by means of which the channels are secured to the tie beam. Disconnect the hose clip and remove the Punkah louvre, retaining these items for re-assembly, also loosen the hose clip near bulkhead 2.
 - (iii) Proceed to remove the pump assembly by first moving aside the 'Punkah' louvre pipe which is in the way. Release the spring loaded catch by means of the push button, and slide the pump assembly back and out through the bottom at the channels, spreading the channel assembly a little if necessary. The pump assembly need not be disconnected from the hydraulic hoses during this operation.
 - (iv) Remove the two pump mountings, items 12 and 13, from the pump assembly by undoing and removing the three 1/4 inch attachment bolts, item 16. Position the two new pump mountings, items 1 and 2, and secure by means of three (3) bolts, item 5, using the washers and nuts just removed.
 - (v) File or drill, and punch out the ten rivets, securing the two stop plates, items 14 and 15, to the channels at the forward end, near the cockpit tie beam, and discard the plates.

Re-drill these holes to suit 4BA bolts, making sure that the four holes on the upper and lower channels are drilled with a No.28 drill.

Method of Incorporation (Cont'd)

- (vi) Temporarily position and secure the two new stop plates, items 3 and 4, and using them as templates spot through, and drill the four extra holes in the channels with a No.28 drill. Remove the stop plates and countersink the eight holes on the inside of the channels to suit 4BA bolts, item 7.
- (vii) Slide the pump assembly removed in operation (iii) back into position.
- (viii) Offer up and secure the stop plates with six (6) bolts, item 8, six (6) washers, item 9, and six (6) nuts, item 6, on the two forward faces, also the eight (8) bolts, washers and nuts, items 7 to 9 and 6 in the channels.
- (ix) Re-assemble the 'Punkah' louvre removed in operation (ii), together with the channels, using four (4) new bolts, item 10, and nuts, item 11, and the existing washers retained also from this operation.

Tighten the hose clip near bulkhead 2.

- (x) Repair the paint finish locally where necessary.
- (d) Tests : Check the pump for smooth operation in the channels.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. No drawings will be required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/16 and 150/4/8816

Date of Issue : 10th August, 1954

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 118

Class 2

CANOPY HATCH - REDESIGNED JETTISON CONTROL - INTRODUCTION

Reason for and Description of Modification

1. Early aircraft have the canopy jettison control handle located on the cockpit floor and it was not possible for the pilot to reach the handle without first releasing his harness. This handle was repositioned in later aircraft (by D.H. Modification V.620) on the centre instrument panel, but the method of operation was by a Bowden type wire which was liable to inadvertent operation and therefore unsatisfactory. This modification is in two parts:-

PART "A" re-locates the hydraulic selectors in aircraft which have the handle already positioned on the Instrument Panel (by D.H. Modification V.620).

PART "B" re-locates the hydraulic selector in the same way as Part "A", but also re-locates other equipment as necessary and installs the handle within reach of the pilot to give a final installation identical to that achieved by Part "A".

PART "A"

Application

2. This work is to be carried out on Mk.33 aircraft Serial No. A79-810 to A79-824 inclusive. Subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

3. Operating units and the aircraft depot or civilian contractor responsible for servicing Vampire aircraft are to carry out this modification.

Action in Respect of Spares

4. No unmodified spares have been supplied by De Havilland Aircraft Pty. Ltd.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modification

6. De Havilland (Aust.) Modification V.644 and Air Ministry Modification VAM.3251 are the equivalent modifications.

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 118

Supply

7. The following parts are required to complete one modification set for the incorporation of Part "A":-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	A79/503449	15M141A	Handle	1	
2		15M129	Bush	1	
3		15M137ND	Bolt, Special	1	
4		15S781	Bracket, Mounting	1	
5		15S763AND	Pipe Assy., Jettison Return	1	
6		15S767AND	Pipe Assy., Press. Line to Selector	1	
7		15S759AND	Pipe Assy., Press. Line to Jack	1	
8		15S867	Fairlead	2	
9		15S771AND	Pipe Assy., Jettison Ret.	1	
10		15S775AND	Pipe Assy., Press Line to Selector.	1	
11	A79/503352	15S779AND	Pipe Assy., Press Line to Jack.	1	
12		13S563	Block, Clamp } Req. in Part "B"	-	
13		13S565	Cap } only	-	
14		15Z843ND	Doubler	1	
15	A79/503353	15S837AND	Pipe Assy., Spray Feed Line	1	
16		15S833AND	Pipe Assy., Supply Line	1	
17		15S841AND	Pipe Assy., Spray Feed Line. (Make from Existing Pipe.)	-	
18		15S865AND	Pipe Assy., Supply Line. (Make from Existing Pipe.)	-	
19	H28B/5032 or H28B/5032 H28C/9703	15M145A	Rod, Conn.	1	
20		SP9/C8	Pin, Split, Nickel Alloy.	10	
21		AGS784/3 AGS1102/A	1/16" dia. 1" long. Union, Alum.Alloy 3/36" Tube $\frac{1}{8}$ " B.S.P. x 1.55" long	1	
22		AGS1111/A	Coupling, Alum. Alloy, 1.10" dia. Flange, $\frac{1}{8}$ " B.S.P. Thrd., 1.7" long	3	
23	H28C/11903	AGS1115/ Mk.1	Washer, Plate Steel, Cad. 1.10" dia., .50" D.Hole	3	
24		AGS2001/ B/1 NYLOC	Nut, Stiff, M.S. Hex., thick, 4BA	27	

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
25	H28/27025	AGS2001/ C/1 NYLOC	Nut, Stiff, M.S. Hex., thick, 2BA	4	
26	H28/27033	AGS2002/ C/1 NYLOC	Nut, Stiff, M.S. Hex., thin, 2BA	1	
27	H128F/61684	AGS2050/ 424/BS	Rivet, Tucker "Pop" Monel, Domed Hd., $\frac{1}{8}$ " D., .24" long	2	
28	H28/26012	DHS29/2	Clip, 22 SWG Alumn. 5/32"	2	
29	H128F/30258	AS2227/305	Rivet, Al.Alloy, S.Head, 3/32 dia., 5/16" long.	2	
30	H128F/15099	AS2227/304	Rivet, Al.Alloy, S.Head, 3/32 dia., $\frac{1}{4}$ " long	7	
31	H128F/30267	AS2227/404	Rivet, Al.Alloy S.Head, $\frac{1}{8}$ " D., $\frac{1}{4}$ " long	3	
32	H128/30269	AS2227/406	Rivet, Al.Alloy, S.Head, $\frac{1}{8}$ " D., $\frac{3}{8}$ " long.	1	
33	H28C/12305	SP13/B	Washer, M.S., Plain, 18G, 4BA.	23	
34	H28C/12252	SP13/C	Washer, M.S. Plain, Thin, 2BA.	2	
35	H28C/12306	SP15/B	Washer, Al.Alloy, Plain, Thin, 4BA.	5	
36	H28C/12296	SP15C	Washer, Al.Alloy, Plain, 18G, 2BA.	3	
37	H28/7034	A25/1C	Bolt, H.T.S. Hex.Hd., 2BA, .55" long.	2	
38	H28/7271	A25/1B	Bolt, H.T.S., Hex.Hd. 4BA, .50" long.	22	
39	H28/7273	A25/3B	Bolt, H.T.S., Hex.Hd., 4BA, .7 " long.	4	
40	H28/7141	A25/6C	Bolt, H.T.S. Hex.Hd., 2BA, 1.05" long.	3	
41			Wire, locking, iron, soft, tinned, comm'l, 26 S.W.G.	As req.	
	IL/1010	or	Wire, copper, soft, tinned, comm'l 26 S.W.G.		
42	K4/10883		"Bostik", Primer, 1751	As Req.	
43	K4/10882		"Bostik", Sealant, 1790	As Req.	
44	IL/2188		Wire, Locking, Nickel Alloy, 22G, Comm'l	As Req.	
45	K3/353		Compound, Jointing Spec. D.T.D.369A	As Req.	

Supply (Cont'd)

Notes:- (a) Items 1 to 40 inclusive (excluding items 12, 13, 17 and 18) will be assembled into Modification sets and retained in the De Havilland Modification Centre pending issue on demand.

(b) Items 41 to 45 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification.

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
46		15S673ND	Distance Piece	2	
47		15Z525ND	Plate, Stiffening	1	
48		15M113AND	Handle	1	
49		15M101A	Cable Assy.	1	
50		AS3181/3B	Clip, "P"	1	
51		15M87A	Clamp Assy.	1	
52		15M85	Bush	1	
53		15M117ND or F15-43ND	Bracket	1	
54		15M115ND	Clip	1	
55	H28/7277	A25/2C	Bolt, H.T.S., Hex.Hd., 2BA, .65" long.	1	
56	H28/7271	A25/1B	Bolt, H.T.S., Hex.Hd., 4BA, .50" long.	4	
57	H28/7034	A25/1C	Bolt, H.T.S., Hex.Hd., 2BA, .55" long.	2	
58		15F1539AND	Tube, Guard Assy.	1	
59		15S529AND	Pipe Assy.	1	
60		15S661AND	Pipe Assy.	1	
61		15S663AND	Pipe Assy.	1	
62		15S665AND	Pipe Assy.	1	

Notes:- (a) Items 46 to 54 inclusive are obsolete and are to be scrapped.

(b) Items 55 to 57 are to be examined and if serviceable, returned to Store.

(c) Items 58 to 62 inclusive are to be broken up and the parts listed below, salvaged and if serviceable returned to Store.

Ident. No. H28/6344 A.G.S.952/A - Collar, Pipe.

Ident. No. H28/5721 A.G.S.904/A - Sleeve, L/Alloy.

Disposal of Parts in Stock

9. Refer to paragraph 4.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next major servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately ~~thirty~~ ^{FOATY (40)} man-hours are required to incorporate this modification, (excluding the time taken for the pressurisation tests).
- (b) Special Tools, Jigs, &c. : No special tools or jigs are required to incorporate this modification apart from the necessary equipment needed to carry out the pressurisation tests.
- (c) Sequence of Operations :
- (i) Remove both the pilot's seats.
 - (ii) ~~Disconnect & remove the main instrument panel from the aircraft~~ Remove the centre portion of the cockpit false floor in accordance with current authorised procedure.
 - (iii) Release the hydraulic accumulator pressure.
 - (iv) Locate the de-icer pump bracket mounted on the instrument panel on the centre line of the aircraft, and cut the 26 S.W.G. locking wire holding the canopy jettison handle at safety position. Remove and discard the "Parker Kalon" screws to which the wire was attached.
 - (v) Release handle, item 48, from cable assembly, item 49, by removing clip, item 54, held in position by bolts, item 56, nuts and washers, and bracket, item 53, by drilling out rivets.
 - (vi) Remove the bush, item 52, by drilling and punching out the two rivets holding it to the bracket.
 - (vii) Follow the cable assembly run and remove in turn the clip, item 50, secured by bolt, nut and washer and the clamp assembly, item 51, also secured by bolt, item 55, nut, and washer and the guard tube assembly, item 58, by removing two (2) bolts, item 57, nuts and washers. Refer to sheet 1 of Drawing A.12268. Finally remove the split pin, and pin attaching the cable assembly to the fork end of the selector valve which is located on

Method of Incorporation (Cont'd)

the nose wheel fairing. Retain this pin for re-assembly, also the nut, bolt and washer taken from the guard tube base plate and situated 1.25 inches aft of the selector valve, as shown in view in direction "B" - "B" on sheet 2 of the drawing. Remove cable assembly, item 49.

- (viii) Locate the selector valve which is bolted to the diaphragm forward face underneath the nose wheel fairing as shown by centre line on sheet 1 of Drawing A.12268, and proceed to remove the three pipe line assemblies, items 60, 61 and 62) by unscrewing the outer sleeves at either ends, but leaving in position the adapters attached to the selector valve at the aft end of the nosewheel bay.

- (ix) Refer again to sheet 1 of drawing and remove cap, item 13, attached by nuts and washers.

Note: Aircraft on which D.H.Mod. V.620 is incorporated will have this clamp block, item 12, and cap already in the correct position as dimensioned on Drawing A-12268 sheet 1.

Take off the three pipe assemblies, items 60, 61 and 62. Refer to Part "A" - Paragraph (8) Note (c). Retain the cap, nuts and washers for re-assembly.

- (x) Remove the selector from nosewheel fairing by unscrewing the nut on topside, also nuts, bolts and washers which attach it to the diaphragm. Retain all these fixings for re-assembly in new position, with the exception of the two distance pieces, item 46, which are discarded.
- (xi) Refer now to sheet 3 of Drawing A-12268 showing the positioning of the de-icer pump. The existing spray feed line and supply line from the pump, on the aircraft will foul the selector. Uncouple both these lines at the pump end and completely remove the short pipe, item 59 or 113 which is discarded, salvage the collars and sleeves, if serviceable. The reducing union removed from this operation is retained and used in operation (xii). Remove the two clips on these two lines located nearest the pump, attached by two bolts, nuts and washers and retain for re-assembly.
- (xii) Offer up the two new pipe assemblies, items 15 or 76 and 16 or 74 and attach as shown on sheet 3 of the drawing, now fit the reducing union to the spray feed line, salvaged from operation (xi).

Method of Incorporation (Cont'd)

- (xiii) Now cut the two existing pipe lines at the correct position, slide on the existing sleeves and collars and proceed to flare the ends.

Note: When cut, they become items 17 and 18 or 75 and 78. Fit a new union, item 21 or 83 and connect up to the two pipes fitted in operation (xii). Care should be taken to keep these pipe assemblies clean while reworking same. Clip into position.

- (xiv) Refer to sheet 1 of Drawing A-12268 and proceed to drill three 13/32 inch diameter holes at positions as dimensioned in View on arrow "Y". Position washer plate, item 23 or 85 and coupling, item 22 or 84. Locate and drill eighteen holes to accommodate bolts, nuts and washers, items 38 or 96, 24 or 86 and 33 or 103. Assemble and seal the washer plate and coupling using Bostik primer, item 42 or 108 and sealant, item 43 and 109.
- (xv) Refer again to sheet 2, Drawing A-12268, and proceed to blank off the hole left by removal of the selector in operation (x). Locate doubler, item 14 centrally over the hole, and drill seven holes as shown in View in direction "B" - "B". Assemble with "Bostik" as in the previous operation and rivet into position using seven rivets, item 30. The bolt hole also shown in this view is sealed by using the existing bolt, washer and nut, retained from operation (vii) with the addition of an extra washer, item 33. Seal again as in the previous operation.
- (xvi) Refer to Detail "A" on sheet 1 of Drawing A-12268, and locate the diaphragm. Locate the fairleads, item 8 or 79 centrally on the existing slot in the diaphragm and position to dimensions shown. Now mark and drill four No.26 holes as in Detail "A".
- (xvii) Drill and punch out the six rivets holding stiffening plate, item 47, to the diaphragm. Offer up the three pipe assemblies items 9, 10 and 11, and after passing them through the diaphragm slot, attach them to their respective adapters as illustrated. Replace cap, item 13, removed in operation (ix) and lock into position with nuts and bolts also retained from this operation. Coat the mating surfaces with compound, jointing, item 45.
- (xviii) Assemble the two fairleads, item 8, as in Detail "A" and secure into position with four bolts, nuts and washers, items 39, 24 and 35.

Method of Incorporation (Cont'd)

- (xix) Refer to sheet 2 of Drawing A-12268, and rework the existing de-icer pump bracket by cutting a slot to dimensions shown in "View in direction of arrow 'Y'". Position the new bush, item 2, with the slot to the top and drill through the hole positions in the bush using a No.41 drill. Secure to the bracket with two rivets, item 29, and special bolt, item 3, washer and nut, item 35 and 24. Ensure that the hole in the bolt head is horizontal when nut is tightened.
- (xx) Slide the connecting rod, item 19 to 67 into the bush with the pin protruding at the top and through the slot cut in the previous operation. Now with the rod in this position, push handle, item 1 or 66, home into position with handle vertical. Proceed to mark or drill through the handle using a No.11 drill. Secure handle to connecting rod, using a bolt washer and nut, items 40, 36 and 26 or 98, 105 and 88.
- (xxi) Refer to sheet 2 of the Drawing A-12268 and rivet and bolt into position the mounting bracket, item 4 or 77 using rivets, items 32, 31 and 27 or 93, 92 and 89, also bolt, washer and nut, item 37, 34 and 25 or 97, 104 and 87.
- (xxii) Temporarily position and pin the selector valve as shown on sheet 2, and when correct alignment is found, mark on the adapter bracket, Pt. No. 15FS3013A the location to drill a $\frac{1}{2}$ inch diameter hole to allow the balance piston freedom of travel. Remove the selector valve and drill this $\frac{1}{2}$ inch diameter hole shown in "View in direction 'X'" on Sheet 2, Drawing A-12268. Offer up the selector valve again and, when alignment is again obtained by the use of washers as noted on sheet 2 of Drawing A-12268, and with the piston retracted in the off position so that there is a minimum gap of .03 inch between the housing bush and the connecting rod, the valve is secured to the bracket, item 4 or 77, by the bolts, nuts and washers retained from operation (x). Secure the pin, which is inserted through the fork of the valve, head uppermost, with a split pin, item 20 or 104.

Note: After final tests have been carried out on the operation of this new installation, the handle is to be locked by passing around and securing through the bolt, item 3 or 65, one strand of 26 S.W.G. locking wire, item 41 or 112. No other wire S.W.G. must be used. Refer to sheet 2 of the Drawing, A-12268.

Method of Incorporation (Cont'd)

(xxiii) Return to sheet 1 of the Drawing, A-12268. Offer up the three pipe assemblies, item 5, 6 and 7 or 68, 70 and 69 and making sure that the runs are to their correct adapters, secure into position, by tightening the pipe sleeves at their extremities. Lock all the unions with 22G wire, item 44 or 111. Fasten these pipes to the bulkhead and support structure as shown on sheet 1 by two clips, bolts, washers and nuts, items 28, 30, 33 and 24 or 90, 96, 103 and 86. Touch up with matching paint any places where required.

(xxiv) Replace and secure the false floor in ----- with
(xxiva) Re-install the main instrument panel pilots'
in the Aircraft." ughout.
(Issued with A.L.59 - August, 1956).

(d) Tests

- (i) Release the accumulator pressure.
- (ii) Lock the canopy from within the cockpit.
- (iii) Precaution:- If D.H.Aust.Modification V.633 (R.A.A.F. Modification No.111) is already incorporated, disconnect the two Bowden control assemblies from the lever by removing split pins and pins, thus preventing the four plungers from engaging in the hatch hinge recesses, also the dismantling of the top sleeve portion of the strut assembly.
- (iv) Select "Jettison" by pulling canopy jettison lever, and operate the hydraulic hand pump. Ensure that the hatch jack extends, and withdraws all hatch catches. Check for leaks at all new connections.
- (v) Return the selector to normal position, also push the jack back to normal position, and reconnect the two Bowden cable assemblies.

Extreme care must be exercised after jettison tests to ensure that the selector valve is returned to the off position.
- (vi) Wire lock the handle as previously explained in operation (xxii).
- (vii) Check the port V.H.F. control unit for correct functioning in accordance with current authorised procedure, also functioning of de-icer system.

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Method of Incorporation (Cont'd)

- (viii) Carry out a cockpit pressurisation test in accordance with current authorised procedure and check all the newly sealed points for leaks and, if necessary, add additional sealant.

- (e) Recording : Record the modification in the Airframe Log Book.

PART "B"

Application

12. This work is to be carried out on Mk.33 Aircraft, D.H.Serial No.79-801 to A79-809 inclusive.

Responsibility for Incorporation

13. . Operating units and the aircraft depot or civilian contractor responsible for servicing Vampire aircraft is to incorporate this modification.

Action in Respect of Spares

14. No unmodified spares have been supplied by De Havilland Aircraft Pty. Ltd.

Orders Superseded or Cancelled

15. No orders are superseded or cancelled by this modification.

Equivalent Modification

16. De Havilland (Aust.) Modification V.644, Air Ministry Modification VAM. 3251 and De Havilland (Aust.) Modification V.620 (Ref.) are the equivalent modifications.

Supply

17. The following parts are required to complete one modification set for the incorporation of Part "B".

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
63	A79/503352	13S563	Block, Clamp	2	
64		13S565	Cap	1	
65		15F1797A	Bracket, (Canopy Jett. & De-icer Pump)	1	
66	A79/503353	15M141A	Handle	1	
67		15M145A	Rod, Conn.	1	
68		15S763AND	Pipe Assy., Jettison Return	1	

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Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
69		15S759AND	Pipe Assy., Press. Line to Jack.	1	
70		15S767AND	Pipe Assy., Press. Line to Selector.	1	
71		15S771AND	Pipe Assy., Jettison Return	1	
72		15S775AND	Pipe Assy., Press. Line to Selector.	1	
73		15S779AND	Pipe Assy., Press. Line to Jack.	1	
74		15S833AND	Pipe Assy., Supply Line.	1	
75		15S841AND	Pipe Assy., Spray Feed. (Make from Existing Pipe.)	1	
76		15S837AND	Pipe Assy., Spray Feed	1	
77		15S781	Bracket, Mtg.	1	
78		15S865AND	Pipe Assy., Supply Line. (Make from existing Pipe.)	1	
79		15S867	Fairlead.	2	
80		15Z527ND	Plate, Blanking	1	
81		15Z529ND	Plate, Blanking	1	
82		15Z531ND	Plate, Blanking	1	
83	H28C/9703	AGS1102/A	Union, Alum. Alloy, 3/16" Tube $\frac{1}{8}$ " B.S.P. x 1.55" long.	1	
84		AGS1111/A	Coupling, Alum. Alloy. $\frac{1}{2}$ " 1.0" D., $\frac{1}{8}$ " B.S.P. thrd. 1.7" long.	3	
85	H28C/11903	AGS1115/1	Plate, Washer, Steel, Cad., 1.10" D., .50" D.Hole	3	
86	H28/27024	AGS2001/B/1	Nut, Stiff, M.S. Hex. thick, 4BA.	26	
87	H28/27025	AGS2001/C/1	Nut, Stiff, M.S. Hex., thick, 2BA.	4	
88	H28/27033	AGS2002/C/1	Nut, Stiff, M.S. Hex., thin, 2BA.	1	
89	H128F/61684	AGS2050/424/BS	Rivet, Tucker "Pop", Monel, Domed Hd., $\frac{1}{8}$ " D., .24" long.	2	
90	H28/26012	DHS29/2	Clip, Alum. 22G, 5/32" high, $\frac{1}{2}$ " wide, Hole Crs. .93"	2	
91	H128F/31627	AS2227/403	Rivet, Al.Alloy, S.Head, $\frac{1}{8}$ " D., 3/16" long.	4	
92	H128F/30267	AS2227/404	Rivet, Al.Alloy, S.Head, $\frac{1}{8}$ " D., $\frac{1}{4}$ " long.	3	
93	H128F/30269	AS2227/406	Rivet, Al.Alloy, S.Hd., $\frac{1}{8}$ " D., $\frac{3}{8}$ " long	1	

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
94	H128F/30236	AS2229/404	Rivet, Al.Alloy, Csk. 90°, 1/8" D., 1/4" long.	7	
95	H128F/10412	AS2230/404	Rivet, Al.Alloy, Csk. 120°, 1/8" D., 1/4" long.	22	
96	H28/7271	A25/1B	Bolt, H.T.S. Hex.Hd., 4BA, .50" long.	22	
97	H28/7034	A25/1C	Bolt, H.T.S., Hex.Hd. 2BA, .55" long.	2	
98	H28/7141	A25/6C	Bolt, H.T.S., Hex.Hd., 2BA, 1.05" long.	3	
99	H28/7145	A25/1E	Bolt, H.T.S., Hex.Hd., 1/4" B.S.F. .60" long.	2	
100	H28/7273	A25/3B	Bolt, H.T.S., Hex.Hd., 4BA, .70" long.	4	
101	H28/756	A16Y/EP	Nut, Steel, Hex., 1/4" B.S.F.	2	
102	H28B/5032	SP9/C8	Pin, Split, Nic. Alloy, 1/16" dia., 1.0" long	10	
103	H28C/12305	SP13/P	Washer, M.S., Plain, 18G, 4BA.	22	
104	H28C/12252	SP13/C	Washer, M.S., Plain, Thin, 2BA.	2	
105	H28C/12296	SP15/C	Washer, Al.Alloy. Plain, 18G, 2BA	3	
106	H28C/12306	SP15/B	Washer, Al.Alloy, Plain, Thin, 4BA	4	
107	H28C/12496	SP15/E	Washer, Al.Alloy, Plain, Thin, 1/4" dia.	2	
108	K4/10883		"Bostik", Primer 1751	AR	
109	K4/10882		"Bostik", Sealant 1790	AR	
110	K4/353		Compound, Jointing To Spec. D.T.D.369A	AR	
111	I1/2188		Wire, Locking, Nic. Alloy 22G, Comm'l.	AR	
112			Wire, Locking, iron, soft tinned, comm'l 26 SWG	AR	
	I1/1010		or Wire, copper, soft, tinned comm'l 26 S.W.G.	AR	

Notes: (a) Items 63 to 107 inclusive (excluding items 75 and 78) will be assembled into modification sets and retained in the De Havilland Modification Centre pending issue on demand.

(b) Items 108 to 112 inclusive are to be drawn from unit stores.

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Disposal of Parts Removed

18. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
113		15S529AND	Pipe Assy.	1	
114		13S519AND	Pipe Assy.	1	
115		13S523AND	Pipe Assy.	1	
116		13S527AND	Pipe Assy.	1	
117		13S539	Handle, (Canopy Jettison).	1	
118		13S541	Housing	1	
119		13S543	Block	1	
120		13S567	Eyebolt	1	
121		15F1079	Bracket, (De-Icer Pump).	1	
122		15F765ND	Dish, sunk.	1	

Notes: (a) Items 117 to 122 inclusive are to be scrapped as being obsolete.

(b) The pipe assemblies, items 113 to 116 are to be broken up and the parts listed below, salvaged and, if serviceable, returned to store.

Ident. No. H28/6344, A.G.S.952/A - Collar Pipe

Ident. No. H28/5721, A.G.S.904/A - Sleeve, L/Alloy.

Disposal of Parts in Stock

19. No unmodified spares have been supplied by De Havilland Aircraft Pty. Ltd.

When Modification is to be Incorporated

20. This modification is to be incorporated as soon as practicable, but not later than the next major servicing after receipt of parts.

Method of Incorporation

21. (a) Man-hours Involved : Approximately ^{forty (40)} ~~thirty (30)~~ man-hours are required (excluding the time taken for the pressurisation tests).
- (b) Special Tools, Jigs, &c. : No special tools or jigs are required to incorporate this modification apart from the necessary equipment needed to carry out the pressurisation tests.

Method of Incorporation (Cont'd)

(c) Sequence of Operations :

- (ia) Disconnect and remove the main instrument Panel from the Aircraft.
(Issued with A.L.59 - August, 1956.) floor e.
- (iii) Release the hydraulic accumulator pressure.
- (iv) Using a No.30 (0.1285 inch diameter) drill, drill out the spot welds securing the sunk dish, Pt. No.15.F.765ND, item 122 to the portion of the false floor removed in operation (ii). Now refer to sheet 3 of Drawing A-12268, and rivet the new blanking plate Pt. No. 15.Z.529ND, item 81, to the false floor. Still referring to sheet 3 of the Drawing A.12268, and using the No.30 drill, drill the new blanking plate Pt. No. 15.Z.531ND, item 82, to suit the plate just riveted to the false floor. Now rivet it firmly in position, using rivets Part No. AS2230/404, item 95.
- (v) Cut the safety strap (previously used to cover the canopy jettison handle) as close as possible to the riveted alloy strip, securing it to the false floor. This strip, together with the strap securing pin, may be left in position, sealing the now redundant holes in the floor.
- (vi) Disconnect the three existing hydraulic pipe assemblies Pt. Nos. 13.S.519AND, item 14, 13.S.523AND, item 115, and 13.S527AND, item 116, from the Lockheed A.I.R.41792 selector (Ref.) located in the nosewheel bay and also from the three adapters in the diaphragm at the rear of the bay. Temporarily tape up the ends of the adapters to prevent the entry of impurities.
- (vii) Pull the canopy jettison handle, item 117, to the limit of its travel and then unscrew the handle from the eyebolt fixing, item 120, of the selector. Now remove the four screws securing the housing 13.S.541, item 118, to the special block 13.S.543, item 119, on the underside of the nosewheel well; thus freeing the assembly of selector and block.
- Note: Care should be taken to support the selector before undoing the attachment bolts.
- (viii) Remove the two $\frac{1}{4}$ inch nuts, bolts and washers, securing the selector to the side of the nosewheel bay retaining these items for re-assembly.

Method of Incorporation (Cont'd)

- (ix) Refer to sheet 3 of the drawing "view on arrow 'V'" and position the new blanking plate Part No. 15.Z.527ND, item 80, on the top of the box 13.FS.2333ND (Ref.) to which the selector valve was originally attached. Using a No.30 drill, drill four holes in the box to mate with those in the blanking plate, item 80. Now rivet the blanking plate in position using four rivets, item 91. Seal the blanking plate using "Bostik" primer, item 108 and "Bostik" sealant, item 109.
- (x) Fill up the holes in the side of the wheel bay, originally used to secure the selector, using two bolts, nuts and washers, items 99, 101 and 107. Seal, using primer, item 108, and sealant item 109.
- (xi) Refer to Part "A" of the leaflet and proceed now as directed in operation (xi). While both the spray and supply lines are disconnected from the de-icer pump, remove the pump. Drill out the rivets using a No.30 drill, holding the existing bracket, item 121, and fit the new bracket Pt. No. 15.F.1797A, item 65, to the support structure and rivet into position using, seven (7) rivets, item 94. Return the pump to its original position and continue as in operations (xii), (xiii), (xiv), Part "A". Omit operation (xv).
- (xii) Proceed as in Part "A", operation (xvi), cutting the slot referred to $\frac{1}{2}$ inch wide by 1 inch long and positioned as shown in Detail "A", sheet 1 of Drawing A-12268.
- (xiii) Refer to sheet 1 of the drawing and offer up the three pipe assemblies, items 71, 72 and 73 and after passing them through the diaphragm slot as cut in operation (xii), attach them to their respective adapters as illustrated. Now position the clamp block, item 63, to suit the pipe runs and drill two No.11 holes as dimensioned. Fit cap, item 64, and secure with two bolts washers and nuts, items 98, 105 and 87, coating the mating surfaces with compound jointing 110.
- (xiv) Assemble the two fairleads, item 79, as in Detail "A", sheet 1, of Drawing A-12268 and secure into position with four bolts, washers and nuts, items 100, 106 and 86.
- (xv) Refer again to Part "A" and proceed with operation (xx).

Method of Incorporation (Cont'd)

Note: The slot mentioned in this operation is already in the new bracket, item 65.

Also proceed operations (xxi), (xxii), (xxiii) and (xxiv).

(d) Tests

- (i) Release the accumulator pressure.
- (ii) Lock the canopy from within the cockpit.
- (iii) Precaution: If D.H.Aust. Modification V.633 (Royal Australian Air Force Modification No.111) is already incorporated, disconnect the two Bowden control assemblies from the lever by removing split pins and pins, thus preventing the four plungers from engaging in the hatch hinge recesses also the dismantling of the top sleeve portion of the strut assembly.
- (iv) Select "Jettison" by pulling canopy jettison lever, and operate the hydraulic hand pump. Ensure that the hatch jack extends, and withdraws all hatch catches. Check for leaks at all new connections.
- (v) Return the selector to normal position, also push the jack back to normal position, and reconnect the two Bowden cable assemblies.

Extreme care must be exercised after jettison tests to ensure that the selector valve is returned to the off position.
- (vi) Wire lock the handle as previously explained in operation (xxii).
- (vii) Check the port V.H.F. Control unit for correct functioning in accordance with current authorised procedure, also functioning of de-icer system.
- (viii) Carry out a cockpit pressurisation test in accordance with current authorised procedure and check all the newly sealed points for leaks and, if necessary, add. additional sealant.

(e) Recording

: Record the modification in the Airframe Log Book.

Drawings

22. Drawing No. A-12268, consisting of three sheets is attached.

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VAMPIRE MODIFICATION NO. 118

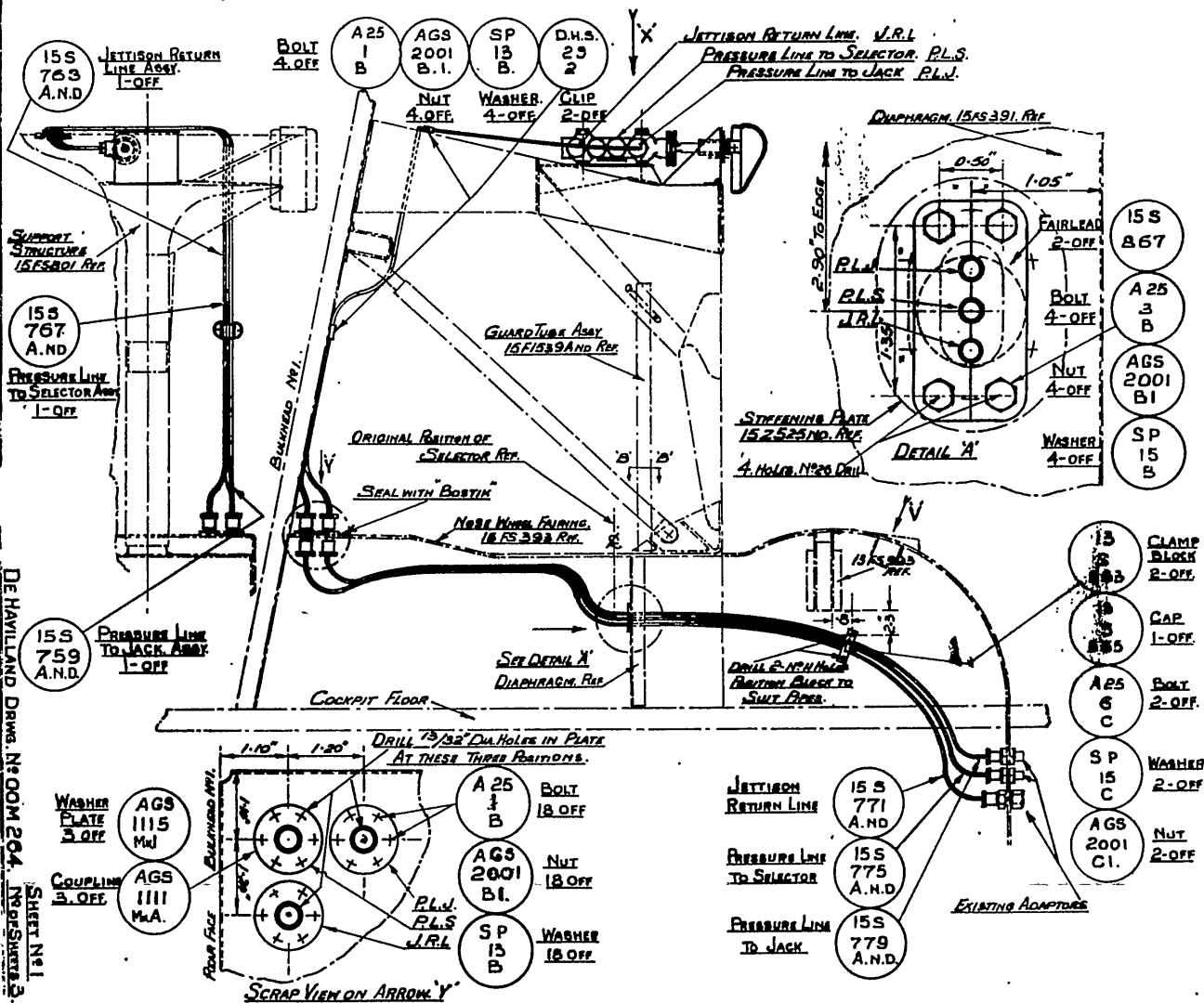
Effect on Weight and Balance

23. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References	:	Files R.A.A.F. 9/84/67 and 150/4/8841
Attachment	:	Drawing A.12268 sheets 1 to 3
Date of Issue	:	3rd December, 1954.

DO NOT SCALE

ISSUE NO. DATE



DE HAVILLAND DRAWG. NO. 204. 1945 SHEET NO. 1

TITLE

Canopy Hatch
Redesigned Jettison Control

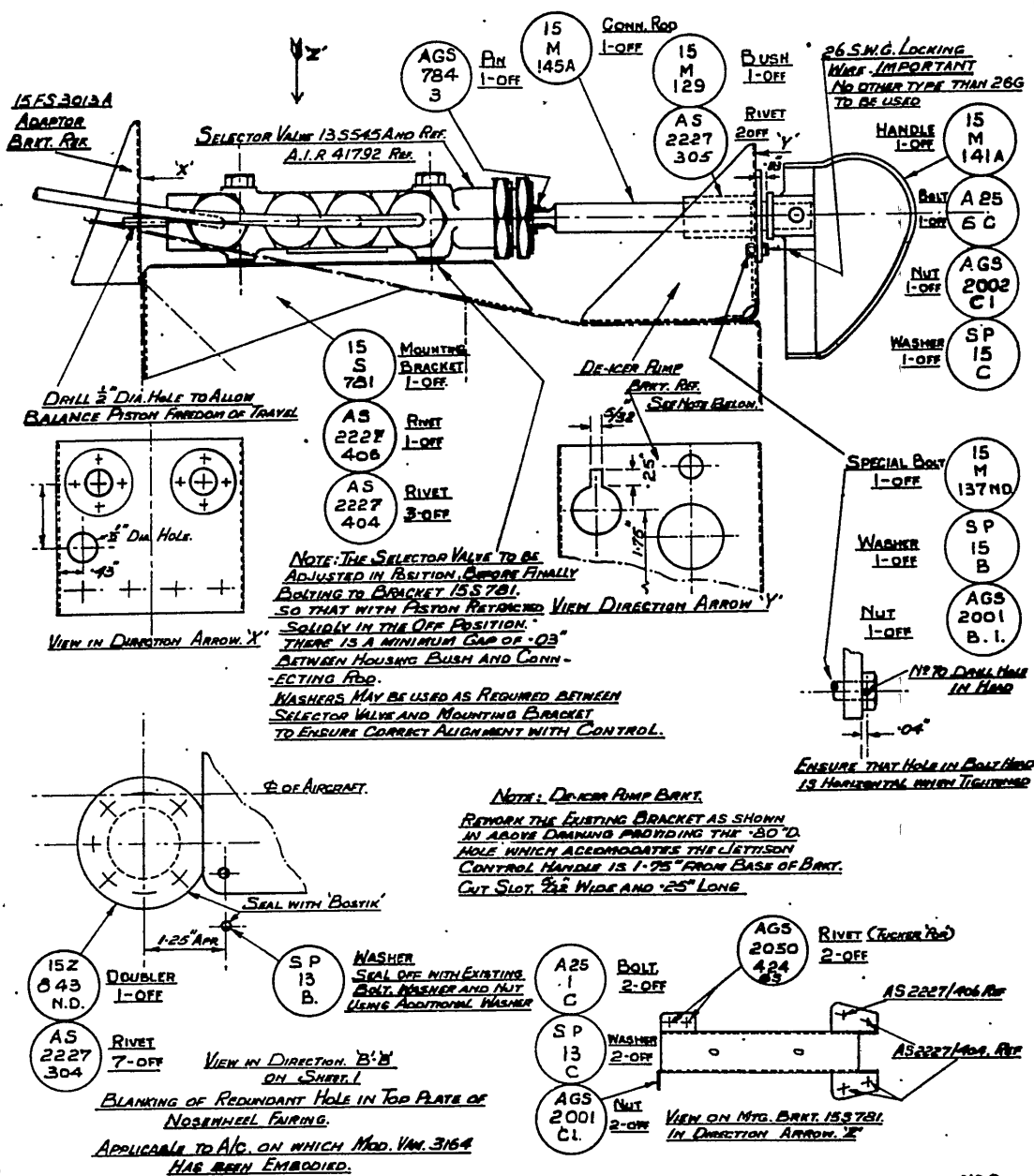
ISSUED BY
R. A. A. F.

DIRECTORATE OF TECHNICAL SERVICES

LIMITS UNLESS STATED		MATERIAL	
DECIMALS	± .010"	SPEC.	
FRACTIONS	± 1/32"	TREATMENT	
ANGLES	± 3°	FINISH	
SURFACE FINISH	SCALE	APPROVED	
AUSTRALIAN STANDARD	DRAWN	CHANGED	
G. PRACTICE A.5.221	T. A.5.220		
		DESIGNING NO.	A-12268
			REV. 1 of 3 Sh.

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D. L.	INITIALS	APP.



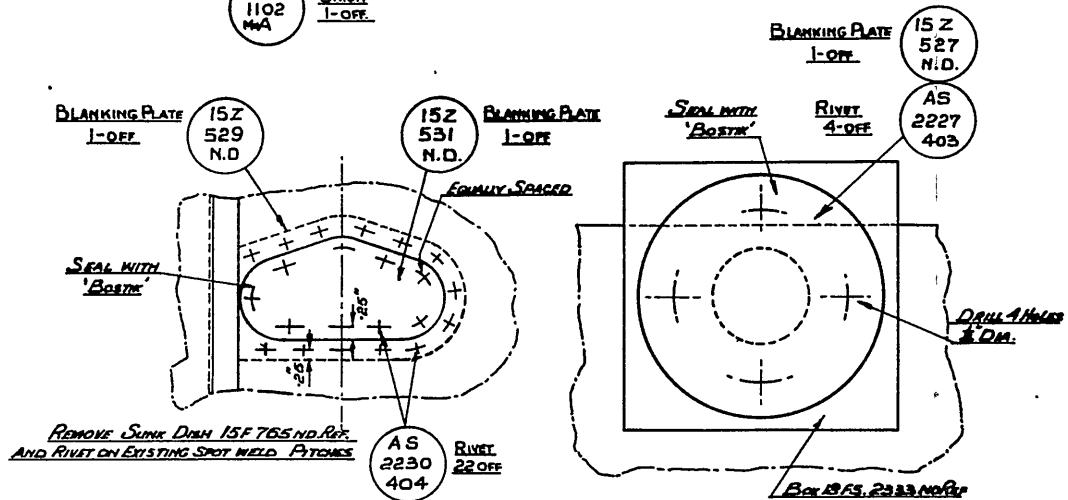
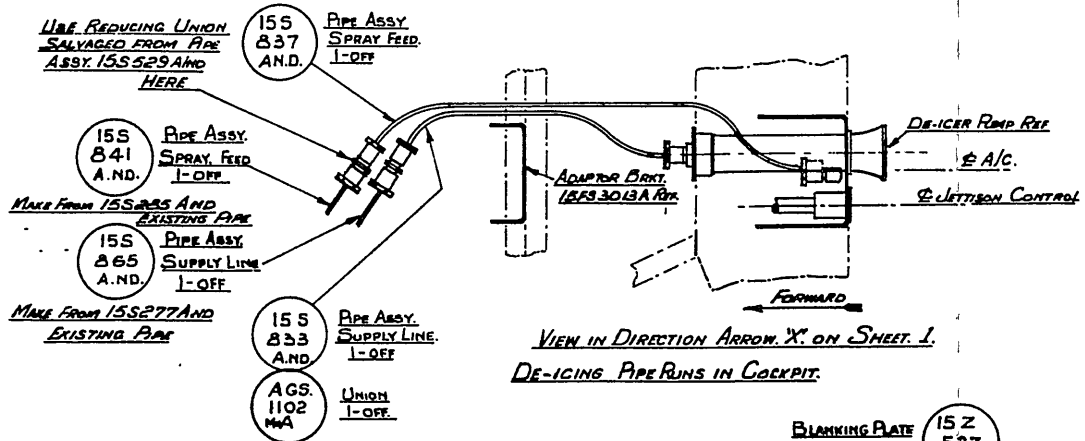
DEHAVILLAND DWG. NO. 00M264.

SHEET. NO 2
NO. OF SHEETS 3.

REFERENCE		ISSUED BY		TITLE	
		DIRECTORATE OF TECHNICAL SERVICES		CANOPY HATCH: REDESIGNED JETTISON CONTROL	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	COCKPIT
DECIMALS	± .010"	SPEC.		MACHINE	VAMPIRE MK. 33
FRACTIONS	± 1/32"	TREATMENT		ENGINE	GOBLIN
ANGLES	± 1°	FINISH		TECH. ORDER	VAMPIRE MOD. No. 118
SURFACE FINISH		SCALE		DRAWING NO.	A-12268
AUSTRALIAN STANDARD		DRAWN			8ht. 2 of 3 SHN
END DWG. PRACTICE A.3.21		TRACED			
			APPROVED		DRWG. A
			CHECKED		517

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D.D.	INITIALS



BLANKING PLATES USED TO SEAL OFF REDUNDANT HOLES LEFT BY THE REMOVAL OF THE SELECTOR VALVE FROM ITS POSITION UNDER THE NOSE WHEEL FAIRING TO ITS MODIFIED POSITION BEHIND THE INSTRUMENT PANEL ALONGSIDE THE DE-ICER PUMP.
BOTH VIEWS IN DIRECTION OF ARROW 'V' ON SHEET. 1. OF THE DRAWING.

De HAVILLAND DRWG. No 00M264.

SHEET No 3
 No of SHEETS 3

REFERENCE	ISSUED BY		TITLE	
	DIRECTORATE OF TECHNICAL SERVICES R.A.A.F.		CANOPY HATCH REDESIGNED JETTISON CONTROL.	
LIMITS DR. F'S STATED	MATERIAL		COMPONENT	COCKPIT
DEVIATIONS ± .010"	SPEC.		MACHINE	VAMPIRE MK. 33
TOLERANCES = ± .005"	TREATMENT		ENGINE	GOBLIN
ANGLES ± 2°	FINISH		TYPE & ORDER	VAMPIRE MOD. 118
SURFACE FINISH	SCALE		DRAWING NO.	A-12268
AUSTRALIAN STANDARD ENG. DRAW. PRACTICE A 9.001	DRAWN	APPROVED	Sheet 3 of 35 sheets.	
	TRACED	CHECKED		

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 119

Class 2

PROVISION OF A STOP TO THE SELECTOR LEVER ON
THE GROUND/FLIGHT SWITCH - INTRODUCTION

Reason for and Description of Modification

1. To overcome defects being experienced in service, a stop is introduced to prevent over-ride and fracture of the bakelite selector lever on the Ground/Flight switch.

Application

2. This work is to be carried out on Mk.33 Aircraft D.H. Serial No. A79-801 to 820 inclusive. Subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

3. This modification is to be incorporated by the operating unit, and the aircraft depot or civilian contractor responsible for servicing Vampire aircraft.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. Not applicable.

Equivalent Modification

6. De Havilland (Aust.) Modification V.654 is the equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1		N15-149ND	Packing piece	1	
2		N15-151ND	Distance Tube	1	
3		N15-153ND	Washer	1	
or	H28C/3071	A.G.S.160/C	Washer, M.S., Cad. plated, .5" O.D. x .19" I.D.	1	

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VAMPIRE MODIFICATION NO. 119

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
4	H28/8507	AS1242/5C	Bolt, H.T.S., Csk. Hd., 90°, 2 P.A. x .9" long.	3	

Notes: (a) Items 1 to 4 inclusive will be assembled into modification sets and retained in the De Havilland Modification Centre pending demands from units.

(b) SP.13/C Washers are not an acceptable alternative for item 3, as they are too small on outside diameter.

Disposal of Parts Removed

8. No part will be rendered redundant by the incorporation of this modification.

Disposal of Parts in Stock

9. Not applicable.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately three (3) man-hours are required to incorporate this modification.

(b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.

(c) Sequence of operations :

(i) Locate the Ground/Flight switch control knob positioned on the centre line of aircraft, and below and forward of the main instrument panel. Remove the three 2 B.A. attachment bolts immediately behind the control knob, retaining the three stiff nuts and washers for re-assembly. Position the packing piece, item 1, as shown on sheet 1 of Drawing A-12269 and assemble with the slot on the left hand side and re-attach, using three new bolts, item 4, and the stiff nuts and washers previously removed.

Method of Incorporation (Cont'd)

- (ii) Lift the aircraft nose cap, and locate the fork end of the push rod from the control knob, which should be in the 'IN' position for "flight". Remove the bolt, nut and washer, securing the fork end to the lever, taking care of the distance piece and the two washers, also in this assembly. Now pull the control knob into the 'OUT' position for "ground". Undo the lock nut on the fork end, and completely remove the fork end.
- (iii) Slide on to the push rod the distance tube, item 2, and with the washer, item 3, in position, screw the fork end back into the push rod assembly as far as is possible.
- (iv) Reassemble the fork end to the lever with all the items removed in Operation (ii) and note that with the control knob (in cockpit) set in either "ground" or "flight" position, a gap between the switch lever and the switch moulding is essential, but not in excess of .25 inch.

Note: On some aircraft it may be necessary to alter the bend angle of the radio shelf reinforcing member locally (as shown on the drawing), to allow maximum travel of the distance tube.

- (v) Finally move the control knob and check the operation of the ground/flight switch lever.

- (d) Tests : Functionally test as above.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. Drawing No. A-12269 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

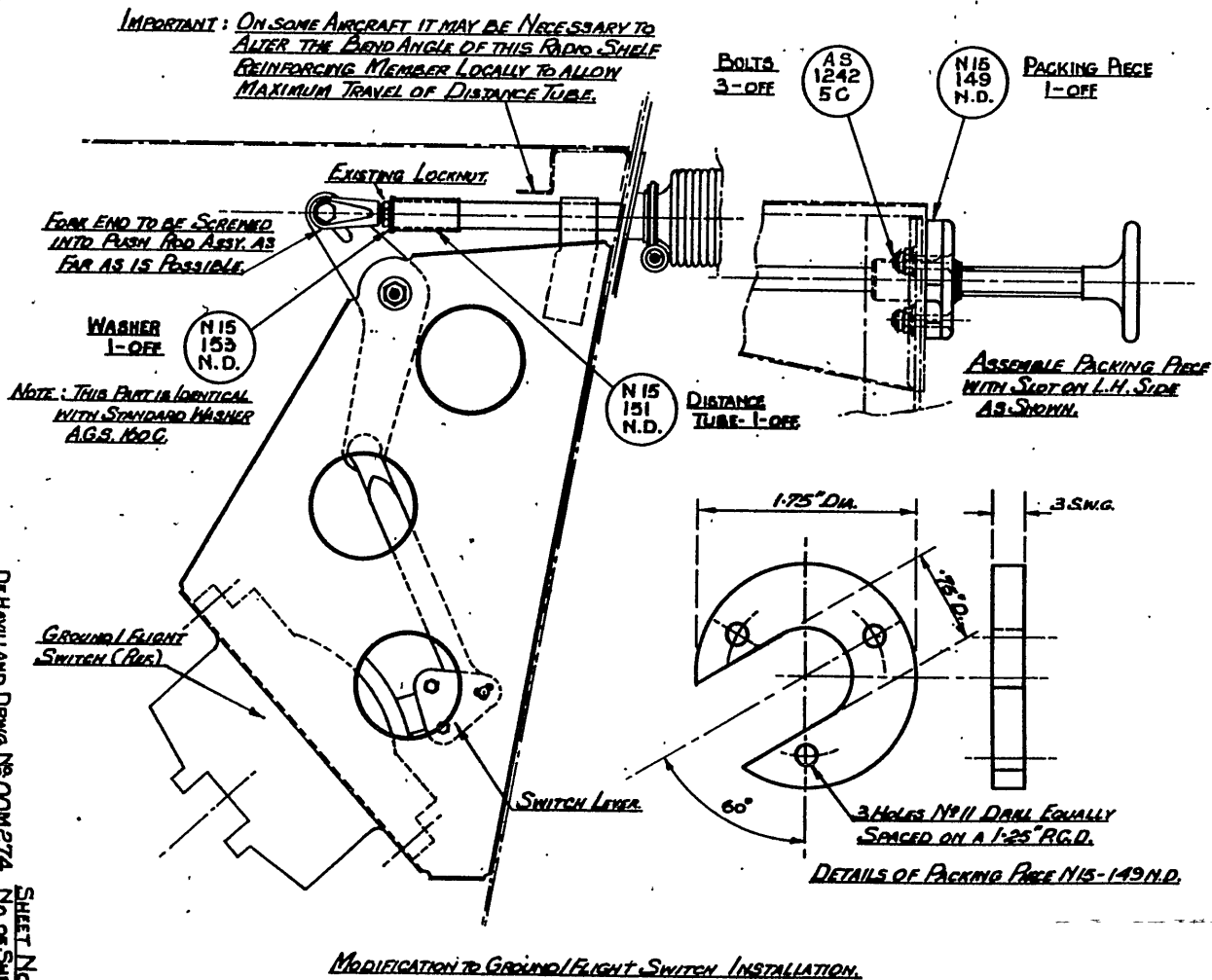
References : File R.A.A.F. 150/4/8840

Attachment : Drawing A-12269

Date of Issue : 28th September, 1954.

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	D. I. L.	INITIALS	DATE
1	10.6.54				



REFERENCE	ISSUED BY	TITLE	SHEET No. 1
		GROUND FLIGHT SWITCH	No. of SHEETS 1
		Modification	
LIMITS UNLESS STATED	MATERIAL	COMPONENT	COCKPIT
DECIMALS ± .010"	SPEC.	MACHINE	VAMPIRE MK 33
FRACTIONS ± 1/32"	TREATMENT	ENGINE	GOBLIN
ANGLES ± 1°	FINISH	TECH. ORDER	MOD. VAMPIRE 119
SURFACE FINISH	SCALE	DRAWING NO.	A/12269
AUSTRALIAN STANDARD	DAWN		
ENG. DWM. PRACTICE A3.21	TRACED	APPROVED	DRWG. A/12269
		CHECKED	S.E.

IMPROVED COCKPIT LIGHTING - INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to improve the cockpit lighting. The modification authorises the fitment of two new cockpit lamps, one on the engine control box and the other on the starboard control column; four lamp screens have been replaced, and four existing lamps, two on the main instrument panel shroud, and one on both port and starboard side of the cockpit have been repositioned.

Application

2. This work is to be carried out on Mk.33 Aircraft D.H. Serial No. A79-801 to A79-815 inclusive. Subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

3. Operating units and aircraft depot or civilian contractor responsible for servicing Vampire aircraft.

Action in Respect of Spares

4. Spare Chain Guards, 15CF59AND Ident No. A79/502305, may still be used on Port Control Column. New Guards with lamp bracket attached, 15CF337AND Ident. No. A79/503566, will be supplied for the Starboard Control Column.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modification

6. De Havilland (Aust.) Modification V.653 and Air Ministry Modification VAM. 3177 are the equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1		15F1573	Bracket, Lamp.	1	
2		15F1697	Bracket, Lamp.	1	

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Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
3		15F1698	Bracket, Lamp.	1	
4		15CF377ND	Packing, 20 SWG	1	
5		15N819A	Cable Assy.	1	
6		15N821	Cable Link.	1	
7		15N825A	Cable Assy.	1	
8		15N945ND	Bracket.	1	
9		15N1291A	Cable Assy. (Earth connection).	1	
10	G5C/2452		Switch, dimmer.	1	
11			(A.M. ref. 5C/2452).		
12	G5A/28714	N15-19AND	Cable, sub. assy.	1	
13	G5A/500002		Block, terminal, 5 way (A.M. ref. 5H/3).	1	
14	G5A/28723		Cover, 5 way. (A.M. ref. 5H/9).	1	
15	G5A/28718		Socket, terminal, double tier. (A.M. ref. 5H/125).	2	
16	G5A/28720		Link, type "A". (A.M. ref. 5H/19).	1	
17	G5A/500123		Ferrules (A.M. ref. 5H/26).	7	
	or		Filament, cockpit, red. (A.M. ref. 5L/601).	2	
	G5A/28508		Filament, floodlight red. (A.M. ref. 5L/112)	2	
18	G5C/4058		Lamp, cockpit, type "C" (A.M. ref. 5C/4058).	2	
19	G5C/3430		Screen, lamp. (A.M. ref. 5C/3430).	5	
20	H28C/2288	A.G.S.252/19	Woodscrew, brass, Rd. Hd., No.4 x $\frac{3}{8}$ " long.	6	
21	H28C/2302	A.G.S.252/21	Woodscrew, brass, Rd. Hd. No.4 x $\frac{5}{8}$ " long.	3	
22	H28C/2303	A.G.S.252/38	Woodscrew, brass, Rd. Hd. No.6 x $\frac{5}{8}$ " long.	2	
23	H28C/2869	A32/B20	Screw, M.S. Rd. Hd. 4 BA x $\frac{5}{8}$ " long.	1	
24	H28/14037	AS3180/4P	Clip, "p", rubber covered, $\frac{1}{4}$ " I.D.	3	
25	H128F/63365	SBAC.	Rivet, Al.Alloy, Gsk.	2	
		(AS2229-609)	Hd. 90°, $\frac{1}{8}$ " D x $\frac{1}{4}$ " lg.		
26	H28C/12306	SP.15/B	Washer, Al.Alloy, thin 4 BA.	2	
27	H28/27138	SP.40/A10	Grommet, rubber, 5/16" I.D.	1	

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VAMPIRE MODIFICATION NO. 120

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
28	H128F/2661	Type "Z"	Screw, "Parker Kalon", Cad. Rd. Hd. No.4 x $\frac{1}{4}$ " long	2	
29	H128F/2654	Type "A"	Screw, "Parker Kalon" Steel, Cad. Rd. Hd., No.4 x $\frac{1}{4}$ " long.	7	
30	H28B/5032	SP.9/C8	Pin, split, nickel alloy. 1/16" dia. x 1" long.	1	
31	H28B/5034	SP.9/C12	Pin, split, nickel alloy, 1/16" dia. x $1\frac{1}{2}$ " long.	4	
32	G5F/20060		Tubing, insulating, flexible 7 m.m. I.D. x 52" long.	1	
33	K3/321		Enamel, cellulose black.	A.R.	
34	132A/2006		Twine, binder, waxed.	A.R.	

Notes:- (a) Items 1 to 32 inclusive will be assembled into modification sets and retained in the De Havilland Modification Centre pending issue or demand.

(b) Items 33 and 34 are to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
35	G5C/3364		Screen, lamp. (A.M. ref. 5C/3364).	4	
36	G5A/28713		Block, terminal, 3 way 19 amps. (A.M.) ref. 5H/2).	1	
37	G5A/28717		Cover, terminal block 3 way 19 amps. (A.M. ref. 5H/8).	1	
38		15N629A	Bracket, lamp.	1	
39		15N632	Bracket, lamp.	1	

Notes:- (a) Items 35 to 37 inclusive are to be examined and if serviceable are to be returned to stores for use elsewhere on Mk.33 "Vampire" aircraft.

(b) Items 38 and 39 are obsolete and are to be scrapped.

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Disposal of Parts in Stock

9. Any stocks of items 35, 36 or 37 are to be held as being serviceable; items 38 and 39 are obsolete and are to be scrapped.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately twenty (20) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Disconnect the aircraft accumulators and then remove the pilots' seats. Remove also the right hand rear portion of the false floor. Retain all the attachment items, except for the split pins, for use on re-assembly.
 - (ii) Remove the forward portion of the starboard control column chain guard. Refer to Sheet 2 of the Drawing A-12277 and position the new bracket (item 1) to dimensions shown on the guard. Using a No.30 drill, drill two holes in the guard to suit the bracket. Now position the packing (item 4) and scribe through and drill two similar holes in it. Countersink these at 90° on the inside face and rivet packing and bracket to the guard using two rivets (item 25). Proceed to secure the new lamp G5C/4058 (item 18) to the bracket.

Replace and re-secure the chain guard, which is report numbered 15CF337AND.
 - (iii) Referring to sheets 2 and 4 of the drawing and using a No.39 drill, mark out and drill two holes in the casing of the engine control box on the port side of the cockpit. Now secure the new cockpit lamp and bracket as part of cable assembly (item 11) to the control box with the two P.K. screws, (item 28). Run the cable as in operation (viii), paragraph (c).

Method of Incorporation (Cont'd)

- (iv) Locate and remove the speed warning label, Pt. No. Q00.917 (ref.) from the starboard canopy rail, immediately forward of the two type "C" lamps, and reposition it on the main instrument panel as shown on Sheet 1 of Drawing A-12277. Four No.39 drill holes should be drilled in the panel, in conjunction with those in the label, and the label, which may need to be filed to prevent fouling on the artificial horizon, should be secured with four P.K. Type "A" screws (item 29).

Carry out the same procedure with the speed warning label on the port canopy rail, and reposition it on the main instrument panel above the A.S.I. using three P.K. screws (item 29), the top left hole in this label remains redundant.

- (v) Proceed now to remove the U/V Type "B" cockpit lamp from the fuselage starboard wall, beneath the canopy rail, and reposition it in the place previously occupied by the speed warning label. The existing bracket (item 39) should be replaced by a new bracket (item 3), and the assembly should be attached with two woodscrews (item 20) as shown on sheet 1 of the drawing.

Locate the Type "B" cockpit lamp, on the port side beneath the canopy rail and replacing bracket (item 38) by a new bracket (item 2) secure in a similar position as previously detailed in Operation (v) using two wood-screws (item 20).

- (vi) Locate and remove the attachment items securing the Type "C" lamp and the Type "B" cockpit lamp and its bracket, to the lower port side of the upper instrument panel shroud. Replace the cockpit lamp bracket by the new bracket (item 8) and then re-assemble both lamps to the panel shroud, but inter-change them, so that the Type "C" lamp is on the outside and the Type "B" lamp is on the inside of the shroud. The former attachment items are used to secure the lamps in position.

- (vii) Refer to sheet 4 of the drawing and proceed to move the port compass deviation card holder over to the edge of the spruce block to the dimensions shown. Next, firmly secure the new dimmer switch (item 10) in the given position, with three woodscrews (item 21). Still referring to the drawing, disconnect and remove the three way terminal block (item 36) and replace it by a new five way block (item 12) positioned as shown in Detail "A", using two wood-screws (item 22) and two washers (item 26). The existing cable ends should be

Method of Incorporation (Cont'd)

inserted in the corresponding positions in this new block, and two new sockets (item 14) and a link (item 15) should also connect the earths. Use cable assembly (item 9) to the earth connection.

Note:- The undercarriage control rod may need to be disconnected to facilitate the changing of the terminal blocks.

(viii) Refer to sheets 3 and 4 of the drawing and introduce the following additional wiring:-

- (a) Link terminal 1 of the new dimmer switch to terminal 1 of the other red light dimmer switch the more forward of the original switches, with a new cable link (item 6) coded "T"+.
- (b) Connect the stripped end of cable assy. (item 5), coded "T6", to terminal 2 of the new dimmer switch, and route it, as shown, with the existing cables (including it where possible in the existing clips), to the spare centre terminal of the existing three way terminal block.
- (c) Refer to sheet 4 of the drawing and route the cable assembly coded "T6" and "E", (item 11) as shown. Terminate the end coded "T6" in the spare centre terminal of the three way terminal block, and terminate the end coded "E", in one of the new sockets in the five way terminal block.
- (d) Connect the stripped ends of cable assembly (item 7) coded "T6" and "E", to the new type "C" lamp on the starboard control column. Route this cable as shown on sheet 3 of the drawing, with the existing cables down the column. Whip it where necessary, with waxed twine (item 34) and clip it where shown, with a new "P" clip (item 24) and screw (item 23) and existing nut.

Note:- It is essential that sufficient cable is left slack at the base of the control column to allow full range of control column movement.

- (e) Proceed now to drill a 7/16 inch diameter hole in the starboard false floor diaphragm, to permit the routing of this cable, with the existing radio cables, along the rear face of the diaphragm. The centre of this hole must not be

Method of Incorporation (Cont'd)

higher than $\frac{1}{2}$ inch from the floor line, and a rubber grommet (item 27) should be inserted before passing the cable through it.

- (f) Referring to sheet 4 of the drawing, route the new control column cable to the terminal blocks as shown, terminate the end coded "T6" in the centre terminal in the three way block, and the end coded "E" in the new five way block.

Note:- The portion of this cable from the grommet to the terminal block should be protected with a length of black flexible P.V.C. Tubing (item 32).

- (g) Attach the new cover (item 13) to the five way terminal block, and then replace the cover on the three way block. The undercarriage control rod should also be replaced at this juncture, with its original attachment items, and a new split pin (item 30), that is, if it was removed in Operation (vii).
- (ix) Proceed now to remove the screens (item 35) from the two type "C" lamps situated on the sides of the upper instrument panel shroud (the left hand lamp now repositioned in Operation (vi)) and replace them by two new screens (item 19). Replace also the screen of the lower starboard type "C" lamp, shown on sheet 1 of the drawing, by a new screen (item 19) and the lower port type "C" lamp, on sheet 4, by a new screen (item 19).
- (x) Insert a new filament (item 17) and a new screen (item 19) to the new lamp on the starboard control column, then refer to sheet 1 of the drawing and re-adjust those lamp screens listed thereon. Note that two rivet pins are provided in each lamp bracket to secure the key plate in position when the screens have been adjusted. Adjust the U/V light mounted on the port side of the upper instrument panel shroud, and also the U/V light mounted on the starboard canopy rail as shown in Detail "C", sheet 1 of the Drawing A-12277.
- (xi) Replace the false floor. Replace also the seats, using four new split pins (item 31).
- (xii) Paint the heads of the new screws and rivets, and repair any damaged finish with black paint (item 33) and finally after reconnecting the aircraft accumulators, carry out functional tests on the revised lighting system.

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VAMPIRE MODIFICATION NO. 120

Method of Incorporation (Cont'd)

- (d) Tests : No tests are required apart from functional tests as carried out in Operation (xii).
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

- 12. D.H. Drawing A-12277 consisting of four sheets are attached.

Effect on Weight and Balance

- 13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/36 and 150/4/8847

Attachment : Drawing A.12277, sheets 1 to 4 inclusive.

Date of Issue : 12th November, 1954.

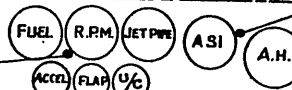
DO NOT SCALE

ALTERNATE

AS SHOWN

AXIS OF BEAM FROM 1/4" LIGHT
ON PORT SIDE OF UPPER
INST. PANEL SHROUD TO
MEET INST. PANEL AT
THIS POINT.

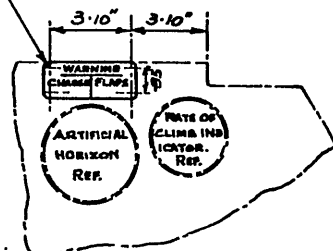
AXIS OF BEAM FROM 1/4" LIGHT ON STD. CANOPY RAIL
TO MEET INST. PANEL AT THIS POINT.



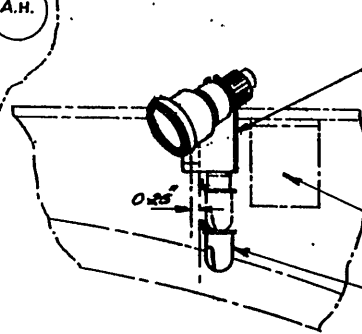
DETAIL 'C'

REMOVE THE SPEED WARNING LABEL
GOO917, FROM STD. CANOPY RAIL
AND REPOSITION IT ON MAIN
INSTRUMENT PANEL.

TYPE A
No. 4
x 1/4"
SCREW, 'PARKER KAYLON',
4-OFF
DRILL 4 HOLES No. 39 DRILL.



VIEW ON STD. END OF MAIN
INSTRUMENT PANEL.



LAMP BRACKET
1-OFF.

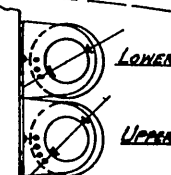
WOODSCREW
2-OFF
USE EXISTING TYPE 'B'
COCKPIT LAMP & FILAMENT
G5C/2676 & 5L/302 - REF. ONLY.

CAMERA EXPOSURE SWITCH.
(REF)

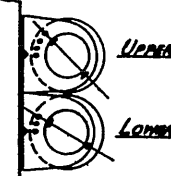
LAMP SCREEN
1-OFF.

VIEW ON STD. SIDE OF COCKPIT.

STD. COCKPIT LAMPS.



PORT COCKPIT LAMPS



ENGINE CONTROL BOX LAMP
PORT.



TOP INST. PANEL SHROUD LAMP



CONTROL COLUMN LAMP
2ND PORT.



PORT STD. PANEL SHROUD LAMPS
VIEW LOOKING UP.

LAMP OVER JUNCTION BOX STD. SIDE.

DIAGRAM FOR ADJUSTMENT OF LAMP SCREENS.

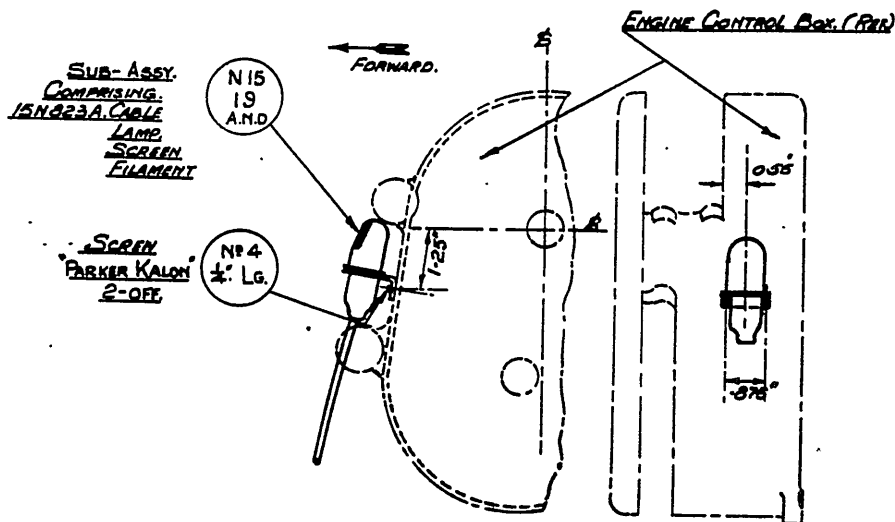
REPOSITIONING OF STD. TYPE 'B' COCKPIT LAMP.

REFERENCE		ISSUED BY		TITLE	
LIMITS UNLESS STATED		DIRECTORATE OF TECHNICAL SERVICES		IMPROVED COCKPIT LIGHTING.	
DECIMALS		MATERIAL		COMPONENT	
FRACTIONS		SPEC.		COCKPIT	
ANGLES		TREATMENT		MACHINE	
SURFACE FINISH		FINISH		ENGINE	
LAMP STANDARD		SCALE		TECH. ORDER	
APPROVED		DRAWN		DRAWING NO.	
CHECKED		APPROVED		A-12277	
SHEET No. 1.		SHEET No. 1.		Sheet 1.	

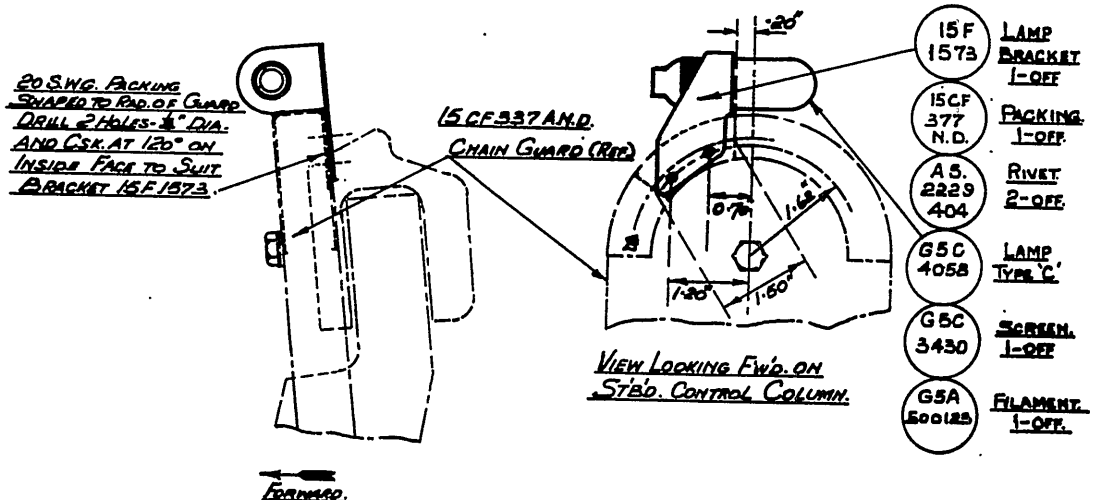
DEHAVILLAND DRWG. No. 00M 271, No. 00 SHEETS 4.

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	BY	INITIALS	SP.



LOCATION OF TYPE C LAMP ON ENGINE CONTROL BOX (PORT.)



LOCATION OF TYPE C LAMP ON STARBOARD CONTROL COLUMN.

SHEET No. 2

DE HAVILLAND DRWG. NO. 00M271. NO. OF SHEETS 4

REFERENCE		ISSUED BY			TITLE		
		DIRECTORATE OF TECHNICAL SERVICES			<u>IMPROVED COCKPIT LIGHTING</u>		
		R. A. A. F.					
LIMITS UNLESS STATED		MATERIAL			COMPONENT OF	COCKPIT	
DECIMALS	± .010"	SPEC.			MACHINE	VAMPIRE MK. 33	
FRACTIONS	± 1/32"	TREATMENT			ENGINE	GOSLIN	
ANGLES	± 2°	FINISH			TECH. ORDER	VAMPIRE MOD No 120	
SURFACE FINISH		SCALE			DRAWING NO.	A - 12277 Sheet 2	DRWG. A 122
AUSTRALIAN STANDARD		DRAWN	APPROVED				
210 DRWG. PRACTICE A.3.621		TRACED	CHECKED				

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	E. L.	INITIALS

* BIND TO EXISTING CABLE
WITH WAXED TWINE.

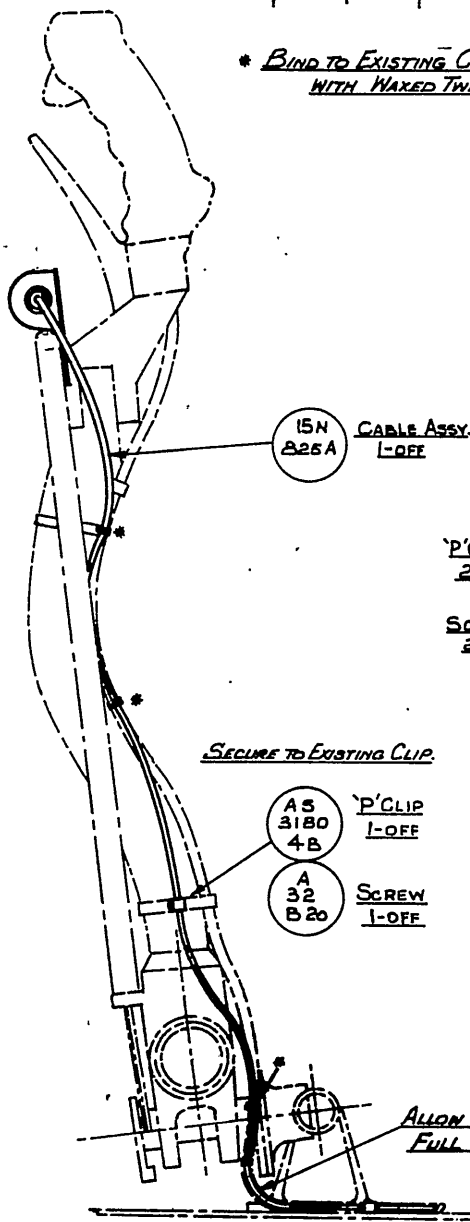


FIG. 1

CABLE RUN ON STARBOARD CONTROL COLUMN.

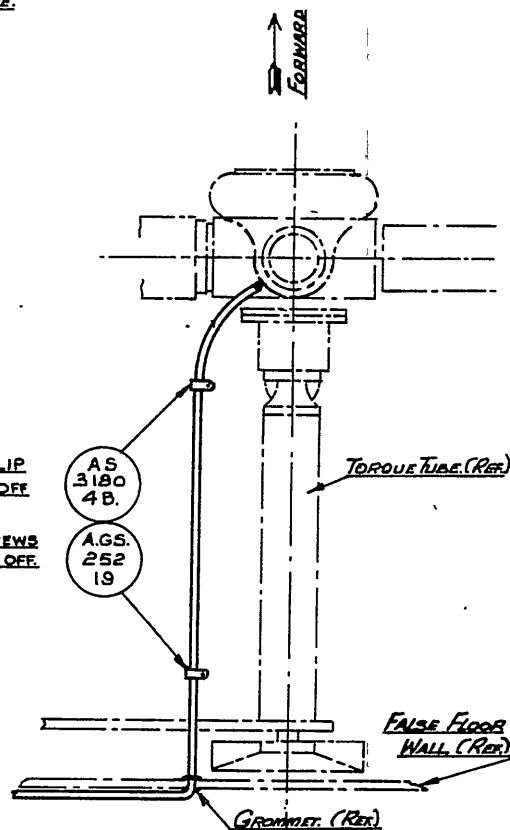


FIG. 2

CABLE RUN ACROSS COCKPIT FLOOR
TO STARBOARD CONTROL COLUMN.

SHEET No. 3

DE HAVILLAND DRWG. No. OOM 271 No. 3 SHEETS 4

REFERENCE		ISSUED BY		TITLE	
		DIRECTORATE OF TECHNICAL SERVICES		<u>IMPROVED COCKPIT LIGHTING.</u>	
		R. A. A. F.			
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	COCKPIT
DECIMALS $\pm .010''$		SPEC.		MACHINE	VAMPIRE MK. 33
FRACTIONS $\pm \frac{1}{32}''$		TREATMENT		ENGINE	GOBLIN
ANGLES $\pm \frac{1}{2}^\circ$		FINISH		TECH. ORDER	VAMPIRE MOD. No. 120
SURFACE FINISH		SCALE		DRAWING NO.	A-12277
AUSTRALIAN STANDARD		DRAWN			Sheet 3
ENC. CARB. PRACTICE A.S. 621		TRACED			
			APPROVED		
			CHECKED		

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	S.I.L.	INITIALS	AP.

EXISTING DIMMER SWITCHES - PRT

A B C D

FORWARD

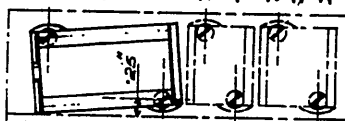
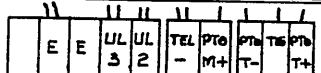
P R

EXISTING COCKPIT LAMP
TYPE C.187

MOVE COMPASS DEVIATION CARD
HOLDER TO POSITION SHOWN.

A	15N821	CABLE LINK	1
B	G5C/2452	DIMMER SWITCH	1
C	AGS.252/21	WOODSCREW.	3
D	15N819A	CABLE ASSY.	1
E	5H/5	TERMINAL BLOCK 5-WAY	1
F	5H/9	COVER.	1
G	5H/125	SOCKET	2
H	5H/19	LINK.	1
J	SP15/B.	WASHER	2
K	AGS252/36	WOODSCREW.	2
L	5H/26	FERRULES	1
M	SP40/A10	GROMMET.	1
N	15N1291A	CABLE ASSY. (EARTH)	1
P	15F1697	BRACKET LAMP.	1
R	AGS252/19	WOODSCREW.	2

RUN NEW CABLES THROUGH
EXISTING CLIPS WHERE POSSIBLE



2-40" DETAIL A'

REPLACING EXISTING 3-WAY
TERMINAL BLOCK
POSITION AS SHOWN.

E
F
G
H
N
J
K
L

SEE DETAIL A

N15-19 AND CABLE SUB-ASSY
15N 823A CABLE ASSY.
(PRT ONLY)

FOR INSTALLATION OF LAMP
ON CONTROL BOX
SEE SHEET 2.

ADDITIONAL CABLE RUNS ON PORT SIDE OF COCKPIT.

SHEET No 4

DEHAVILLAND DRWG. No 00M 271. No OF SHEETS 4

De HAVILLAND DRWG. No. 00M 271. No. of Sheets 4

REFERENCE		ISSUED BY		TITLE		
		DIRECTORATE OF TECHNICAL SERVICES		<u>IMPROVED COCKPIT LIGHTING</u>		
		R. A. A. F.				
LIMITS UNLESS STATED	MATERIAL			COMPONENT OF	COCKPIT	
DECIMALS $\pm .010''$	SPEC.			MACHINE	VAMPIRE MK. 33	
FRACTIONS $\pm \frac{1}{32}''$	TREATMENT			ENGINE	GOBLIN	
ANGLES $\pm \frac{1}{2}^\circ$	FINISH			TECH. ORDER	VAMPIRE MOD No. 120	
SURFACE FINISH	SCALE			DRAWING NO.	A-12277 Sheet 4	DRWG.
AUSTRALIAN STANDARD	DRAWN					
ENG DRWG. PRACTICE A.S. 521	TRACED					
		APPROVED	CHECKED			

STIFFENING OF UNDERCARRIAGE DIAPHRAGMS - INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to eliminate buckling of undercarriage diaphragms caused by heavy landings. The modification authorises installation of additional steel brackets on the diaphragms at end adjacent to rib 2.

Application

2. This work is to be carried out on all Mk.30 and 31 aircraft and on Vampire Trainer Mk.33, A79-801 to A79-823 inclusive. Mk.33 aircraft, A79-824 and subsequent will be modified by the manufacturer.

Note: This work should not be done until aircraft have been modified to D.H. Modification (V.130 Part A). MKS 30+31 PL 39

Responsibility for Incorporation

3. The aircraft depot or civilian contractor responsible for servicing Vampire aircraft is to incorporate this modification.

Action in Respect of Spares

4. Spare undercarriage diaphragms held in stores and spare wings Ident. Nos. Mk.30 A79/500240, A79/501916 and Mk.31 A79/501851, A79/501852 are to be modified. Spares are to be modified at the direction of Maintenance Command.

Note: Spare diaphragms will have the brackets loosely assembled as it will be necessary to remove brackets before bolting up the diaphragm - rib 2 joint. See paragraph 11 (c) (xvii) for new Ident. numbers.

Orders Superseded or Cancelled

5. Not affected.

Equivalent Modification

6. The manufacturers equivalent modification is D.H. Aust. Modification V.199.

Supply

7. The following parts are required to complete one modification set:-

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 121

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per set	Stores Class
1		OOD1417	Bracket Front L.H.	1	
2		OOD1418	Bracket Front R.H.	1	
3		OOD1419	Bracket Rear L.H.	1	
4		OOD1420	Bracket Rear R.H.	1	
5		OOD1431AND	Captive Bolt Assy.	2	
6	H28/11210	AS1246/3C	Bolt H.T.S. Rd. Hd. 2BA x .70" long	54	
		or			
	H28/9588	AS1248/3C (Preferred)	Bolt H.T.S. Mushrm. Hd. 2BA x .70" long		
7	H28/5316	AL6Y/CP	Nut M.S. Plain 2BA	66	
8	H28C/12252	SP13/C	Washer M.S. Plain thin 2BA.	54	
9	H128F/59794	1210	Washer steel shakeproof 2BA.	66	
10	H28/7277	A25/2C	Bolt H.T.S. Hex.Hd. 2BA x .65" long.	6	
11	H128F/43165	AS2229-404	Rivet Al.Alloy csk. 1/8" x .25" long.	8	
12		N.P.N.	Packing Front Al.Alloy DTD610 or L72. 5.25" x 4.0" x 16 G. (11/9641)	2	
13		N.P.N.	Packing Rear Al.Alloy DTD610 or L72. 5.35" x 3.30" x 16G. (11/9641)	2	
14		N.P.N.	Packing Bottom Al.Alloy DTD390, DTD610 or L72. 4.25" x .80" x 14 G. (11/2569)	2	
15	K3/353		Compound jointing	AR	

Notes: (a) Items 1 to 14 inclusive will be assembled into modification sets and retained in the De Havilland Modification Centre pending issue or demand.

(b) Item 15 is to be drawn from unit stores.

Disposal of Parts Removed

8. No action required.

Disposal of Parts in Stock

9. See paragraph 4.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of modification sets

Method of Incorporation

11. (a) Man-hours Involved : Approximately 100 man-hours are required for this modification.
- (b) Special Tools, Jigs, &c. : None required.
- (c) Sequence of Operations :
- (i) The following instructions apply to both port and starboard wings.
- (ii) Remove and retain No. 1 tank door, No.1 tank, the hand hole cover on under side of wing adjacent to Rib 2 front diaphragm joint, and hand hole cover on Rib 2 just aft of rear diaphragm.
- Note: If circumstances permit, it would be an advantage to carry out this modification with the main undercarriage removed, thus permitting access through the hand holes in the undercarriage diaphragms.
- (iii) To modify the front undercarriage diaphragms, refer to Drawing A12278, sheet 1 and work through hand hole in bottom surface of wing.
- (iv) Take bracket, item 1 port, item 2 starboard, and packing item 12, coat mating faces with jointing compound item 14 and rivet together with item 11.
- (v) Drill out the four 5/32 inch rivets adjacent to Rib 2 in the horizontal stiffener flange to diaphragm. These holes are now redundant.
- (vi) On the bottom flange of the bracket mark the position of the rivets in the horizontal stiffener and top flange of existing reinforcing bracket. Bracket should be positioned just clear of $\frac{1}{4}$ inch bolt heads in diaphragm flange to Rib 2.

Method of Incorporation (Cont'd)

- Notes: (1) A possible method of obtaining necessary dimensions is by taking an impression in putty and transferring the dimensions to the bracket.
- (2) If it is found that the position of a rivet would necessitate drilling a clearance hole less than .28 inch from the corner, fit packing, item 14 and drill this instead of bracket.

- (vii) Drill centres marked in operation (vi) to clear rivet heads, and between these clearance holes drill four 2BA bolts as shown on sheet 1 of drawing.
- (viii) Coat mating surfaces with jointing compound, item 15. Place bracket in position, drill from pilot holes through bracket and diaphragm well, also between redundant rivet holes as shown on drawing. Fit bolts item 6, nuts item 7, washers item 8, underhead and shakeproof washers item 9 under nut.
- (ix) From 2BA holes drilled in operation (vii) drill through horizontal stiffener and existing steel bracket. Fit bolts item 10, nuts item 7 and shakeproof washers item 9.

Note: To fit these bolts it may be necessary to temporarily remove the top $\frac{3}{8}$ inch bolt in undercarriage pick up fitting.

- (x) Replace hand hole cover in bottom surfaces.
- (xi) To modify rear undercarriage diaphragms, refer to Drawing A.12278, sheet 2 and work from No.1 tank bay through circular hand hole in Rib 2.
- (xii) Take bracket, item 3 port, item 4 starboard and packing item 13, coat mating faces with jointing compound, item 14 and rivet together with item 11.

Note: Before riveting packing it is advisable to check clearance of packing on head of rivet through top skin stringer block. Cut packing locally to clear if necessary.

- (xiii) Drill out three 5/32 inch rivets adjacent to Rib 2 in horizontal stiffener flange to diaphragm.

Method of Incorporation (Cont'd)

- (xiv) Mark out and drill holes in bottom flange of bracket as detailed in paragraphs (vi) and (vii) but referring to sheet 2 of drawing A.12278.
- (xv) Coat mating surfaces with jointing compound item 15. Place bracket in position drill from pilot holes in bracket through web and also through three rivet holes (see operation (xiii)). Fit bolts item 6, nuts item 7, washers item 8, underhead and shakeproof washers item 9 under nut.
- (xvi) From 2BA holes drilled in operation (xiv) drill through horizontal stiffener and existing steel bracket. Fit captive bolt assembly item 5, nuts item 7 and shakeproof washers item 9.
- (xvii) Replace hand hole cover in Rib 2, No.1 tank and No.1 tank door.

Note: After modification the diaphragm should be renumbered as follows:-

Front Diaphragms:-

From		To	
Ident. No.	Part No.	Ident. No.	Part No.
A79/503476	OOD1207	A79/503548	OOD1207/1
A79/503477	OOD1208	A79/503549	OOD1208/1
A79/501961	DOO5159A		OOD1435A
A79/501968	DOO5160A		OOD1436A
			Retrospective and Spare
			Production

Rear Diaphragms:-

From		To	
Ident. No.	Part No.	Ident. No.	Part No.
A79/503478	OOD1209	A79/503550	OOD1209/1
A79/503479	OOD1210	A79/503551	OOD1210/1
A79/501962	DOO5161A		OOD1437A
A79/501969	DOO5162A		OOD1438A
			Retrospective and Spare
			Production

Method of Incorporation (Cont'd)

- (d) Tests : None required.
- (e) Recording : Record this modification in the Air Frame Log Book.

Drawings

12. Drawing A.12278, Sheets 1 and 2 are attached herewith.

Effect on Weight and Balance

13. Amendments to Weight Sheet Summaries will be consolidated and issued by Air Force Head-Quarters.

The effect of this modification on the weight and balance of the aircraft is as follows:-

Item	Weight (lb.) (+)	Arm. (in.) (+)	Moment (Min) (+)
Front Brackets	+ 2.1	- 24.0	- 50
Rear Brackets	+ 1.9	- 16.0	- 30

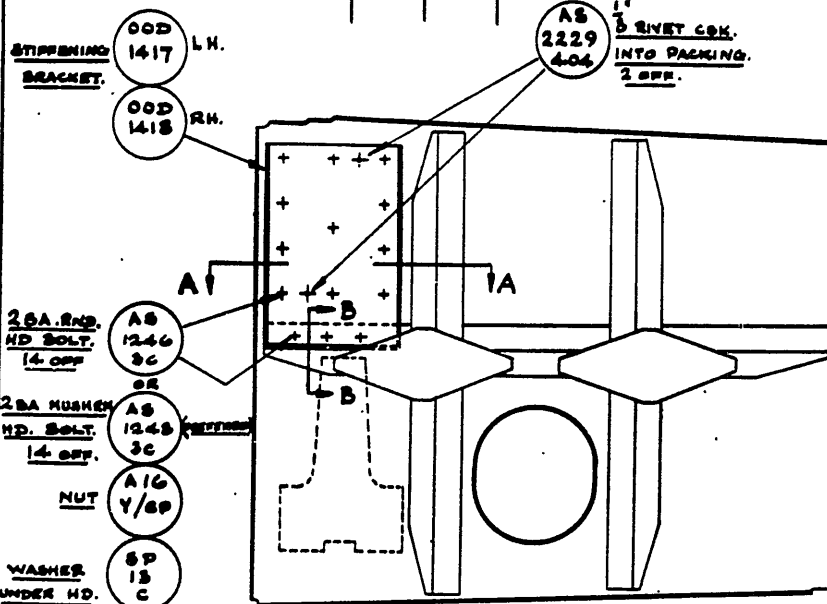
References : Files R.A.A.F. 9/84/242 and 150/4/8848

Attachments : Drawing A.12278, Sheets 1 and 2.

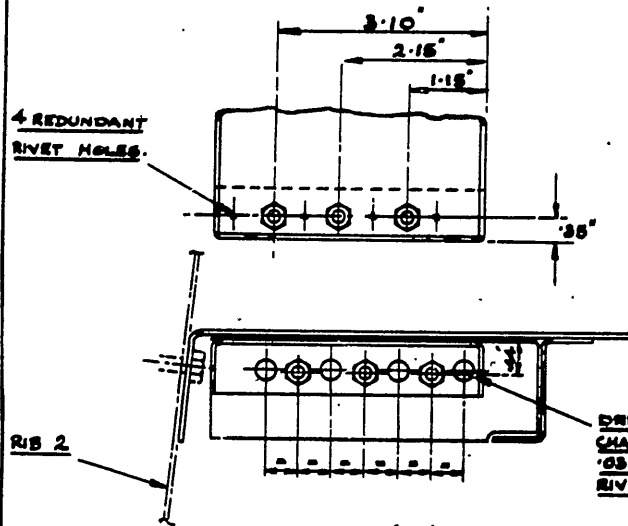
Date of Issue : 27th October, 1954.

DO NOT SCALE

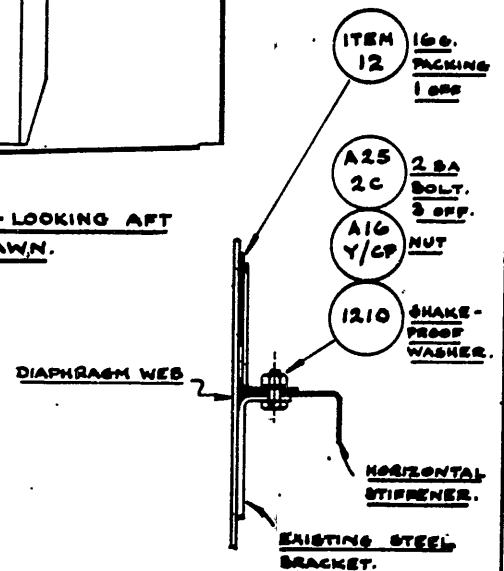
ISSUE NO.	DATE	ALTERATION	D.I.L.	DETAILS	APPROVED
1	8.9.34				



FRONT DIAPHRAGM - LOOKING AFT
L.H. DRAWN.



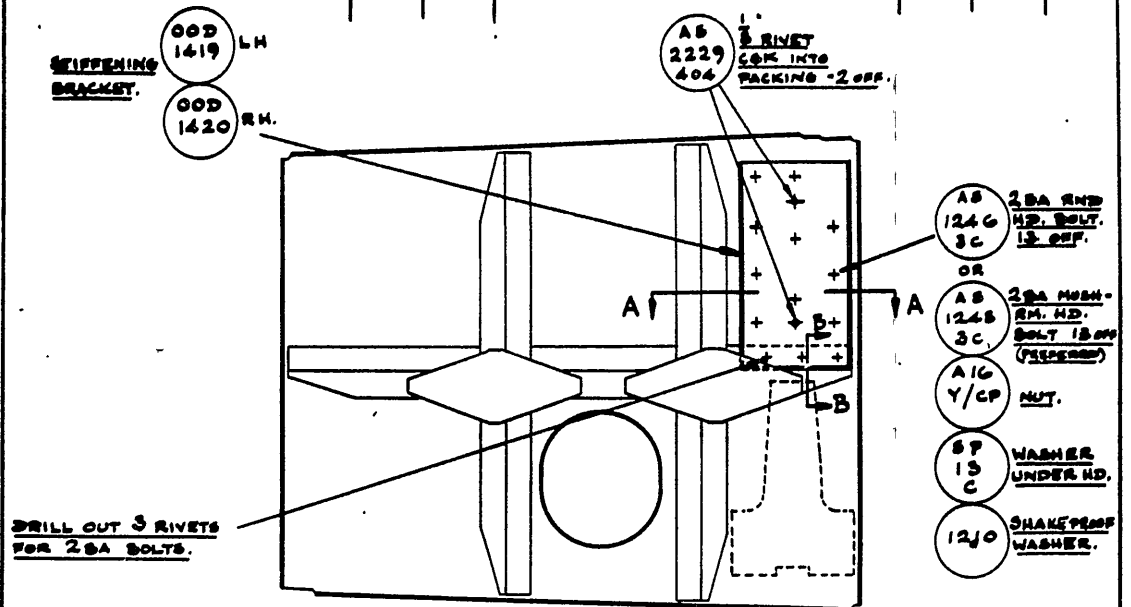
SECTION A-A.



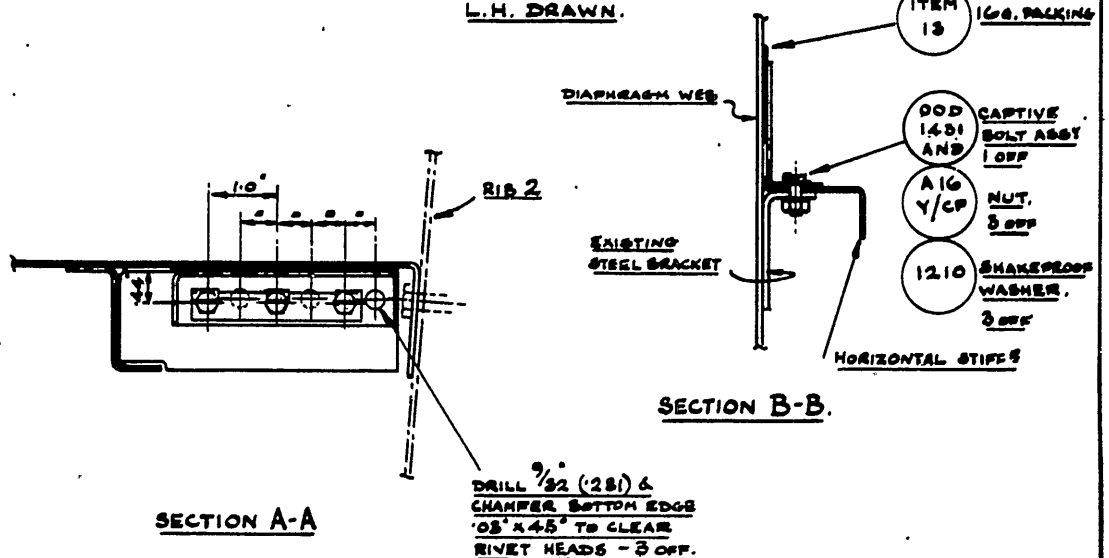
SECTION B-B

REFERENCE		ISSUED BY		DE NAVILLAND DES 00M278 SHEET 1 OF 2	
		DIRECTORATE OF TECHNICAL SERVICES R.A.A.F.		TITLE	
				STIFFENING OF UNDERCARRIAGE DIAPHRAGMS - INTRODUCTION VAMPIRE MK 30, 31 & 33.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT	MAINPLANE
DECIMALS	± .010"	SPEC.		MACHINE	VAMPIRE MK. 30, 31 & 33
FRACTIONS	± 1/32"	TREATMENT		ENGINE	NEW 2VH & GOBLIN
ANGLES	± 1°	FINISH		TECH. ORDER	VAMPIRE MOD. N° 121
SURFACE FINISH AUSTRALIAN STANDARD ENR. DRWG. PRACTICE A.S. 132		SCALE		DRAWING NO.	A12278 SHEET 1
		DRAWN		APPROVED	
		TRACED		CHECKED	

DO NOT SCALE



REAR DIAPHRAGM - LOOKING FORWARD
L.H. DRAWN.



REFERENCE		ISSUED BY		TITLE	
		DIRECTORATE OF TECHNICAL SERVICES R.A.A.F.		STIFFENING OF UNDERCARRIAGE. DIAPHRAGMS - INTRODUCTION VAMPIRE MK 30, 31 & 33.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	MAINPLANE
DECIMALS	± .010"	SPEC.		MACHINE	VAMPIRE MK. 30, 31 & 33
FRACTIONS	± 1/32"	TREATMENT		ENGINE	NENE 2VH & GOBLIN
ANGLES	± 1/2°	FINISH		TECH. ORDER	VAMPIRE MOD. N° 121
SURFACE FINISH AUSTRALIAN STANDARD ENR. DRAW. PRACTICE A.1.1		SCALE		DRAWING NO.	A12278 SHEET 2
		DRAWN	APPROVED		
		TRACED	CHECKED		

Restricted

A.P.721:79, VOL.2, PT.2, SECT.2.

VAMPIRE MODIFICATION NO. 122

Classification: 2.

ACCELEROMETER - INTRODUCTION IN MKS.30 AND 31
AIRCRAFT

Reason for and Description of Modification

1. The B.6 Accelerometer is introduced to provide positive indications of excessive "G" loadings being applied.

Application

2. This modification is applicable to all Vampire Mark 30 and 31 except A79-109 which has been modified at the factory.

Responsibility for Incorporation

3. The modification will be incorporated by units.

Action in Respect of Spare (Engines)

4. Nil.

Orders Superseded or Cancelled

5. Nil.

Equivalent Modifications

6. D.H. Modification V.190 is the equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
1		OOB.81A	Centre Bracket Assembly	1	A
2		OOB.87A	Top Bracket Assembly	1	A
3		OOB.91A	Bottom Bracket Assembly	1	A
4	H28C/2875	A32/B24	Screw MS Rd Hd 4BA x 0.75 long	3	C
5	H28/27024	AGS.2001/B/1	Nut Stiff M.S. 4 BA	2	C
6	H28C/12305	SP.13/B	Washer M.S. thin 4 BA	2	C

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
7	G5A/1760	1206	Washer Steel Shakeproof 4 BA	3	C
8	H28/8301	AS.1242/2B	Bolt H.T.S. Csk Hd 4 BA x 0.55 long	4	C
9	G6A/3451	6A/3451	Accelerometer Indicating Eclipse Pioneer B.6	1	A

Note: Items 1 to 8 will be supplied by De Havilland Aircraft Pty. Ltd. to Sub-modification Section, 2 Aircraft Depot. Item No.9 will be supplied as directed by the Controller of Equipment, Air Force Head-Quarters. Items 1 to 9 will be made up into modification kits and supplied on demand.

Disposal of Parts Removed

8. The following part is rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
10	G106A/50205		Cabin Altimeter Complete with Mounting screws		

Note: Item 10 is to be returned to unit store.

Disposal of Parts in Stock

9. Parts in stock are to be retained against current usage.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than at next weekly inspection after receipt of parts.

Method of Incorporation

11. (a) Man-hours involved : Approximately six (6) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : Nil.

Method of Incorporation (Cont'd)

(c) Sequence of Operations :

- (i) From R.H. Instrument panel remove cabin altimeter, item 9.
- (ii) Remove cabin air pressure gauge adjacent to cabin altimeter.
- (iii) Refer to Drawing A.12264. Locating from the existing cabin altimeter mounting screw holes, mark out and drill four 4BA Csk bolts, holding accelerometer mounting brackets to "back" face of instrument panel.
- (iv) Modify cabin altimeter, cut out to shape shown on drawing.

Note: After modification, the part number of the R.H. instrument panel base becomes OOB/41.

- (v) Take centre bracket assembly, item 1, top bracket assembly, item 2, and bottom bracket assembly, item 3 and assemble together with 4BA nuts, item 5, and washers, item 6, as shown on drawing. Tighten 4BA nuts to prevent bolts slipping round in metal bush of rubber mounts.
- (vi) Take assembly made up in operation (v) above and passing it through the modified cut out, bring on to "back" face of instrument panel and secure with 4BA csk. bolts, item 8 through holes drilled in operation (iii) into anchor nuts provided in top and bottom brackets.
- (vii) Check that centre bracket "floats" freely on its rubber mounts. When correctly assembled mounting face for accelerometer should be square with the line of flight of the aircraft.
- (viii) Restore matt black finish on instrument as necessary.
- (ix) Replace cabin air pressure gauge.
- (x) Fit accelerometer to the centre bracket and secure with 4 BA rd. hd. screws, item 4, and shakeproof washers, item 7 ensuring that the accelerometer is "unlocked".
- (xi) Swing the compass.

(d) Tests : Normal serviceability tests are required.

(e) Recording : Record in Airframe Log Book.

A.A.P.721:79, VOL.2, PT.2, SECT.2.

VAMPIRE MODIFICATION NO. 122

Drawings

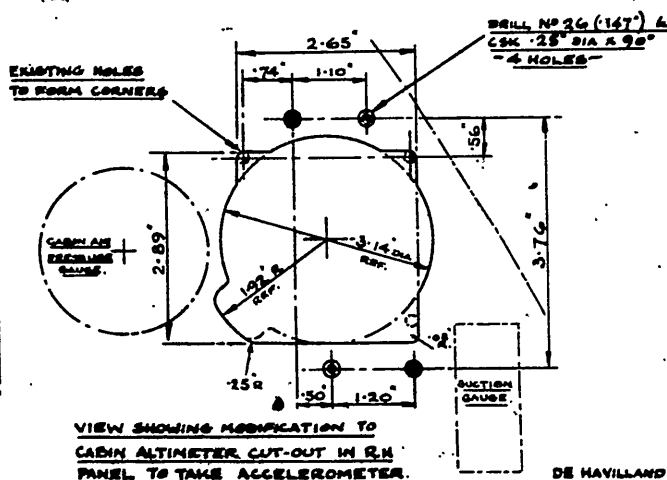
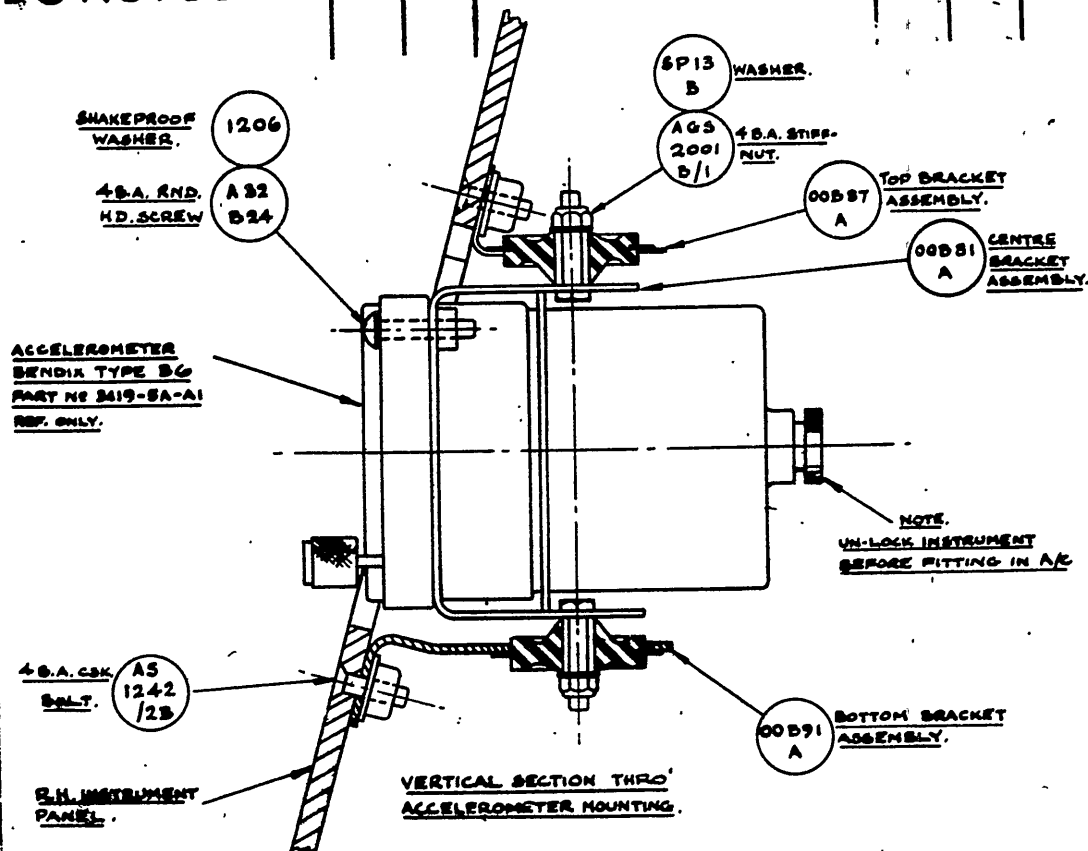
12. Air Force Head-Quarters Drawing A.12264 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References	:	Files R.A.A.F. 113/2/1384 and 150/4/8587
Attachment	:	Drawing A.12264
Date of Issue	:	27th September, 1954.

FIGURE NO.	DATE	ALTERATION	D. T. L.	INITIALS	APPROV.
1					



VIEW SHOWING MODIFICATION TO
CABIN ALTIMETER CUT-OUT IN R.H.
PANEL TO TAKE ACCELEROMETER

DE HAVILLAND DRG. N° 00M 272

REFERENCE		ISSUED BY		TITLE	
		DIRECTORATE OF TECHNICAL SERVICES R.A.A.F.		MOUNTING FOR ACCELEROMETER BENDIX TYPE B6 - INTRODUCTION VAMPIRE MK. 20 & 31.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	
DECIMALS	± .010"	SPEC.		MACHINE	
FRACTIONS	± 1/32"	TREATMENT		ENGINE	
ANGLES	± 1°	FINISH		TECH. ORDER	VAMPIRE MOD.
SURFACE FINISH		SCALE		DRAWING NO.	A-12264
AUSTRALIAN STANDARD ENG. DRWG. PRACTICE A.S. 421		DRAWN	APPROVED		
		TRADED	CHECKED		SIZE

TARGET TOWING EQUIPMENT - INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to satisfy an operational training requirement. The modification authorises the installation of a towing point in the underside of the fuselage and a manual control in the cockpit for target release.

Application

2. This modification is applicable to Vampire Mk.30 and 31 aircraft, not incorporating the approved equivalent modification, De Havilland (Aust.) Modification V.177.

Responsibility for Incorporation

3. Aircraft depot or civilian contractor responsible for the servicing of Vampire Aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. No action required.

Orders Superseded or Cancelled

5. None effected.

Equivalent Modification

6. The manufacturers equivalent modification is D.H. Aust. Modification V.177.

Supply

7. The following parts will be required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per a/c	Stores Class
1	A79/503589	00Z231	Adjuster, cable	1	
2		00Z213	Board, hardwood	1	C
3	H28/7278	A25/7C	Bolt, H.T.S., Hex. Hd., 2 BA x 1.15" long	1	C
4	H28/7282	A25/12C	Bolt, H.T.S., Hex. Hd. 2 BA x 1.65" long	3	C

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per a/c	Stores Class
5	H28/7292	A25/4E	Bolt, H.T.S. Hex.Hd. 1/4" BSF x .90" long	4	C
6	H28/7295	A25/12E	Bolt, H.T.S. Hex.Hd., 1/4" BSF x 1.70" long	4	C
7	H28/7036	A25/15E	Bolt H.T.S. Hex.Hd. 1/4" BSF x 2.0" long.	4	C
8	H28/7304	A25/10G	Bolt, H.T.S., Hex.Hd. 5/16" BSF x 1.55" long.	2	C
9	A79/503590	00Z327A	Bracket, release slip, L.H.	1	
10	A79/503591	00Z329A	Bracket, release slip, R.H.	1	
11	A79/503592	00Z225A	Cable assy.	1	
12	A79/503593	00Z229A	Handle, release	1	
13	H28/27025	AGS.2001/ C/1	Nut, M.S., Stiff, 2 BA.	4	C
14	H28/27026	AGS.2001/ E/1	Nut, M.S., stiff 1/4" BSF.	8	C
15	H28/27027	AGS.2001/ G/1	Nut, M.S., stiff 5/16" BSF	2	C
16	G5A/26669	DHS.3/5	Flexible, bonding	1	C
17	G5A/26666	DHS.3/1	Flexible, bonding	1	C
18	H28B/5032	S.P. .9/C8	Pin, split, S.S., 1/16" dis. x 1" long	1	C
19	H28B/5030	S.P.9/C4	Pin, split, S.S., 1/16" dis. x 1/2" long.	1	C
20	H28B/812	S.P.4Y/A2	Pin, shackle, S.S., 5/32" dis. x .3" long.	1	C
21		00Z211A	Plate, mounting assy.	1	
22	E11A/487 (Z)		Slip, release, Mk.1	1	
	or		or		
	E11A/2352(Z)		Slip, release, Mk.1A ²	1	
	or		or		
	E11A/498		Slip, release, Mk.II	1	
	or		or		
	E11A/504(Z)		Slip, release, Mk.III	1	
	or		or		
	E11A/692(Z)		Slip, release, Mk.IIIA ³	1	
			or		
			Slip, release, Mk.VI (11A/2810)	1	
			or		
			Slip, release, Mk.VII (11A/2811)	1	

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VAMPIRE MODIFICATION NO.123

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per a/c	Stores Class
			or Slip, release, Mk.VIII (11A/2812)	1	
			or Slip, release, Mk.X (11A/2914)	1	
			or Slip, release Mk.XI (11A/2915)	1	
			or Slip, release, Mk.XII (11A/2916)	1	
23	A79/503594	DHS.180 Mk. 1/X	Tab, attachment	1	
24		00Z227A	Tube, release handle	1	
25		00Z339	Tube, conduit assy.	1	
		AND			
26		00Z291A	Tube, distance tapped $\frac{1}{4}$ " BSF	4	
27		AS.2808/ 6/125 or AS.2811/ 6/125	Tube, distance	4	
28		AS.2808/ 5/100 or AS.2811/ 5/100	Tube, distance	3	
29	H28C/ 35830	DHS.34D	Washer, Al. Alloy	4	C
30	H28C/ 35812	DHS.34C	Washer, Al. Alloy	3	C
31	H28C/ 12305	SP.13/B	Washer, M.S., plain, thin, 4 BA	2	C
32	H28C/ 12253	SP.13/E	Washer, M.S., plain, thin, $\frac{1}{4}$ "	12	C
33	H28C/2254	SP.13/C	Washer, M.S., plain, thin, 5/16"	2	C
34	H28C/2205	AGS.250/41	Woodscrew, brass, C's'k hd. No.6 x 1" long	4	C

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VAMPIRE MODIFICATION NO. 123

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per a/c	Stores Class
35	H28C/2288	AGS.252/19	Woodscrew, brass, Rd.Hd., No.4 x $\frac{3}{8}$ " long.	1	C
36	A79/501670	DHS.180/ Mk.3/X	Tab attachment	1	
37	II/1034(Z)		Strip, tinned copper, $\frac{1}{4}$ " wide x 26 SWG	AR	C
38	K4/10883		Bostik, primer No.1751	AR	C
39	K4/10882		Bostik, filleting, compound No.1790	AR	C
40	K4/10864		Glue, bottle type 'A'	AR	C
41	K4/10866		Hardener, bottle, violet V15	AR	C
	or		or		
	K4/10867		Hardener, bottle, yellow, GP30	AR	C
	or		or		
	K4/10868		Hardener, bottle, blue 2B	AR	C
42	II/2700		Wire, locking, 20 SWG, soft iron	AR	C
43			Paint, matching	AR	C

Notes:- (a) Items 1 to 36 inclusive will be assembled into modification sets and retained in the De Havilland Modification Centre pending issue or demand.

(b) Items 37 to 43 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. No action required.

Disposal of Parts in Stock

9. No action required.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next major servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately 80 man-hours per aircraft.

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VAMPIRE MODIFICATION NO. 123

Method of Incorporation (Cont'd)

(b) Special tools, jigs, &c. : None required.

(c) Sequence of Operations :

(i) Open and remove the gun bay doors.

(ii) Refer Australian Air Publication 828, Section 5, paragraph 183 and Section 12, paragraph 313 and 314.

Remove the port guns and bottom section of gun heating pipe and the air cylinder as detailed therein. This will provide sufficient access to the compartment below the cockpit floor.

(iii) Remove pilot's seat.

(iv) Refer to Drawing A.12297, sheet 2. Offer up the hard wood board (item 2) on the underside of the fuselage between bulkhead No.2 and the cannon beam as shown. Rear edge of board being level with rear face of bulkhead No.2.

Thoroughly clean the fuselage skin locally of paint and fabric. Check that board seats in fuselage skin and dress locally if necessary.

(v) Glue the board to the skin using glue (item 40) and hardener (item 41). Finally secure the board using four woodscrews (item 34).

Note:- It is important that, by fitting the board, the 7/8 inch diameter hole should be upwards inclined towards the portside of the aircraft.

(vi) From this inclined 7/8 inch diameter hole, in the hardwood board, drill through the fuselage skin using a 7/8 inch diameter drill.

(vii) Refer to the drawing again and pass the tube, welded to the mounting plate assembly (item 21) through the new hole. To seat the mounting plate satisfactorily on to the hardwood board, it will be found necessary to locally open up the hole to clear the tube. When a correct fit has been obtained, the eight attachment holes in the mounting plate should line up with the holes in the hardwood board.

(viii) Remove the mounting plate assembly. Spotting through from the board, drill $\frac{3}{8}$ inch and four 7/16 inch diameter holes in the fuselage wall. Cover hardwood board with fabric and dope to match fuselage finish.

Method of Incorporation (Cont'd)

- (ix) Still referring to sheet 2 of the drawing, assemble the release slip (item 22) between the two brackets (items 9 and 10) as shown using two bolts (item 8), two nuts (item 15) and two washers (item 33).
- (x) Assemble the two brackets together with the release slip to the mounting plate assembly in the way shown on the drawing, using four bolts (item 5), four nuts (item 14) and four washers (item 32).

Note:- The holes in the bracket (item 9) to suit the mounting plate are to be drilled on assembly.

- (xi) Fit the complete assembly made up in operation (x) to the hardwood board using four bolts (item 6), four tapped distance tubes (item 26) and four washers (item 32) at the holes, nearest the centre-line of the aircraft and four bolts (item 7), four nuts (item 14), four distance tubes (item 27) and eight washers (items 32 and 29) at the two forward and the two rear bolts. Wirelock the four bolts (item 6) using 20 SWG wire (item 42).

Note:- The tapped distance tubes are to be used to clear the air cylinder.

- (xii) Gain access to the cockpit, refer Drawing A.12297 sheet 1 and locate the correct position of the hole through the floor just outboard of the drop tank jettison lever.
- (xiii) Again using the 7/8 inch diameter drill, drill through and then position the release handle tube (item 24) so that the arrow on the mounting plate points forward and the tube clears the drop tank jettison lever. Mark off and drill the three attachment holes in the floor.

Note:- It may be found necessary to shape one of the ferrules, securing the drop tank jettison handle guard, to clear the mounting plate of the release handle tube.

- (xiv) Assemble the mounting plate of the release handle tube to the floor with three bolts (item 4), three nuts (item 13) three washers (item 30) and three distance tubes (item 28). Apply Bostik primer and filleting compound (items 38 & 39) to seal the pressure cabin.

Method of Incorporation (Cont'd)

- (xv) Assemble the conduit assembly (item 25) between the lower end of the release handle tube and the upper end of the mounting plate tube by means of the two union nuts. Lock the nuts with wire (item 42) and two tabs (item 36), top to 2 B.A. bolt (item 4) and (item 23) bottom to fuselage skin with wood screw (item 35).
- (xvi) Connect the cable assembly (item 11) with its screwed end to the release handle (item 12) using the cable adjuster (item 1) as shown.
- (xvii) Pass the eye-end of the cable through the conduits and slide the handle into the tube, engaging slot in handle with peg in tube.
- (xviii) Connect the eye-end of the cable, emerging at the release slip, to the release lever with the shackle pin (item 20), split pin (item 19) and washers (item 31) *using the Centre hole. The end hole is to be blanked off using a suitable non-ferrous rivet.*
- (xix) To overcome fouling of the tube end at the mounting plate assembly by the eye-end of the cable, a stop bolt (item 3) with nut (item 13) are to be fitted to the release slip preventing the lever from being moved more than necessary to release the towing cable.
- (xx) Adjust the cable length by turning the adjuster on the release handle. When satisfactory adjustment has been obtained, secure the adjuster using a split pin (item 18).
- (xxi) Repair the finish locally where necessary (item 43). Using the two flexibles (items 16 and 17) and the copper strip (item 36) bond the mechanism as shown on sheet 1 of the drawing.
- (xxii) Check the installation for correct functioning.
- (xxiii) Replace the pilot's seat, air cylinder, port guns, gun heating pipe and gun bay doors.

(d) Tests

: Pressure test :

1. pneumatic system.
2. Cabin.

(e) Recording

: Record the modification in the Airframe Log Book.

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 123

Drawings

12. Drawing A.12297, sheets 1, 2 and 3 ^(issue 2) are attached.

Effect on Weight and Balance

13. The effect of the incorporation of the modification on the weight and balance of the aircraft is as follows:-

Fixed Equipment

Description	Weight (lb.) $\pm$	Arm (in) $\pm$	Moment (lb.in) $\pm$
Release mechanism, complete	7.5	- 60	- 450.0

Note:- Amendments to the Vampire Weight Sheet Summary will be consolidated and issued by Air Force Head-Quarters.

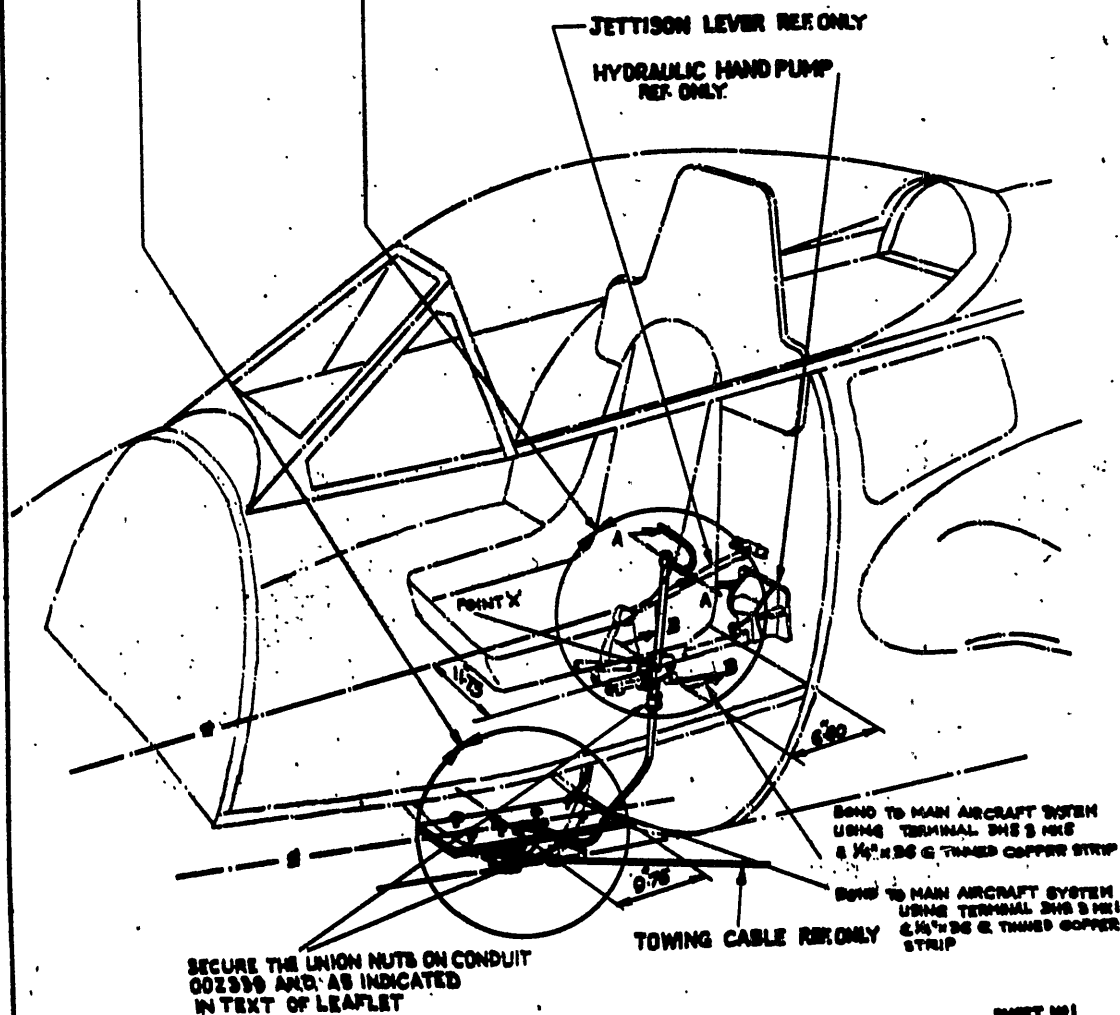
References : Files R.A.A.F. 9/84/274 and 150/4/8851
Attachments : Drawing A.12297, sheets 1, 2 and 3 ^(issue 2)
Date of Issue : 11th November, 1954.

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	D.I.L.	INITIALS	APPROVED

FOR DETAIL OF TOWING ATTACHMENT TO FUSELAGE
AND PARTS REFER SHEET N° 2

FOR DETAILS OF RELEASE CONTROL
IN COCKPIT AND PARTS REFER SHEET N° 3



DE HAVILLAND DBE. N° 00M 249 SHEET N° 1
OF SHEETS 3

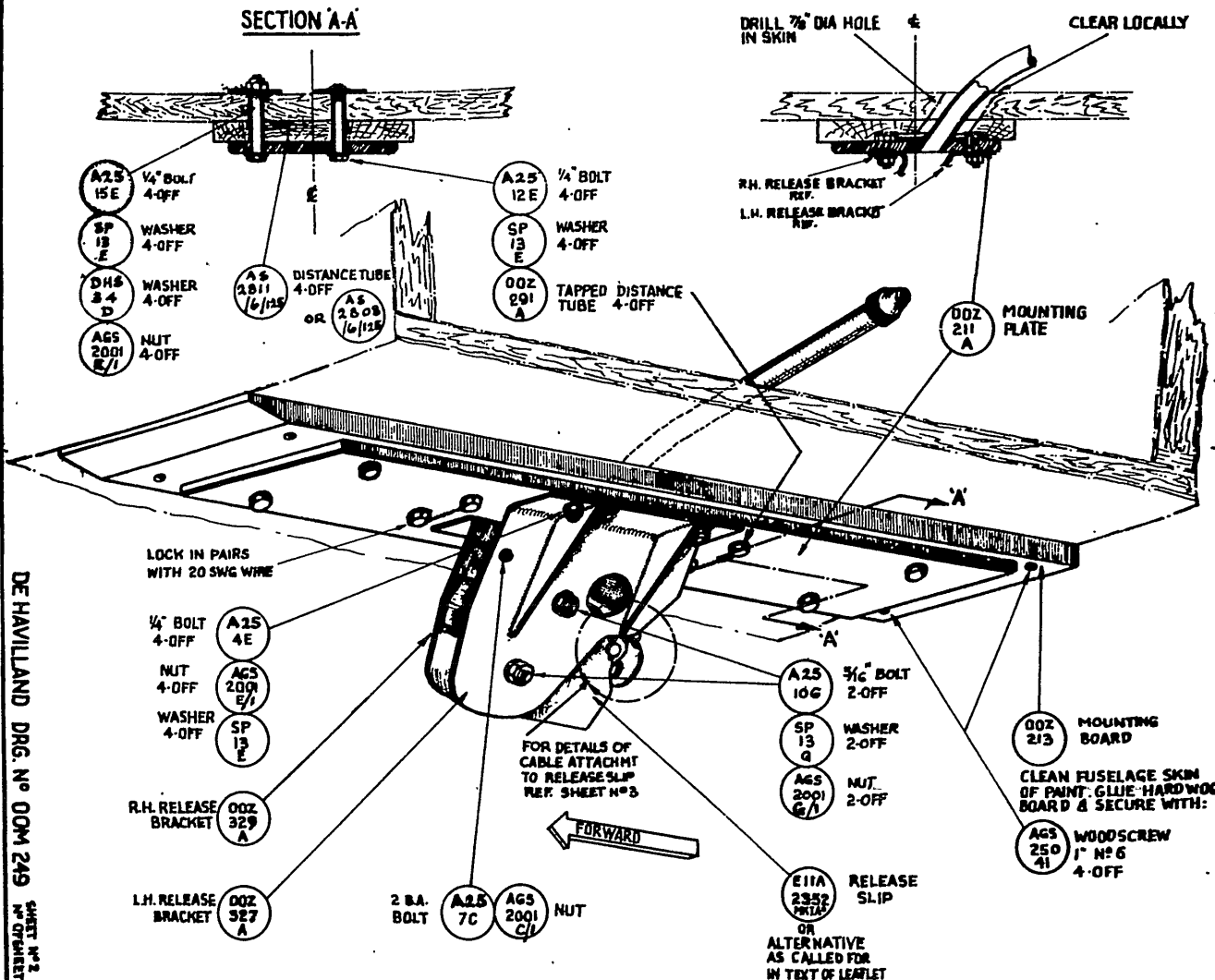
REFERENCE		ISSUED BY			TITLE		
		DIRECTORATE OF TECHNICAL SERVICES R.A.A.F.			TARGET TOWING EQUIPMENT - INTRODUCTION -		
LIMITS UNLESS STATED		MATERIAL			COMPONENT OF	FUSELAGE	
DECIMALS	± .010"	SPEC.			MACHINE	VAMPIRE MK 30+31	
FRACTIONS	± 1/16"	TREATMENT			ENGINE	NENE 2VH	
ANGLES	± 1°	FINISH			TECH. ORDER	VAMPIRE MOD. N° 123	
SURFACE FINISH		SCALE			DRAWING NO.	A12297 SHT.1	DRWG. A SIZE
AUSTRALIAN STANDARD		DRAWN	APPROVED	-			
ENC. DBE. FORM 100 A.3.2		TRACED	CHECKED				

NOT SCALE

ISSUE NO. DATE

ALTERNATION

DATE INITIALS



DE HAVILLAND DRG. N° 004 249 SHEET N° 2
OF OTHERS 3

REFERENCE

ISSUED BY

TITLE

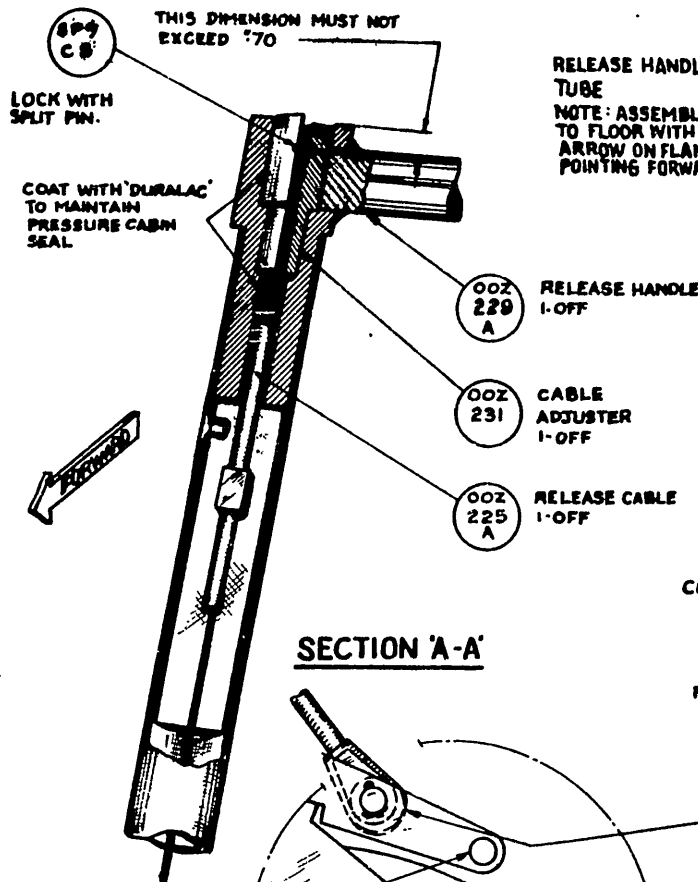
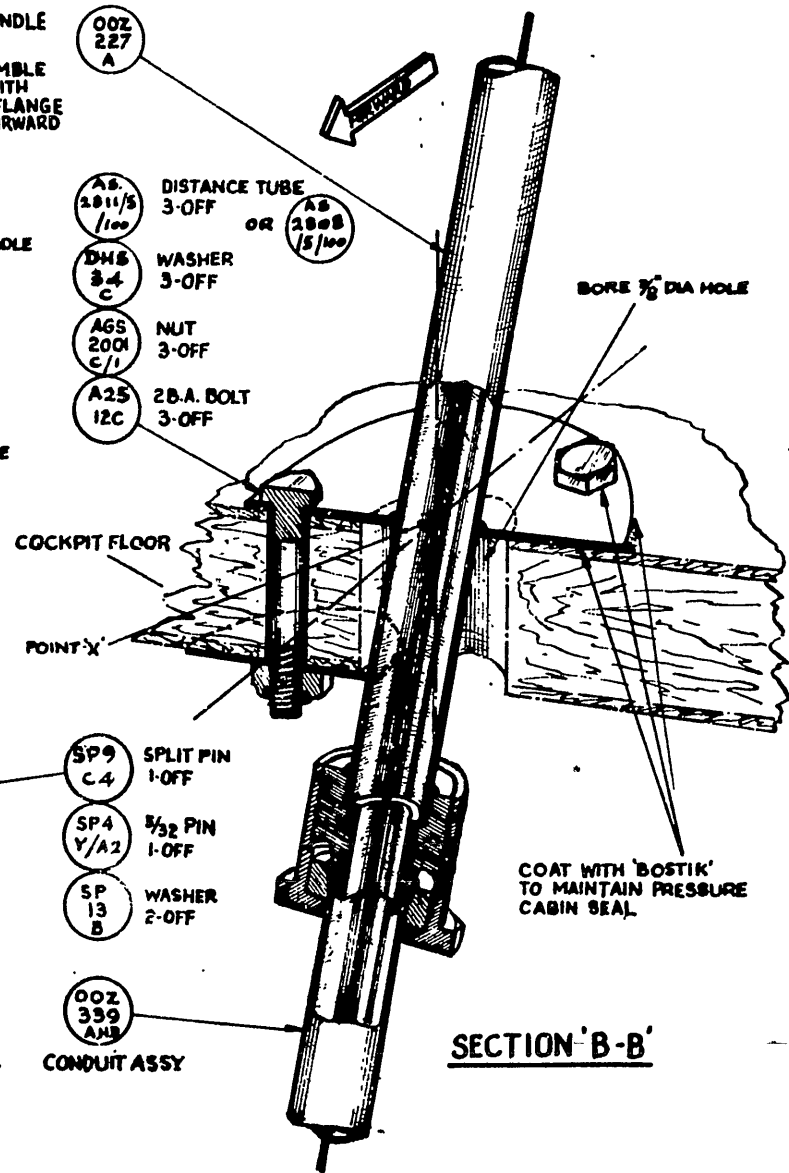
DIRECTORATE OF TECHNICAL SERVICES
R. A. A. F.

TARGET TOWING EQUIPMENT
INTRODUCTION-

LIMITS UNLESS STATED		MATERIAL	
DECIMALS	± .010"	SPEC.	
FRACTIONS	± 1/32"	TREATMENT	
ANGLES	± 1°	FINISH	
SURFACE FINISH		SCALE	
AUSTRALIAN STANDARD		DRAWN	
ENG. DMRG. PRACTISE A3.121		APPROVED	
		CHECKED	
		TRACED	
		DRAWING NO.	A-12297 SH T 2
		COMPONENT OF	FUSELAGE
		MACHINE	VAMPIRE MK. 50-31
		ENGINE	ENGINE 2VH
		TECH. ORDER	VAMPIRE MOD. N° 1237

DO NOT SCALE

ISSUE NO.	DATE	ATTENTION	D.I.L.	INITIALS	APPROVED
2.	15-8-58	FORK END RE-POSITIONED			



DETAILS OF CABLE ATTACHMENT TO RELEASE SLIP

BLANK OFF THIS HOLE WITH 5/32 DIA. NON FERROUS RIVETS

REFERENCE

ISSUED BY

DE HAVILLAND DRG. NO. 00M 249 SHEET NO. 3 OF 3 SHEETS 3

DIRECTORATE OF TECHNICAL SERVICES
R.A.A.F.

TARGET TOWING EQUIPMENT
INTRODUCTION.

LIMITS UNLESS STATED	MATERIAL
DECIMALS ± .010"	SPEC.
FRACTIONS ± 1/32"	TREATMENT
ANGLES ± 1°	FINISH
SURFACE FINISH	SCALE
AUSTRALIAN STANDARD	DRAWN
ENG. DRAW. PRACTICE 1955	CHECKED

COMPONENT OF	FUSELAGE
MACHINE	VAMPIRE MK. 30 +31
ENGINE	NENE 2VH
TECH. ORDER	VAMPIRE MOD. No 125
DRAWING NO.	A-12297 SHT.3

DRWG. A

SIZE

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 124

Class : 3

SPECIAL ADAPTER IN PNEUMATIC SYSTEM AT FIREPROOF BULKHEAD
- INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to facilitate removal, inspection and installation of the 'Hymatic' R.V.10 relief valve without the necessity for removing the fuselage fuel tank. The modification authorises the installation of a special adapter at the ~~fireproof~~ bulkhead.

Application

2. This work is to be carried out on Mk.33 aircraft Serial Nos. A79-801 to A79-815 inclusive. Subsequent aircraft will be modified by the manufacturer. This modification is only to be carried out, if the main fuselage fuel tank has been removed for some other reason.

Responsibility for Incorporation

3. This modification is to be incorporated by the operating unit and aircraft depot or civilian contractor responsible for the servicing of Vampire Aircraft. The trade mastering responsible is Airframe Fitter.

Action in Respect of Spares

4. No unmodified spares have been delivered.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.657 and Air Ministry Modification VAM.3183 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
1	A79/502 883	13.V.497	Union adapter	1	
2	H28C/ 8215	AGS.1138B	Washer, Jointing, Al.Alloy, 14 S.W.G. .52" I.D. .69" O.D.	2	

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 124

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
3	H128F/62504	AGS.2051/524/BH	Rivet, Pop, Nickel Alloy, Csk. Hd., 5/32" D x .24" long	3	
4	H128F/61194	AGS.2051/424/BH	Rivet, Pop, Nickel Alloy, Csk. Hd., 1/8" D x .24" long	3	
5	K3/353		Compound jointing to Spec. D.T.D.369A	AR	
6	K4/10884		'Bostik', 252 "C"	AR	
7	I1/2700		Wire, locking, soft iron, Galvanised, 20 S.W.G.	AR	

Notes: (a) Items 1 to 4 inclusive will be assembled into modification sets and retained in the De Havilland Modification Centre pending demand from unit.

(b) Items 5 to 7 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. No parts are rendered redundant by the incorporation of this modification.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable (Refer paragraph 2), but not later than the next major servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately four (4) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.

Method of Incorporation (Cont'd)

(c) Sequence of Operations :

- (i) The main fuel tank already having been removed, refer to Australian Air Publication 721:79/33, Volume 1, section 3, chapter 7, paragraph 3 and release the pressure in the pneumatic reservoir.
- (ii) Remove the top front engine cowl and locate the pneumatic pipe line and relief valve on the top port side of the fireproof bulkhead.

Note: Extreme cleanliness is essential in all matters relating to this system. Dust or dirt within the system may prevent a valve from seating and render the brakes inoperative, consequently all pipe ends and components should be completely sealed, when they are dismantled.

- (iii) Break the wire locking and disconnect the pneumatic pipe at the bulkhead pipe coupling, on the forward face of the fireproof bulkhead, inside the main fuel tank bay.
- (iv) Remove and retain for use on reassembly, the three nuts and bolts attaching the bulkhead pipe coupling to the bulkhead. Pull the pipe coupling, relief valve, and flexible pipe clear of the bulkhead.
- (v) Refer to De Havilland Drawing A-12287 and make one cut in the bonnet tape, approximately 1".0 outboard from a position above the existing jury strut bracket.
- (vi) Using a No.30 drill, drill out as many as are necessary of the $\frac{1}{8}$ inch diameter rivets, attaching the bonnet tape to the cowl support channel, to allow repositioning of the port jury strut bracket, and pull the tape clear.
- (vii) Locate the heads of the three $\frac{1}{8}$ inch diameter rivets, attaching the jury strut bracket Pt. No. 1001409 (Ref.) to the cowl support channel, and remove the bracket by carefully drilling out these rivets using a No.30 drill.
- (viii) Reposition the jury strut bracket to clear any existing rivet, approximately 13.0 inch from the centre line of the aircraft, also to be clear of the relief valve when the latter is rotated, the minimum dimension is 12.50 inch as shown on Drawing A-12287.

Method of Incorporation (Cont'd)

- (ix) Use the holes in the bracket as guides, drill three holes in the cowling support channel with a No.20 (.161 inch diameter) drill, and countersink these holes 120° on the outside of the channel. Coat the mating surfaces with, item 5, and rivet up, using three rivets, item 3.
- (x) Repair the finish locally to match the existing colour scheme.
- (xi) Re-attach the bonnet tape to the cowling channel, using item 6, and secure in place with rivets, item 4.
- (xii) Disconnect the bulkhead pipe coupling from the relief valve, and re-attach the pipe coupling to the bulkhead, using the three nuts and bolts retained in operation iv.
- (xiii) Assemble the new union adapter, item 1, and the two new jointing washers, item 2, the relief valve and the flexible pipe to the bulkhead pipe coupling as shown on the drawing. Wirelock the assembly where required using item 7.
- (xiv) Remove the blanking material from the pipe forward of the fireproof bulkhead and reconnect the pipe to the pipe coupling, wirelock with item 7.
- (xv) Ground charge the system and check for leaks in accordance with Australian Air Publication 721:79/33 Volume 1, section 3, chapter 7, paragraphs 13 and 17.
- (xvi) Replace the top front engine cowling.
- (d) Tests : Functionally test and check for leaks as above.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. Drawing No. A-12287 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/16 and 150/4/8852
Attachment : Drawing A.12287
Date of Issue : 28th September, 1954.

DO NOT SCALE

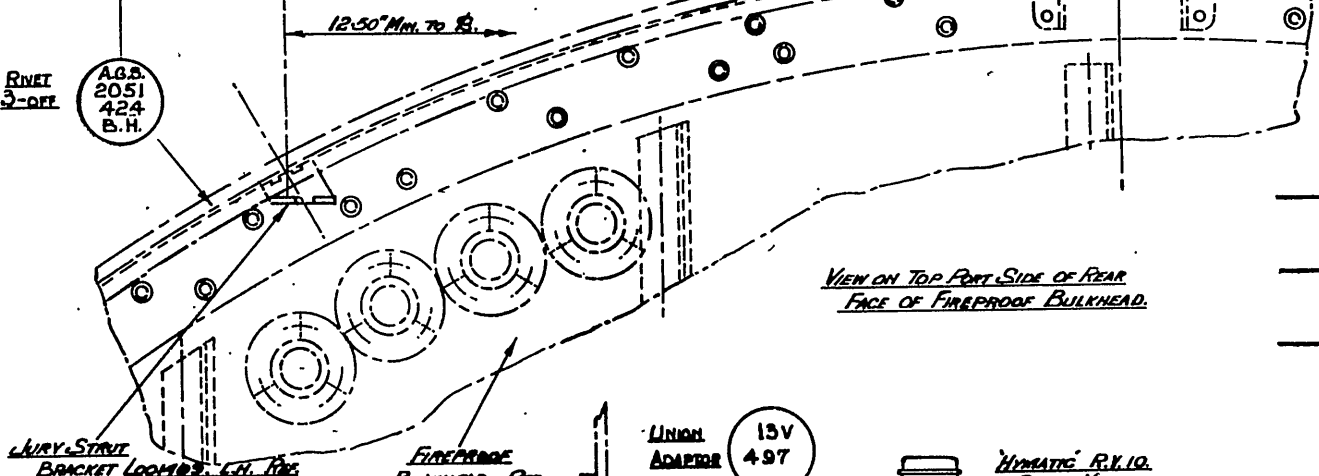
ISSUE NO. DATE

ATTENTION

B. L. L.

INITIALS APPROVED

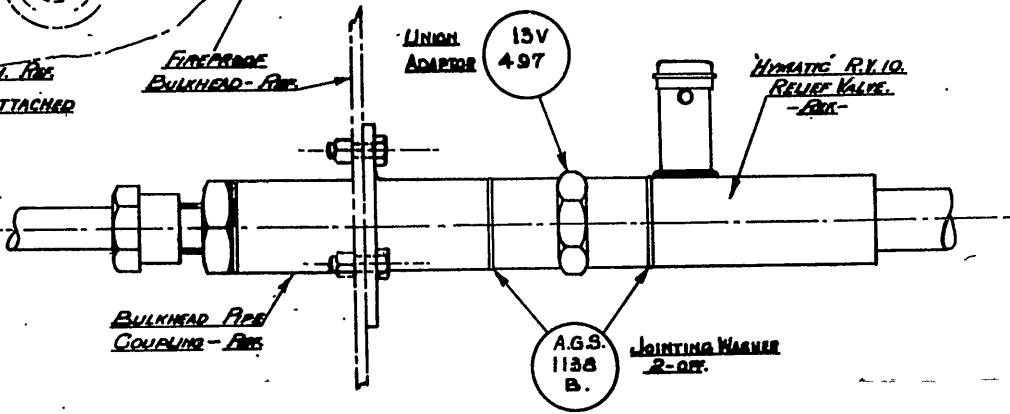
RE-ATTACH BONNET TAPE WITH 'BOSTIK' CEMENT
BEFORE RIVETING WITH



VIEW ON TOP PORT SIDE OF REAR
FACE OF FIREPROOF BULKHEAD.

LIFT-STRUT
BRACKET LOOKING ECH. PERS.
REPOSITIONED AND ATTACHED
WITH

RIVET
3-OFF
AGS.
2051
524
B.H.



ASSEMBLY OF RELIEF VALVE AT FIREPROOF BULKHEAD.

De Havilland Drawg. No. COM 279, No. of SHEETS, 1.
SHEET 121

REFERENCE

ISSUED BY

DIRECTORATE OF TECHNICAL SERVICES

R. A. A. F.

TITLE

SPECIAL ADAPTOR IN PNEUMATIC
SYSTEM - INTRODUCTION.

LIMITS UNLESS STATED	MATERIAL	COMPONENT OF	FUEL SYSTEM
DECIMALS $\pm .010"$	SPEC.	MACHINE	VAMPIRE MK. 33
FRACTIONS $\pm \frac{1}{32}"$	TREATMENT	ENGINE	GOBLIN
ANGLES $\pm 1^\circ$	FINISH	TECH. ORDER	VAMPIRE MOD. No. 124
SURFACE FINISH	SCALE		
AUSTRALIAN STANDARD	DAYN	DRAWING NO.	A-12287
ENG. BRN. PRACTICE A.1.621	TRACED	CHECKED	APPROVED
			DATE
			SIZE

"(i) Approximately 40 man-hours are required to incorporate Part A of this modification.

(ii) Approximately 10 man-hours are required to incorporate rework required by Part B of this modification."

(Issued by A.L. 42 - October, 1955)

(h) Remove and destroy Page 10 and insert the attached Pages 10 and 11.

2.

When the above amendments have been incorporated, make the necessary entry in the Amendment Certificate.

Reference: File Department of Air 150/4/8855

Attachments: Pages 10 and 11 of Vampire Mod. No. 125

Date of Issue: 10th October, 1955.

A.A.P. 721:79, VOL.2, PT.2

VAMPIRE MODIFICATION NO. 125

- (xxi) Disconnect and remove the boost coil link, item 37, and ~~six~~ cable ends. Still referring to sheet 5 of the drawing, fit the two new cable assemblies, item 6, binding where necessary with waxed twine, item 35, and securing the breeze plugs, as shown, into the mounting bracket fitted in operation (vii). Utilise two of the existing 'P' clips, and dispose of the third one, item 44.

Pass the cables through the boost coil glands and fit four new cable ends, item 12. Connect the cable cores as follows:- Connect cores SA8 to terminal S, and cores E to terminal M2. Over the redundant glands fit the existing blank disc and gland nut, and a new blank disc, item 3, and a new gland nut, item 21.

Note:- When high energy igniter units are not fitted, connect the sockets to the booster coil plugs as shown. When high energy igniter units are fitted, connect the sockets to them, and position two plug sealing caps, item 8, over the ends of the booster coil plugs.

- (xxii) The existing pipe, D.H. Pt. No. L003677AND, item 38A, running from a union to the lower portion of the front ring of the fire extinguisher pipe, is to be removed and discarded and the new pipe assembly, item 7a, offered up and secured in its place.
- (xxiii) Remove the air inlet duct to the heater muff, Pt. No. R00628AND, item 38b, on starboard side of the engine, and replace it with a new pipe assembly, item 7b.
- (xxiv) Adjust the form of the boost coil lead conduit assembly to clear the igniter plugs.
- (xxv) The fireguard rear drain pipe Pt. No. 76215 (Goblin Mod. 903) has a left hand thread. This drain pipe has to be removed in order to remove or fit the rear cone assembly Pt. No. L00853A/2.

In order to avoid confusion when removing this pipe, the work "UNDO" in half-inch black letters with an arrow in a clockwise direction, using paint Ident. K3/344 is to be stencilled on the outer undersurface of the Rear Cone at the drain outlet as shown below.

- (xxvi) Replace the engine inspection doors and reconnect the aircraft accumulators.

(Issued with A.L.42 - October, 1955)

A.A.P.721:79, VOL.2, PT.2

VAMPIRE MODIFICATION NO. 125

PART "B"

(xxvii) Remove upper engine cowling

(xxviii) Carry out work as in paragraph 11(c) Part A, operations (xxii) to (xxv) inclusive, using pipes, items 7a and 7b, and disposing of pipes, items 38a and 38b.

(xxix) Replace engine cowling.

- (d) Tests : Functional tests of rewiring and clearance checks of reworked pipes are to be carried out.
- (e) Recording : Record the modification in the Airframe Log Book as Vampire Modification No. 125.

Drawings

12. Drawing No. G.12354, sheets 1 to 7 inclusive (sheet 3 (Issue 2)) will be issued to units on demand from Department of Air.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 150/4/8855 and 150/4/8621

Date of Issue : 18th February, 1955.

(Issued with A.L.42 - October, 1955)

Restricted

A.A.P.721:79, VOL.2, PT.2.

VAMPIRE MODIFICATION NO. 126

Class 2

V.H.F. PRESS TO TALK SWITCH - RELOCATION

Reason for and Description of Modification

1. (a) This modification is to be incorporated to effect standard cockpit drill between the Trainer and Fighter Vampires.
- (b) It relocates the "press to talk" and "R.P." and "Bomb" firing switch in similar location as Mk.33 trainers, and in doing so, a more robust switch is added for "R.P." and "Bombs".
- (c) This modification is written in three parts, viz:-

Part A Applicable to aircraft without R.P. and bomb release wiring.

Part B Section I - Applicable to aircraft with R.P. and bomb release wiring installed.

Section II - Applicable to aircraft without R.P. and bomb release wiring.

Part C Applicable to aircraft with R.P. and bomb release wiring installed.

Application

2. This modification is applicable to aircraft as listed:-

PART "A"		PART "B"		PART "C"	
A79-1	A79-375	A79-5	A79-550	A79-9	A79-467
" -2	" -484	" -76	" -674	" -36	" -514
" -14	" -529	" -115	" -704	" -91	" -520
" -18	" -650	" -165	" -862	" -111	" -536
" -24	" -687	" -199	" -872	" -151	" -564
" -89	" -737	" -202	" -901	" -160	" -593
" -109	" -762	" -235	" -942	" -175	" -609
" -153	" -796	" -333	" -996	" -178	" -622
" -263	" -876			" -215	" -633
" -309	" -973			" -217	" -733
" -321				" -282	" -884
				" -308	" -915
				" -390	" -934
				" -408	" -985
				" -440	

Restricted

Restricted

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A.A.P.721:79, VOL.2, PT.2.

VAMPIRE MODIFICATION NO. 126

Responsibility for Incorporation

3. The electrical fitters in co-operation with airframe fitters of units and contractors concerned, will be responsible for incorporation of this modification.

Action in Respect of Spares

4. Items A79/500388 Part No.K003A/3 and A79/501853 Part No.K003A/4 have been/are being provisioned as spares, but no re-work action is to be carried out at this stage, pending the introduction of Vampire Modification No.131 which modifies the control column for the introduction of ejection seats.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.203 is the manufacturers' equivalent modification.

Supply

7. The items listed will be necessary to carry out modification of aircraft as listed in respective parts.

(a)

PART "A"

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	A79/501731	L002533	Spindle, Throttle lever	1	A
2		OCN811A	Cable, assembly	1	C
3		OCN813A	Cable, assembly	1	C
4	G5C/430		Terminal block, 2 way	1	A
5		DHS.30/35	Clip, aluminium	1	C
6	H28C/2183	AGS.250/21	Screw, Wood, CSK.Head No. 4 x $\frac{5}{8}$ "	2	C
7	H28/5040	SP.9/E12	Pin, split, Nickel Alloy $\frac{3}{32}$ "D x $1\frac{1}{2}$ " long.	1	C
	OR H28B/5040	AGS.784/13			
8	I32/2006		Twine, Binder, waxed.	As req.	C
9	G5F/500001		Tape insulating P.V.C. $\frac{5}{8}$ " wide.	As req.	C

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VAMPIRE MODIFICATION NO. 126

Supply (Cont'd)

Notes: (i) Items 1 to 7 inclusive will be delivered from De Havilland Aircraft Pty. Ltd., to their own Modification Centre Store, which will issue these items on demand.

(ii) Items 8 and 9 will be drawn from unit stores.

(b)

PART "B"

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
10		OCN883A	Bracket.	1	C
11		OCN853	Clamp plate	1	C
12		OCN811A	Cable Assembly	1	C
13		OCN813A	Cable Assembly	1	C
14		OCN855A	Cable Assembly	1	C
15	G5C/430		Terminal Block, 2 way	1	A
16		DHS.30/35	Clip aluminium	1	C
17		A32/B14	Screw, RD.HD. 4BA x 7/16"	2	C
18	H28C/2183	AGS.250/21	Screw, wood CSK.head No.4 x 5/8"	2	C
19	H28/27024	AGS.2001/B1	Stiffnut	2	C
20	I32/2006		Twine, binder, waxed	As req.	C
21	K3/398		Hermetite, plastic, compound sealing	As req.	C
22	G5F/500001		Tape insulating P.V.C. 5/8" wide.	As req.	C

Notes: (i) On those aircraft which have R.P. and bomb release wiring installed, items 12, 13, 15, 16 and 18 are not required and item 12 is to be dismantled and the push button switch (G5D/534) together with items 15, 16 and 18 is to be returned to R.A.A.F. stores.

(ii) On those aircraft which are not wired for R.P. and bomb release, items 10, 11, 14, 17, 19 and 21 are not required.

(iii) Items 10 to 19 inclusive will be delivered from De Havilland Aircraft Pty. Ltd. to their own modification centre store which will issue these items on demand.

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VAMPIRE MODIFICATION NO. 126

(iv) Items 20, 21 and 22 will be drawn from unit stores.

(c) PART "C"

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
23		OCN883	Bracket	1	C
24		OCN853	Clamp plate	1	C
25		OCN855A	Cable Assembly	1	C
26		A32/B14	Screw R.H. 4BA x 7/16" long.	2	C
27	H28/27024	AGS.2001/B1	Stiffnut	2	C
28	I32/2006		Twine, binder, waxed.	As req.	C
29	K3/398		Hermatite, plastic, compound sealing.	As req.	C
30	G5F/500001		Tape, insulating P.V.C. $\frac{5}{8}$ " wide.	As req.	C

Notes: (i) Items 23 to 27 inclusive will be delivered by De Havilland Aircraft Pty. Ltd., to their own modification centre store, which will issue these sets on demand.

(ii) Items 28 to 30 inclusive will be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant upon incorporation of this modification:-

PART "A"

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
31		N00228A	Cable Assembly	1	C
32	A79/500879	L00971	Spindle, throttle lever	1	

PART "B"

33		N00228A	Cable Assembly	1	C
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VAMPIRE MODIFICATION NO. 126

PART "C"

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
34		N00228A	Cable Assembly	1	C

Note: Items 31, 32, 33 and 34 are obsolete and are to be disposed of in accordance with current authorised procedure.

Disposal of Parts in Stock

9. No action.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than next minor inspection after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately ten (10) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : None required.
- (c) Sequence of Operations :-

PART "A"

- (i) Locate existing cable assembly, item 31, running from terminal blocks mounted on the bottom of the centre instrument panel to "Press to Speak" switch mounted on control column, disconnect, remove from aircraft and discard.
- (ii) Replace binding, item 8, where removed in preceding operation, and wrap remaining cables at clipping positions with item 9, to ensure a tight fit in clips.
- (iii) The existing "Press to Speak" is now redundant and the engraving "Press to Speak" is to be painted over black.
- (iv) Refer to Drawing A.12355, sheet 2 and fit terminal block, item 4, in position as shown, using screws, item 6 for fixing.

Restricted

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VAMPIRE MODIFICATION NO. 126

- (v) Refer to sheet 3 of drawing and remove existing spindle in throttle lever, item 32, and replace with spindle, item 1, fixing with split pin, item 7.
- (vi) Refer to sheets 2 and 3 of drawing. Add cable assembly, item 2, to throttle box assembly as shown, binding and clipping where shown with items 8 and 5 respectively.

Note: Leave sufficient cable slack to allow free movement of throttle lever.

- (vii) Refer to sheet 2 of drawing and add cable assembly, item 3, routing approximately as shown, binding to existing cables with item 8 where necessary. Connect cable to V.H.F. "Press to talk" terminals at terminal blocks on bottom of centre instrument panel.

PART "B"

Section I

For aircraft with R.P. and bomb release wiring installed.

- (i) Locate existing cable assembly, item 33, routed from terminal blocks mounted on bottom centre instrument panel to "Press to Speak" switch mounted on control column, disconnect, remove from aircraft and discard.
- (ii) The existing "Press to Speak" switch is rendered redundant and the engraving "Press to Speak" on switch is to be painted over black.
- (iii) Refer to Drawing A.12355, sheet 2, and locate existing R.P. and bomb cable assembly, Part No. OON327A, routed from R.P. and bomb junction box to terminal block at throttle box.

Leave cable connected to terminal block at throttle box, but re-route cable to run to existing terminal blocks on bottom centre instrument panel, and connect to terminals vacated by removal of cable assembly in operation (i)

Recode both ends of cable as follows:

Red core "B+" now to read "P to T4"

Blue core "B14" now to read "P to T2".

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VAMPIRE MODIFICATION NO. 126

- (iv) Existing cable from terminal block adjacent to throttle box to throttle lever to be recoded:-

Red core "B+" now to read "P to T+"

Blue core "B14" now to read "P to T2".

- (v) Route new cable assembly, item 14, up control column passing through clips left vacant by removal of cable assembly, item 33, in operation (i) and bind to column as indicated in Drawing A12355, sheet 1, using item 11.
- (vi) Refer to sheet 3 of drawing and assembly ^E bracket, item 10, clamp plate, item 11, and push button switch on cable assembly, item 14, together. The threads on the push button switch are to be smeared with Plastic Hermatite, item 21, before tightening up. A.L.C.
- (vii) Place this assembly on to the spade grip of control handle as shown and fix with screws, item 17, and stiffnuts, item 19.

Note: The bracket and clamp plate are so designed to fit the spade grip in one position only. Care must be taken to ensure that these items are assembled correctly so that the press button switch faces the desired angle.

If it is found on assembly that they are not sufficiently tight, the spade grip may be wrapped with insulating tape, item 22, to build up to thickness necessary for tight fit.

PART "B"

Section II

For aircraft without R.P. and bomb release wiring.

- (i) Carry out operations (i) and (ii) as stated in Section I.
- (ii) Refer to Drawing A.12355, sheet 1, and when cable assembly, item 33, is removed wrap remaining cables with tape, item 22, under clips to build up thickness for tight fit.
- (iii) Refer to Drawing A.12355, sheet 2, and fit terminal block, item 15, fixing with screws, item 8.

Restricted

DO NOT SCALE

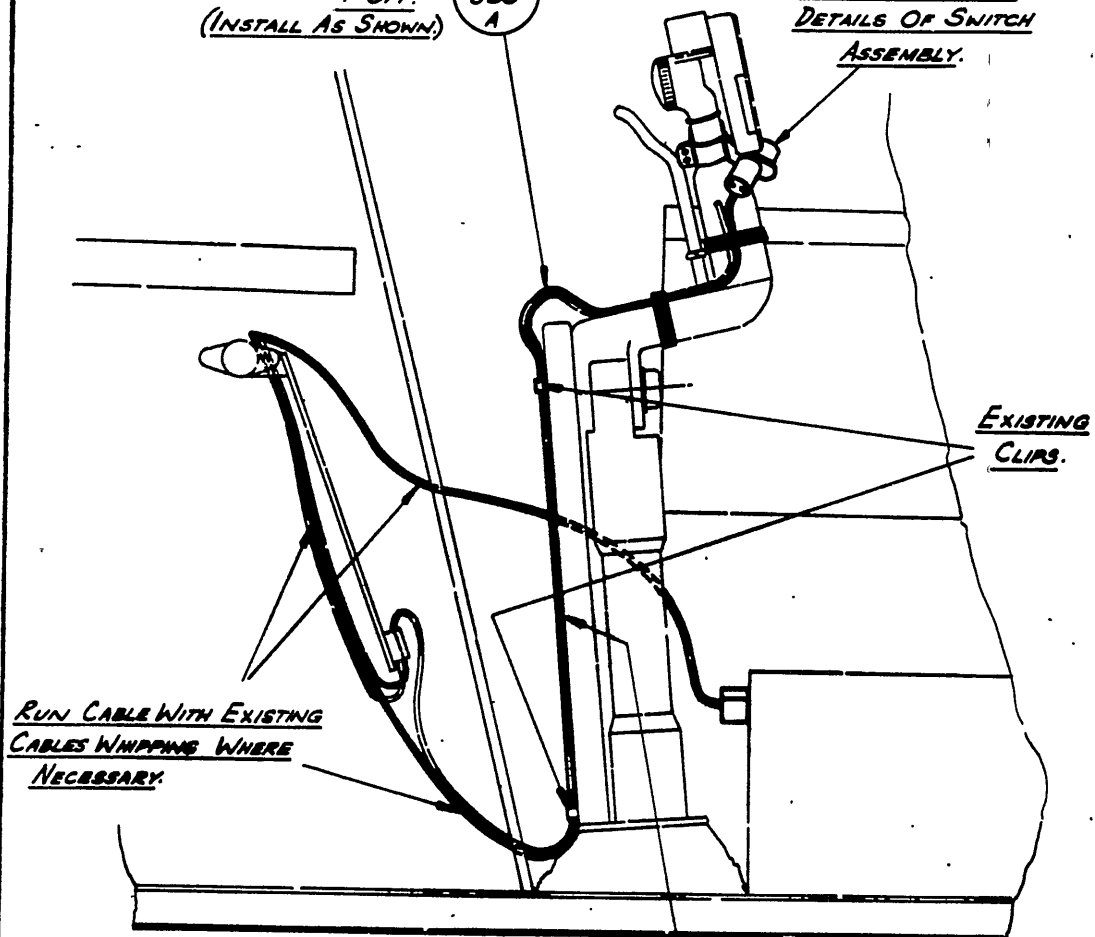
ISSUE NO.	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED

TO BE FITTED ONLY TO THOSE AIRCRAFT
WHICH HAVE MOD V84 EMBODIED.

CABLE ASSY.
1-OFF.
(INSTALL AS SHOWN.)

00N
855
A

SEE SHEET 3 FOR
DETAILS OF SWITCH
ASSEMBLY.



EXISTING VHF. CABLE NO0228A, IS TO BE REMOVED FROM AIRCRAFT.

INSTALLATION OF R.P. & BOMB CABLE FROM
JUNCTION BOX TO CONTROL COLUMN.

SHT. 1.

DE HAVILLAND DRG. NO. 00M291

NO. OF SHES 3.

REFERENCE		ISSUED BY		TITLE	
				<u>RELOCATION OF "PRESS TO TALK" SWITCH FROM CONTROL COLUMN TO THROTTLE BOX.</u>	
LIMITS UNLESS STATED		MATERIAL			
DECIMALS	$\pm .010''$	SPEC.			
FRACTIONS	$\pm \frac{1}{32}''$	TREATMENT			
ANGLES	$\pm \frac{1}{2}^\circ$	FINISH			
SURFACE FINISH		SCALE			
AUSTRALIAN STANDARD		DRAWN	APPROVED		
ENG. DRWG. PRACTICE A.3.021		TRACED	CHECKED		
		COMPONENT OF			
		MACHINE			
		ENGINE			
		TECH. ORDER	<u>VAMPIRE MOD. N°126</u>		
		DRAWING NO.	<u>A12355</u>		DRWG. A SIZE
			<u>SHT. 1.</u>		

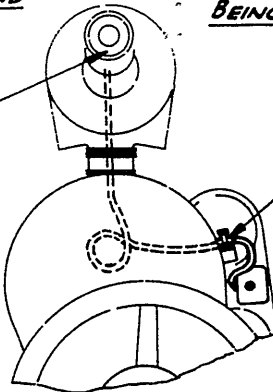
DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED

ON AIRCRAFT DH.SERIAL NOS.
4001 TO 4029 INCLUSIVE IT
IS NECESSARY TO REMOVE
EXISTING SPINDLE AND
REPLACE WITH:—

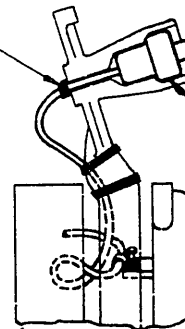
BIND WITH WAXED TWINE
TO PREVENT SWITCH
BEING REMOVED.

SPINDLE L00
1-OFF 2533
SPLIT PIN SP9
1-OFF E12
DRILL NO.42
HOLE. OR
AGS
784
13



DHS
30/35

CLIP 1-OFF.
ASSEMBLE UNDER
EXISTING BOLT.



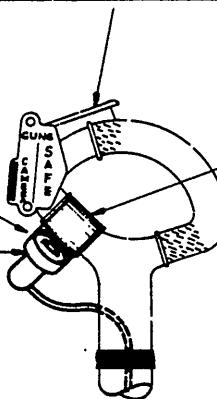
CABLE ASSY.
00N811A
(REF. ONLY)

DETAIL SHOWING METHOD OF ASSY. OF 'PRESS TO TALK' CABLE
ON THROTTLE BOX — WHEN MOD.V84 HAS NOT BEEN FITTED.

ENGRAVING "PRESS TO TALK" ON SWITCH IS TO BE
PAINTED OVER IN BLACK.
THE SWITCH IS NOW RENDERED REDUNDANT.

ASSEMBLE SWITCH INTO BRACKET
AND ADD PLASTIC HERMATITE ON
THREADS OF SWITCH BEFORE
FINALLY TIGHTENING UP.

BRACKET 00N
1-OFF 883
A
CLAMP PLATE 00N
1-OFF 853
SCREW R.D. H.D. A32
4BA x 1/16 LONG. B14
2-OFF.
STIFFNUT AGS
2-OFF. 2001
B1.



THE BRACKET & CLAMP PLATE ARE SO
DESIGNED TO FIT THE SPADE GRIP IN
ONE POSITION ONLY. CARE MUST BE
TAKEN TO ENSURE THAT THESE ITEMS
ARE ASSEMBLED CORRECTLY SO THAT
THE PRESS BUTTON SWITCH FACES
THE DESIRED ANGLE.
IF IT IS FOUND THAT UPON ASSEMBLING
BRACKET AND CLAMP PLATE TOGETHER
THEY ARE NOT SUFFICIENTLY TIGHT,
THE GRIP MAY BE WRAPPED WITH
P.V.C. TAPE TO BUILD UP THICKNESS
TO GAIN A TIGHT FIT.

DETAILS OF INSTALLATION OF R.P. & BOMBS
SWITCH ON CONTROL COLUMN.

(ONLY FOR AIRCRAFT WITH MOD.V84 EMBODIED) SHT. 3.

DE HAVILLAND DRG. NO. 00M291 NO. OF SHTS. 3.

REFERENCE		ISSUED BY		TITLE	
				<u>RELOCATION OF "PRESS TO TALK" SWITCH FROM CONTROL COLUMN TO THROTTLE BOX.</u>	
LIMITS UNLESS STATED	MATERIAL			COMPONENT	
DECIMALS ± .010"	SPEC.			MACHINE	
FRACTIONS ± 1/32"	TREATMENT			ENGINE	
ANGLES ± 1°	FINISH			TECH. ORDER	VAMPIRE MOD. NO. 126
"URFACE FINISH	SCALE			DRAWING NO.	A12355 SHT. 3
AUSTRALIAN STANDARD	DRAWN				DRWG. A
ENG. DRWG. PRACTICE A.S.621	TRACED				SIZE
		APPROVED	CHECKED		

**SAFETY LANYARD FOR THE HANDLE OF THE CANOPY
WINDING GEAR - INTRODUCTION****Reason for and Description of Modification**

1. This modification is introduced to prevent the canopy inadvertently opening in flight. The modification authorises the fitment of a short lanyard, which is fastened to the starboard canopy rail, and looped around the canopy winding handle, preventing this handle travelling aft past its top dead centre position. Labels are added on the ammunition doors, giving instructions for jettisoning the canopy on the ground, to release the pilot in case of emergency.

Application

2. This work is to be carried out on all Mk.30 and Mk.31 "Vampire" aircraft not incorporating the approved equivalent modification, De Havilland (Aust.) Modification V196.

Responsibility for Incorporation

3. Operating unit and aircraft depot or civilian contractors responsible for the servicing of Vampire Aircraft are to incorporate this modification.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modification

6. De Havilland (Aust.) Modification V.196 and Air Ministry Modification VAM.3307 are the equivalent.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	A79/503581	12.FC.101A	Safety Lanyard	1	
2	K3/346		Dope, Cellulose, Red	A.R.	C

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 127

Supply (Cont'd)

- Notes:- (a) Item 1 will be retained as a modification set at De Havilland Modification Centre, pending issue on demand.
- (b) Item 2 is to be drawn from unit stores.

Disposal of Parts Removed

8. No part is rendered redundant by the incorporation of this modification.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing.

Method of Incorporation

11. (a) Man-hours involved : Approximately three (3) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Locate the canopy winding gear handle on the starboard side of the cockpit. On the starboard forward canopy rail, count back from the instrument panel, the eighth 2 B.A. nut visible, and remove this nut.
- Attach the lug of the safety lanyard (item 1) to this bolt, and replace the nut. This position is approximately above the canopy jettison handle. Loop the other end of the lanyard around the canopy winding gear handle, and revolve the handle to check that with the lanyard attached, the handle is not permitted to travel back past top dead centre.
- (ii) Refer to Australian Air Publication No.828, Figure 50 and locate the canopy jettison cable running aft from the canopy jettison release handle. Measure back from bulkhead 2 along this cable, for a distance of 5".0, and also a further 13".0 towards bulkhead 3. Paint the cable red (item 2) over the latter area of 13".0, so that the painted portion of this cable is visible when the starboard ammunition door is opened.

Method of Incorporation (Cont'd)

- (iii) On the port ammunition door, using colour (item 2), print in half inch high letters the wording, "To jettison canopy and release pilot see other side".
- (iv) On the starboard ammunition door, and using colour (item 2), print in half inch high letters the wording "To release pilot pull down cable painted red inside the lift off canopy".

PA143

(d) Tests

: Check movement of handle and ensure that handle setting is correct.

IMPORTANT: When the handle is in the locked position it should be horizontal and pointing forward. Refer Australian Air Publication 828, Figure 50. To ensure that the correct amount of force is used in locking, the micrometer locking plate should be positioned in such a way that with the canopy wound fully forward and then the handle released, there is one pin diameter distance between the centre of the hole into which the pin is to be forced and the centre of the pin.

(e) Recording

: Record the modification in the Airframe Log Book.

Drawings

12. No drawings will be required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/67 and 150/4/8860

Date of Issue : 4th November, 1954.

Restricted

A.A.P.721:79, VOL.2, PART 2

VAMPIRE MODIFICATION NO. 128

Class 3

INSTRUMENT PANEL - MODIFIED ATTACHMENTS

Reason for and Description of Modification

1. This modification is introduced to provide ease of maintenance in the event of the Gyro Gunsight sticking in the retracted position. The lower instrument panel attachments are modified to facilitate panel removal.

Application

2. This work is to be carried out on Mk.33 Aircraft, D.H. Serial No. A79-801 to A79-811 inclusive. Subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

3. This modification is to be incorporated by De Havilland (Aust.) Aircraft Pty. Ltd.

Action in Respect of Spares

4. Two spare instrument panels 15.F.1033A/1 Ident. No. A79/50242 require modification. The panels, when modified, are to be part numbered 15.F.1033A/3, pending incorporation of Vampire Modifications Nos. 75, 125 and 150 (D.H. Aust. Modifications V643, V647 and V667 respectively), when they will be part numbered F15-203A, Ident. No. A79/503578.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.658 and Air Ministry Modification VAM.3218 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
1	H128F/62510	15.F.1509ND	Plate, M.S., 10 S.W.G.	4	
2		AS.2229/406	Rivet, Al.Alloy, Csk. Hd., 90°, $\frac{1}{8}$ " D. x $\frac{3}{8}$ " long.	4	

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VAMPIRE MODIFICATION NO. 128

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
3	H28B/5032	SP9/C8	Pin, Split, Nickel Alloy, 1/16" D. x 1" long.	4	
4	K3/353		Compound Jointing, Spec. D.T.D. 369A.	A.R.	

Notes: (a) Items 1 to 3 inclusive will be assembled into modification sets and retained in the De Havilland Modification Centre.

(b) Item 4 will be supplied from a Stores Depot to De Havilland Modification Centre.

Disposal of Parts Removed

8. No part is rendered redundant by the incorporation of this modification.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. This modification is to be incorporated, when the aircraft is allotted to De Havilland (Aust.) Pty. Ltd. for incorporation of retrospective modification.

Method of Incorporation

11. (a) Man-hours involved : Approximately six (6) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) The following work is most conveniently carried out, when the main instrument panel is completely removed from the aircraft for some other reason, but where this is not the case, lower the panel in accordance with Australian Air Publication 721:79/33 Volume 1, Section 5, Chapter 2, and referring to Figure 1 of that chapter, proceed as follows -

Method of Incorporation (Cont'd)

- (ii) Remove one hinge bracket, Part No. 13.F.427 (Ref.) from the instrument panel, retaining the four attachment screws, and the hinge attachment items, with the exception of the split pin, for re-assembly.
- (iii) Carefully file or machine off the .50 inch diameter boss on the inner face of the bracket, also carefully file the radii on the inner face, so that the new plate, item 1, fits snugly inside the U-shaped portion of the bracket.
- (iv) Position the new plate on the hinge bracket, and using a No.30 drill, drill one hole through the hinge bracket, using the existing hole in the plate as a guide. Countersink the hole in the outer face (i.e. the face not covered by the plate) 90° x 0.22 inch diameter.

Now using the bracket as a guide, mark off the centres of the four bolt holes on the plate. Drill these four holes using a No.44 drill.

- (v) Coat the mating surfaces of the plate and bracket with jointing compound, item 4, and then firmly rivet the plate in position, using one rivet, item 2. Now tap the four holes 6 B.A.

The bracket assembly now becomes part No. 15.F. 1463A.

- (vi) Re-attach the hinge bracket to the panel, using the existing screws, and then re-assemble the hinge, using the original attachment items and a new split pin, item 3.
- (vii) Repeat the above sequence of operations on the remaining three hinge assemblies in turn.

- (d) Tests : No tests are required.
- (e) Recording : Record the modification in the Air-Frame Log Book.

Drawings

- 12. No drawings will be required.

Effect on Weight and Balance

- 13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

- References : Files R.A.A.F. 9/84/16 and 150/4/8873
- Date of Issue : 8th December, 1954.

Restricted

A.A.P.721:79, VOL.2, PT.2.

VAMPIRE MODIFICATION NO. 129

Class 2

PROVISION FOR ALIGNING THE AIRCRAFT FOR COMPASS
SWINGING - INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to facilitate compass swinging. The modification makes provision for aligning the aircraft by fixing a point on the port tail boom fairing.

Application

2. This work is to be carried out on all Vampire Mk.30 and Mk.31 Aircraft, also Mk.33 Aircraft, D.H. Serial No. A79-801 to A79-824 inclusive. Subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

3. This modification is to be incorporated by the operating units and aircraft depots or the civilian contractor responsible for the servicing of Vampire Aircraft.

Action in Respect of Spares

4. Any spare port wings will have this modification incorporated. Aircraft being fitted with replacement spare modified wings must have the aircraft log book endorsed.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.192 and Air Ministry Modification VAM.3089 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
1	H280/3425	A32/C8	Screw, M.S., Rd.Hd., 2 B.A. x $\frac{1}{4}$ " long.	1	

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VAMPIRE MODIFICATION NO. 129

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
2	H28G/11069	AGS.20350	Washer, lock, steel, shakeproof, internal teeth 2 B.A.	1	
3	K3/346		Dope, Cellulose, Red.	A.R.	
4	K3/321		Enamel, Cellulose, Black	A.R.	

Notes: (a) Items 1 and 2 will be assembled into modification sets and retained in the De Havilland Modification Centre, pending issue or demand.

(b) Items 3 and 4 are to be drawn from unit stores.

Disposal of Parts Removed

8. No part is rendered redundant by the incorporation of this modification.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as possible, but not later than the next minor servicing after receipt of the modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately three (3) man-hours are required to incorporate this modification.

(b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.

(c) Sequence of Operations :

(i) Refer to attached Drawing A/12288, sheet 1 and position on the top surface of the port mainplane, the centre of the hole as located by the dimensions 2.25 inch and 0.38 inch, which lies on the centre line of the tail boom.

(ii) Drill a pilot hole using a 3/32 inch diameter drill making sure that this hole is drilled vertically to the Fuse Datum, and open up to tapping size using a No. 26 drill.

Method of Incorporation (Cont'd)

- (iii) Tap this hole using a 2 B.A. tap, and deburr.
- (iv) Screw into place the screw, item 1, and washer, item 2, and paint the head of the screw red, using item 3.
- (v) Paint in 5/16 inch high black letters using, item 4, in the position indicated on the drawing, the following:-
"Hole for Compass Alignment."
- (vi) Lining up from the screw, item 1, paint a line four inches in length and $\frac{1}{8}$ inch wide, from the leading edge of the mainplane back along the tail boom centre line.

Note: The mainplane Part No. and Ident. No. is not changed by the incorporation of this modification.

(d) Tests

: The screw and washer will be removed and the tapped hole utilised to position aligning post, when a compass swinging check is to be carried out, otherwise no tests are necessary.

Note: An aligning post may be made up when required in unit workshops, by threading 2BA for $\frac{1}{2}$ inch length on one end of a $\frac{1}{4}$ inch diameter M.S. rod about 2 feet long. The rod should be painted yellow for clarity.

(e) Recording

: Record the modification on the wing modification plate and in the Airframe Log Book.

Drawings

12. Drawing No. A-12288 consisting of one sheet is attached.

Effect on Weight and Balance

15. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

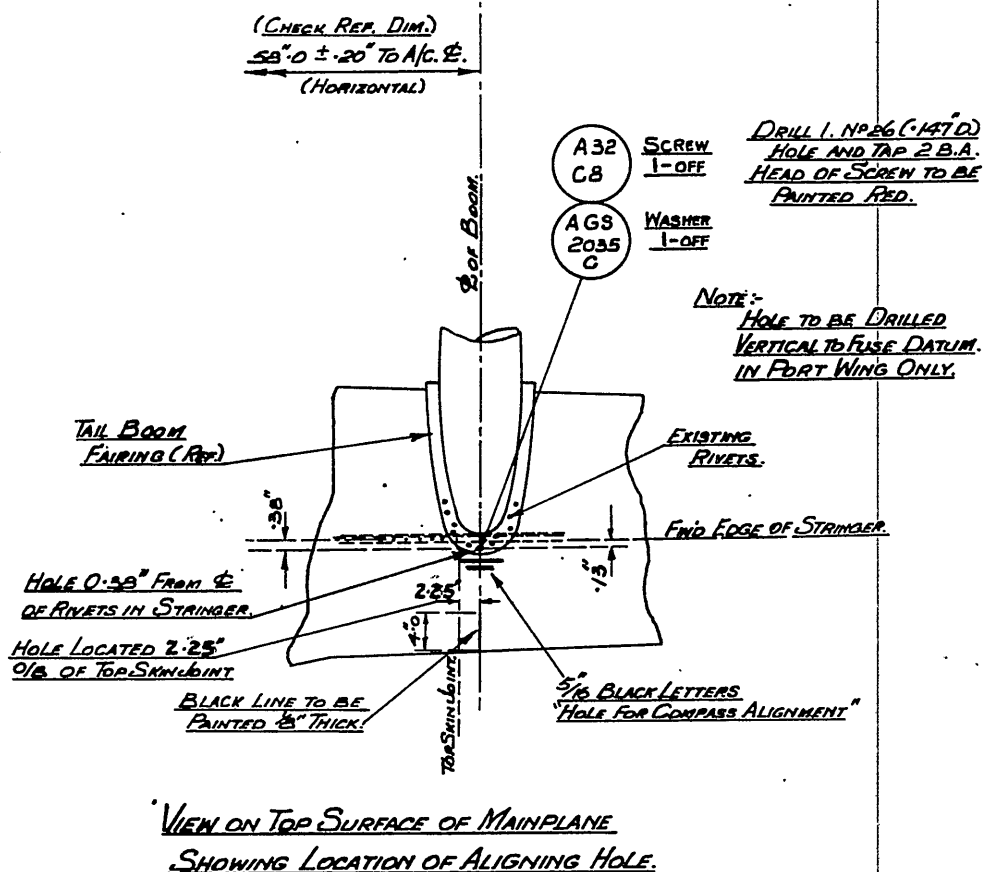
References : Files R.A.A.F. 9/84/16 and 150/4/9893

Attachment : Drawing A.12288

Date of Issue : 10th December, 1954.

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED



SHEET N° 1.

DE HAVILLAND DRWG. N° ODM 283. N° of SHEETS 1.

REFERENCE	ISSUED BY		TITLE	
	DIRECTORATE OF TECHNICAL SERVICES. R.A.A.F.		PROVISION FOR ALIGNING THE AIRCRAFT FOR COMPASS SWINGING-INTRODUCTION.	
LIMITS UNLESS STATED	MATERIAL		COMPONENT OF	FUSELAGE
DECIMALS $\pm .010"$	SPEC.		MACHINE	VAMPIRE MK's 30, 31, 33
FRACTIONS $\pm \frac{1}{32}"$	TREATMENT		ENGINE	NENE 2VH + GOBLIN
ANGLES $\pm \frac{1}{4}^{\circ}$	FINISH		TAIL ORDER	VAMPIRE MOD. N° 129
SURFACE FINISH	SCALE		COMPASSING NO.	A 12288
AUSTRALIAN STANDARD	DRAWN	APPROVED		DRWG. A. SIZE
ENGL. PRACTICE A.S. 621	TRACED			

Restricted

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VAMPIRE MODIFICATION NO. 130

Class 3

ANCHOR NUTS ON FORWARD AND REAR FLANGE
OF INNER CANNON FRONT MOUNTING CASTING
INTRODUCTION

Reason for and Description of Modification

1. Replacement of a cannon eccentric front mounting assembly necessitates removing the complete inner cannon mounting. To avoid this and thus reduce the amount of work involved, this modification provides for the fitting of four anchor nuts, and the reversal of three of the attachment bolts.

Application

2. This work is to be carried out on all "Vampire" Mk.30 and Mk.31 aircraft, also Mk.33 aircraft, Serial No. A79-801 to A79-824 inclusive. Subsequent aircraft will be modified by the manufacturer. It is recommended that this modification be carried out only at such times as the mounting castings are removed for some other reason such as at overhaul or repair.

Responsibility for Incorporation

3. This modification is to be incorporated by the operating units and aircraft depots or the civilian contractor responsible for servicing Vampire Aircraft.

Action in Respect of Spares

4. Twenty-five (25) of each spare Mounting Front, L.H. and R.H. Pt. No. S0037, Ident. No. A79/501117 and D.H. Pt. No. S0038, Ident. No. A79/501118 have been delivered to the Royal Australian Air Force and will require modification.

As existing stock of these items is not known, units are to check their stock holdings and ensure that parts are modified in accordance with paragraphs 11 (c) (iii) and (iv), and then re-identify them as A79/503542 and A79/503543 respectively.

Supply items to carry out the modification of spares holdings are to be drawn from unit stores.

Future deliveries of spares will be modified before despatch, and will be D.H. Pt. Nos. S001251A and S001252A, Ident. Nos. A79/503542 and A79/503543 respectively.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

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VAMPIRE MODIFICATION NO. 130

Equivalent Modifications

6. De Havilland (Aust.) Modification V.195 and Air Ministry Modification VAM.3283 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	H28/27013	AGS.2008E/1	Nut, M.S., Double anchor, thin, "Nylor", $\frac{1}{4}$ " BSF	8	
2		AS.460/307	Rivet, M.S., Csk. Hd., 90°, $\frac{3}{32}$ " D. x $\frac{7}{16}$ " long.	14	
	or				
	H128F/61489	AS.460/308	Rivet, M.S., Csk. Hd., 90°, $\frac{3}{32}$ " D. x $\frac{1}{2}$ " long.	14	
3	H28C/12352	SP.10/E	Washer, M.S., Plain, 26 S.W.G., $\frac{1}{4}$ " B.S.F.	6	
4	H28C/12253	SP.13/E	Washer, M.S., Plain, 18 S.W.G., $\frac{1}{4}$ " B.S.F.	6	
5	K3/353		Compound, Jointing to spec. D.T.D.369A.	A.R.	
6	K3/162		Enamel, Cellulose, Aluminium to spec. D.T.D. 63A.	A.R.	

Notes:- (a) Items 1 to 4 inclusive will be assembled into modification sets and retained in the De Havilland Modification Centre, pending issue or demand.

(b) Items 5 and 6 are to be drawn from unit stores.

Disposal of Parts Removed

8. No parts will be rendered redundant by the incorporation of this modification.

Disposal of Parts in Stock

9. See paragraph 4.

When the Modification is to be Incorporated

10. This modification is to be incorporated only at such times as the mounting castings are removed for some other reason, preferably at the next major servicing or repair.

Method of Incorporation

11. (a) Man-hours involved : Approximately five (5) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) (The following assumes that the two inner mounting assemblies are already removed from the aircraft). Release and withdraw the seven bolts securing the gun harmonization eccentrics to the casting and remove the eccentric, retaining the nuts and bolts for re-assembly. Allow the tag washer to remain wired to the grub screw, leaving the grub screw in position.
 - (ii) Clean off the jointing compound from both faces of the casting and the rear face of the eccentric.
 - (iii) Refer to D.H. Drawing A-12332, sheet 1, and position the anchor nuts, item 1, in the three places indicated on the aft face of the forward flange of the casting. Ensure that each anchor nut is correctly centralised over its respective hole, and shape the base plate of the anchor nut to suit the casting radius, and if necessary, this radius may be cleaned off slightly. Using the anchor nuts as templates, drill the attachment holes in the casting, using a No. 41 drill. Countersink these holes 90° to a diameter of 0.16 inch on the forward face of the flange.

Notes: (a) On all Mk.30 and Mk.31 "Vampire" aircraft and spare castings S0037 and S0038, a fourth anchor nut is cut to suit and positioned on the forward face of the rear flange in a similar manner, as shown on the drawing. When modifying the castings on Mk.33 "Vampire" aircraft, also add this fourth anchor nut, if it is not already fitted, to the casting.

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VAMPIRE MODIFICATION NO. 130

Notes: (b) Packing washers either item 3 or item 4 may be used as required underneath the anchor nut base plates, to correct any discrepancies in the depth of the spot facings on the casting.

- (iv) Fit the anchor nuts in the four positions and secure by means of seven rivets, item 2.

After modification, alter the Part Nos. of the mounting castings to S001251A (Port), and S001252A (Starboard).

- (v) Apply jointing compound, item 5, to the mating surfaces of the casting and the eccentric, and secure them together by replacing the four nuts and bolts and the tag washer in their original positions, and screwing the remaining three bolts into the anchor nuts.

- (vi) Repair any local finish using, item 6. Both port and starboard castings are modified in a similar manner.

- (vii) Re-assemble to aircraft and install guns.

(d) Tests : Check harmonization of guns.

(e) Recording : Record the modification in the Airframe Log Book.

Drawing

12. Drawing No. A-12332 consisting of 1 sheet is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 9/84/16 and 150/4/8894

Attachment : Drawing A.12332

Date of Issue : 2nd December, 1954.

DO NOT SCALE

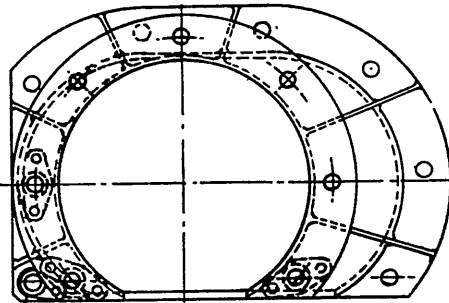
ISSUE NO	DATE	ALTERATION	E. I. L.	INITIALS	APPROVED
1					

MAKE FROM AGS 2008E1 (NYLON)
ANCHOR NUT. SHAPE TO CONTOUR OF CASTING.

S00
1173
N.D.

RIVET
1- OFF
CSK. HEAD OF RIVET
FLUSH ON AFT. FACE.

AS
460
307



TRIM BASE PLATE
OF ANCHOR NUT AND
CASTING FLANGE
WHERE NECESSARY

NOTE: THESE NUTS MUST BE
OF THE 'NYLON' INTEGRAL
TYPE AND NOT THE
HEXAGON TYPE

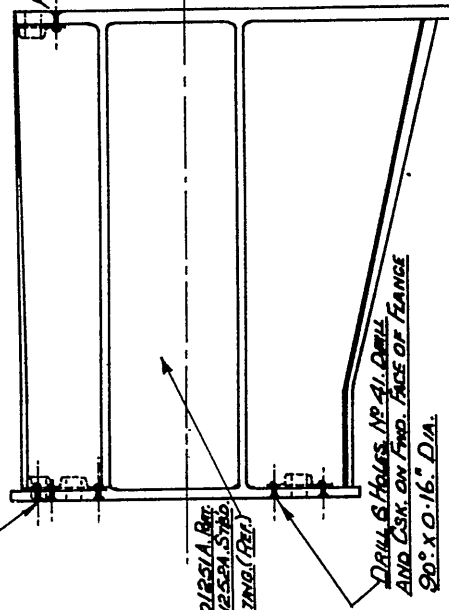
ANCHOR NUT
3- OFF
ON AFT. FACE OF FLANGE

AGS
2008
E1

RIVET
6- OFF

AS
460
307

FORWARD



S001251A Bt
S001251A Bt
CASTING (PER)

DRILL 8 HOLES NO. 41. DRILL
AND CSK. ON TWO. FACE OF FLANGE
90° X 0.16" DIA.

SP
10
E

WASHER
PACKING WASHERS
TO BE USED AS PROVIDED

OR

SP
13
E

WASHER

POSITIONING OF ANCHOR NUTS ON FLANGES OF CASTING.

SHEET No. 1
No. OF SHEETS. 1.

DE HAVILLAND DRWG. No. OOM 278.

REFERENCE		ISSUED BY			TITLE			
					<u>ANCHOR NUTS ON FLANGES OF INNER CANNON FRONT MOUNTING CASTING.</u>			
LIMITS UNLESS STATED		MATERIAL				COMPONENT OF	<u>FUSELAGE</u>	
DECIMALS	$\pm .010''$	SPEC.				MACHINE	<u>VAMPIRE MK. 30, 31 & 33</u>	
FRACTIONS	$\pm \frac{1}{32}''$	TREATMENT				ENGINE	<u>NENE 2 V.N. & GOBLIN</u>	
ANGLES	$\pm \frac{1}{2}^\circ$	FINISH				TECH. ORDER	<u>VAMPIRE MOD. No. 130</u>	
SURFACE FINISH AUSTRALIAN STANDARD ENG. DRWG. PRACTICE A.3.221		SCALE				DRAWING NO.	<u>A 12332</u>	DRWG. A SIZE
		DRAWN		APPROVED				
		TRACED		CHECKED				

Restricted

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VAMPIRE MODIFICATION NO. 134

Class 3

REAR BEARING TEMPERATURE GAUGE - DELETION.
JET PIPE THERMO LEADS - REVISED CONNECTIONS.

Reason for and Description of Modification

1. Due to the proven reliability of the rear engine bearing, a temperature indicator is now unnecessary. It has also been found, that defects in the jet pipe thermo circuit breeze plug have resulted in the unnecessary removal of serviceable engines, which have given the impression of overheating.

Similarly, the terminal block carrying the thermo leads on 1b.1 has been found to be inadequate, causing breakages of the conductors.

Application

2. This work is to be carried out on Mk.33 Aircraft D.H. Serial No. A79-801 to A79-824 inclusive. Subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

3. This modification is to be incorporated by De Havilland (Aust.) at the contractor's modification centre.

Action in Respect of Spares

4. Nil.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modification

6. De Havilland (Aust.) Modification V.648 and Air Ministry Modification VAM.3267 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
1		15F971	Plate, Blanking	1	
2		15N893A	Cable, Gland Assy.	1	
3		15N899	Gasket, Gland	1	

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VAMPIRE MODIFICATION NO. 134

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
4	H28C/2864	A32/A14	Screw, M.S., Rd.Hd., 6 B.A. x 7/16" long	4	
5	H28C/35047	A45/B16	Screw, Brass, Csk.Hd., 4 B.A. x 1/2" long.	4	
6	H28C/2205	A.G.S.250/41	Woodscrew, Brass Csk.Hd., No.6 x 1" long.	2	
7	H28C/2303	A.G.S.252/38	Woodscrew, Brass Rd.Hd. No.6 x 5/8" long	1	
8	H28/27023	A.G.S.2001/A/1	Nut, Stiff, M.S., Hex. thick, 6 B.A.	4	
9	H28/27002	A.G.S.2001/B/4	Nut, Stiff, Brass, Hex., thick, 4 B.A.	4	
10		AS3180/8B	Clip, "B", Alum., Rubber Covered, 1/2" I.D.	1	
11	H28C/12332	SP13/A	Washer, M.S., Thin 6 B.A.	2	
12		165772	Terminal, (Sangamo Weston)	2	
13		165773	Terminal, (Constantan) Sangamo Weston	2	
14	G5C/431		Block, terminal, N2, 2 way, Type 'B' No.2	2	
15		AA20 One Core	Cable, Spec. A.S. No.U.1 x 4 1/2" long.	2	
16	I32A/2006		Twine, Binder, waxed	A.R.	
17	K4/10882		'Bostik', 1790, Sealant	A.R.	
18	K4/10883		'Bostik', 1751, Primer	A.R.	
19	G5F/500001		Tape, insulating, or 'Nylex', or P.V.C. 5/8" wide.	A.R.	
20	G5F/20064		Tubing, insulating, flexible, 11 m.m. I.D.	A.R.	
21	K3/321		Enamel Cellulose, Black.		

Note: Items 1 to 21 inclusive will be assembled and held at De Havilland Modification Centre.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
22	G5C/430		Block, terminal, type B, 2-way	1	
23	G6A/500106	111M.V. Type	Gauge, Temperature, Rear Bearing.	1	

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VAMPIRE MODIFICATION NO. 134

Disposal of Parts Removed (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
24	G5A/2881	CZ22580	Plug, "Breeze"	1	
25	G5A/28649	CZ22579/3	Socket. (A.M.5X/2882)	1	
26	H28/26261		Nut, Coupling.	2	
27	H28/26277		Ferrule cut.	2	
28	G5A/	CZ22579/A3	Socket. (A.M.5X/2883)	1	

Note: Items 22 to 28 inclusive are to be disposed of in accordance with current authorised procedure.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. This modification is to be incorporated when aircraft is returned to modification centre for fitment of retrospective modifications.

Method of Incorporation

11. (a) Man-hours involved : Approximately twenty-four (24) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of operations :
- (i) Remove the front upper starboard door, lower engine inspection doors, also the gun bay doors. Remove the starboard pilot's seat.
 - (ii) Locate the rear terminal block G5C/430, item 22, on Rib 1 starboard, which retains the cables to the jet pipe thermo couple, and those forward to the engine mounting. Remove it from the bracket Pt. No.N00.259 (Ref.) retaining the attachment items for re-assembly.

Elongate the two existing holes in the bracket which held this terminal block, by filing a slot aft and inboard at 45° to suit the new terminal block, item 14, which is now fitted, using the attachment items previously removed with the addition of two washers, item 11.

Method of Incorporation (Cont'd)

- (iii) Trace the two jet pipe temperature cables together with the rear bearing temperature cables coming from the terminal blocks on Rib 1, and continuing to the next pair of terminal blocks situated on top of the starboard engine mounting. Disconnect this section of the rear bearing temperature cables only, coded BT+ and BT2, and remove them from the aircraft. At the same time cut the retaining whippings and ease the jet pipe temperature cables 15N461A (Ref.) forward from terminal blocks on engine mounting. This may be done by reducing large radius sweeps and slack where they occur, the object being to gain a length of approximately 12 inch of cable at bulkhead 2.

Note: Leave intact the existing cables from the rear bearing temperature bulb to the forward terminal block G5C/430 mounted on the bracket attached to Rib 1 starboard side, to provide a test point when needed during engine ground run.

- (iv) When bulkhead 2 is reached it will be found that the cables terminate in a plug and socket, items 24 and 25, mounted on the sealing plate assembly. Carefully remove the plug and socket by unsoldering the cables from the pins. Disconnect the rear bearing temperature cables running aft from bulkhead 2 to the terminal block on the engine mounting and remove from the aircraft.

- (v) Prepare the retained jet pipe temperature cables as follows:-

- (A) Remove the existing cable ends at bulkhead 2 and cut back braiding for $1\frac{1}{2}$ inch, also bare the conductors for $\frac{1}{2}$ inch ready for assembling to the new terminal block G5C/431, item 14.
- (B) Slide flexible tube sleeves over the end of each core, and similarly a larger sleeve, item 20, over the end of the braiding. Code the cable cores 'Red, P.T.+' and 'Blue, P.T.2.'

Repart number cable 15N461A, after reworking to paragraphs (v) (A) and (B) 15N985A.

- (C) At approximately $4\frac{3}{4}$ inch from the ends of the cables, secure them together using two $4\frac{1}{2}$ inch lengths of A.A.20 One Core, item 15, to act as filler cores, and bind with insulating tape, item 19. This forms the cable into a single circular cross section, and it is now ready to be assembled to the gland assembly, item 2.

- (D) Pass the cable end through a gland gasket, item 3, and the gland, making sure the latter is the correct way round, i.e. the bell mouthed and forward. It will be found that the cable is now a tight fit in the gland. A length of 7 inches should be left between the cable ends and the gland plate, which should be assembled from inside the cockpit. Seal the end of the gland at the cockpit end with a 3 inch length of flexible tubing, item 20, binding it with waxed binder twine, item 16, and filling all spaces with 'Bostik', item 17, also bind the cables at the other end of the gland in the slot provided, with waxed binder twine, item 16.
- (vi) Coat both faces of the 'gland gasket with 'Bostik' primer and sealant, items 18 and 17, and then secure the plate of the gland assembly to the sealing plate with four screws and nuts, items 4 and 8. After securing, brush coat the screw heads with cabin sealant 'Bostik', item 17. Renew the whippings on the cables through the gun bay to the engine mounting at the same intervals, using waxed binder twine, item 16.
- (vii) Offer up a new terminal block, item 14, to the forward face of bulkhead 2 and position it at the top starboard corner of the sealing plate assembly (Pt. No. 15N423A/1 (Ref.)) 0.1 inch above it and 3.5 inch in from its starboard edge. Secure the terminal block thus with two screws, item 6, which have been treated with 'Bostik', item 18. The terminal block is also to be assembled to the bulkhead with 'Bostik' items 17 and 18.
- (viii) Prepare the ends of the cables in the cockpit, which were attached to the breeze plug, item 24, in a similar manner to that detailed in Operation v (A) and (B).

The ends of the redundant bearing temperature (BT) cable, must be sealed and securely stowed. Secure the jet pipe temperature (PT) cables to the other side of the terminal block fitted in the previous operation. Suitably position a clip, item 10 and secure it with a wood screw, item 7, treated with 'Bostik' item 16, in such a way as to prevent the cables from undue strain at the terminal block. Disconnect cables at jet pipe temperature gauge, remove the existing terminals and replace with Sangamo Weston terminals, two (2) off, item 12, and Constantan terminal, two (2) off, item 13, the latter marked with a letter 'C' is to be fitted to the blue core of each cable. Report number the cable to read 15N1133A/ E.O.I.2275 and finally reconnect to the gauge.

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VAMPIRE MODIFICATION NO. 134

- (ix) Locate the bearing temperature gauge, item 23, on the extreme starboard side of the instrument panel. Disconnect the cables attached to it, and seal and securely stow the ends. Remove the gauge carefully.
 - (x) Secure the blanking plate, item 1, in position over the redundant hole in the instrument panel, with four screws and nuts, items 5 and 9.
 - (xi) Renew the finish locally with matt black, item 21.
 - (xii) Test for correct functional during engine run.
 - (xiii) Replace the starboard pilot's seat, also the front upper starboard door, lower engine inspection doors, and the gun bay doors.
- (d) Tests : No tests are necessary apart from checking as in Operation (xii).
- (e) Recording : Record the modification in the Airframe Log Book, as Vampire Modification No. 134.

Drawings

12. No drawings will be required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files R.A.A.F. 150/4/8900 and 150/4/8621

Date of Issue : 13th December, 1954.

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VAMPIRE MODIFICATION NO.135

CLASS 3

REPOSITIONING OF TANK FILLER CAP SPANNER

Reason for and Description of Modification

1. This modification is introduced to improve the accessibility of the tank cap spanner. The modification authorises the removal of the tank cap spanner from the nose of the aircraft, and provision made for stowing in the top deck of the fuselage behind the first pilot.

Application

2. The modification is to be incorporated on Vampire Mk. 33 aircraft A79-801 to A79-825 inclusive. Aircraft A79-826 and subsequent will be modified by the manufacturer.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units and aircraft depots or civilian contractors responsible for servicing Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. No spares required.

Orders Superseded or Cancelled

5. None affected.

Equivalent Modifications

6. D.H. (Aust.) Modification V.662 is the manufacturer's equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
1		N.P.N.	Block Spruce 5" x 1" x .50" DTD36B or V37 Grade B.	1	

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VAMPIRE MODIFICATION NO.135

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
2		N.P.N.	Block Ply 1" x 1" x .25" V3 Grade B	1	
3	H28C/2205	AGS.250/41	Woodscrew brass csk. No.6 x 1" lg.	2	
4	H28C/2295	AGS.252/20	Woodscrew brass rd. head No. 4 x $\frac{1}{2}$ " long	2	
5	H28C/2301	AGS.252/4	Woodscrew brass rd. head No. 2 x $\frac{5}{8}$ " long	1	
	or H28C/2655	AGS.253/4	Woodscrew M.S. rd. head No. 2 x $\frac{5}{8}$ " long		
6	K4/10864		Glue, beetle type A	A.R.	
7	K4/10866		Hardener, beetle violet V15		
	or K4/10867		Hardener, beetle yellow GP.30.	A.R.	
	or K4/10868		Hardener, beetle blue 2B.		
8	K4/37		Copper Napthenate Solution	A.R.	
9	K4/10612		Tropic proofing Lacquer	A.R.	
10	K3/321		Matt Black Enamel	A.R.	

Notes:- (a) Items 1 to 5 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Operating units and aircraft depots requiring modification sets are to demand from De Havilland Modification Centre.

(b) Items 6 to 10 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. No action required.

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VAMPIRE MODIFICATION NO.135

Disposal of Parts in Stock

9. No action required.

When the Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately three (3) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : None required.
- (c) Sequence of operations :
 - (i) From the nose of the aircraft on the starboard side of the batteries, remove and retain the tank cap spanner and the three spring clips which hold it in position.
 - (ii) Refer to Drawing A-12336. On the top deck of the fuselage behind the 1st pilot's seat, mark out the positions of the wood blocks and locally remove all paint to provide a glueing surface for the blocks.
 - (iii) Glue blocks, items 1 and 2, in position, using glue, item 6, hardener, item 7, and woodscrews, item 3, for the larger block.
 - (iv) When glue has dried, paint the blocks matt black finish, items 8, 9 and 10.
 - (v) If necessary, finish the tank cap spanner and spring clips matt black, item 10. The lettering of the spanner should be filled in white.
 - (vi) Screw the spring clips in position using woodscrews, item 4, for large clip and item 5 for smaller clip.
 - (vii) Put tank cap spanner in position on clips.
- (d) Tests : None required.
- (e) Recording : Record this modification in the Airframe Log Book.

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VAMPIRE MODIFICATION NO.135

Drawings

12. Drawing No. A.12336 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

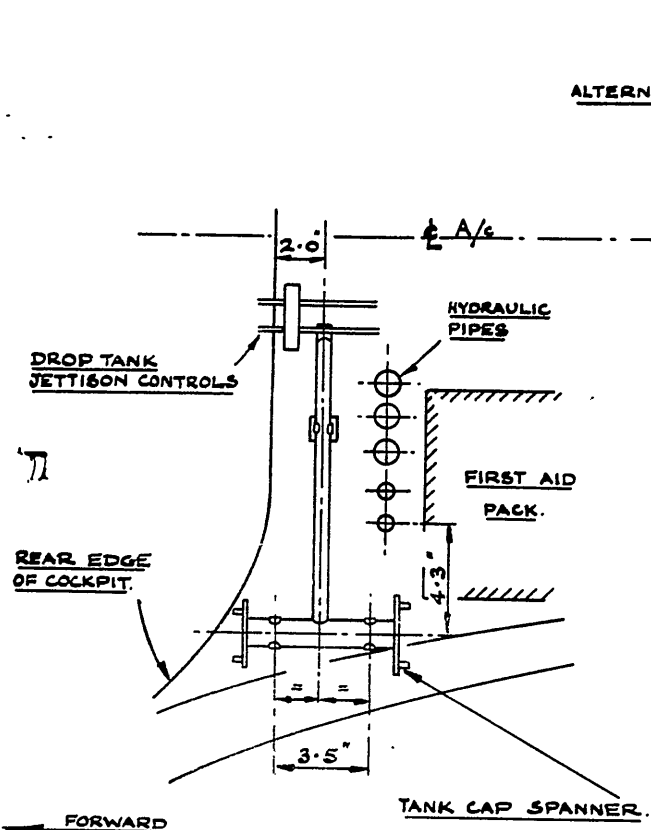
References : Files R.A.A.F. 9/84/16 and 150/4/8907.

Attachment : Drawing A.12336.

Date of Issue : 12th January, 1955.

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	U. I. I.	INITIALS	APPROVED



- ALTERNATIVES
- AGS 253 / 4 5/8" N°2 RND. HD. W/SCREW M.S. 1 OFF
 - AGS 252 / 4 5/8" N°2 RND. HD. W/SCREW BRASS. 1 OFF.
 - AS 2294 / 3 SPRING CLIP - 1 OFF. (EXISTING PART)
 - ITEM 2 PLY BLOCK. 1 OFF.
 - ITEM 1 SPRUCE BLOCK. 1 OFF
 - AS 2294 / 6 SPRING CLIP. - 1 OFF (EXISTING PART)
 - AGS 250 / 41 1" N°6 CSK W/SCREW 2 OFF.
 - AGS 252 / 20 1/2" N°4 RND. HD. W/SCREW 2 OFF.

REFERENCE		ISSUED BY		DE HAVILLAND DRG. NO. OQM 281.	
				TITLE	
				RE POSITION OF TANK FILLER CAP SPANNER - VAMPIRE TRAINER.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	FUSELAGE VAMPIRE MK 33 GOBLIN VAMPIRE MOD. NO 135
DECIMALS	± .010"	SPEC.		MACHINE	
FRACTIONS	± 1/32"	TREATMENT		ENGINE	
ANGLES	± 1°	FINISH		TECH. ORG.	
SURFACE FINISH		SCALE		DRAWING N.	
AUSTRALIAN STANDARD		DRAWN		A-12336	A SIZE
CONFS. PRACTICE A.S. 21		TRACED			
			APPROVED	AS	
			CHECKED		

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VAMPIRE MODIFICATION NO.136

Class 2

DOWTY BONDED SEALS - INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to prevent the fuselage fuel tank fracturing in the vicinity of the fuel transfer and vent pipe connection, due to the effort required to tighten down the aluminium washer. The modification authorises the fitting of metal and rubber bonded sealing washers in lieu of aluminium.

This modification is divided into two parts, "A" and "B".

Part "A" is to be incorporated on all Vampire Mk. 30 and Mk. 31 aircraft, and introduces three seals on the banjo connection of the fuel transfer pipes only.

Part "B" is to be incorporated on Vampire Mk. 33 aircraft, D.H. Serial No. A79-801 to A79-824 inclusive, and introduces three seals on the banjo connections of the vent pipes, and also three seals on the banjo connections of the fuel transfer pipes.

PART "A"

Application

2. This work is to be carried out on all Vampire Mk. 30 and Mk. 31 aircraft.

Responsibility for Incorporation

3. This modification is to be incorporated by the operating units and aircraft depots or the civilian contractor responsible for servicing Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. Nil.

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VAMPIRE MODIFICATION NO.136

Equivalent Modifications

6. De Havilland (Aust.) Modification V.194 and Air Ministry Modification VAM.3259 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set for Part "A":-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
1	T27Q/500259	SP837 Mk.24/B	Dowty bonded seal	3	C
2	11/2701		Wire locking soft iron	A.R.	
3	K3/398		Compound, Plastic	A.R.	

Notes:- (a) Item 1 will be retained as a modification set at De Havilland Modification Centre pending issue or demand. Operating units and aircraft depots requiring this modification are to demand from De Havilland Modification Centre.

(b) Items 2 and 3 are to be drawn from unit stores.

Disposal of Parts Removed

8. The following part will be rendered redundant by the incorporation of this modification for Part "A":-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
4	H28C/9439	AGS.1138/H	Washer, jointing, Al. Alloy, 10 S.W.G. 1.31" i.d. x 1.56" o.d.	3	

Note:- Item 4 is to be scrapped as being damaged.

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VAMPIRE MODIFICATION NO.136

Disposal of Parts in Stock

9. No action required.

When the Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next minor inspection after receipt of the modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately six (6) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of operations :
- (i) Remove the upper engine cowling panel from the aircraft. Assuming that the fuel has been drained from the fuselage fuel tank or that the level is below the banjo connection to the fuel transfer pipes, proceed as follows.
 - (ii) Locate this banjo connection to the fuel transfer pipes, centrally positioned at the rear of the fireproof bulkhead, and cut the locking wire from the cap nut.
 - (iii) Loosen the four clips holding the two hose joints, also disconnect the bonding clips attached to the fuel hoses, and slide back the hose joints.
 - (iv) Remove in order the cap nut, washer, banjo and washer; also unscrew the two 4 B.A. bolts holding the seal retaining plate and sealing ring to the fireproof bulkhead.
 - (v) Cut the lock wire from the adapter, and unscrew this adapter together with the remaining washer from the fuel tank, discarding the three washers, item 4.

Method of Incorporation (Cont'd)

- (vi) Thoroughly clean all the mating faces to ensure a smooth surface and screw the adaptor along with a new seal, item 1, into the fuel tank using sufficient force only to make a good fuel tight connection, wire lock the adapter using item 2.
- (vii) Secure the sealing ring and plate with the two bolts removed in operation (iv), also re-assemble the banjo connection using two new seals, item 1, and applying plastic Hermetite, item 3, to the faces of the banjo. Replace the cap nut and lock wire with item 2.
- (viii) Replace the two hose joints and tighten the four clips, also re-connect the bonding clips to the fuel hoses, and finally check all hose joints for leaks, after refuelling tank.
- (ix) Replace and secure the upper engine cowling panel after testing.
- (x) Proceed as directed in Part "B", paragraph 11 (d) Tests.

Note:- The remainder of the leaflet from here onwards is similar for both Part "A" and Part "B".

PART "B"

Application

12. This work is to be carried out on Vampire Mk. 33 aircraft, D.H. Serial No. A.79-801 to A.79-824 inclusive. Subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

13. The modification is to be incorporated by operating units and aircraft depots and the civilian contractor responsible for servicing of Vampire aircraft.

Action in Respect of Spares

14. Not applicable.

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VAMPIRE MODIFICATION NO.136

Orders Superseded or Cancelled

15. Nil.

Equivalent Modifications

16. De Havilland (Aust.) Modification V.194 and Air Ministry Modification VAM.3259 are the equivalent modifications.

Supply

17. The following parts are required to complete one modification set for Part "B":-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
5	T27Q/500259	SP837 Mk.24/B	Dowty Seal	3	
6	T27Q/500258	SP837 Mk.20/B	Dowty Seal	3	
7	11/2701		Wire, locking, soft iron, Gal., 18 S.W.G.	A.R.	
8	K3/398		Compound Plastic Hermetite	A.R.	

Notes:- (a) Items 5 and 6 will be assembled into modification sets and retained in the De Havilland Modification Centre, pending issue or demand. Operating units and aircraft depots requiring this modification are to demand from De Havilland modification Centre.

(b) Items 7 and 8 are to be drawn from unit stores.

Disposal of Parts Removed

18. The following parts will be rendered redundant by the incorporation of this modification, Part "B":-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
9	H28C/9439	AGS.1138/H	Washer, jointing, Al. Alloy, 10 SWG. 1.31" i.d. x 1.56" o.d.	3	

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VAMPIRE MODIFICATION NO.136

Disposal of Parts Removed (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
10	H28C/7792	AGS.568/F	Washer, jointing, Al. alloy, 16 SWG. 1.05" i.d. x 1.35" o.d.	3	

Note:- Items 9 and 10 are to be scrapped as being damaged.

Disposal of Parts in Stock

19. No action required.

When the Modification is to be Incorporated

20. The modification is to be incorporated as soon as practicable, but not later than the next minor inspection after receipt of the modification sets.

Method of Incorporation

21. (a) Man-hours involved : Approximately eight (8) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of operations :
- (i) Open the upper inspection doors, and assuming that the fuel has been drained from the fuselage fuel tank, proceed as follows -
 - (ii) Locate the banjo connection for the fuel vent pipes to the fuselage fuel tank, at the rear and top centre of the fireproof bulkhead.
 - (iii) Disconnect the three hose joints, by loosening the six clips, and slide back the hoses. Move aside the cable looms (which need not be disconnected), and cut the locking wire from the cap nut.

Method of Incorporation (Cont'd)

- (iv) Remove the cap nut and other items in the following order - washer, banjo, washer, also the four screws holding the retaining plate and washer to the bulkhead. Cut the locking wire and unscrew the vent connection from the fuel tank together with the remaining washer, discarding the three washers, item 10.
 - (v) Thoroughly clean all mating faces to ensure smooth surfaces and using a new seal, item 6, carefully screw the vent connection back into the tank, avoiding any undue strain, and wire lock using item 7. Re-attach the retaining plate and washer to the fireproof bulkhead, using the four existing screws, removed in operation (iv), also re-assemble the banjo connection using two more seals, item 6, and applying plastic Hermetite, item 8, to the faces of the banjo.
 - (vi) Replace the cap nut and wire lock using item 7. Replace the three hose joints and tighten the six clips.
 - (vii) Proceed in a similar manner with the banjo connection to the fuel transfer pipes, by removing in turn, hose clips, joints, cap nut, washer, banjo, washer, spring, sealing disc and ring, pipe adapter and washer, discarding the three washers, item 9.
 - (viii) Screw the pipe adapter, together with a new seal, item 5, carefully back into the tank, and wire lock with item 7.
 - (ix) Re-assemble the items again in order, sealing disc and ring spring banjo connection with two new seals, item 5, also applying plastic Hermetite, item 8, to the faces of the banjo, and the cap nut which is wire locked with item 7.
 - (x) Replace the two hose joints and tighten the four clips, refuel the tank, and after tests have been carried out, replace and fasten the upper inspection doors.
- (d) Tests : Check all hose joints and connections for leaks and bonding continuity.
 - (e) Recording : Record the modification in the Airframe Log Book.

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VAMFIRE MODIFICATION NO.136

Drawings

22. No drawings will be required.

Effect on Weight and Balance

23. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

Reference : File R.A.A.F. 150/4/8908.

Date of Issue : 12th January, 1955.

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VAMPIRE MODIFICATION NO.137

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
1	A79/503595	F15-183	Label, "Nav. Dim. Bright"	1	
2		N15-187A	Resistance Unit & Cover Assy.	1	
3		N15-191A	Cable Assy.	1	
4		A32/C28	Screw, M.S., Rd. Hd., 2 B.A. x $\frac{7}{8}$ " long	2	
5		AGS.2001/C/1	Nut, Nyloc, M.S., Hex., thick, 2 B.A.	2	
6		N.P.N.	Link, Cable, A.A. 20, one core, vin, to spec. A.S. No.U1	2	

Notes:- (a) Items 1 to 5 inclusive will be assembled by De Havilland Aircraft Pty. Ltd., Modification Section, which will issue these items on demand by units concerned.

(b) Item 6 is to be drawn from unit stores.

Disposal of Parts Removed

8. The following part will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
7		15.F.523	Label, "Spare"	1	.

Note:- This item is obsolete and is to be scrapped.

Disposal of Parts in Stock

9. Not applicable.

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VAMPIRE MODIFICATION NO.137

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than next minor inspection after receipt of modification kit.

Method of Incorporation

11. (a) Man-hours involved : Approximately five (5) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of operations :
- (i) Locate and withdraw the upper instrument panel in accordance with Australian Air Publication 721:79/33, Volume 1, Section 5, Chapter 2, and referring to R.A.A.F. Drawing G.12342, Sheet 1, remove the label marked "Spare" from its position below the G.G.S. Control Unit, discarding the label, item 7. The two spare cables which previously ran to the spare switch are to be suitably coiled and stowed.
- (ii) Remove the "Pitot head" label from its existing position alongside the "Nav. Lights" switch, and reposition it in the place previously occupied by the "Spare" switch label.
- (iii) Disconnect the cable coded P2 and ~~it~~ from its : it to
the spare
unit.
it",
ng "Nav.
Lights" switch.
- "(iii)(a) Remove the original Pitot Head switch from the panel and reverse it, so that with the toggle down the switch is on, (i.e. contacts are closed)."
- (v) Disconnect the existing wire coded N3 at the "Nav. Lights" switch and reconnect it to the top terminal of the "Nav. Lt. Dim. - Bright" switch. Add a new link cable coded N2, item 6, from the top terminal on the "Nav. Lights" switch to the lower terminal on the "Nav. Lt. Dim - Bright" switch.

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VAMPIRE MODIFICATION NO.137

Method of Incorporation (Cont'd)

- (vi) Refer again to Drawing G.12342, Sheet 1, and locate the starboard side member of the main instrument panel support structure. Position to the dimensions given, and drill two No.11 holes in the member, to correspond with the attachment holes in the Resistance Unit.
- (vii) Remove the two 2 B.A. Rd. hd. screws and washers holding the cover to the resistance unit, item 2, and remove the cover. Offer up the resistance unit, item 2, to the outboard side of the member and attach to the member using two screws, item 4, and two nuts, item 5.
- (viii) Pass the bared ends of the new cable assembly, item 3, out through the rubber grommet in the resistance unit, and couple the terminal ends coded N2 and N3 to their respective terminals in the unit.

Replace the cover on the resistance unit and secure with the two existing washers and screws.

- (ix) Run this new cable along with existing cables and connect the cable coded N2 to the top terminal of the "Nav. Lights" switch, and the cable coded N3 to the top terminal of the "Nav. Lt. Dim - Bright" switch on the upper instrument panel.

- (d) Tests : Functional tests of the new wiring to be carried out.
- (e) Recording : Record the modification in the Airframe Log Book as Vampire Modification No. 137.

Drawings

12. R.A.A.F. Drawing No. G.12342 consisting of 1 sheet is attached herewith.

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VAMPIRE MODIFICATION NO.137

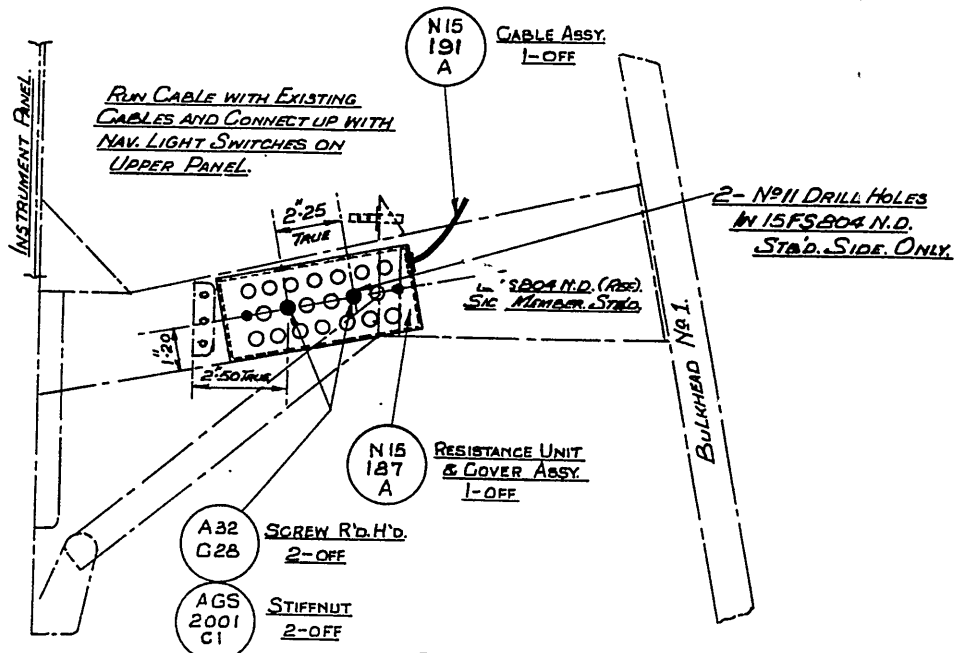
Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

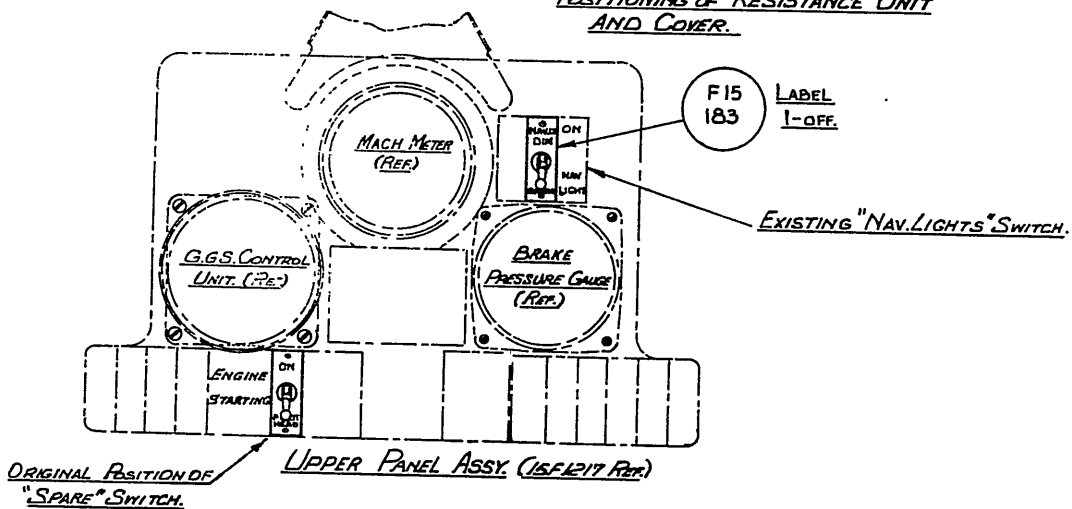
References : Files R.A.A.F. 150/4/8621 and 150/4/8912.
Attachment : Drawing G.12342.
Date of Issue : 12th January, 1955.

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	INITIALS



STAB SIDE MEMBER SHOWING POSITIONING OF RESISTANCE UNIT AND COVER.



REFERENCE		ISSUED BY		TITLE	
LIMITS UNLESS STATED		MATERIAL		DIMMER SWITCH FOR THE NAVIGATION LIGHTS - INTRODUCTION.	
DECIMALS	± .010"	SPEC.		COMPONENT OF	
FRACTIONS	± 1/32"	TREATMENT		MACHINE	
ANGLES	± 1/2°	FINISH		ENGINE	
SURFACE FINISH		SCALE		TECH. ORDER	VAMPIRE MOD. 137
AUSTRALIAN STANDARD		DRAWN		DRAWING NO.	G-12342
ENC. DRWG. PRACTICE A.S. 621		TRACED		APPROVED	
				CHECKED	

SHEET N° 1

DeHavilland DRWG. N° 00M280. N° of SHEETS 1.

DRWG.
2.
912

Restricted

A.A.P.721:79, VOL.2, PART 2

VAMPIRE MODIFICATION NO. 138

Class 2

HYDRAULIC PIPES TO SPECIFICATION D.T.D.323 IN LIEU OF
D.T.D.310 - INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to prevent cracking of the Hydraulic Pipes in service. The modification authorizes the installation of Hydraulic Pipes to Specification D.T.D.323 in lieu of D.T.D.310.

This modification is divided into two Parts, 'A' and 'B':-

Part 'A' is applicable to all "Vampire" Mk.30 and Mk.31 aircraft

Part 'B' is applicable to Mk.33 "Vampire" aircraft.

PART 'A'

Application

2. This work is to be carried out on all "Vampire" Mk.30 and Mk.31 aircraft.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units and aircraft depots or civilian contractors responsible for servicing Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.206 and Air Ministry Modification VAM.3370 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Restricted

A.A.P.721:79, VOL.2. PART 2

VAMPIRE MODIFICATION NO. 138

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1		S15-143AND	Pipe Assy., 3/16" O.D. x 22 S.W.G. to Spec. DTD.323 Cut out valve to relief valve.	1	
2		003349AND	Pipe Assy., 1/4" O.D. x 22 S.W.G. to Spec. DTD.323 Accumulator air pressure.	1	
3	11/2700		Wire, locking, soft iron, galvanised, 20 S.W.G.	A.R.	

Notes: (a) Items 1 and 2 will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre

(b) Item 3 is to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
4		Q00223AND	Pipe Assy.. cut out valve Spec. DTD.310	1	
5		Q00793AND	Pipe Assy.. accumulator air pressure, Spec. DTD.310	1	

Note: Items 4 and 5 are no longer required for Vampire aircraft and are to be disposed of in accordance with current authorized procedure.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next minor servicing.

Method of Incorporation

11. (a) Man-hours Involved : Approximately four (4) man-hours are required to incorporate this modification, excluding time taken for carrying out tests.

- (b) Special tools, jigs, &c. : No special tools or jigs are required.
- (c) Sequence of Operations :
- (i) Remove the gun bay doors to gain access to the hydraulic accumulator below the cannon floor, and release the hydraulic accumulator pressure.
 - (ii) Locate the cut out valve assembly, cut the locking wires and remove the pipe assembly, item 4, complete with two collars and two sleeves, which is attached to the "Lockheed" thermal relief valve.
 - (iii) Offer up in its place the new pipe assembly, item 1, to the cut out valve and secure by means of the sleeves at either end, and fasten with locking wire, item 3.
 - (iv) Locate the accumulator air pressure pipe, item 5, on the starboard side under the cannon floor and remove the two attaching 'P' clips, which are retained along with their attaching items for use on re-assembly.
 - (v) Cut the locking wire and remove this pipe from the aircraft.
 - (vi) Offer up in its place the pipe assembly, item 2, attach and secure the sleeves at either end with locking wire, item 3.
 - (vii) Replace the two 'P' clips, removed in operation (iv), and attach with the existing items.
 - (viii) Recharge the hydraulic accumulator and replace the gun bay doors after testing for leaks, &c.
- (d) Tests : Carry out normal hydraulic functioning tests.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. No drawings are required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

Restricted

- 4 -

A.A.P.721:79. VOL.2, PART 2

VAMPIRE MODIFICATION NO. 138

PART 'B'

Application

14. This work is to be carried out on "Vampire" Mk.33 aircraft, serial No. A79-801 to A79-824 inclusive. Aircraft A79-825 and subsequent will be modified by the manufacturer.

Responsibility for Incorporation

15. The modification is to be incorporated by operating units and aircraft depots or the civilian contractor responsible for servicing Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

16. Not applicable.

Orders Superseded or Cancelled

17. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

18. De Havilland (Aust.) Modification V.206 and Air Ministry Modification VAM.3370 are the equivalent modifications.

Supply

19. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
6		S15-143AND	Pipe Assy. 3/16" O.D. x 22 S.W.G. to Spec. DTD.323 Cut out valve to relief valve.	1	
7		S15-141AND	Pipe Assy. 1/4" O.D. x 22 S.W.G. to Spec. DTD.323 Accumulator air pressure	1	
8	11/2700		Wire, locking, soft iron, galvanised, 20 S.W.G.	A.R.	

Notes: (a) Items 6 and 7 will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre.

(b) Item 8 is to be drawn from unit stores.

Restricted

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VAMPIRE MODIFICATION NO. 138

Disposal of Parts Removed

20. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
9		Q00223AND	Pipe assy. cut out valve Spec. DTD.310	1	
10		13.S.463AND	Pipe assy. accumulator air pressure Spec. DTD.310	1	

Note: Items 9 and 10 are no longer required for Vampire aircraft and are to be disposed of in accordance with current authorized procedure.

Disposal of Parts in Stock

21. Not applicable.

When Modification is to be Incorporated

22. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing.

Method of Incorporation

23. (a) Man-hours Involved : Approximately four (4) man-hours are required to incorporate this modification, excluding time taken for carrying out tests.
- (b) Special tools, jigs, &c. : No special tools or jigs are required.
- (c) Sequence of Operations :
- (i) Gain access to the hydraulic accumulator by removing the gun bay doors, and release the hydraulic accumulator pressure.
 - (ii) Locate the cut out valve assembly, cut the locking wires and remove the pipe assembly, item 9, which is attached to the "Lockheed" thermal relief valve.
 - (iii) Offer up in its place the new pipe assembly, item 6, to the cut out valve and secure by means of the sleeves at either end, and fasten with locking wire, item 8.
 - (iv) Locate the accumulator air pressure pipe, item 10, on the starboard side under the cannon floor and remove the attaching 'P' clips, which are retained for use on re-assembly.

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VAMPIRE MODIFICATION NO. 138

- (v) Cut the locking wire and remove this pipe from the aircraft.
- (vi) Offer up in its place the pipe assembly, item 7, attach and secure the sleeves at either end with locking wire. item 8.
- (vii) Replace the 'P' clips removed in operation (iv).
- (viii) Recharge the hydraulic accumulator and replace the gun bay doors after carrying out hydraulic functioning tests.
- (d) Tests : Carry out normal hydraulic functioning tests.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

24. No drawings are required.

Effect on Weight and Balance

25. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

Reference : File Department of Air 150/4/8915.

Date of Issue : 18th April, 1955.

Restricted

- 2 -

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VAMPIRE MODIFICATION NO. 139

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6 De Havilland (Aust.) Modification V.201 and Air Ministry Modification VAM.3306 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	A79/503624	G001929	Bolt, Special, H.T.S.	8	
2	A79/503632	OOG59	Plate, lock	4	
3	H28C/12254	SP.13/G	Washer, M.S., plain, thin, 18 S.W.G.	12	

Note: As directed by Department of Air, items 1 to 3 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending demand. Operating units and aircraft depots requiring modification sets are to demand from De Havilland Modification Centre.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
4		G00736ND	Bolt, special, M.S.	8	
5	A79/503632	OOG59	Plate, lock	4	

Note: Items 4 and 5 are to be disposed of in accordance with the authorized current procedure.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of the modification sets.

(Issued with A.L.40 - September, 1955)

Restricted

A.A.P.721:79, VOL.2, PT.2

VAMPIRE MODIFICATION NO. 139

Method of Incorporation

11. (a) Man-hours Involved : Approximately sixteen (16) man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs, &c. : No special tools or jigs are required.
- (c) Sequence of Operations :

- (i) Trestle the aircraft in accordance with current authorize procedure. (A.A.P.828, Figure 9, as applicable to Mk.30 and Mk.31, and A.A.P.721:79/33 Vol.1, Sect.2, Chapt.4, Figure 4, as applicable to Mk.33).

Note: The following sequence of operations is applicable to Vampire Mk.30, 31 and 33, and is similar for both port and starboard.

- (ii) Release the hydraulic pressure from the accumulator with the main wheel units down. Locate the radius rod assembly to the main undercarriage and the four bolts which attach it through the radius rod hinge blocks to the mounting brackets.
- (iii) Cut the locking wire or undo the two lock plates, item 5, which secure the four bolts, item 4, and proceed to remove the radius rod assembly from the aircraft in accordance with instructions as given in Aust. Air Publication No.828 Section 5, Para.173 for Mk.30 and 31 and A.A.P.721:79/33 Vol.1, Sect.3, Chap.5, Para.28 for Mk.33.
- (iv) Discard the four bolts and the two lock plates, but retain the six washers which are fitted under the heads of those bolts which do not pass through the bracket Q00164 (ref.) which holds the pneumatic brake line leading to the landing wheels.
Retain all other items for reassembly.
- (v) Remove the front end fitting radius rod hinge block Pt.No. G001056 and proceed to rework it by opening up the two existing 'O' size holes by drilling right through using a letter 'Q' drill. The block is now re-part numbered G001949 L.H. The opposite hand, block Pt. No. G001947 is reworked in a similar manner, and re-part numbered G001949 R.H.
- (vi) Drill the remaining rear end fitting radius rod hinge blocks Pt.No. G001055 using a letter 'Q' drill and re-part number them G001937.

(Issued with A.L.40 - September, 1955)

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VAMPIRE MODIFICATION NO. 139

- (vii) Re-assemble the radius rod assembly using the existing items removed in operation (iv), along with four special bolts, item 1, and two new lock plates, item 2, using the six existing washers and replacing the hose attachment bracket.

Note: On some aircraft it will be found necessary to use six (6) new washers, item 3, if not already existing.

- (viii) Complete both port and starboard units, recharge the accumulator, retract the undercarriage, and check for correct functioning, lower the undercarriage.

Alter the Part No. of the radius rod assembly to GO01094-5A/2.

- (ix) Remove the trestles.

- (d) Tests : No further tests are necessary.
- (e) Recording : Record the modification in the Airframe Log Book and on the wing modification plate.

Drawings

12. No drawing will be required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 9/84/91 and 150/4/8916

Date of Issue : 6th September, 1955.

(Issued with A.L.40 - September, 1955)

Restricted

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 141

Class 2

V.H.F. MIC-TEL SOCKETS - RELOCATION

Reason for and Description of Modification

1. This modification is introduced to make provision for connection to the new protective type Flying Helmet which is to be issued as standard equipment to flying personnel. The modification authorises the removal of the V.H.F. Mic-Tel Sockets from the existing position on front of each pilot's seat and their relocation to two clamp brackets (one for each socket) mounted on the underside of the cockpit tie beam.

Application

2. This work is to be carried out on Mk.33 aircraft Serial Nos. A79-801 to A79-824 inclusive. Subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

3. The modification is to be incorporated by operating units and aircraft depots or civilian contractors responsible for the servicing of Vampire Aircraft.

Action in Respect of Spares

4. No action required.

Orders Superseded or Cancelled

5. Nil.

Equivalent Modifications

6. De Havilland (Aust.) Modification V663 is the manufacturer's equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
1		N15-195A	Bracket L.H.	1	
2		N15-196A	Bracket R.H.	1	
3		N15-193	Clip	2	
4		N15-199A	Cable Assy.	2	
5		N15-201A	Cable Assy.	2	

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VAMPIRE MODIFICATION NO. 141

Supply (Cont'd)

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
6	G5C/430		Block Terminal 2 way	4	
7	H28/7271	A25/1B	Bolt, H.T.S. Hex.Hd. 4BA x 1/2" long.	4	
8	H28/26100	DHS.30/3	Clip, Alum.	10	
9	H28/26101	DHS.30/4	Clip, Alum.	8	
10	H28/26107	DHS.30/10	Clip, Alum.	3	
11	H28/26109	DHS.30/13	Clip, Alum.	1	
12	H28/26104	DHS.30/7	Clip, Alum.	1	
13	H28C/2183	AGS250/21	Screw, Wood Csk/Hd. No.4 x 5/8" long.	8	
14	H28C/2288	AGS252/19	Screw, Wood Rd.Hd. No.4 x 3/8" long.	6	
15	H28C/2290 (Z)	AGS252/53	Screw, Wood Rd.Hd. No.8 x 3/8" long.	1	
16	H128F/61685	AFS2050/ 429-BS	Rivets, Tucker 'Pop' Monel. 1/8" dia. x 29" long.	8	
17	H28B/5045	SP9/G12	Pin Split, Nickel Alloy 1/8" D. x 1.5" long.	4	
	H28B/5045	or AGS784/21	Pin Split, Nickel Alloy 1/8" D. x 1.5" long.		
18	I32A/2006		Twine, binder, waxed.	A.R.	

Notes: (a) Items 1 to 17 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Operating units and aircraft depots requiring modification sets are to demand from De Havilland Modification Centre.

(b) Item 18 is to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
19	H28/14056	AS3181/9C	Clip 'P' Alum.al.	1	
20	H28/13071	AS3181/9B	Clip 'P' Alum.al.	2	
21	H28/14309	AS3181/12B	Clip 'P' Alum.al.	1	

Note: Items 19 to 21 inclusive are to be examined and, if serviceable, are to be returned to stores for use elsewhere on Mk.33 Vampire Trainer aircraft.

A.A.P.721:79, VOL.2, PART 2.

VAMPIRE MODIFICATION NO. 141

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately twelve (12) man-hours are required to incorporate this modification.
- (b) Special Tools, Jigs, &c. : No special tools and jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Remove both pilot's seats.
 - (ii) Disconnect both mic-tel socket cables at the terminal blocks on the false floor rear diaphragm, remove cables from aircraft and retain.
 - (iii) Refer to Drawing A-12347, sheet 3, and locate and attach the brackets, item 1, L.H. and item 2, R.H. to the cockpit tie beam using rivets, item 16, eight (8) off.
 - (iv) Refer to Drawing A-12347, sheets 1 and 2 and locate and attach the terminal blocks, item 6, four (4) off to the port and starboard canopy rails using screws, item 13, eight (8) off.
 - (v) Rework the mic-tel socket cable assemblies, retained in operation (ii) by removing the binding which holds the strain cord.

Note: This renders the strain cord ineffective as such, but to obviate the necessity for re-part-numbering the cable assembly thus affecting interchangeability, the strain cord may be twined around the cable and left intact as part of the assembly.
 - (vi) Refer to Drawing A-12347, sheet 3, and install the reworked mic-tel socket cable assemblies on the cockpit tie-beam using clips, item 3, two (2) off, and bolts,

Method of Incorporation (Cont'd)

item 7, four (4) off to secure the mic-tel sockets to the brackets, and cable clips, item 9, six (6) off to attach the cables. These clips are fitted under existing screws.

IMPORTANT:

Due to slight variation in size of mic-tel sockets fitted to aircraft, the clip may be slightly smaller than necessary to provide a neat fit around the plain portion of the socket and care must be taken in such cases not to tighten the clip bolts more than is required to securely fix the socket, otherwise the socket body may break.

- (vii) Connect the mic-tel socket cables, retained in operation (ii), to the new terminal blocks as shown on Drawing A-12347, sheet 3, clipping the cables adjacent to the terminal blocks, as shown on Drawing A-12347, sheets 1 and 2, using clips, item 9, two (2) off and screws, item 14, two (2) off.

Note: The mic-tel socket cables will be slightly long for this installation and any excess length is to be stowed in a neat and tidy manner adjacent to the terminal blocks (port and starboard).

- (viii) Remove the chain guard from the port cockpit wall and rework as detailed in Drawing A-12347, sheet 1. Retain attachment screws &c.
- (ix) Refer to Drawing A-12347, sheet 2, and add cables, items 4 & 5, one (1) off each to starboard canopy rail using clips, items 12 and 8, one (1) off each and screws, item 14, two (2) off.
- (x) Run the cables down the starboard side of the cockpit as shown on Drawing A-12347, sheet 2, using clips, item 8, three (3) off attached under existing screws.
- (xi) Continue the cable run along the starboard side of the cockpit floor running with and whipping to the existing looms using twine, item 18, and then across the cockpit floor near the false floor rear diaphragm using clip, item 8, and screw, item 14, one (1) off each attached to the floor as shown on Drawing A-12347, sheet 2.

Method of Incorporation (Cont'd)

- (xii) Refer to Drawing A-12347, sheet 1, and add cables, items 4 & 5, one (1) off each to port canopy rail using clips, item 8, three (3) off and screws, item 14, one (1) off.

Note: Two (2) of the above clips are attached under existing screws.

- (xiii) Run the cables down the port side of the cockpit as shown on Drawing No. A-12347, sheet 1, using clips, item 8, two (2) off, item 11, one (1) off, and item 10, two (2) off. All these clips are attached under existing screws.
- (xiv) Continue the cable run across the cockpit floor near the false floor rear diaphragm using clip, item 10, and screw, item 15, one (1) off each.
- (xv) Refer to Drawing No. A-12347, sheet 3, and connect the new wiring to the new terminal blocks on the port and starboard canopy rails and to the existing terminal blocks on the false floor rear diaphragm as shown.
- (xvi) Replace the chain guard removed in operation (viii) using existing screws &c.
- (xvii) Replace the pilots' seats using new split pins, item 17.

Note: The spring clips previously used to hold the mic-tel sockets are to be left intact.

- (d) Tests : Check the V.H.F. Radio for correct functioning.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. Drawing A-12347 consisting of 3 sheets are attached.

Effect on Weight and Balance of the Aircraft

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

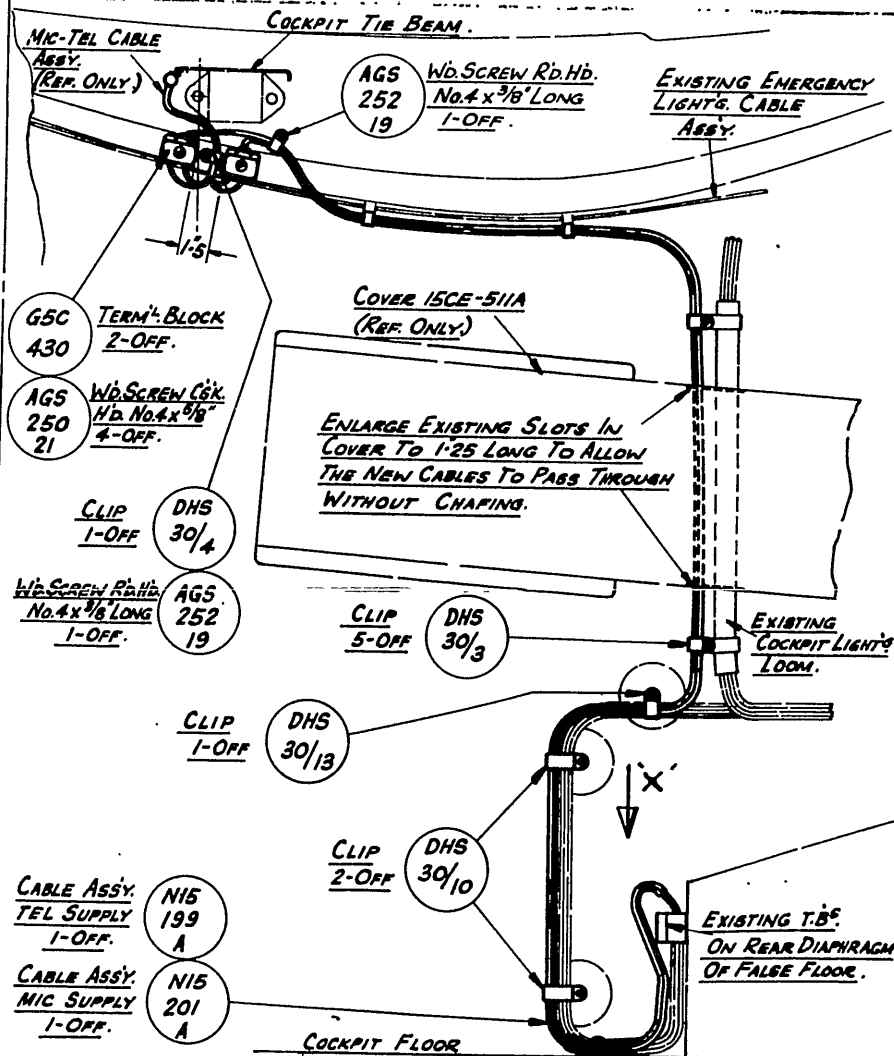
References : Files R.A.A.F. 39/9/281, 201/58/186 and 150/4/8918

Attachment : Drawing A-12347, sheets 1 to 3

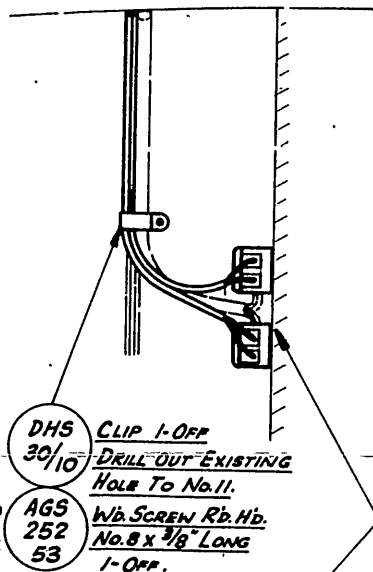
Date of Issue : 10th December, 1954.

DO NOT SCALE

ISSUE NO. DATE



VIEW ON PORT SIDE OF COCKPIT.



NOTE:
CONNECT METAL BRAIDED
PIG-TAILS OF MIC. CABLES TO
TEL- CONNECTION.

VIEW ON ARROW 'X'.

REFERENCE	ISSUED BY	TITLE
215 UNLESS STATED		V.H.F. MIC-TEL SOCKETS
DETAILS ± .010"		RELOCATION.
1" UNLESS STATED		FUSELAGE
ASIES ± .2"		ENGINE
FINISH		GOBLIN
SCALE		WING/REAR MOD. NO. 14
CRANK		DRY
FACE 3		
1" UNLESS STATED		
DETAILS ± .010"		
1" UNLESS STATED		
ASIES ± .2"		
FINISH		
SCALE		
CRANK		
FACE 3		

A-12347-SMT.1

SHT. 1.

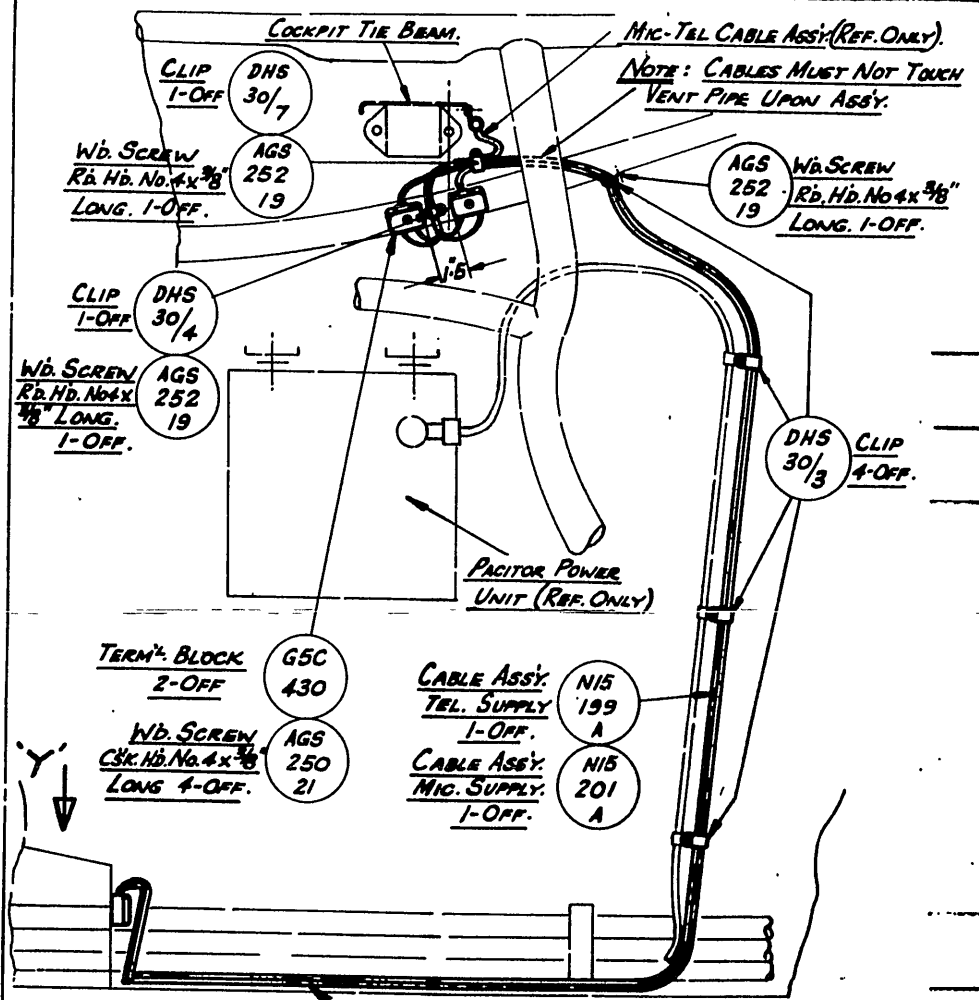
De Havilland Des. No. 00487 No. 04 SHS. 3.

LONG SCALE

ISSUE NO. DATE

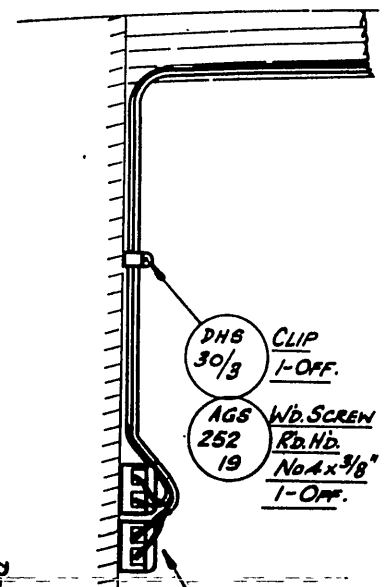
ALTERN. 301

DATE: 1 JAN 1955



BIND TO EXISTING CABLES WHERE NECESSARY.

VIEW ON STBD. SIDE OF COCKPIT.



NOTE:
CONNECT METAL BRAIDED
PIG-TAILS OF MIC. CABLES
TO TEL- CONNECTION.

VIEW ON ARROW 'Y'.

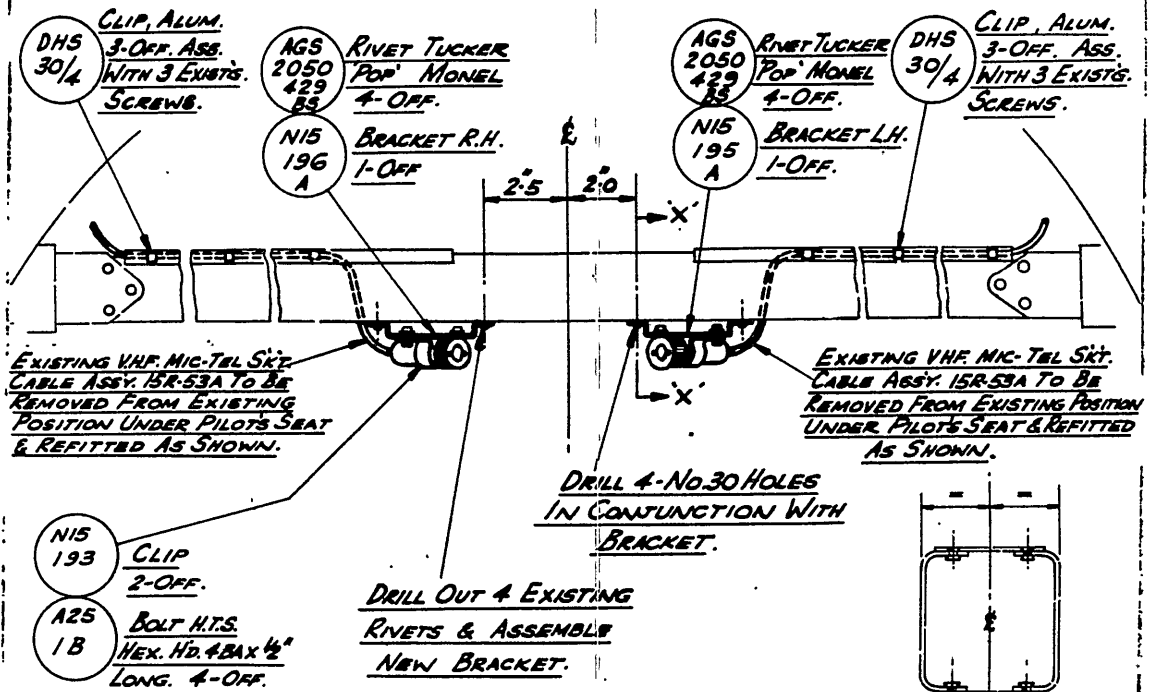
REFERENCES				ISSUED BY			
UNLESS STATED	MATERIAL			21 HAVILLAND Dkt. No. 000287, No. 0-5175.3. SH-2 VHF: MIC-TEL SOCKETS RELOCATION.			
Alt.	± 0.00	SFC.					
± 0.00	THE AGENT						
± 0.00	FIELD						
± 0.00	SCALE						
± 0.00	CLARK			APPROVED CHECKED			
± 0.00	STANDARD						
± 0.00	± 0.00			OFFERING NO. A12347-SHT.2			
± 0.00	± 0.00						
± 0.00	± 0.00			COMPONENT OF			
± 0.00	± 0.00						
± 0.00	± 0.00			MACHINE ENGINE			
± 0.00	± 0.00						
± 0.00	± 0.00			TECH. ORDER FINISHING MOD. No. 141			
± 0.00	± 0.00						
± 0.00	± 0.00			DWG. 1			
± 0.00	± 0.00						

DO NOT SCALE

DATE

ALTERATION

DATE

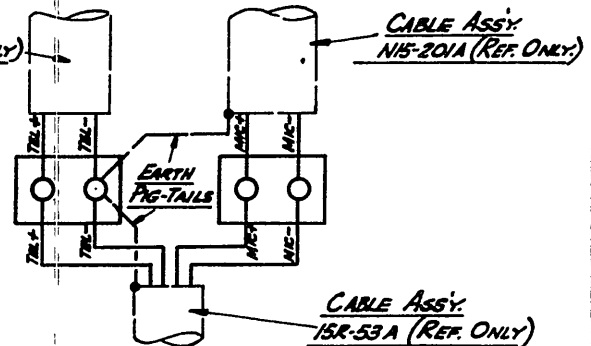


VIEW LOOKING AFT AT COCKPIT
TIE BEAM.

SECTION X-X'
(TYPICAL FOR BOTH
BRACKETS.)

NOTE:- SIMILAR CONNECTIONS
AT EXISTING TERM'L BLOCKS
ON REAR DIAPHRAGM OF
FALSE FLOOR.

DETAILS FOR CONNECTIONS AT
TERM'L BLOCKS ON CANOPY RAIL.
PORT & STBD.



DE HAVILLAND, DRG. No. 00M287 No. OF SHTS. 3.

REFERENCE		ISSUED BY		DATE	
				VHF. MIC-TEL SOCKETS RELOCATION.	
UNITS UNLESS STATED		MATERIAL		COMPONENT OF	FUSELAGE
LENGTH	= 1.010"	SPEC.		MACHINE	VAMPIRE MK 33
WIDTH	= .735"	TREATMENT		ENGINE	GOBLIN.
THICK.	= .2"	FINISH		TECH. ORDER	VAMPIRE MOD NO. 141
SURFACE FINISH		SCALE		DRAWING NO.	
- STANDARD		DRAWN		APPROVED	A-12347-SHT.3
- 1/2" FEZ. 1/2" AS.FZ		TRACED		CHECKED	
					DRWG. P. SIZE

A.A.P. 721:79, Vol. 2, Part 2

VAMPIRE MODIFICATION NO.142

Class 2

V.H.F. MIC-TEL SOCKET RE-LOCATION

Reason for and Description of Modification

1. (a) This modification is introduced to make provision for connection of the new protective type Flying Helmet which is to be issued as standard equipment to flying personnel. The modification authorises the removal of the V.H.F. Mic-Tel Socket from the existing position on the pilot's seat and the relocation of same on a clamp bracket attached to the canopy rail bulkhead No.2 reinforcing angle on the port side of the cockpit.
- (b) If this modification is being embodied on an aircraft simultaneously with Vampire Modification No.86 (to introduce TR1936 Radio) then the cables, supplied as part of the latter modification set, which require reworking, are to be modified before installing in aircraft.

Application

2. This modification is to be embodied on all Vampire Mk.30 and 31 aircraft excepting those which already have D.H. Modification V100 (Ejection Seat) embodied.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units and aircraft depots or the civilian contractor responsible for the servicing of Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V200 is the manufacturers equivalent modification.

A.A.P. 721:79, Vol. 2, Part 2

VAMPIRE MODIFICATION NO.142

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1		OCN845A	Bracket, Clamp	1	
2		OCN847	Clamp	1	
3		6A1/1B	Bolt, L.T.S. Hex. Hd.	4	
		or	4BA .45" long		
	H28/7271	A25/1B	Bolt, H.T.S. Hex. Hd.	4	
			4BA .50" long		
4	H28/7034	A25/1C	Bolt, H.T.S. Hex. Hd.	2	
			2BA .55" long		
5	H28/26106	DHS30/9	Clip, 'P' Alum.22G x $\frac{5}{8}$ " i/d	4	
6	H28C/2183	AGS250/21	Woodscrew, Brass, C's'k Hd. No.4 x $\frac{5}{8}$ " long	4	
7	H28C/2649	AGS253/20	Woodscrew, steel, Rd. Hd. No.4 x $\frac{1}{2}$ " long	4	
8	H28/27033	AGS2002-C-1	Nut, Stiff, M.S. Hex. Thin. 2BA	2	
9	H28B/5037	SP9/E6	Pin, Split, Nickel Alloy 3/32" dia. x $\frac{3}{4}$ " long	2	
		or			
	H28B/5037	AGS784/10	Pin, Split, Nickel Alloy 3/32" dia. x $\frac{3}{4}$ " long	2	
10	H28B/5045	SP9/G12	Pin, Split, Nickel Alloy $\frac{1}{8}$ " dia. x 1.1/2" long	2	
		or			
	H28B/5045	AGS784/21	Pin, Split, Nickel Alloy $\frac{1}{8}$ " dia. x 1.1/2" long	2	

Note: - Items 1 to 10 inclusive will be assembled into modification sets and retained in the De Havilland Modification Centre pending issue or demand. Operating units and aircraft depots requiring modification sets are to demand from De Havilland Modification Centre.

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Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
11	H28/26101	DHS30/4	Clip, 'P' Alum. 22G x 5/16" i/d.	2	
12	H28/26104	DHS30/7	Clip, 'P' Alum. 22G x 1/2" i/d.	4	
13	H28/26926	DHS30/45	Clip, 'P' Alum. 22G x 5/16" i/d.	1	
14	A79/500956	98N752	Nut, Special 6BA	4	

Note: - Items 11 to 14 inclusive are to be examined and, if serviceable, are to be returned to stores for use on Mk. 30 and 31 Vampire aircraft.

Disposal of Parts in Stock

9. Not applicable.

When Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of the modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately twelve (12) man-hours are required to incorporate this modification
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Disconnect the mic-tel wiring at the terminal blocks on the front of the pilot's seat, remove the cable clip secured to the underside of the seat and remove the pilot's seat from the aircraft. Discard the cable clip, item 13, and screw and nut.

Method of Incorporation (Cont'd)

- (ii) Remove the G3F compass amplifier (if fitted) from the port side of bulkhead No.2.
- (iii) Unclip the existing mic-tel wiring on the cockpit floor and up the port cockpit wall to the sealing plate on the top port side of bulkhead 2 and discard the clips, items 11 and 12.

Note: This wiring is run with other general services cables across the floor and half way up the port cockpit wall.

- (iv) Re-clip the remaining general services cables across the cockpit floor and on the port cockpit wall using clips, item 5, and screws, item 7. These clips are to be positioned adjacent to the original clip positions.
- (v) Shorten the existing mic-tel cables and re-part number as shown on Drawing A12348, sheet 2.
- (vi) Remove the two existing 2-way terminal blocks from the front of the pilots' seat and retain. Discard the screws and nuts, item 14.
- (vii) Remove the existing Mic-Tel socket from the front of the pilot's seat and retain. The two spring clips are to be left intact.
- (viii) At the sealing plug on the top port side of the bulkhead No.2 disconnect the upper socket to allow easier locating and fitment of the two 2-way terminal blocks (see following paragraph).
- (ix) Locate and attach the two 2-way terminal blocks (retained in paragraph (vi)) to the underside of the port canopy rail as shown on Drawing A.12348, sheet 1, using screws, item 6.
- (x) Connect the modified mic-tel cables to the two 2-way terminal blocks as shown on Drawing A.12348, sheet 2.

IMPORTANT:

The lengths of the modified mic-tel cables will be slightly long for this modification, but will be correct for subsequent ejection seat installation, and the excess length is to be coiled and stowed in a neat and tidy manner thus obviating the need for introducing new cable assemblies, when ejection seat is installed.

Method of Incorporation (Cont'd)

- (xi) Attach the clamp bracket, item 1, to the two existing holes in the bulkhead No.2 canopy rail reinforcing angle on the port side of the bulkhead using bolts, item 4, and nuts, item 8.
- (xii) Re-connect the socket which was disconnected in paragraph (viii).
- (xiii) Attach the Mic-Tel socket, retained in paragraph (vii), to the new clamp bracket using clamp, item 2, and bolts, item 3.

IMPORTANT:

Due to slight variation in size of mic-tel sockets fitted to aircraft the clamps may be slightly smaller than necessary to provide a neat fit around the plain portion of the socket, and care must be taken in such cases not to tighten the clamp bolts more than is required to securely fix the socket otherwise the socket body may break.

- (xiv) Connect the mic-tel socket leads to the two 2-way terminal blocks as shown on Drawing A.12348, sheet 2.
- (xv) Replace the pilot's seat using new split pins, items 9 and 10.
- (xvi) Replace the G3F compass amplifier (if applicable).
- (d) Tests : Check the V.H.F. Radio and G3F compass for correct functioning.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

- 12. Drawings A.12348, sheets 1 and 2 are attached.

Effect on Weight and Balance

- 13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

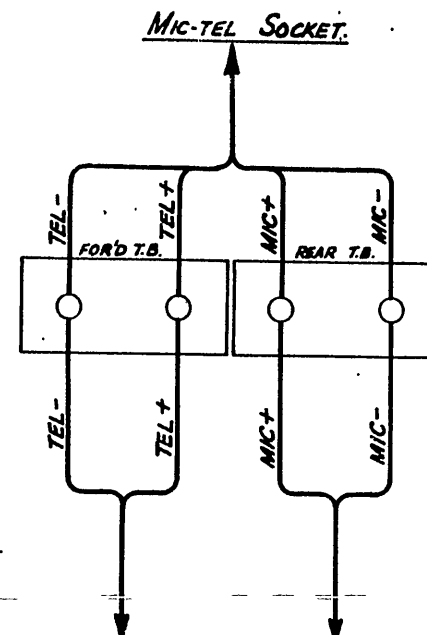
References : Files R.A.A.F. 39/9/281, 201/58/186 and 150/4/8919.
 Attachments : Drawings A.12348, sheets 1 and 2.
 Date of Issue : 14th January, 1955.

[illegible]

RE-LOCATION OF MIC-TEL SOCKET & TERMINAL BLOCKS.

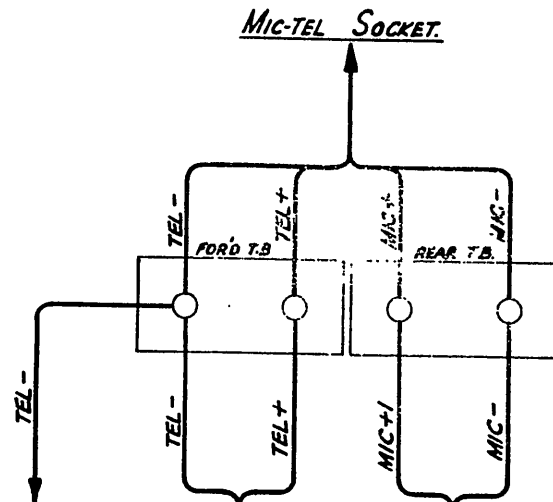
DRWG.
A
SIZE

DO NOT SCALE



PART OF EXISTING CABLE LOOM 00N135A (FROM B.H.D. No 2 SOCKET) TO BE SHORTENED FROM 8'-0" TO 1'-8" & CONNECTED TO NEW T.B's. AFTER REWORKING THIS CABLE IT IS TO BE RE-PART-NUMBERED '00N823 AND.'

THIS DETAIL IS ONLY APPLICABLE TO THOSE AIRCRAFT WHICH DO NOT HAVE VAMPIRE MOD. No 86 OR D.H. MOD. V108 EMBODIED, i.e. AIRCRAFT FITTED WITH TR1520 V.H.F. RADIO.



EXISTING CABLE 002657ND (FROM TERM'L 6 ON 'Q' TYPE RELAY) TO BE SHORTENED FROM 8'-6" TO 1'-8" & CONNECTED TO NEW T.B's. AFTER REWORKING THIS CABLE IT IS TO BE RE-PART-NUMBERED '00N819 AND.'

EXISTING CABLE 002179 (FROM T.B. NEAR 'Q' TYPE RELAY) TO BE SHORTENED FROM 8'-0" TO 1'-8" & CONNECTED TO NEW T.B's. AFTER REWORKING THIS CABLE IT IS TO BE RE-PART-NUMBERED '00N817 AND.'

PART OF EXISTING CABLE 00N417A (FROM B.H.D. No 2) TO BE SHORTENED FROM 7'-0" TO 1'-4" & CONNECTED TO NEW T.B's. AFTER REWORKING THIS CABLE IT IS TO BE RE-PART-NUMBERED '00N821 AND.'

THIS DETAIL IS ONLY APPLICABLE TO THOSE AIRCRAFT WHICH HAVE VAMPIRE MOD. No 86 OR D.H. MOD. V108 EMBODIED, i.e. AIRCRAFT FITTED WITH TR1936 V.H.F. RADIO.

DETAILS SHOWING ALTERATIONS TO EXISTING V.H.F. RADIO CABLES & CONNECTIONS TO RE-LOCATED T.BLOCKS.

REFERENCE

ISSUED BY

TITLE

DE HAWKLAND DES 00N4295 REVISION 2

Directorate of Technical Services
R.A.A.F.

V.H.F. MIC-TEL SOCKET-RELOCATION

UNLESS STATE.	MATERIAL	COMPONENT
Q10	SPTO.	OF
Q10	TREATMENT	
Q10	FINISH	
Q10	SCALE	
Q10	DRAWN	
Q10	CHECKED	
Q10	ATTORNEY	
Q10	TECH. CHIEF	
Q10	DRAWING NO.	

FUSELAGE
VAMPIRE MOD. No 31
VAMPIRE MOD. No 142
A12348 SHZ2

Restricted

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VAMPIRE MODIFICATION NO. 143

Class 2.

POWER FAILURE WARNING LIGHT FOR ELECTRICALLY-DRIVEN FLIGHT
INSTRUMENTS - INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the introduction of a power failure warning light mounted on the blind-flying panel adjacent to the gyro instruments to provide visual indication of failure of electrical supply to the G3 compass and the artificial horizon. Failure of these instruments due to a defect in the power supply circuit has been the cause of accidents. A new compass junction box, replacing the existing junction box situated on bulkhead No. 2, has been introduced and incorporates the torque switch, fuse blocks, relays and associated wiring to operate same. The new junction box is located on the starboard side cockpit floor adjacent to the pilot's seat. This modification assumes that, where applicable, D.H. Aust. Mods. V.102 (R.A.A.F. Vampire Mod. 62), V.159 (R.A.A.F. Vampire Mod. 76), and V.84 have already been embodied, and is written in two parts, viz:-

PART 'A' - for Mk. 31 aircraft

PART 'B' - for Mk. 30 aircraft.

PART 'A'

Application

2. This modification is applicable to Vampire Mk. 31 aircraft.

Responsibility for Incorporation

3. The electrical fitters of operating units, aircraft depots or contractors concerned will be responsible for the incorporation of this modification.

Action in Respect of Spares

4. At the direction of Maintenance Command Headquarters, junction box 1 wired assembly Part No. OON13A/6 (Ident. No. A79/503628) will be required to have D.H. Aust. Mod. V.189 (R.A.A.F. Vampire Mod.151) and D.H. Aust. Mod. V202 (R.A.A.F. Vampire Mod. 143) incorporated and the part no. then altered to OON13A/8 (Ident. No. A79/503861).

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

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3.

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<u>Item No.</u>	<u>Ident. No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off Per Set</u>	<u>Stores Class</u>
20.	H28/26102	DHS30/5	'P' Clip, Alum. 3/8" I/D x 22 S.W.G.	1	C
21.	H28/26078	DHS103 Mk.2	Ferrule 2BA	1	C
22.	G5E/30155	NPN	Cable AA18, One core vin Spec. AS No. U1 x 50'.0 long	1	C
23.	G5F/20057	NPN	Tubing Insulating P.V.C. 4 m/m I/D black x 4' long	1	C
24.	G5F/20058	NPN	Tubing Insulating P.V.C.5 m/m I/D black x 10'-6" long	1	C
25.	G5F/20063	NPN	Tubing Insulating P.V.C.10 m/m I/D black x 5'-0 long	1	C
26.	G5E/30161	NPN	Cable, AA16, One core vin Spec. AS No. U1 7'-6" long	1	C
27.	I32A/2006	-	Twine, binder, coreless	A.R.	C
28.	K3/407	-	Glue, beetle, type 'A'	A.R.	C
29.	K3/411	-	Hardener, beetle violet V15	A.R.	C
	or K3/412	-	Hardener, beetle, yellow G.P.30	A.R.	C
	or K3/410	-	Hardener, beetle, blue, 2B	A.R.	C
30.	W3/2077	-	Brad, brass, 18 S.W.G. x 1/2" long	A.R.	C
31.	K3/353	-	Varnish Pigmented Compound jointing, D.T.D. 369A	A.R.	C
32.	K3/386	-	Bostik, primer, 1751	A.R.	C
33.	K3/387	-	Bostik, sealant, 1790	A.R.	C
34.	I1/494	-	Wire, locking, copper, soft 22 S.W.G.	A.R.	C
35.	K3/321	-	Enamel, cellulose, black	A.R.	C

NOTES:- (a) Items 1 to 26 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre, pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre.

(b) Items 27 to 35 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

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- (iv) Disconnect the cable looms from their respective plugs at junction box 1. Remove the junction box from the aircraft and retain screws and washers for re-assembly.
- (v) Locate the compass junction box Part No. OON471A (ref.) on the forward starboard upper (on a/c without D.H. Aust. Mod. V.100, R.A.A.F. Vampire Mod. 131 embodied) or lower (on a/c with D.H. Aust. Mod. V.100, R.A.A.F. Vampire Mod. 131 embodied) face of bulkhead No. 2 and disconnect the cable assemblies. Remove and discard the three screws and washers securing the box to the bulkhead. The junction box is no longer required, but the components (items 37 to 40 inclusive) are to be removed, examined, and, if serviceable, returned to store.
- (vi) Remove the blind flying panel from the aircraft by disconnecting the instruments, pressure and static pipe lines, and bonding connection. Release the panel from its three shock mountings and retain for reassembly.
- (vii) Refer to sheet 1 of drg. A.12829 and mark out on the panel the position of the .78" dia. hole. Drill and file this hole as dimensioned.
- (viii) Remove the bottom R.H. screw attaching the artificial horizon to the panel and discard. The label (item 1), filament (Item 5) and red warning lamp (item 7) may now be assembled to the blind flying panel. After reworking the panel, alter the part no. to OOB125AND.
- (ix) Remove existing loom C2 from the aircraft and proceed to rework as follows:-
 - (A) Cut existing 25 m/m I/D Nylex tubing at a point 3" from the back of the coupling nut.
 - (B) Undo the coupling nut from the Breeze socket.
 - (C) Add the following new wiring at the Breeze socket:
 - At Pin 'T' add a 3'-9" length of cable (item 22) coded 'GA1+'
 - At Pin 'U' add a 3'-9" length of cable (Item 26) coded 'GC2'
 - At pin 'V' add a 3'-9" length of cable (Item 26) coded 'GC+'
 - At pin 'I' add a 3'-9" length of cable (item 22) coded 'GC4'
 - and a
4'-3" length of cable (item 22)
coded 'GC4'

Note:- Two cables coded 'GC4' are to be connected to pin I.

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- (xi) Replace the lid of the box, and re-attach it to the starboard cockpit wall with the screws and washers removed in operation (iv).
- (xii) Refer to sheet 3 of the drawing and mark out the position of a new 2BA ferrule (Item 21) which is to be glued and bradded to the starboard side of the cockpit floor, using (items 28 and 30) and a suitable hardener (item 29), according to weather conditions.
- (xiii) Offer up the mounting rack (item 3) and referring to sheet 2 attach the foot of the rack under the head of the forward O/B bolt which secures the elevator controls quad. bracket. Secure the I/B foot of the rack to the new ferrule positioned in operation (xii), using a bolt and washer (items 9 and 11). Attach the top lug of the rack under the heads of the two 4BA bolts, used to assemble the sealing plate on bulkhead 2. Use (items 32 and 33) where sealing is required and (item 31) to coat the jointing surfaces of the mounting rack.
- (xiv) Attach the new compass junction box (item 4) to the mounting rack using three bolts and nuts (items 10 and 15).
- (xv) Locate the camera footage indicator (item 41) on the R.H. instrument panel. Uncouple its cable connection and stow in the dummy stowage provided on the for'd end of J.B.1. Remove the wedge plate (item 42) by undoing the four nuts and screws. Retain only the indicator and plate which may be returned to store.
- (xvi) Offer up the mounting bracket (item 2) and position, using the two lower holes where the redundant footage indicator was, to pick up on the two upper bracket holes. Spot through the third hole in the bracket and drill the instrument panel to suit using a No. 11 drill. Attach the bracket to the panel using (items 13 and 16) 3 off.
- (xvii) Disconnect conduit C17 at the R.P. and bomb junction box and at bulkhead 2 and without removing the loom from the aircraft proceed to rework same as follows:-
 - (A) At the R.P. junction box end, disconnect cables coded 'RP3' and 'E' from pins 'M' and 'G' respectively and remove from the loom. Discard the cable and nyllex tubing but retain the gland nut and cut ferrule.
 - (B) Add two new pieces of cable (item 22) each 3'-9" long to pins 'M' and 'G' of Breeze socket and coded 'RP3' and 'E' respectively. Slide a 3'-4" length of nyllex tubing (item 24) over these two cables and telescope 1" into existing 23 m/m nyllex tubing. Add the gland nut and cut ferrules retained in sub. paragraph (xvii) (A) to the new cables in similar manner to that previously used.

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- (xxii) Rerun the existing cable HC500/1 (ref.) from the compass junction box through a double clip (item 19) attached to bulkhead 2 by two screws (item 14) along with the cable HC500/4 (ref.) which is also clipped to the bulkhead by (item 20 and 14) as shown on sheet 2 of the drawing, the cable HC500/1 running to the amplifier unit.
- (xxiii) Repair any damaged finish using (item 35).
- (xxiv) Reconnect the aircraft accumulators.
- (xxv) Replace the pilot's seat in accordance with current authorized procedure.

Note:- On those a/c. which have not yet had ejection seats fitted it will be necessary to renew the split pins (Ident. No. H28B/5037 - Part No. SP9/E6 or AGS784/10 - 2 off and Ident. No. H28B/5045 - Part No. SP9/G12 or AGS784/21 - 2 off) which are to be drawn from Unit Stores.

(d) Tests : Function the gyro compass circuits and check for correct operation of power failure warning light.

(e) Recording : Record this modification in the aircraft log book.

Drawings

12. R.A.A.F. Drawing A12829 consisting of 4 sheets is attached herewith.

Effect on Weight and Balance of Aircraft

13. Amendments to weight sheet summaries will be issued and consolidated by Department of Air. The effect of the incorporation of this modification on the weight and balance of the aircraft is as follows:-

<u>Item</u>	<u>Weight</u> (lbs)(+)	<u>Arm</u> (in)(+)	<u>Moment</u> (min)(+)
Junction Box Mounting Bracket (OON925A)	+ .35	- 56	- 19.6
Junction Box (OON929A)	+ 3.3	- 56	-184.8
R.P. Auto Selector C/W Mtg. Bracket	- 2.0	- 60	+120.0
R.P. Auto Selector C/W Mtg. Bracket	+ 2.0	- 84	-168.0
Camera Footage Indicator	- 1.0	- 85	+ 85.0
Camera Footage Indicator Wedge Plate	- .12	- 86	+ 10.32
Junction Box (OON471A) (on a/c with D.H.			
Mod. V.100 - Ejection Seats embodied)OR	- 1.25	- 53	+ 66.25
Junction Box (OON471A - on a/c without D.H.			
Mod. V.100 - Ejection Seats embodied).	- 1.25	- 51	+ 63.75

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VAMPIRE MODIFICATION NO. 143

<u>Item No.</u>	<u>Ident. No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off Per Set</u>	<u>Stores Class</u>
55.	H28/27025	AGS2001C/1	Nut, M.S., Self-Locking Nylloc, 2BA	3	C
56.	H28/26009	DHS29/10	Clip, pipe, double, Alum. x 22 S.W.G.	1	C
57.	H28/26102	DHS30/5	'P' Clip, Alum. 3/8" I/D x 22 S.W.G.	1	C
58.	H28/26078	DHS103	Mk. 2 Ferrule, 2BA	1	C
59.	G5E/30155	NPN	Cable AA18, one core vin Spec. AS No. U1 x 27'-0" long	1	C
60.	G5F/20057	NPN	Tubing Insulating P.V.C. 4 m/m I/D black x 4' long	1	C
61.	G5F/20058	NPN	Tubing Insulating P.V.C. 5 m/m I/D black x 3'-10" long	1	C
62.	G5F/20063	NPN	Tubing Insulating P.V.C. 10 m/m I/D black x 5'-0" long	1	C
63.	G5E/30161	NPN	Cable, AA16, one core vin, Spec. AS No. U1 7'-6" long	1	C
64.	I32A/2006		Twine, binder, coreless	A.R.	C
65.	K4/10864		Glue, beetle, type 'A'	A.R.	C
66.	K4/10866		Hardener, beetle, violet V15	A.R.	C
	or K4/10867		Hardener, beetle, yellow G.P. 30	A.R.	C
	or K4/10868		Hardener, beetle, blue 2B	A.R.	C
67.	W3/2077		Brad, brass, 18 S.W.G. x 1/2" long	A.R.	C
68.	K3/353		Compound, jointing, D.T.D. 369A	A.R.	C
69.	K3/386		Bostik, primer, 1751	A.R.	C
70.	K3/387		Bostik, sealant, 1790	A.R.	C
71.	I1/494		Wire, locking, copper, soft, 22 S.W.G.	A.R.	C
72.	K3/321		Enamel, cellulose, black	A.R.	C

Notes:- (a) Items 43 to 63 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre, pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre.

(b) Items 64 to 72 inclusive are to be drawn from unit stores.

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VAMPIRE MODIFICATION NO. 143

- (iii) Disconnect the cable looms from their respective plugs at junction box 1. Remove the junction box from the aircraft and retain screws and washers for re-assembly.
- (iv) Locate the compass junction box Part No. OON471A (ref.) on the forward starboard upper (on a/c without D.H. Aust. Mod. V.100, R.A.A.F. Vampire Mod. 131 embodied) or lower (on a/c with D.H. Aust. Mod. V.100, R.A.A.F. vampire Mod. 131 embodied) face of bulkhead No. 2 and disconnect the cable assemblies. Remove and discard the three screws and washers securing the box to the bulkhead. The junction box is no longer required, but the components (items 73 to 78 inclusive) are to be removed, examined, and, if serviceable, returned to store.
- (v) Remove the blind flying panel from the aircraft by disconnecting the instruments, pressure and static pipe lines, and bonding connection. Release the panel from its three shock mountings and retain for re-assembly.
- (vi) Refer to sheet 1 of drg. A.12829 and mark out on the panel the position of the .78" dia. hole. Drill and file this hole as dimensioned.
- (vii) Remove the bottom R.H. screw attaching the artificial horizon to the panel and discard. The label (item 43) filament (item 46) and red warning lamp (item 48) may now be assembled to the blind flying panel. After reworking the panel, alter the part no. to OOB125AND.
- (viii) Remove existing loom C2 from the aircraft and proceed rework as follows:-
 - (A) Cut existing 25 m/m I/D nyllex tubing at a point 3" from the back of the coupling nut.
 - (B) Undo the coupling nut from the Breeze socket.
 - (C) Add the following new wiring at the Breeze socket:
 - At pin 'T' add a 3'-9" length of cable (item 59) coded 'GA1+'
 - At pin 'U' add a 3'-9" length of cable (item 63) coded 'GC2'
 - At pin 'V' add a 3'-9" length of cable (item 63) coded 'GC+'
 - At pin 'I' add a 3'-9" length of cable (item 59) coded 'GC4'
 - and a 4'-3" length of cable (item 59) coded 'GC4'

Note:- Two cables coded 'GC4' are to be connected to pin I.

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- (C) Disconnect the existing cable coded GC2 running from plug C3 pin T to CB4, re-code it GC+ at both ends and re-route it from plug C2 pin V to CB4 (Gyro compass and artificial horizon circuit breaker).

Alter the part no. of junction box No. 1 to OON857A/4.

- (x) Replace the lid of the box, and re-attach it to the starboard cockpit wall with the screws and washers removed in operation (iii).
- (xi) Refer to sheet 3 of the drawing and mark out the position of a new 2BA ferrule (item 58) which is to be glued and bradded to the starboard side of the cockpit floor, using (items 65 and 67) and a suitable hardener (item 66) according to weather conditions.
- (xii) Offer up the mounting rack (item 3) and referring to sheet 2 attach the foot of the rack under the head of the forward O/B bolt which secures the elevator controls quad. bracket. Secure the I/B foot of the rack to the new ferrule positioned in operation (xi), using a bolt and washer (items 9 and 11). Attach the top lug of the rack under the heads of the two 4BA bolts, used to assemble the sealing plate on bulkhead 2. Use (items 69 and 70) where sealing is required and (item 68) to coat the jointing surfaces of the mounting rack.
- (xiii) Attach the new compass junction box (item 45) to the mounting rack using three bolts and nuts (items 51 and 55).
- (xiv) Locate the camera footage indicator (item 77) on the R.H. instrument panel. Uncouple its cable connection and stow in the dummy stowage provided on the for'd end of J.B.1. Remove the wedge plate (item 78) by undoing the four nuts and screws. Retain only the indicator and plate which may be returned to store.
- (xv) Reconnect the reworked cable Loom C2, the large Breeze plug and socket to J.B.1, and the new socket lead running behind J.B.1. to terminate at the G3 compass junction box. Whip the cable with (item 64) to the existing cable runs behind J.B.1.
- (xvi) Run the new cable coded 'GC4' from the loom to the rear of the blind flying panel position. Offer up the panel as removed in (operation (v)) and connect this cable to the red power failure warning lamp, as fitted in operation (vii). Reconnect all instruments, pressure and static pipe lines and bonding previously removed.

(Issued with A.L.91 - November, 1957)

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17.

A.A.P. 721:79, Vol. 2, Part 2.

VAMPIRE MODIFICATION NO. 143

Effect on Weight and Balance of Aircraft

25. Amendments to weight sheet summaries will be issued and consolidated by Department of Air. The effect of the incorporation of this modification on the weight and balance of the aircraft is as follows:-

<u>Item</u>	<u>Weight</u> <u>(lbs)(+)</u>	<u>Arm</u> <u>(in)(+)</u>	<u>Moment</u> <u>(min)(+)</u>
Junction Box Mounting Bracket (OON925A)	+ .35	- 56	- 19.6
Junction Box (OON929A)	+ 3.3	- 56	-184.8
Camera Footage Indicator	- 1.0	- 85	+ 85.0
Camera Footage Indicator Wedge Plate	- .12	- 86	+ 10.32
Junction Box (OON471A - on a/c with D.H. Mod. V.100 - Ejection Seats embodied) OR	- 1.25	- 53	+ 66.25
Junction Box (OON471A - on a/c without D.H. Mod. V.100 - Ejection Seats embodied)	- 1.25	- 51	+ 63.75

References : Files, Department of Air, 150/4/8952 and 150/4/8621.
Attachment : Drawing A.12829 (4 sheets).
Date of Issue : 21st November, 1957.

(Issued with A.L.91 - November, 1957)

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DO NOT SCALE

ISSUE NO. DATE

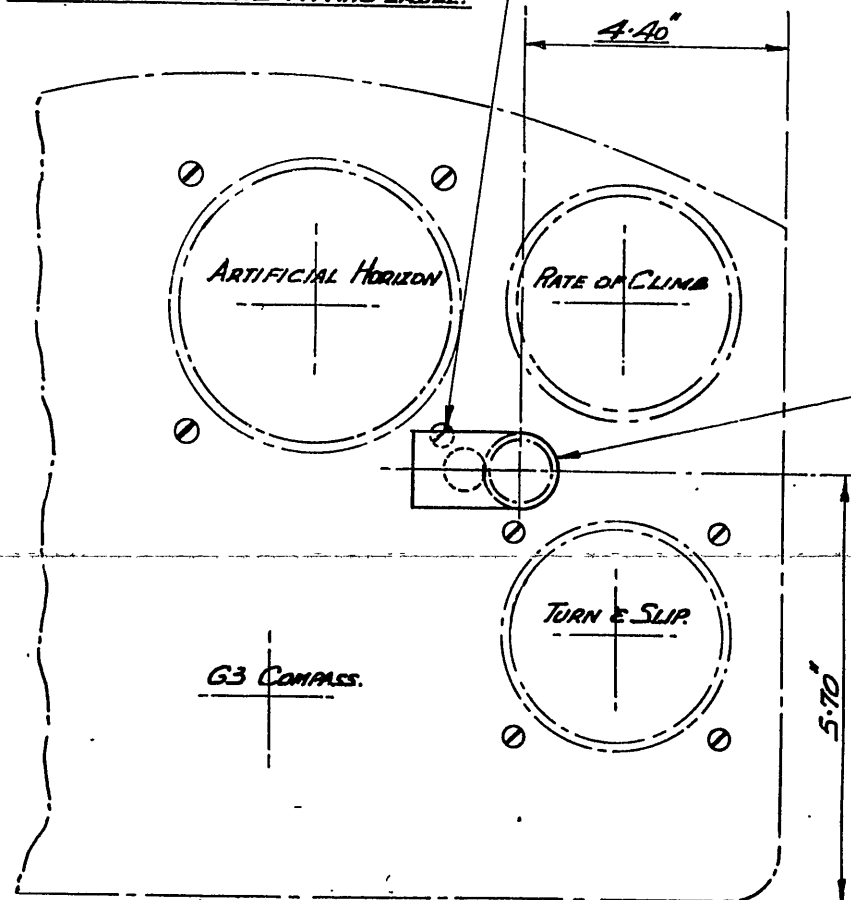
ALTERATION

D. I. L.

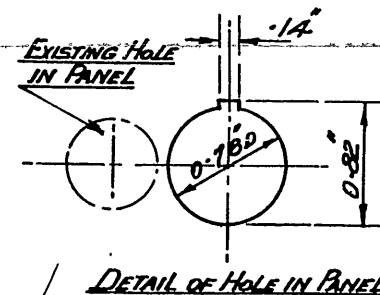
INITIALS

APPROVED

REMOVE BOTTOM R.H. SCREW ATTACHING
ART. HORIZON BEFORE FITTING LABEL.



- 00B 127 LABEL
1-OFF
- G5A 1928 FILAMENT
1-OFF
- G5C 1069 WARNING LAMP
1-OFF



NOTE: AFTER REWORKING THE PANEL TO THE ABOVE
DRAWING THE PART NO OF THE PANEL IS TO
BE ALTERED TO 00B125A.N.D.

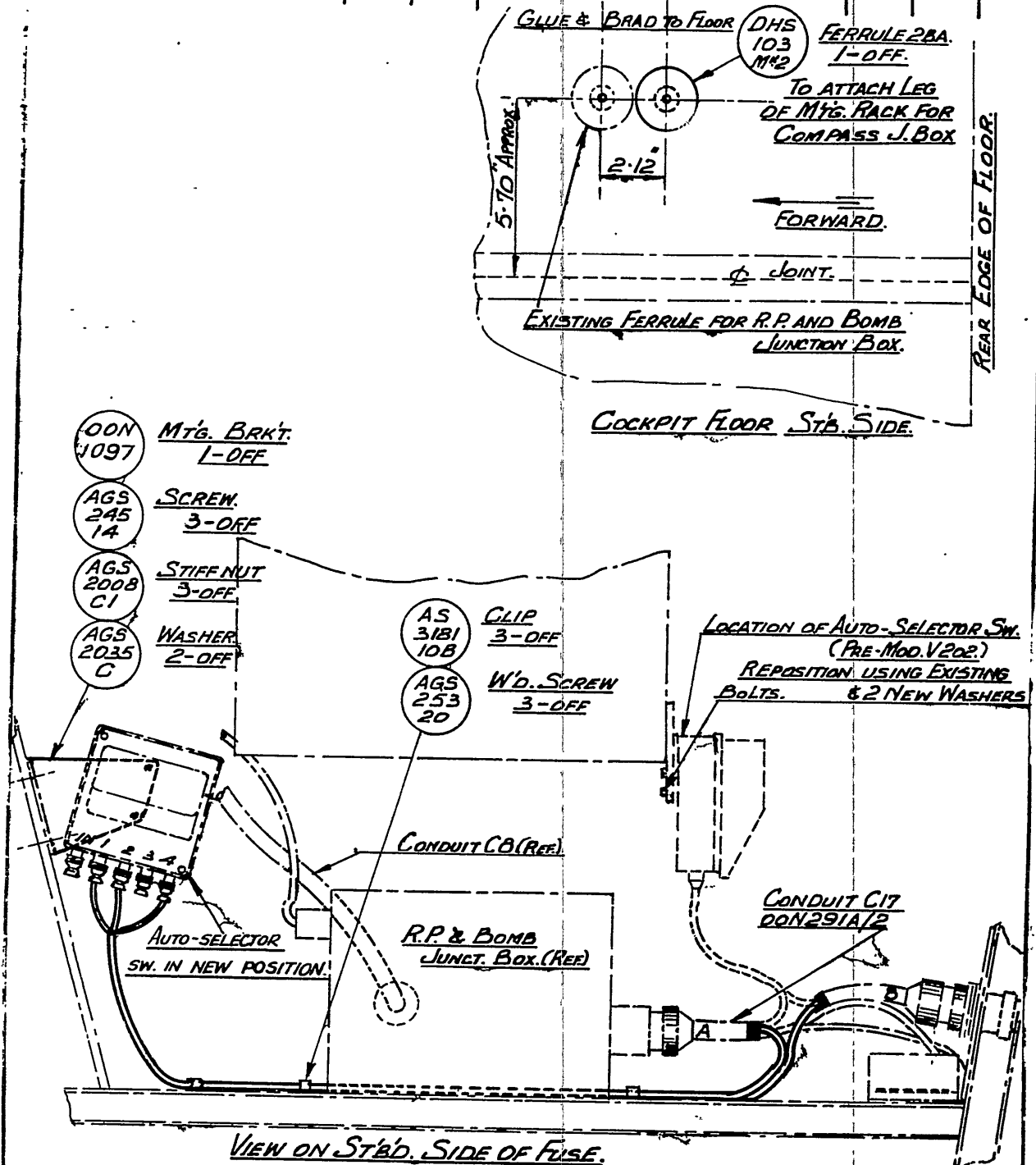
MOD. TO BLIND FLYING PANEL.

REFERENCE	ISSUED BY		TITLE	
	Department of Air		De Havilland Drawg. No. 00M331. No. of Sheets	
	Directorate of Technical Services		Power Failure Warning	
			LIGHT - INTRODUCTION.	
LIMITS UNLESS STATED	MATERIAL	COMPONENT		
DECIMALS ± .010"	SPEC.	OF		
FRACTIONS ± 1/32"	TREATMENT	MACHINE	Vampire	
ANGLES ± 1°	FINISH	ENGINE		
SURFACE FINISH	SCALE	TECH. ORDER	Vampire Mod. 143	
AUSTRALIAN STANDARD	DRAWN	APPROVED	DRAWING NO.	
ENG. DWG. PRACTICE A.S.21	TRACED	CHECKED	A12829 5/11	
			BING. SIZE	

SHEET No. 1

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	B.I.L.	INITIALS	APPROVED



REFERENCE				ISSUED BY				DEHAVILLAND DRWG. No 00M331				SHEET No 3 No OF SHEETS	
				Department of Air Directorate of Technical Services				TITLE					
				POWER FAILURE WARNING LIGHT-INTRODUCTION									
LIMITS UNLESS STATED		MATERIAL				COMPONENT OF							
DECIMALS ± .010"		SPEC.				MACHINE		Vampire					
FRACTIONS ± 1/32"		TREATMENT				ENGINE							
ANGLES ± 1°		FINISH				TECH. ORDER		Vampire Mod. 143					
SURFACE FINISH		SCALE				DRAWING NO.		A12829 Sh. 3				DRAWG. A SIZE	
AUSTRALIAN STANDARD		DRAWN				APPROVED							
ENG. DRWG. PRACTICE A.S. 21		TRACED				CHECKED							

Restricted

A.A.P.721:79, VOL.2, PART 2

VAMPIRE MODIFICATION NO. 144

Class 2

V.H.F. CONTROLLER - REPOSITION

Reason for and Description of Modification

1. This modification is introduced to improve the view and accessibility of the V.H.F. controller. The modification authorises the installation of a new mounting bracket which repositions the V.H.F. controller.

Application

2. This work is to be carried out on Vampire Mk.33 Aircraft, D.H. Serial No. A79-801, 802, 803 and A79-805. Mk.33 aircraft A79-804 also A79-806 and subsequent, have been modified by the manufacturer.

Responsibility for Incorporation

3. The modification is to be incorporated by operating units and aircraft depots or the civilian contractor responsible for servicing Vampire Aircraft.

Action in Respect of Spares

4. No unmodified spares have been supplied by the De Havilland Aircraft Pty. Ltd.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.660 and Air Ministry Modification VAM.3174 are the equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1		15.FS.1457AND	Bracket, V.H.F. Controller	1	
2	H28/7277	A25/2C	Bolt, H.T.S., Hex. Hd., 2B.A. x .65" long.	2	

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VAMPIRE MODIFICATION NO. 144

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
3	H28/27025	AGS.2001/C-1 NYLOC	Nut, M.S., Hex., Nyloc Insert, 2B.A.	2	
4	H28/12142	AS.1246/21C	Bolt, H.T.S., Rd.Hd., 2 B.A. x 2.5" long.	1	
5	H128F/30257	AS.2227/204	Rivet, Al.Alloy, Rd. Hd., 1/16" D. x 1/4" long.	2	
6	H128F/30267	AS.2227/404	Rivet, Al.Alloy, Rd. Hd., 1/8" D. x 1/4" long	2	
7	H128F/30268	AS.2227/405	Rivet, Al.Alloy, Rd. Hd., 1/8" D. x 5/16" long.	4	
8	H128F/63365	AS.2229/404	Rivet, Al.Alloy, Csk. Hd., 90°, 1/8" D x 1/4" long.	6	
9	H28C/12245	SP10/C	Washer, M.S., Plain, thin, 2 B.A.	2	
10		N.P.N.	Packing, Al.Alloy, Sheet, 24ST. (E) D647 or DTD610 18 SWG 3" x 3/4" (Make From 11/2637)	1	
11	K3/321		Enamel, cellulose, black	A.R.	
12	I32A/2006		Twine, binder, waxed.	A.R.	
13	K3/353		Compound, jointing, Spec. DTD369A	A.R.	

Notes: (a) Items 1 to 10 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Operating units and aircraft depots requiring modification sets are to demand from De Havilland Modification Centre.

(b) Items 11 to 13 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

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VAMPIRE MODIFICATION NO. 144

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
14		15.F.1019ND	Angle, stiffening.	1	
15		15.F.1111	Label "No.2 Set".	1	

Note: Items 14 and 15 are obsolete and are to be disposed of in accordance with current authorised procedure.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing after receipt of the modification sets.

Method of Incorporation

11. (a) Man-hours involved : Approximately twelve (12) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Lift the hinged nose cap by undoing the fasteners and secure the support strut. Disconnect the aircraft accumulators in accordance with current authorised procedure. Raise the gun sights to their operational position.
 - (ii) Release the six 'oddie' fasteners attaching the main instrument panel to its mountings and pull the complete panel assembly down to the full extent of its check cables.
 - (iii) Locate the electrical cable from the V.H.F. control unit on the underside of the instrument panel support structure platform, and disconnect it from the unit by unscrewing the angle socket lock nut, and removing the plug connections. Lift the unit clear from the aircraft and retain for reassembly.

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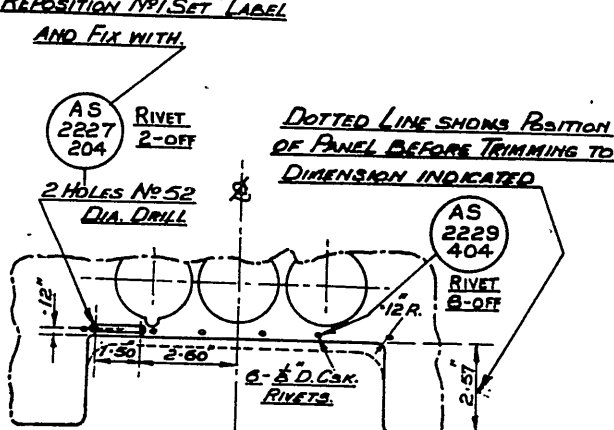
VAMPIRE MODIFICATION NO. 144

- (iv) Drill out the four 1/16 inch diameter rivets attaching the two control unit labels to the centre bottom portion of the instrument panel, retaining label "No. 1 Set", but discarding the other label "No. 2 Set" (item 15).
- (v) Remove the stiffening angle (item 14) from the back of the bottom centre portion of the panel by drilling out the six $\frac{1}{8}$ inch diameter countersunk retaining rivets. Fill the redundant holes left by the removal of these rivets, with six rivets (item 8), countersunk flush on both sides.
- (vi) Mark out, cut and file to shape the centre panel aperture to the dimensions given on sheet 1 of D.H. Drawing No. A-12351. Position the label "NO. 1 Set", (removed in operation (iv)) on the port side of the panel as shown, and using the holes in the label as a guide, drill two holes through the panel with a No.52 drill. Remove the label, deburr the holes and rivet the label in position using two rivets (item 5).
- (vii) Referring to the drawing and to the dimensions given on the instrument panel support structure platform, mark out the aperture as detailed. Cut and file to shape, removing any sharp edges around the aperture.
- (viii) Make up the packing plate (item 10) as detailed also on the drawing.
- (ix) Mark the position of the two holes .50 inch apart on the support structure top plate, and temporarily position the packing plate made in operation (viii). Using a No.30 drill, drill the two holes at the positions marked through the panel and the plate. Remove the plate, deburr the holes and clean away all trace of metal dust. Apply a thin coat of jointing compound (item 13) to the mating surfaces of the packing plate (item 10) and panel, and rivet the packing plate firmly in position using two rivets (item 6).
- (x) Position the new V.H.F. controller bracket (item 1) and, using the existing holes in the bracket as guides, drill the four rivet holes using a No. 30 drill. Remove the bracket, deburr the holes and clean away all trace of metal dust. Apply jointing compound (item 13) to the mating surfaces of the bracket, and rivet firmly in position on the instrument panel support structure using four rivets (item 7).

DO NOT SCALE

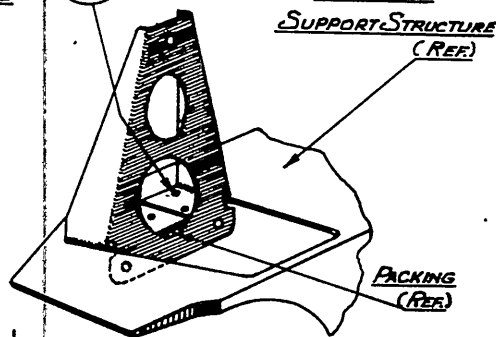
REV. NO.	DATE	ALTERATION	TOTALS

REPOSITION INSTRUMENT LABEL
AND FIX WITH.



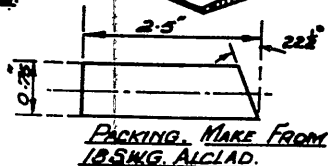
SCRAP VIEW ON FACE OF MAIN INSTRUMENT PANEL.

15FS 1457 AND V.H.F. CONTROLLER BRACKET 1-OFF
AS 2227 405 RIVET 4-OFF

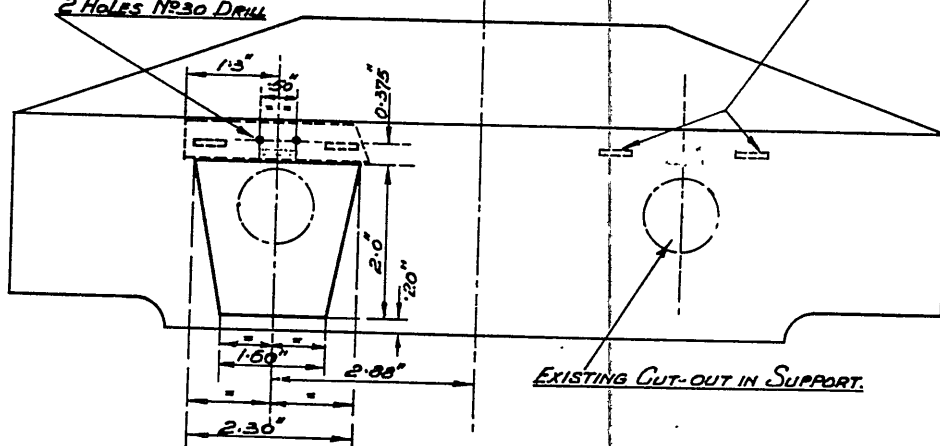


N.P.N. PACKING PLATE 1-OFF
AS 2227 404 RIVET 2-OFF

2 HOLES NO 30 DRILL



EXISTING SLOTS IN SUPPORT.



DETAIL OF APERTURE IN PLATFORM ON MAIN INSTRUMENT PANEL
SUPPORT STRUCTURE.

SHEET No. 1

DE HAVILLAND DRWG. NO. ODM 282 NO. OF SHEETS 1

REFERENCE		ISSUED BY			De HAVILLAND DRWG. NO. 00M282 No. OF SHEETS 1	
					TITLE	
					V.H.F. CONTROLLER - REPOSITION.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF		
DECIMALS	± .010"	SPEC.		COCKPIT		
FRACTIONS	± 1/32"	TREATMENT		MACHINE		
ANGLES	± 1°	FINISH		ENGINE		
SURFACE FINISH		SCALE		TECH. ORDER		
AUSTRALIAN STANDARD		DRAWN		DRAWING NO.		
ENC. DRWG. PRACTICE A.S. 521		TRACED		A 12351		
		APPROVED		DRWG. A		
		CHECKED		SEE		

Restricted

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A.A.P. 79:79, VOL.2, PT.2.

VAMPIRE MODIFICATION NO. 145

Class 2.

INTRODUCTION OF MK.8T PRESSURE HEAD AS AN
ALTERNATIVE FITMENT

Reason for and Description of Modification

"Investigation of defect reports concerning icing and malfunction of Vampire Aircraft pitot heads indicates that the MK 8B Pressure Head (Ident No G6A/729) is unsuitable for these aircraft. This modification introduces the MK 8T Type head (Ident No G6A/3819) and details the method of installation".

Application

2. This modification is applicable to all Vampire Mk.30, 31 and 33 aircraft.

Responsibility for Incorporation

3. The modification will be incorporated by the instrument personnel of units holding the applicable aircraft.

Action in Respect of Spares

4. Nil.

Orders Superseded or Cancelled

5. Nil.

Equivalent Modifications

6. Nil.

Supply

7. The following parts are required:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
1	G6A/3819	G.12352/1	Head Pressure MK.8T	1	A
2			Adapters	2	C
3	H28/5108		Nuts, coupling $\frac{1}{2}$ "	2	C
4	H28B/5109		Rings, rubber, sealing	2	C

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VAMPIRE MODIFICATION NO. 145

Notes:- (a) Item No.1 may be obtained by demand action when ~~pressure head replacement is necessary.~~ [⊙]

(b) Item No.2 will be manufactured within the unit.

(c) Items 3 and 4 will be drawn from consumable stocks.

Disposal of Parts Removed

8. The following parts are redundant:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off Per Set	Stores Class
5	G6A/729		Heads, pressure Mk.8B	1	A

Note: No.5 will be disposed of in accordance with current authorised procedure.

Disposal of Parts in Stock

9. Not applicable.

When Modification is to be Incorporated

10. This modification is to be incorporated ^{not later than the next} ~~as replacement of the existing heads pressure Mk.8B (Ident. No. G6A/729) become necessary.~~ _{servicing after receipt of parts.}

Method of Incorporation

11. (a) Man-hours Involved : Approximately two (2) man-hours are required to incorporate this modification.
- (b) Special Tools, Jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Deflect the port rudder fully towards the starboard boom.
 - (ii) Remove the two screws holding the base plate of the junction box. Lift out the box and disconnect the leads to the pitot heater.
 - (iii) Remove the screws holding the pressure head bracket to the tailplane and to the pressure head. Remove the pressure head bracket.

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VAMPIRE MODIFICATION NO. 145

- (iv) Unscrew the pitot and static connections to the pressure head and remove the pressure head.
- (v) Unsolder the nipple from the static tube and shorten the tube by one inch. Resolder the nipple to the tube. See Drawing No.G.12352.
- (vi) Manufacture two brass adapters, item 2, to Drawing No.G.12352/1.
- (vii) Using coupling nuts and rubber sealing rings, items 3 and 4, fit the two adapters, item 2 to the MK.8T pressure head, item 1.
- (viii) Fit the MK.8T pressure head to the aircraft in the normal manner.
- (ix) Connect the pitot heater heads to the junction box and replace the box plate.
- (x) Replace the pressure head bracket.
- (d) Tests : Carry out a leak test as detailed in Instrument Instruction No.1.21/1.
- (e) Recording : Aircraft Schedule and Log Book action as required.

Drawings

12. Drawing Nos.G.12352 and G.12352/1 are attached.

Effect on Weight and Balance

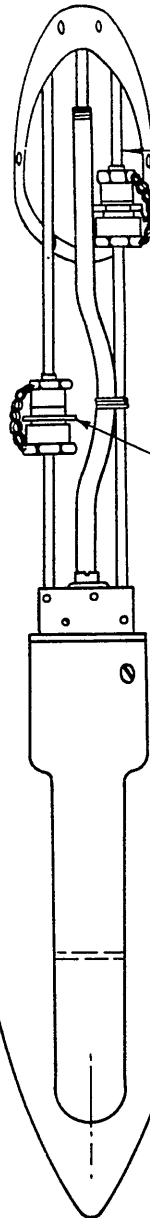
13. The weight and balance effect of this modification is negligible.

References : Files Department of Air 113/2/1435 and 150/4/8926
Attachment : Drawings G.12352 and G.12352/1.
Date of Issue : 15th March, 1955.

Restricted

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED
	15-12-54				

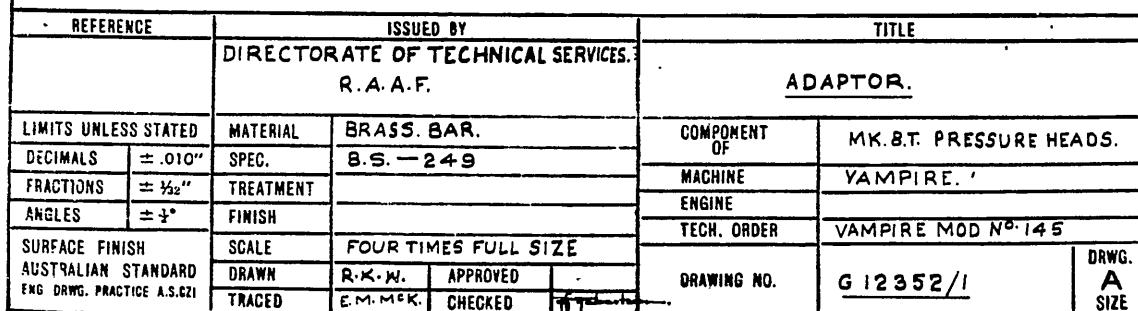


THIS PIPE TO BE MADE SHORTER
BY ONE INCH AND NIPPLE
RE-SOLDERED

G12352 /1

REFERENCE		ISSUED BY			TITLE		
		DIRECTORATE OF TECHNICAL SERVICES R.A.A.F.			ASSEMBLY - ADAPTOR		
LIMITS UNLESS STATED		MATERIAL			COMPONENT	MK. ST. PRESSURE HEADS	
DECIMALS	$\pm .010''$	SPEC.			MACHINE	VAMPIRE A/C	
FRACTIONS	$\pm \frac{1}{32}''$	TREATMENT			ENGINE		
ANGLES	$\pm \frac{1}{2}^\circ$	FINISH			TECH. ORDER	VAMPIRE MOD. NO 145	
SURFACE FINISH		SCALE	N/A		DRAWING NO.	G12352	DRWG. A SIZE
AUSTRALIAN STANDARD		DRAWN	WILLIAMS	APPROVED			
ENG DRWG. PRACTICE A 5 621		TRACED	W.J.S.	CHECKED			

ISSUE NO	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED
1	9-12-54				



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VAMPIRE MODIFICATION NO. 146

Class 3

FLEXIBLE HOSES AT REAR OF INSTRUMENT PANEL D.T.D.251
IN LIEU OF D.T.D.373 - INTRODUCTION

Reason for and Description of Modification

1. (a) This modification is introduced to minimise the risk of the existing flexible hoses kinking, thereby affecting the accuracy of A.S.I's, altimeters, and other instruments connected to the pitot-static system. The modification authorises the introduction of new type flexible hoses to Specification D.T.D. 251 in lieu of the flexible hoses to Specification D.T.D.373.

- (b) This modification is divided into two Parts, "A" and "B".

Part "A" is applicable to all Vampire Mk.30 and Mk.31 aircraft and it should be noted that R.A.A.F. Modification No. 74, Issue 2, must be incorporated prior to or concurrently with this modification.

Part "B" is applicable to Vampire Mk. 33 aircraft.

PART "A"

Application

2. This work is to be carried out on all Vampire Mk.30 and Mk.31 aircraft.

Responsibility for Incorporation

3. The modification is to be incorporated by operating units and aircraft depots or civilian contractors responsible for servicing Vampire Aircraft.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. R.A.A.F. Vampire Modification No.34 (D.H.(Amst.) Mod.V123) is cancelled by the introduction of this modification, and R.A.A.F. Vampire Modification No. 74, Issue 2, is modified by the alteration of type of hose.

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VAMPIRE MODIFICATION NO. 146

Equivalent Modifications

6. De Havilland (Aust.) Mod. V197 and Air Ministry Modification VAM. 3065 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off Per Set	Stores Ref.
1		N.P.N.	Tubing, low pressure, flexible $\frac{1}{4}$ " I.D. to Spec. D.T.D.251-24" long. (Make from T32C/472)	2	
2			Tubing, low pressure, flexible $\frac{1}{4}$ " I.D. to Spec. D.T.D. 251-18" long. (Make from T32C/472).	2	
3			Tubing, low pressure, flexible $\frac{1}{4}$ " I.D. to Spec. D.T.D. 251-16" long. (Make from T32C/472).	1	
4	G5F/500,001		Tape, insulating, P.V.C. $\frac{5}{8}$ " wide.	A.R.	
5	II/494		Wire, copper, soft commercial, 22 S.W.G.	A.R.	
6	II/2700		Wire, soft iron, galvanised, 20 S.W.G.	A.R.	

Notes: (a) Items 1 to 3 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Operating units and aircraft depots requiring modification sets are to demand from De Havilland Modification Centre.

(b) Items 4 to 6 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

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Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Ref.
7			Tubing, rubber, braided, 5/16" I.D. to Spec. D.T.D.373. (Made from T32C/143)	5	

Note: Item 7 is no longer required for Vampire aircraft and is to be disposed of in accordance with current authorised procedure.

Disposal of Parts in Stock

9. Any stocks of item 7 will no longer be required for Vampire aircraft and may be transferred to stores for other purposes.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor inspection after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately six (6) man-hours are required to incorporate this modification excluding time taken for carrying out A.S.I. tests.
- (b) Special Tools, Jigs, &c. : No special tools or jigs are required.
- (c) Sequence of Operations :
- (i) Remove the detachable nose panel, cut the lock wire from the two wing nuts holding the access door in the front armour, unscrew the wing nuts and lower the door to gain access to the hose runs at the rear of the instrument panels. Note that the blind flying panel may also be removed, if found to be necessary.
 - (ii) Refer to Drawing A.12353, sheet 2 and remove the wire binding from each end of the existing hose item 7, which runs between the cabin pressure gauge and the rate of climb indicator. Disconnect and discard this hose and then fit a sixteen inch length of hose, item 3, in its place. Wrap each end with tape, item 4, and securely bind with 22 S.W.G. copper wire, item 5, using at least six turns.

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VAMPIRE MODIFICATION NO. 146

- (iii) Remove the wire binding from each end of the two existing hoses, item 7, which run between the "tee" pieces and connections at the port bottom corner of the blind flying panel. Disconnect and discard these hoses and then fit two pieces of hose each 24 inches in length, item 1, in their place. Wrap each end of each hose with tape, item 4, and securely bind with wire, item 5, as in operation (ii). Loop these hoses and lash to adjacent instrument pipes.
- (iv) Remove the wire binding from each end of the two existing hoses, item 7, which run between the "tee" pieces (referred to in the previous operation) and the machmeter. Disconnect and discard these hoses and then fit two pieces of hoses 18 inches in length, item 2, in their place. Wrap each end of each hose with tape, item 4, and then securely bind with wire, item 5. Suitably coil any excess tubing round the back of the panel in such a manner that the hose is quite flexible, but is not likely to chafe or kink. Lash as necessary.
- (v) Refit the blind flying panel if this item was removed in operation (i).
- (vi) Close the door in the front armour and lock the retaining wing nuts with 20 S.W.G. wire, item 6, replace the detachable nose panel.

- (d) Tests : Carry out an A.S.I. test in accordance with current authorised procedure. Refer A.A.P.828, Section 4, Chapter 3, paragraph 137.

Note: The remainder of the leaflet from here onwards is similar for both Part "A" and Part "B".

PART "B"

Application

12. This work is to be carried out on Vampire Mk.33 aircraft, Serial No. A79-801 to A79-824 inclusive. Aircraft A79-825 and subsequent will be modified by the manufacturer.

Responsibility for Incorporation

13. This modification is to be incorporated by operating units and aircraft depots or civilian contractors responsible for servicing Vampire aircraft.

Restricted

Restricted

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VAMPIRE MODIFICATION NO. 146

Action in Respect of Spares

14. Not applicable.

Orders Superseded or Cancelled

15. No orders are superseded or cancelled by the introduction of this modification as applicable to Mk.33 aircraft.

Equivalent Modifications

16. De Havilland (Aust.) Mod. V.197 and Air Ministry Modification VAM. 3065 are the equivalent modifications.

Supply

17. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
8		N.P.N.	Tubing, low pressure, flexible $\frac{1}{4}$ " I.D. to Spec. D.T.D.251 18" lg. (Make from T32C/472)	4	
9	II/494		Wire, copper, soft, commercial, 22 S.W.G.	A.R.	
10	G5F/500,001		Tape insulating, P.V.C. $\frac{5}{8}$ " wide	A.R.	

Notes:- (a) Item 8 will be retained as a modification set at De Havilland Centre pending issue or demand. Operating units and aircraft depots requiring this modification are to demand from De Havilland Modification Centre.

(b) Items 9 and 10 are to be drawn from unit stores.

Disposal of Parts Removed

18. The following part will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
11			Tubing, braided 5/16" I.D. to Spec. D.T.D. 373. (Make from T32C/143)	4	

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VAMPIRE MODIFICATION NO. 146

Note:- Item 11 is no longer required for Vampire aircraft and is to be disposed of in accordance with current authorised procedure.

Disposal of Parts in Stock

19. Any stocks of item 11 will no longer be required for Vampire aircraft and may be transferred to stores for other purposes.

When the Modification is to be Incorporated

20. This modification is to be incorporated as soon as practicable, but not later than the next minor inspection after receipt of modification sets.

Method of Incorporation

21. (a) Man-hours Involved : Approximately four (4) man-hours are required to incorporate this modification excluding time taken for carrying out A.S.I. tests.
- (b) Special Tools, Jigs, &c. : No special tools or jigs are required.
- (c) Sequence of Operations :
- (i) Raise the gyro gunsights into their operational position and release the fasteners securing the upper and main instrument panels and ease them down in accordance with A.A.P.721:79/33, Vol. 1, Section 5, Chapter 2, to the full extent of the check cables.
 - (ii) Refer to Drawings A.12353, Sheet 1 and remove the four existing hoses, item 11, by unwinding the binding wire from both ends of each piece of hose. Discard the hoses.
 - (iii) Take two 18 inch lengths of hose, item 8, and secure in the position previously occupied by the two lower hoses, item 11, removed in the previous operation. Wrap each end of each hose with tape, item 10, and securely bind to the unions with 22 S.W.G. wire, item 9, applying not less than six turns.
 - (iv) Take two 18 inch lengths of hose, item 8, and secure in the position previously occupied by the two upper hoses, item 11, also removed in operation (ii), tape and bind to the unions as in the previous operation, at one of their ends, and to the machometer at their other ends, in a similar manner.

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VAMPIRE MODIFICATION NO. 146

- (v) Replace the main and upper instrument panels carefully checking for kinks, and secure in position with their original fasteners. Lower the gyro gun sights.
- (d) Tests : Carry out an A.S.I. test in accordance with current authorised procedure.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

22. Drawing A.12353 consisting of two sheets is attached.

Effect on Weight and Balance

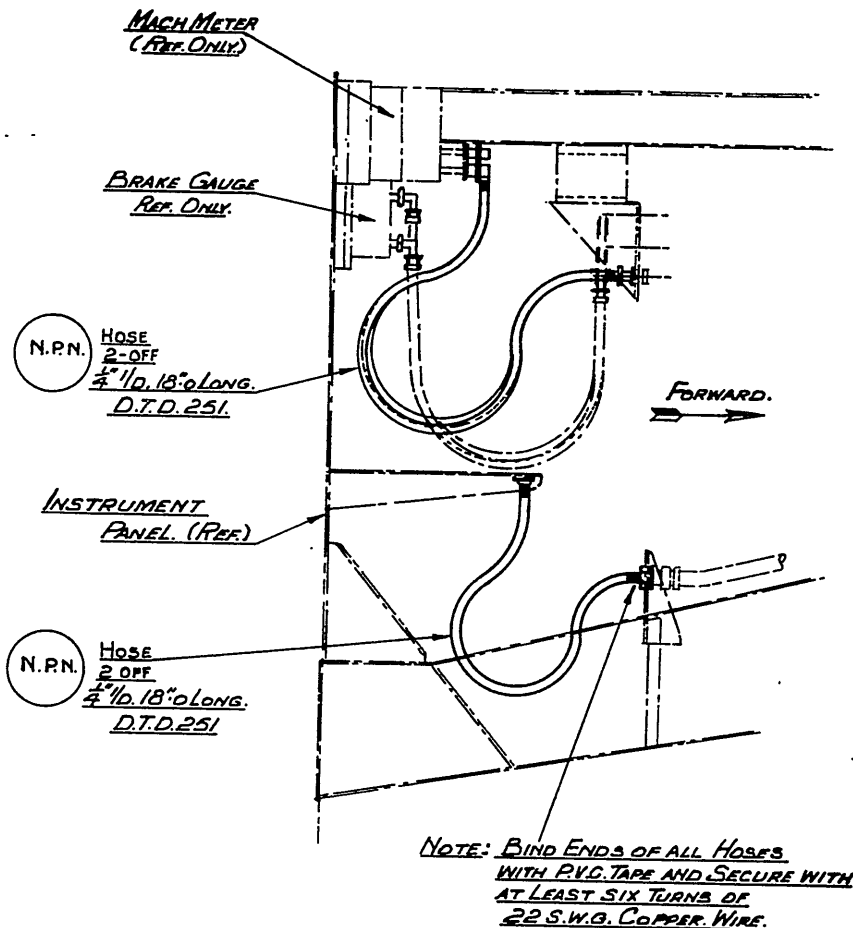
23. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 9/84/16 and 150/4/8928.
Attachment : Drawing A.12353, sheets 1 and 2.
Date of Issue : 14th March, 1955.

Restricted

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	B.I.L	INITIALS	APPROVED



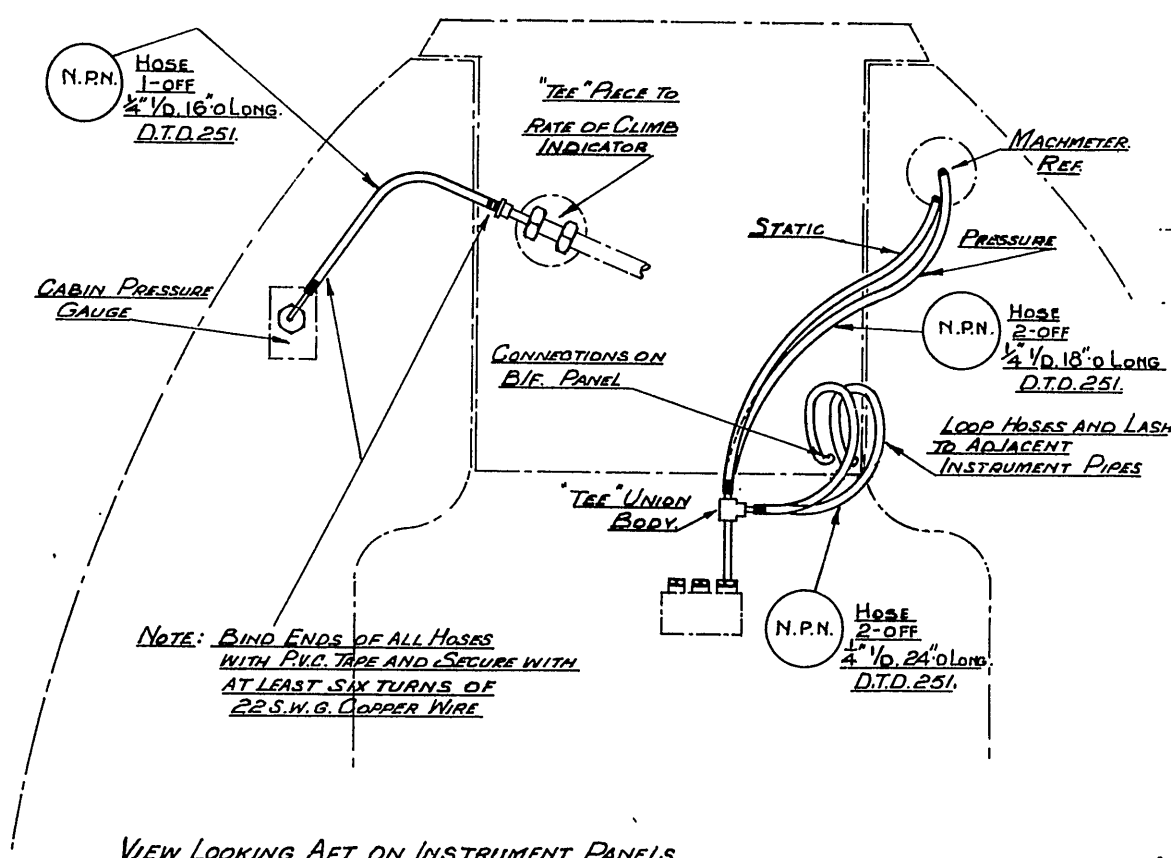
POSITIONING OF NEW HOSES FORWARD OF INSTRUMENT PANELS.

SHEET No 1

DeHAYILLAND DRWG. No. DDM 284 No. OF SHEETS 2.

REFERENCE		ISSUED BY		TITLE	
		Directorate of Technical Services. R.A.A.F.		FLEXIBLE HOSES AT REAR INST. PANELS	
				D.T.D. 251 IN LIEU OF D.T.D. 373. - INTRO'D.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	COCKPIT.
DECIMALS $\pm .010"$		SPEC.		MACHINE	VAMPIRE MK 33
FRACTIONS $\pm 1/32"$		TREATMENT		ENGINE	GOBLIN.
ANGLES $\pm 1^\circ$		FINISH		TECH ORDER	VAMPIRE MOD No 146
SURFACE FINISH		SCALE		DRAWING NO.	A12353 SHT. 1.
AUSTRALIAN STANDARD		DRAWN			DRWG. A SIZE
*NO DRWG. PRACTICE A.3.621		TRACED			
			APPROVED		
			CHECKED		

LONG SCALE



INSTALLING OF NEW HOSES FORWARD OF
INSTRUMENT PANELS.

SHEET N°2
De Havilland Drwg. No. 00M 284, No. of Sheets 2.

Directorate of Technical Services, R.A.A.F.		FLEXIBLE HOSES AT REAR INST. PANELS D.T.D. 251 IN LIEU OF D.T.D. 373 - INTRON.	
	COCKPIT		
	VAMPIRE MK 30 & 31		
	VAMPIRE 2 V.H.		
	VAMPIRE MOD. No 146		
	A12353 SHT 2		

MODIFIED NO.2 AND NO.3 WING FUEL TANK EMBODYING
ANTI-SURGE VALVES AT OUTBOARD FEED - INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to prevent excessive pressure in the No.2 and No.3 Wing Fuel Tanks due to centrifugal force developed during spinning. The modification authorizes the introduction of a modified No.2 and No.3 Wing Fuel Tank embodying anti-surge valves at the outboard feed.

Application

2. This work is to be carried out on Vampire Mk.33 aircraft, Nos. A79-801 to A79-805 inclusive. A79-806 and subsequent aircraft have been modified by the manufacturer.

Responsibility for Incorporation

3. The modification is to be incorporated by operating units and aircraft depots. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Nil.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification No. V621, Air Ministry Modification Vam.3075 and Marston Modification T35 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	A79/502089	A.M.1419 P.	"Marston" Tank No.2 Port	1	
2	A79/502090	A.M.1419 S.	"Marston" Tank No.2 Stbd.	1	
3	A79/502132	A.M.1422 P.	"Marston" Tank No.3 Port	1	
4	A79/502133	A.M.1422 S.	"Marston" Tank No.3 Stbd.	1	

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VAMPIRE MODIFICATION NO. 148

Note:- Items 1 to 4 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
5	A79/501606	A.M.905 P.	"Marston" Tank No.2 Port	1	
6	A79/501607	A.M.905 S.	"Marston" Tank No.2 Stbd.	1	
7	A79/503508	A.M.1158 P.	"Marston" Tank No.3 Port	1	
8	A79/503509	A.M.1158 S.	"Marston" Tank No.3 Stbd.	1	

- Notes:- (a) Items 5 and 6 are to be sent to the Civil Contractor (Dunlops) for overhaul and testing and then returned to store for use in Mk.30 and 31 aircraft.
- (b) Items 7 and 8 are to be sent to the Civil Contractor (Dunlops) for overhaul and conversion to A.M. 1422 P. and S. and then returned to store.

Disposal of Parts in Stock

9. (a) Fuel Tanks Part Nos. A.M.905 P. and S. are to be retained for use in Mk.30 and 31 aircraft.
- (b) Fuel Tanks Part Nos. A.M.1158 P. and A. are to be treated as in paragraph 8, Note (b).

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next minor servicing.

Method of Incorporation

11. (a) Man-hours Involved : Approximately twenty (20) man-hours are required to incorporate this modification.
- (b) Special tools, jigs, &c. : No special tools or jigs are required.
- (c) Sequence of Operations :

Note:- The following sequence of operations is applicable to both port and starboard wings.

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VAMPIRE MODIFICATION NO. 148

- (i) Drain the complete fuel system. Refer to Australian Air Publication 721:79/33, Volume 1, Section 2, chapter 2.
- (ii) Remove the Nos.2 and 3 wing fuel tank panels and wing fuel tanks, items 5, 6, 7 and 8. Refer to Australian Air Publication 721:79/33, Volume 1, Section 4, chapter 2, paragraph 14.
- (iii) Offer up in turn the modified No.2 wing fuel tanks, items 1 and 2, Part No. A.M.1419 P. & S., Ident. Nos. port A79/502089 and starboard A79/502090, also the modified No.3 wing fuel tanks, items 3 and 4, Part No. A.M.1422 P. & S., Ident. Nos. port A79/502132 and starboard A79/502133 respectively, locating each in their respective positions, adopting the reverse procedure detailed in operation (ii).
- (iv) Refuel the aircraft. Refer to Australian Air Publication 721:79/33 Volume 1, Section 2, chapter 2.
- (d) Tests : Carry out all fuel tests and check for leaks at all hose connections in accordance with current authorized procedure.
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. No drawings are required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 9/84/549 and 150/4/8930

Date of Issue : 27th April, 1955.

CLOCK STOP TYPE V308 - INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the fitment of clock, stop Type V308. This clock having a dial approximately twice as large as other clocks, is easier to read, this fact being of importance during instrument flying. Also being a stop clock it gives the pilot a record of elapsed flying time.

In addition this clock requires less maintenance than the present one installed.

Application

2. This modification is applicable to Vampire Mk.33 aircraft Serial Nos. A79-801 to A79-832 inclusive. A79-833 and subsequent aircraft will be modified by the manufacturer.

Responsibility for Incorporation

3. This modification will be carried out by units holding the applicable aircraft.

Action in Respect of Spares

4. Two spare instrument panels 15.F.1033A/1, Ident. No. A79/502425, require modification. These panels when modified as in paragraph 11(c), operations (iv) and (v) together with Vampire Modifications Nos. 125 and 128 are to be Part numbered F15-203A, Ident. No. A79/503578.

Orders Superseded or Cancelled

5. No orders are cancelled. The relevant parts of Vampire Modifications Nos. 75 and 125 will be superseded, if they have not already been carried out.

Equivalent Modifications

6. The manufacturer's equivalent modification is De Havilland (Aust.) Modification V667.

Supply

7. The following parts are required to complete one modification set:-

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VAMPIRE MODIFICATION NO. 150

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
1	G6A/3157		Clock Smith's Type V308	1	A
2		F15-179A	Bracket (Stop clock)	1	
3		15.F.971	Plate blanking	1	
4	"G6AA/500571"	11784	Screw, 4 B.A. Shear Head	4	C
5	H28C/	A44/B10	Screw, brass. metal, Rd. hd. 4BA x 5/16" long	5	
	or H28C/2407	A44/B12	Screw, Brass, metal, Rd. hd. 4BA x 3/8" long	5	
6	H28/662	A53/B	Nut brass ordinary Hex. 4 B.A.	5	
7	H28C/2127	A45/B16	Screw, brass, metal, Csk.Hd. 4 B.A. x 1/2" long	6	
8	H28/27002	A.G.S. 2001B/4	Nut, Brass, Hex. standard, "Nyloc" insert, 4 B.A.	6	
9	K3/321		Enamel, cellulose black	As Req.	

Notes:- (a) Items Nos. 1 to 8 inclusive will be delivered from Messrs. De Havilland Aircraft Pty. Ltd., Bankstown, N.S.W. to their own Modification Centre Store which will issue items on demand.

(b) Item No.9 is to be drawn from unit stores.

Disposal of Parts Removed

8. The following part is redundant:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
10	G6A/2089		Clock Smith's 8 day	1	

Disposal of Parts in Stock

9. Item No.10 is no longer required for Vampire Mk.33 aircraft, but is applicable to other types of aircraft.

When Modification is to be Incorporated

10. This modification is to be carried out as soon as practicable but not later than the next major servicing.

Method of Incorporation

11. (a) Man-hours Involved : Approximately seven (7) man-hours are required to incorporate this modification.

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VAMPIRE MODIFICATION NO. 150

- (b) Special Tools, Jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations : The following is the sequence of operations assuming that the main instrument panel has not been removed from the aircraft.
- (i) Raise the gyro gunsights into their operational position and lower the main instrument panel in accordance with Australian Air Publication 721:79/33 Volume 1, Section 5, chapter 2 to the full extent of the check cables.
 - (ii) Remove the existing clock, item 10, from the aircraft.
 - (iii) Blank off the hole, left by the removal of the clock, using blanking plate, item 3, four screws, item 7, and four nuts, item 8.
 - (iv) Refer to Drawing A.12390 and proceed to mark out the aperture on the top starboard side of the instrument panel, to the dimensions given. Drill and file to shape, and remove all sharp edges.
- Note: Extreme care must be taken not to jar or interfere with other instruments during this operation.
- (v) Locate the "Oddie" socket directly above this aperture and proceed to drill out the two lower rivets using a No.30 drill. Open up these two holes with a No. 26 drill and countersink on the rear face 90° x .25 inch diameter.
 - (vi) Secure the stop clock, item 1, to the bracket, item 2, using four 4 B.A. screws, item 4.
 - (vii) Position the clock and bracket as shown on the drawing at section on A-A. Using the bracket as a guide, drill through the five holes in the bracket and into the panel. Secure to the panel with five screws, item 5, and five nuts, item 6.
 - (viii) Lock these five attaching screws by soldering the nuts at the rear of the panel.
 - (ix) Using the same drill, drill through the two holes in the "Oddie" socket and through the bracket. Secure with two screws, item 7, and nuts, item 8.
 - (x) Touch up the panel where required using item 9.
 - (xi) Alter the Part No. of the Main Instrument Panel to F15-203A, Ident. No. A79/503578.

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VAMPIRE MODIFICATION NO. 150

(d) Tests : No tests are necessary.

(e) Recording : Record the modification in the
Airframe Log Book.

Drawings

12. Drawing No. A.12390 is attached.

Effect on Weight and Balance

13. The weight and balance effect of this modification is negligible.

References : Files Department of Air 113/2/1371 and 150/4/8932
Attachment : Drawing A.12390
Date of Issue : 18th April, 1955.

Restricted

DO NOT SCALE

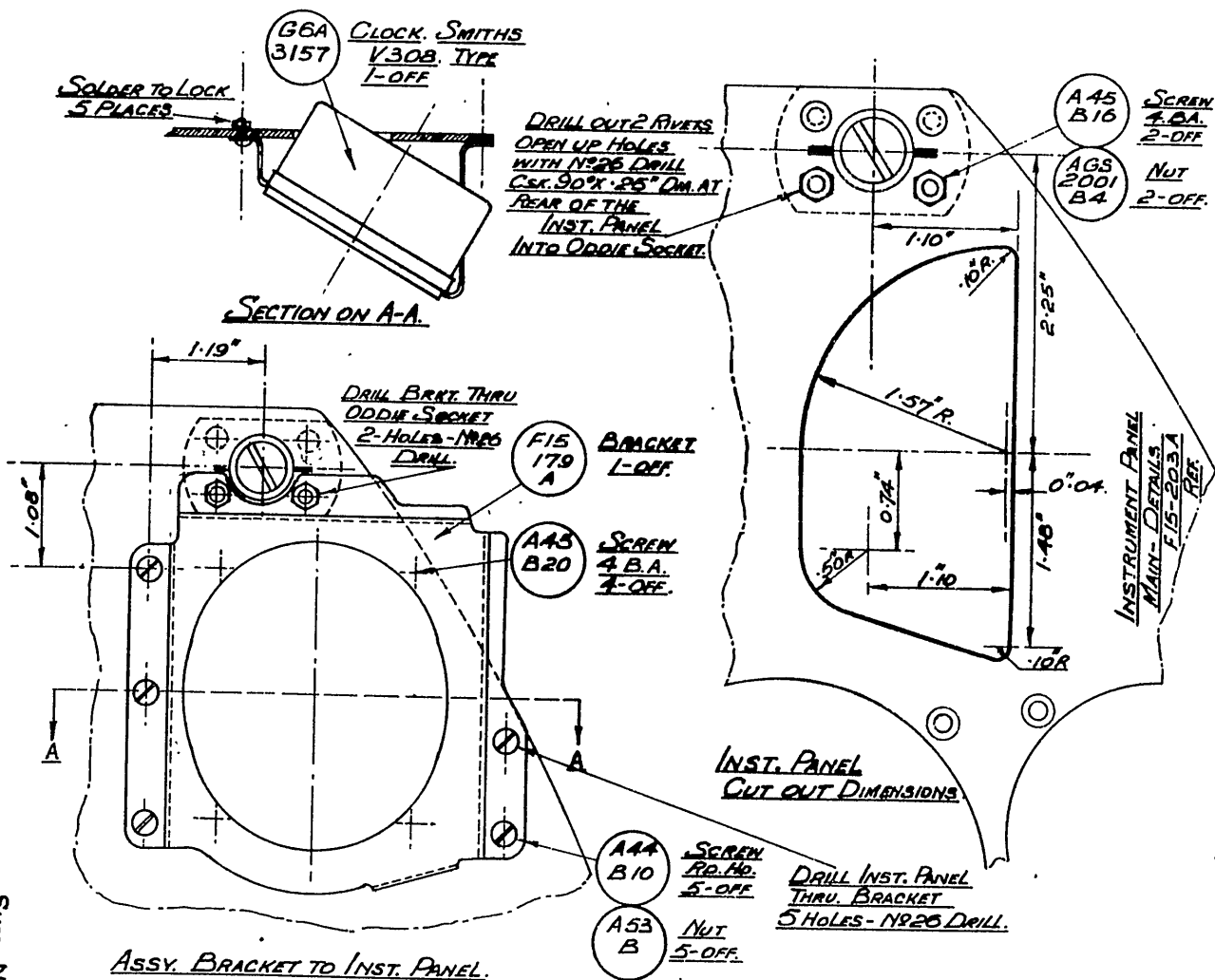
ISSUE NO. DATE

ALTERATION

A.I.T.

INITIALS

APPROVED



ASSY. BRACKET TO INST. PANEL.

STOP CLOCK SMITHS TYPE V30B

REFERENCE

ISSUED BY

DIRECTORATE OF TECHNICAL SERVICES

TITLE

TIME OF FLIGHT CLOCK, SMITHS
TYPE V30B - INTRODUCTION

LIMITS UNLESS STATED

DECIMALS

FRACTIONS

ANGLES

SURFACE FINISH

AUSTRALIAN STANDARD

ENG. Dwg. PRACTICE A.1.21

MATERIAL

SPEC.

TREATMENT

FINISH

SCALE

DRAWN

CHECKED

APPROVED

TRACED

COMPONENT

OF

MACHINE

ENGINE

TECH. ORDER

DRAWING NO.

A-12390

DATE

SHEET No. 1

De Havilland Draw. No. DOM.292 No. of Sheets 1.

VAMPIRE

Mod No. 100

1/50

DATE

SHEET

NO.

A-12390

DATE

SHEET

NO.

A-12390

DATE

SHEET

NO.

A-12390

DATE

SHEET

NO.

PROVISION FOR HIGH ENERGY IGNITION EQUIPMENT
MK.30 & 31 AIRCRAFT - INTRODUCTION

Reason for and Description of Modification

1. (a) This modification is introduced to enable the fitment of engines with high energy ignition equipment. This modification, therefore, makes the necessary changes to the electrical installation, and provides for the fitting of an improved re-light switch in the cockpit.
- (b) Provision is also made for contact to the booster coils, for use when engines are fitted without high energy ignition equipment.

IMPORTANT NOTE: When Nene Engine Mod.85 is incorporated, thus introducing the high energy condenser units, the following points should be particularly noted:-

- (i) High energy ignition equipment must on no account be tested in a confined space where fuel is stored, batteries charged or where inflammable vapour of any kind may be present.
- (ii) Care must be taken not to hold the end of the putput lead or the igniter plug, when the ignition unit is in operation, as a lethal shock may be experienced.
- (iii) After switching off the ignition unit following a test, wait at least one minute before disconnecting or otherwise interfering with the equipment. This is to allow any residual charge on the condenser to leak away.

Application

2. This work is to be carried out on all Vampire Mk.30 and Mk.31 aircraft.

Responsibility for Incorporation

3. This modification is to be incorporated at aircraft depots or civilian contractors.

Action in Respect of Spares

4. No spare complete engine control box assemblies have been delivered. Spare control lever assemblies D.H. Pt. No. L00850A, Ident. No. A79/500869, complete with knob L00319, will require to have the knob removed in order to have the extension lever fitted on modification. The part number of the lever minus the knob is L00705, Ident. No. A79/503651.

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VAMPIRE MODIFICATION NO. 151

Orders Superseded or Cancelled

5. Royal Australian Air Force Vampire Modification No.49 and Vampire Modification No.112 (D.H. (Aust.) Modification V.187, Issue 2) are cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.189 is the manufacturer's equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Ref.
1		LOO2264ND	Screw, 2BA.	1	
2		OOL341A	Lever, extension (H.P. Cock lever)	1	
3		OOL349	Catch (ext'n. lever).	1	
4		OOL353ND	Block, packing, 2" x 1" x 3/4" Spruce V.37, Grade B	1	
5		N15-153ND	Washer, M.S., plain, .19" i/d, .50" o/d x .05" thick.	1	
		Or			
	H28C/3071(Z)	AGS.160/C	Washer, M.S., plain, .19" i/d, .50" o/d x .05" thick.	1	
6		CON217/1	Wiring diagram (Lid J.B.2)	1	
7		CON807A	Cable assy. H.E. Ignition Unit supply.	1	
8		CON902AND	Cable assy. Boost coil & priming pump supply.	1	
9		CON827	Label "C18", J.B.2.	1	
10		CON887A	Cable assy. Time Switch	1	
11		CON889	Plate, blanking (J.B.1)	1	
12		CON891A	Bracket mounting, Time switch	1	
13		CON897	Label, "Relight only".	1	
14		P.T.C/DH/30	Time, switch, "Venner"	1	
15			Plug, "Breeze", Type CZ50357.	1	
16	H28C/	A32/A10	Screw, M.S., Rd.Hd., 6BA x 5/16" long.	2	
		or			
	H28C/2858	A32/A12	Screw, M.S., Rd.Hd., 6BA x 3/8" long.	2	
17	H28C/2204	AGS.250/24	Woodscrew, brass, Csk. Hd. No.4 x 1" long.	2	
18	H28/27023	AGS.2001A/1 Nylac.	Nut, stiff, M.S. Hex., thick, 6BA.	2	

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Ref.
19	H128F/30256	AS.2227/203	Rivet, Alum. Alloy, Rd.Hd., 1/16" D. x 3/16" long.	2	
20	H128F/30258	AS.2227/303	Rivet, Alum. Alloy, Rd.Hd., 3/32" D. x 3/16" long.	2	
21	I1/2700		Wire, locking, soft iron, 20 S.W.G., galvanised.	A.R.	
22	I32A/2006		Twine, binder, waxed.	A.R.	
23	K4/10612		Lacquer, tropic proofing.	A.R.	
24	G5A/30161	A.N.16	Cable, one core, vin. to Spec. AN-JC-48 (a).	A.R.	
25	K4/10864		Glue, beetle, type 'A'.	A.R.	
26	K4/10866		Hardener, beetle VLF (violet)	A.R.	
	K4/10867	or	Hardener, beetle G.P.30 (yellow)	A.R.	
	K4/10868	or	Hardener, beetle, 2.B. (blue)	A.R.	

Note:- (a) Items 1 to 20 inclusive will be delivered from De Havilland Aircraft Pty. Ltd., Bankstown, N.S.W. to the Contractor's Modification Centre Store, which will issue items on demand.

(b) Items 21 to 26 inclusive are to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Ref.
27	G5C/4187	Smith 11 S.W.	Button push, single way.	1	
28	G5C/4061		Switch, push button, B.T.H. Type P4-2.	1	
29	G5C/3942	S.I.S.5476	Relay, Type S, No.1 double pole.	1	
30	G5A/28669	AGS.1519	Nut union, gland.	2	
31	G5A/1503	AGS.1520	Sleeve, inner.	2	
32	G5A/1504	AGS.1521	Sleeve, outer.	2	
33		All677/3	Bracket, relay.	1	
34		All677/1	Handle, extension.	1	
35	A79/503597	OOL2289	Spring catch.	1	
36	A79/503533	LOO2263ND	Sleeve.	1	
37		LOO319	Knob, (H.P. Cock Lever).	1	
38		D.H.S.107/41	Label, (Re-light switch).	1	
39	A79/500604	BOO1763A	Plate, fixing, (Port rear) Instrument Screen.	1	

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VAMPIRE MODIFICATION NO. 151

- Notes:-
- (a) Item 27 is to be examined and, if serviceable, returned to store.
 - (b) Items 29 to 32 inclusive are to be examined and, if serviceable, returned to store.
 - (c) Items 33 to 39 inclusive are now obsolete and are to be disposed of in accordance with current authorized procedure.
 - (d) Item 28 is to be examined and, if serviceable, returned to store for use on other types of aircraft.

Disposal of Parts in Stock

- 9. Items 35, 36 and 39 are to be treated as in Note (c) to paragraph 8.
- 8. The following items are now obsolete and are to be disposed of in accordance with current authorized procedure.

A79/500603	-	B001759A	-	Plate fixing - Port Fwd.
A79/501600	-	00A31A	-	Ferrule, special.
A79/500605	-	B001767A	-	Plate fixing, Stbd.
A79/500602	-	B001735A	-	Screen, Instrument - Night Flying.

When the Modification is to be Incorporated

- 10. This modification is to be incorporated as soon as practicable, but not later than next major inspection after receipt of modification sets.

Method of Incorporation

- 11. (a) Man-hours Involved : Approximately forty (40) man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
 - (i) Ensure that the aircraft accumulators are disconnected in accordance with current authorized procedure.
 - (ii) Locate the high pressure cock control lever, mounted on the engine control box.

Note: If Royal Australian Air Force Vampire Modifications Nos.112 and 49 have already been incorporated, proceed as in sub-paragraphs (iii) and (iv) and then carry on with sub-paragraph (vi) onwards. If Royal Australian Air Force Modification No.49 only is incorporated, proceed as in sub-paragraph (iv) and then carry on with sub-paragraph (vi) onwards. If neither Vampire Modifications Nos.112 or 49 is incorporated, proceed as in sub-paragraph (v) onwards.

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VAMPIRE MODIFICATION NO. 151

- (iii) Remove the retaining spring catch, item 35, which was installed to prevent creep of the fuel cock handle and is held in position by a 2BA screw and washer along with a sleeve, item 36, and discard all these items.
- (iv) "(iv) Completely remove all the items and wiring from the push button on the pressure cock control lever to the relight button on Junction Box 1. Remove the extension handle, item 34, on the control lever, and the relay bracket, item 33, which is attached to the port side cockpit wall. Remove the existing bracket A11677/4 which holds the upper port ultra violet light. All these items are to be discarded, with the exception of items 27 and 29, which are to be checked, and, if serviceable, returned to store. Position the new bracket, item 13a, in place of the one previously removed and re-install the ultra violet light."
- (vi) :
- (vii) Alter the Pt. No. of the control box assembly with extended H.P. cock lever to 00L351A.
- (viii) Referring to the same drawing, locate the catch, item 3, and packing block, item 4, on the fuselage side so as to engage the spring on the extension handle as shown at Section 'A-A'. The block may be reduced in thickness, if necessary, to obtain the correct height of catch.
- (ix) Glue and screw the block along with the catch in the located position on the side of the fuselage using items 25, 26 and 17.
- (x) Locate the cockpit light bracket on the port side and approximately above the engine control box. The mounting bracket, item 12, for the "Venner" time switch is to be fitted on the same canopy bolts Nos. 1 and 3, as and in conjunction with the light bracket. The existing fixing plate, item 39, which is in the way of the switch mounting bracket, is to be removed and discarded.
- (xi) Offer up the "Venner" time switch, item 14, and, when positioned, locate the label, item 13, above the switch. Remove the switch and drill through the bracket using the label as a guide and then secure the label to the mounting bracket by means of two rivets, item 20. Replace the "Venner" time switch and fasten into position.

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- (xii) Remove the front panel from J.B.1 and referring to Drawing No. A.12456, sheet 2, proceed to remove the push button switch, item 28, from the left hand end of the top panel of the box. Disconnect and discard all wiring leading from the relight switch.
- (xiii) Drill out the two rivets attaching the label marked "Relight Sw.", item 38, and discard the label.
- (xiv) Mark out to the dimension as shown on the drawing and drill a No.34 hole. Using the same drill open up the existing No.52 hole opposite to suit the blanking plate, item 11. Attach the blanking plate using two screws, item 16, and two nuts, item 18.
- (xv) Connect the new cable, item 10, to the "Venner" time switch, the three ends to be bared and connected as shown on Drawing Sheet No. 1. Run this cable with existing cables, behind the instrument panel and through the rubber grommet into J.B.1. Bind to these existing cables where required using item 22. *New cable coded SA 32 to be connected to switch No. 1 on same terminal as existing cable coded S.B. 87.*
 (L7) ~~top terminal of switch No.1. Cable coded SA 32 to run to the bottom terminal of switch No.2. Cable coded SA31 to run to plug C7 pin 2.~~
- (xvi) Remove the upper engine cowling to gain access to J.B.2 on the starboard top side of bulkhead 4. Undo the looms entering the junction box and remove the four attaching bolts, retaining these for reassembly. Remove the box from the aircraft.
- (xvii) Take off the lid of the box and referring to Drawing No. A.12456, sheet 2, position the new label, item 9, and drill two No.52 holes to suit. Rivet the label to the lid using item 19.
- (xviii) Apply a coat of tropic proofing lacquer, item 23, to the back of the wiring diagram, item 6, and position on the inside of the lid as shown. When correctly placed, roll out with a roller to remove any lacquer or surface air bubbles. Apply another coat of lacquer over the diagram.
- (xix) Set out on the base plate the position of the 1.18 inch diameter hole as shown on sheet 2 of the drawing, and drill also the four holes using a No.30 drill.
- (xx) Offer up the new breeze plug, item 15, and locate it in the new hole made in the base plate. The plug is to be mounted with its own attachment items with the pins 2 - 5 and 8 at the top of the box.
- (xxi) Refer to Drawing No. A.12456, sheet 5, and remove wiring inside J.B.2 as follows:-

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Cable coded 'SA41' from plug C11, Pin B to T.B.3.
 Cable coded 'E' from plug C11, Pin G to T.B.1.
 Cable coded 'SA41' from plug C14, Pin 1 to T.B.3 and
 Cable coded 'E' from plug C14, Pin 2 to T.B.1.

- (xxii) Junction Box 2 is to be wired as follows from plug C18, using cable, item 24:-

Run Cable coded 'E' from Pin 1 to T.B.1.
 Run Cable coded 'SA41C' from Pin 2 to T.B.3.
 Run Cable coded 'E' from Pin 3 to T.B.1.
 Run Cable coded 'SA41B' from Pin 5 to T.B.3.
 Run Cable coded 'E' from Pin 6 to T.B.1.
 Run Cable coded 'SA41A' from Pin 8 to T.B.3.

- (xxiii) Check the wiring and replace the lid. Return J.B.2 to its location on the bulkhead and reattach with the items removed in operation (xvi).
- (xxiv) At the port booster coil and the relay on port rib 1 (adjacent to the generator main circuit breaker), disconnect the interconnecting cable coded 'SA41' and 'E' and cut back to the loom C13 at both ends as far as possible, as it is now redundant. Items 30, 31 and 32 may be salvaged.
- (xxv) At the starboard booster coil, disconnect the cable coded 'SA41' and 'E' which forms part of loom C11, and cut back to the loom as far as is possible, as this cable is now redundant. Similar items may also be salvaged as in the previous operation.
- (xxvi) At the priming pump on the engine, disconnect the existing socket and cut the cable (which forms part of loom C14) back to a point near the lower engine mounting, as this cable is now redundant. The socket, coupling nut and ferrule are to be retained and attached to the priming pump lead on the new cable assembly, item 8.
- (xxvii) Refer to Drawing No. A.12456, sheets 3 and 4 and reconnect the cable looms as removed in operation (xvi). Offer up a new cable assembly, item 8, and connect it to the plug C18. Run the cable coded 'Boost Coil - Port' along with the existing C13 loom binding, where required, with item 22 and connect to the boost coil. Run the cable coded 'Boost Coil - Starboard' in a similar manner along with loom C11.

Run the remaining cable as shown in the drawing and also in the view in direction of arrow 'B', on sheet 4. Use the existing clips on the starboard engine mounting and finally connect the socket on the cable end to the priming pump.

- (xxviii) Note that on aircraft which have engines fitted with H.E. ignition units installed the cables Pt. Nos. NOC935-6-7 and 8A which are attached to the port and starboard boost coils, are not used, in which case the fittings on the free ends of these cables are to be covered to prevent ingress of moisture, dirt, &c., and these ends are to be laid back along the looms C13A and C11 and securely bound to same, so that the cables are effectively stowed.
- (xxix) Offer up the new cable, item 7, and bind it to the existing cables as shown on Drawing sheet 3, in such a way so that interchangeability can be made between the socket of the "boost coil" cable and the socket of the "H.E. ignition" cable to plug C18 on J.B.2 when required. When not in use this socket is to be covered to prevent ingress of moisture, dirt, &c., and suitably bound to existing cables.
- (xxx) Run cable coded "Port H.E. Unit" along the L.H. lower engine mounting tie rod for a distance of approximately 10.0" and bind to the tie rod in two places. Connect the socket to the H.E. ignition unit when fitted, otherwise when not fitted, cover the socket as above and coil and bind the free end of the cable to the lower engine mounting tie rod.
- (xxxi) Run cable coded "Stbd. H.E. Unit" along the R.H. upper engine mounting tie rod for a distance of approximately 10.0" and bind to the tie rod in two places. Connect the socket to the H.E. ignition unit when fitted, otherwise when not fitted, cover the socket as above and coil and bind the free end of the cable to the upper engine mounting tie rod.
- "(xxxi(a)). The two existing clips on the starboard engine mounting are now redundant and are to be disposed of in accordance with current authorized procedure." Either
xx), and
mounting
ner
gnition
- (xxxii) Re. (Issued with A.L.51 - July 1956) is installation for wiring continuity, insulation and correctness of connection. Replace the engine cowl.
- (d) Tests : As in operation (xxxii).
- (e) Recording : Record the modification in the Airframe Log Book as Vampire Modification No. 151.

Drawings

12.

Drawing No. A.12456 consisting of 5 sheets *3 and 4 are now revised to*
issue 2) *is attached.*

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Restricted

Restricted

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VAMPIRE MODIFICATION NO. 151

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 150/4/8621 and 150/4/8948
Attachment : Drawing A.12456, sheets 1 - 5.
Date of Issue : 8th July, 1955.

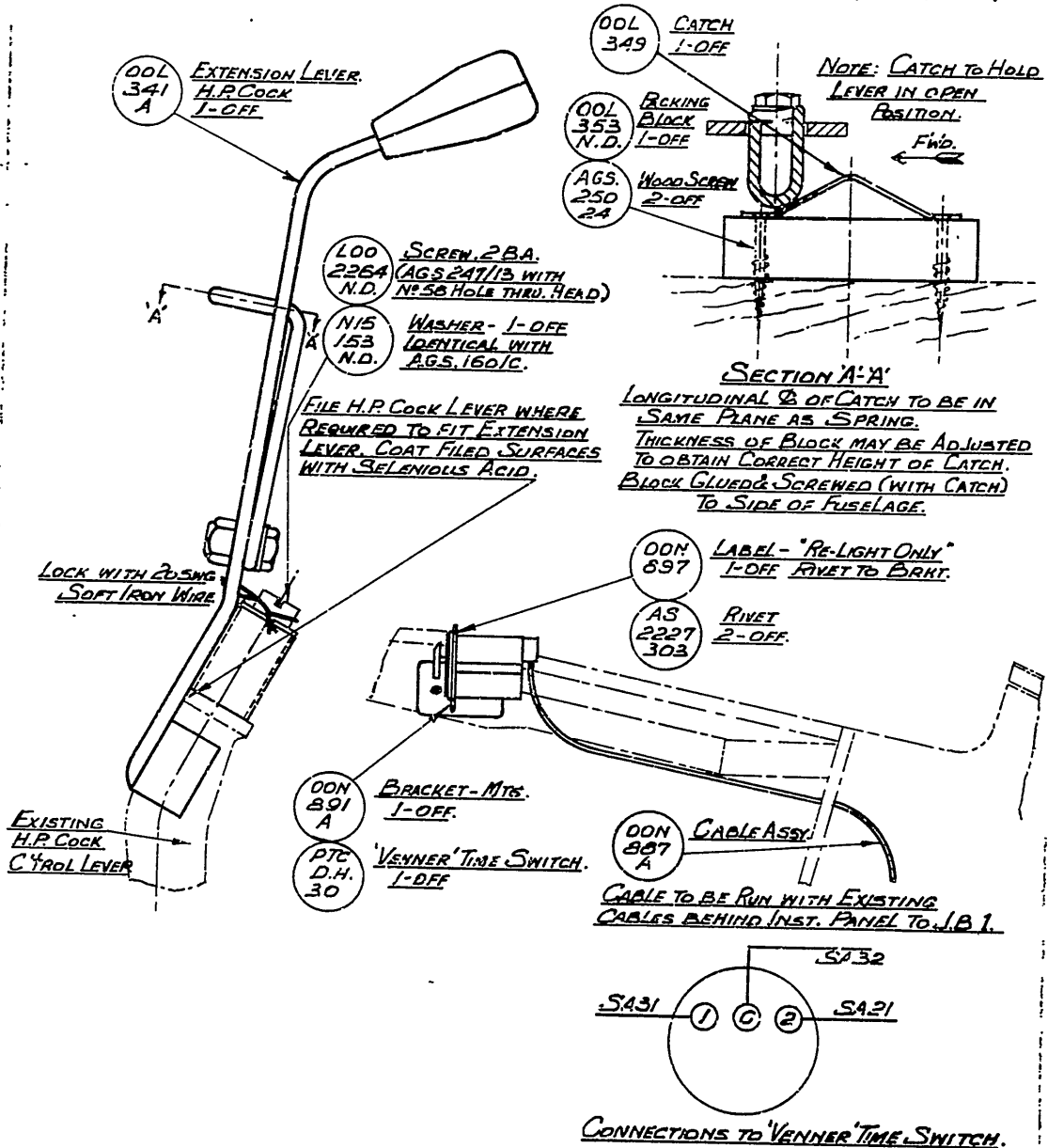
Restricted

DO NOT SCALE

ISSUE NO DATE

ALTERATION

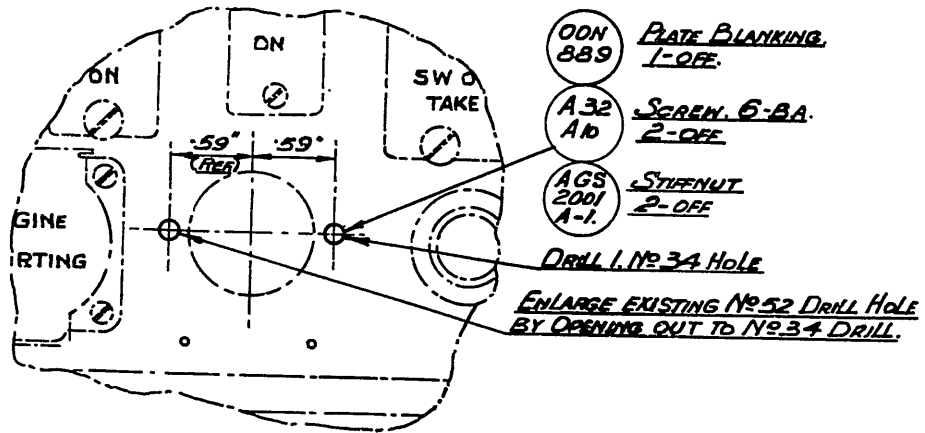
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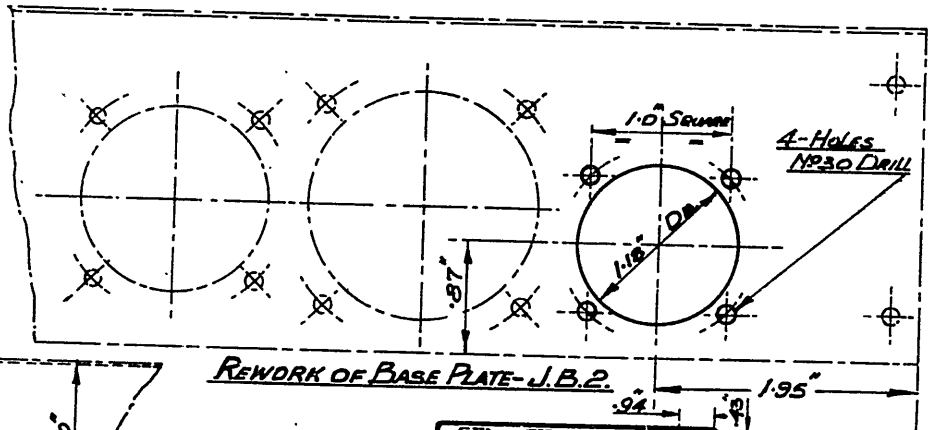
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UNLESS STATED	MATERIAL	COMPONENT		VAMPIRE MOD. No 151	
MAKES	± 0.005"	OF		A12456	
MAKES	± 0.005"	MACHINE		SHT. 1 OF 5 SHTS.	
MAKES	± 0.005"	ENGINE			
FINISH	SOLE	TECH. ST. DRA.			
FINISH	SOLE	DRAWING NO.			
FINISH	SOLE	APPROVED			
FINISH	SOLE	CHECKED			

DO NOT SCALE

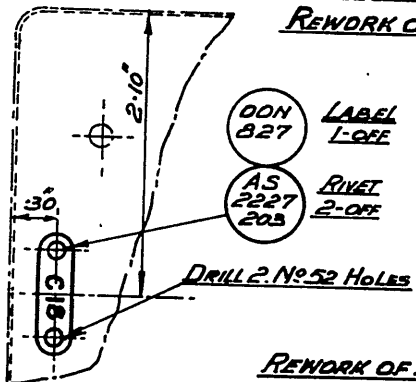
ISSUE NO	DATE	ALTERATION	D. L.	INITIALS	APPROVED



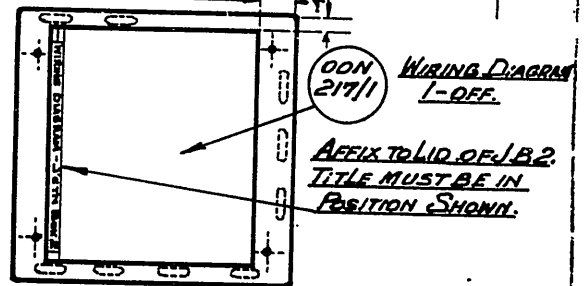
DETAIL SHOWING REWORK TO TOP PANEL OF J.B.1. - L.H. END.



REWORK OF BASE PLATE - J.B.2.



REWORK OF LID OF J.B.2.

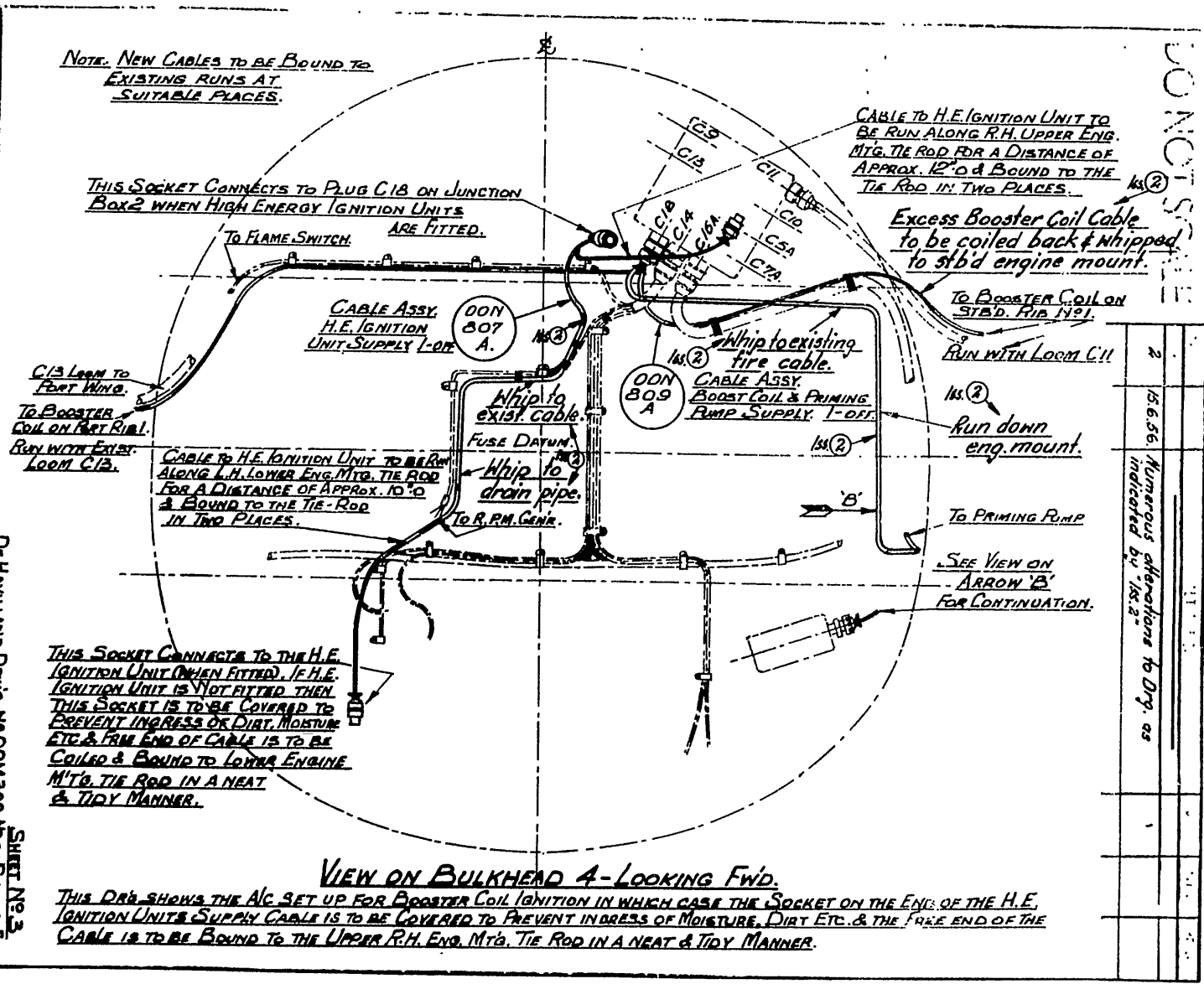


SHEET No 2

De Havilland Drawg. No 00M300, No OF SHEETS 5

REFERENCE		ISSUED BY		TITLE	
		DIRECTORATE OF TECHNICAL SERVICES		<u>PROVISION FOR H.E. IGNITION</u>	
		R. A. A. F.		<u>EQUIPMENT. Mk. 30 & 31 A/C - INTRO'N.</u>	
LIMITS UNLESS STATED	MATERIAL	COMPONENT OF			
DECIMALS $\pm .010''$	SPEC.	MACHINE			
FRACTIONS $\pm \frac{1}{32}''$	TREATMENT	ENGINE			
ANGLES $\pm 1^\circ$	FINISH	TECH. ORDER		VAMPIRE MOD. No 151	
SURFACE FINISH	SCALE	DRAWING NO.		A12456	
AUSTRALIAN STANDARD	DRAWN			SHT. 2 OF 5 SHTS.	
EL. 2003. PRACTICE A.S. 221	TRACED	APPROVED		DRWG. A. SIZE	
		CHECKED			

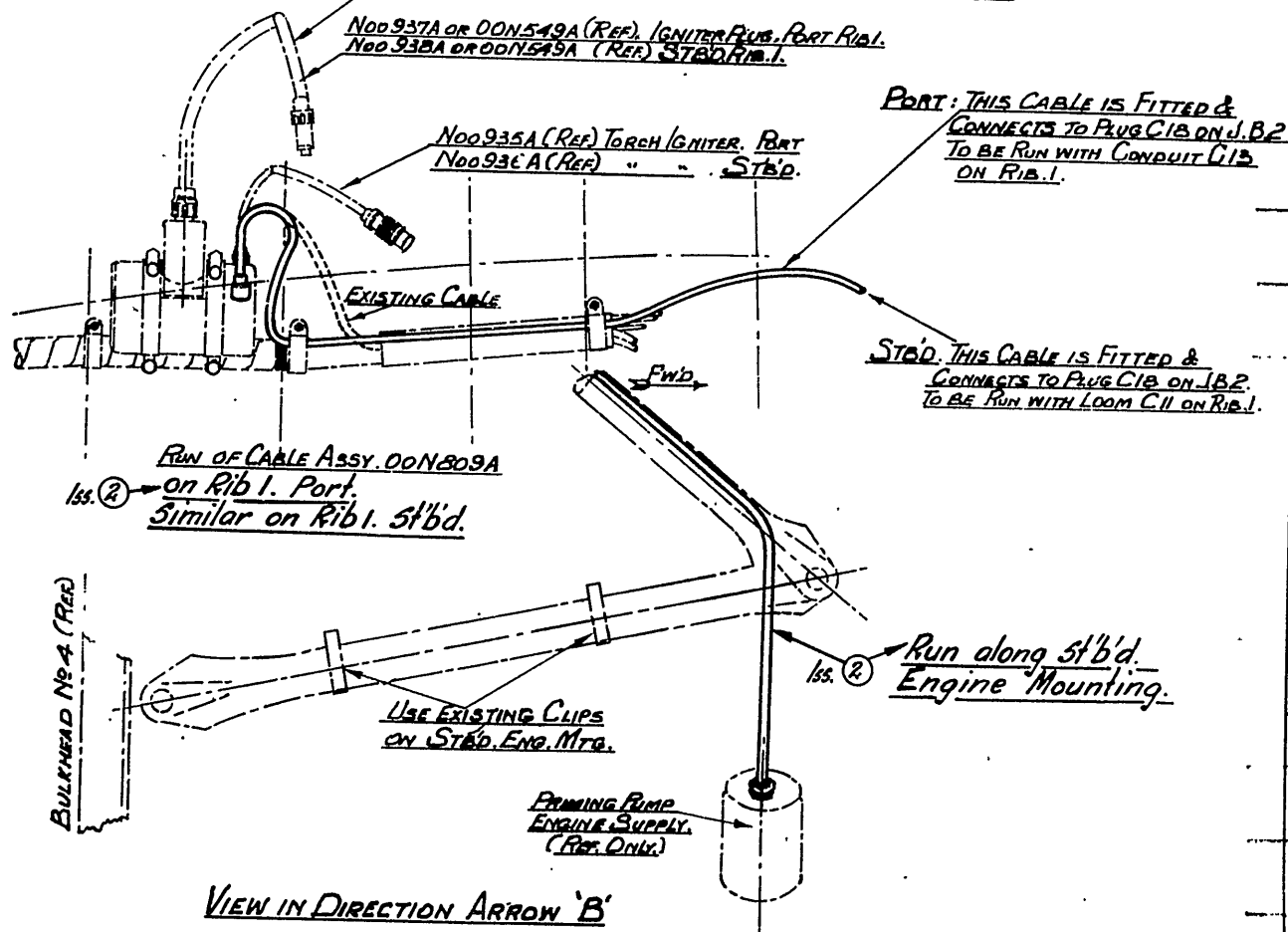
REFERENCE		ISSUED BY		DIRECTORATE OF TECHNICAL SERVICES		R. A. A. F.		TITLE	
LIMITS UNLESS STATED		MATERIAL		DEPARTMENT OF H.E. IGNITION		EQUIPMENT Mk 308-1A/C - Ignition		SHEET No. 3	
DECIMALS	± .010"	SPEC.							
FRACTIONS	± 1/32"	TREATMENT							
ANGLES	± 1/2°	FINISH							
SURFACE FINISH		SCALE							
AUSTRALIAN STANDARD		DRAWN		TECH. ORDER		VAMPIRE MOD. No. 151		A12456	
AS 22		APPROVED							
CHECKED				DRAWING NO.		SHT 3 OF 5 SHTS.			



DO NOT SCALE

ISSUE NO.	DATE	REVISION
2	18.6.56	Alterations to Dwg. as indicated by No. 2

NOTE: ON A/C WHICH HAVE ENGINES FITTED WITH H.E. IGNITION UNITS INSTALLED, THESE CABLES (N00935A & N00937A OR D00N549A) ARE NOT USED, IN WHICH CASE THE FITTINGS ON THE FREE ENDS OF THESE CABLES ARE TO BE COVERED TO PREVENT INGRESS OF MOISTURE, DIRT, ETC. & THE FREE ENDS ARE TO BE LAID BACK ALONG EXISTING CONDUIT C/B A & SECURELY BOUND TO SAME SO THAT THE CABLES ARE EFFECTIVELY STOWED. (USE CONDUIT C/II ON Rib. I, STB'D.)



VIEW IN DIRECTION ARROW 'B'

REFERENCE	ISSUED BY	TITLE	SHEET N° 4
		DE HAVILLAND DWG. N° D00M 300. N° OF SHES 5	
		DIRECTORATE OF TECHNICAL SERVICES	
		R. A. A. F.	
LIMITS UNLESS STATED	MATERIAL	COMPONENT OF	PROVISION FOR H.E. IGNITION
EQ. MALS ± .010"	SPEC.	MACHINE	EQUIPMENT, M. 30431 A/C - Intrody.
FRACTIONS ± 1/32"	TREATMENT	ENGINE	
ANGLES ± 1°	FINISH	TECH. CODES	VAMPIRE MOD. N° 151
SCALE	DRAWN	DRAWING NO.	A12456
STANDARD	APPROVED		SHT. 4 OF 5 SHES.
REVISIONS AS SHOWN	CHECKED		

DIMMER SWITCH FOR NAVIGATION LIGHTS - INTRODUCTION

Reason for and Description of Modification

1. This modification is introduced to control the intensity of wing tip navigation lights, thereby eliminating the glare which is tiring, and a possible danger when flying in close formation. The introduction of a switch and voltage dropping resistors in the navigation lights circuit overcomes this hazard.

Vampire Modification No.48, which was previously issued to embody this change, was found to be impracticable, due to the fact that it conflicted with existing D.H. Modifications, in the location of some items of equipment.

Application

2. This modification is to be carried out on all Vampire Mk.30 and 31 aircraft.

Responsibility for Incorporation

3. The electrical fitters of units and contractors concerned will be responsible for incorporation of this modification.

Action in Respect of Spares

4. One (1) off Ident. No. A79/501732, Part No. QN13A/1, Junction Box 1 is not to be modified until modification sets are received for D.H. Modifications V.102, V.108, V.198, V.100, V.191 and V.189, at which time the junction box is to be modified to embody all these modifications. Four (4) off Ident. No. A79/501947, Part No. QN13A/3, Junction Box 1 are not to be modified until modification sets are received for D.H. Modifications V.198, V.100, V.191 and V.189, at which time these junction boxes are to be modified to embody all these modifications.

Orders Superseded or Cancelled

5. Vampire Modification No.48 is cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.198 is the manufacturer's equivalent modification.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
1	G5C/12650		S.P.D.T. Switch Type D.143.	1	
2		98N1933	Bus Bar.	4	
3	A52/98N2105	98N2105	Nut, square.	4	
4		OCN19	Lug.	2	
5	A79/503600	OCN43 MK.12	Label	1	
6		OCN835A	Cable assy.	1	
7		OCN837	Bus Bar.	1	
8	A79/503595	N15-187A	Resistance Unit and Cover assy.	1	
9	H28/26078	DHS.103 MK.2	Ferrule, 2B.A.	2	
10	H28C/2857	AGS.245/21	Screw, steel, rd.hd., 4B.A. x $\frac{3}{8}$ " long	2	
11	H28/27024	AGS.2001/B /1/Nyloc	Nut, stiff, M.S. Hex. thick 4B.A., Nyloc.	2	
12	H28/7271	A25/1B	Bolt, steel, hex.hd., 4B.A. x $\frac{1}{2}$ " long.	4	
13	H28C/2880	A32/C28	Screw, steel, rd.hd., 2B.A. x $\frac{7}{8}$ " long.	2	
14	H28C/12305	SP13/B	Washer, steel.	4	
15		Mk. 0	Ross Courtney Terminal	2	
16	H128F/31374	1208	Washer, shakeproof	4	
17	H128F/59794	1210	Washer, shakeproof	2	
18	I32/2006		Twine, binder, waxed.	AR	
19	K3/321		Enamel, matt black.	AR	
20	K3/156		Enamel, white, DTD.63A	AR	
21	K4/10864		Glue, Beetle 'A'.	AR	
22	K4/10866 or		Hardener, Beetle, violet V15	AR	
	K4/10867 or		Hardener, Beetle, yellow GP30.	AR	
	K4/10868		Hardener, Beetle, blue 2B	AR	
23	W3/1372		Brad, brass, 20 SWG, $\frac{1}{2}$ " long.	AR	

Restricted

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VAMPIRE MODIFICATION NO. 152

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
24	G5E/30306		Cable, AA8 one core vin. Spec. AS No. UL.	AR	
25	G5E/30155		Cable, AA18 one core vin. Spec. AS No. UL.	AR	

Notes:- (a) Items 1 to 17 inclusive will be delivered from De Havilland Aircraft Pty. Ltd., to their own modification Centre Store, which will issue these items on demand. (D.T.S. Special Instruction Vampire/81 refers).

(b) Items 18 to 25 inclusive will be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off per Set	Stores Class
26	G105C/1868 or G105C/1880		Circuit Breaker, 10 amp. Switch Toggle Type AN3160-10L	1	
27		OCN43 MK.2	Label - "Nav. Lts."	1	
28		OCN37	Bus Bar.	1	
29	H128F/31154	AN515-6-6	Screw, rd. hd., M.S. course thread 6-32 x $\frac{3}{8}$ " long.	2	

Notes:- (a) Item 26 is to be examined and, if serviceable, returned to stores for future use.

(b) Item 28 is to be reworked as detailed on Drawing A.12368, sheet 2. The two parts derived from the re-work are to be used where shown.

(c) Items 27 and 29 are obsolete and are to be disposed of in accordance with current authorised procedure.

Disposal of Parts in Stock

9. No action.

Restricted

When the Modification is to be Embodied

10. This modification is to be incorporated as soon as practicable, but not later than next minor inspection after receipt of modification kit.

Method of Incorporation

11. (a) Man-hours Involved : Approximately twenty (20) man-hours are required to incorporate this modification..
- (b) Special Tools, Jigs, &c. : No special tools and jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Remove Junction Box 1 and Blind Flying Panel from the aircraft.
 - (ii) Refer to Drawing A.12368, sheet 2 and attach two ferrules (item 9) to port forward side of the cockpit wall using glue (item 21), hardener (item 22) and brads (item 23) as required.
 - (iii) Locate bus bar (item 28) assembled to six circuit breakers mounted in top of J.B.1, remove and retain for further use together with attachment screws, one square nut and two washers. Leave cable coded GAL+ disconnected.
 - (iv) Refer to Drawing No. A.12368, sheet 1. Remove existing "spare" 10 amp. circuit breaker (G) (item 26) from top row of switches mounted on front panel of box and return to stores, if found serviceable. Retain mounting screws for further use.
 - (v) Locate existing "nav. lights" circuit breaker (D) in top of box, and after disconnecting its wiring, remove it with its label (item 27) and screws (item 29). Retain switch for further use and discard label.
 - (vi) Rework the hole left vacant in operation (v), by superimposing a 15/32 inch diameter hole on the existing out-out for the switch toggle.
 - (vii) At the hole which was reworked in operation (vi), add the new S.P.D.T. switch (item 1) with label (item 5) and assemble to box using screws (item 10) two (2) off and stiffnuts (item 11) two (2) off.

- (viii) Add the switch retained in operation (v) to the position left vacant in operation (iv). Assemble switch to front panel with screws retained in operation (iv).
 - (ix) Refer to Drawing No. A.12368, sheet 1, and modify existing switch label as shown.
 - (x) Refer to Drawing A.12368, sheet 2, and re-work bus bar (item 28) retained in operation (iii), as shown. Two bus bar with part nos. OCN837 and OCN885ND are made from the re-worked part.
 - (xi) Refer to Drawing No. A.12368, sheet 1. Procure AA8 single core cable (item 24) as required and lugs (item 4), two (2) off. Make off a piece of this cable to 4 inches in length, bare back each end 0.3 inches and solder lugs (item 4) to ends.
 - (xii) Refer to Drawing No. A.12368, sheet 1 and proceed to modify Junction Box 1 internal wiring as follows:- Attach bus bar OCN837 (refer operation (x)) to fuel pump emergency (A) and gyro compass (B) circuit breakers and bus bar OCN885ND (refer operation (x)) to gyro gun sight circuit breaker (F), using existing attachment items as retained in operation (iii).
- Note: Cable coded GAl+ must be reconnected to original position on new bus bar at gyro gun sight circuit breaker (F).
- (xiii) Install new link cable (refer Operation (xi)) between the pitot head (c) and camera gun (E) circuit breakers and secure link cable and bus bars to circuit breakers at these points, using bolt (item 12), square nut (item 3), washer (item 14) and shakeproof washer (item 16), two (2) off of each.
 - (xiv) At re-positioned "nav. lights" circuit breaker (G) (refer operation (vii)), an additional bus bar (item 2) two (2) off (assembled together) is to be added linking this circuit breaker with adjacent "oil temp" circuit breaker (H).

Add bus bar using items 12, 3, 14 and 16, two (2) off each. Existing screws are to be discarded.

Note: Washers are to be assembled between the "nav. lights" circuit breaker lug and the new bus bar.

- (xv) Procure cable Assemble (item 6) one (1) off, and after locating the existing grommet adjacent to plug 'C8' on forward side of box, proceed to push cable through grommet.

Note: This end of the cable has cores of equal length. Finally, connect cable ends to Nav. Light switch (D) as shown, using screws supplied with switch, and binding cable to existing internal wiring, where necessary.

- (xvi) Locate existing disconnected cable coded 'N3' (refer Operation (v)) and connect to new switch (referred to in Operation (vii)) as shown using screw supplied with switch.
- (xvii) Procure cable (item 25) and terminals (item 15), two (2) off from stores. Cut off length of cable required, bare back ends and assemble terminals. Finally, code cable assembly 'N1' and connect to Nav. Lights' switch (D) and Nav. Lights' circuit breaker (G) as shown using existing screws at both switches and binding in with existing internal wiring, where necessary.
- (xviii) After reworking junction box 1 add "Mod. V.198" adjacent to Part No. and refit junction box in cockpit.
- (xix) The new cable assembly, coming out of the grommet on the forward side of the Junction Box 1, is to be run forward with the existing looms, behind the instrument panels and along the instrument panel support tube, whipping where necessary with waxed twine, item 18. Leave cable end disconnected at this stage.
- (xx) Refer to Drawing No. A.12368, sheet 2 and proceed to add resistance unit and cover assembly (item 8). To do this, the cover must first be removed by unscrewing two screws, one on each end of the unit. Retain screws and washers. The resistance unit can now be assembled to the cockpit wall using screws (item 13) and shakeproof washers (item 17) two (2) off of each.
- (xxi) Return to the cable assembly with the end disconnected, (refer Operation (xix)). Push cable assembly through grommet in the resistance unit cover and connect the cable ends to the resistance unit terminals. See Drawing No. A.12368, sheet 2 for wiring details of resistance unit.
- (xxii) Slide cover along cable and assemble it to the resistance unit with screws and shakeproof washers which were removed in operation (xx).
- (xxiii) Any slack cable must be coiled and stowed in a neat and tidy manner on the instrument panel cross tube.

- (xxiv) Refit the blind flying panel and check the pitot and static lines for correct connections in accordance with the current authorised procedure.

- (d) Tests : Check navigation light circuit for correct functioning.
- (e) Recording : Record the modification in the air-frame log book as Vampire Modification No.152.

Drawings

12. Drawing No. A.12368 consisting of two sheets are attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

- References : Files Department of Air 150/4/8621 and 150/4/8971
- Attachment : Drawing A.12368, sheets 1 and 2
- Date of Issue : 1st February, 1955.

DO NOT SCALE

AT PRINTS MARKED THUS *
REPLACE EXISTING SCREWS WITH:

BOLT A25 1208 SHAKESPROOF
2-OFF. WASHER 2-OFF.

SQUARE NUT 98N 2105 SPI3 B WASHER 2-OFF.

REMOVE EXISTING BUS BAR OON37 & REPLACE WITH OONB37, 98N1933 & AN-8 CABLE WITH LUGS ASSEMBLED.

USE EXISTING SCREWS TO ASS. BUS BARS WHERE NOT OTHERWISE SPECIFIED.

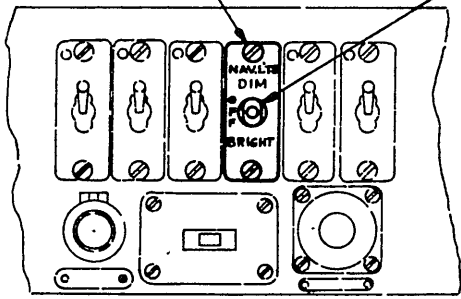
TO RESISTANCE UNIT. CABLE ASSY. OON37A (REF. ONLY)

AA-8 SINGLE CORE CABLE TO SPEC. AS. No. UI. LENGTH 4". SOLDER A LUG OON19 TO EACH END OF THIS CABLE.

LUG OON 19 2-OFF.

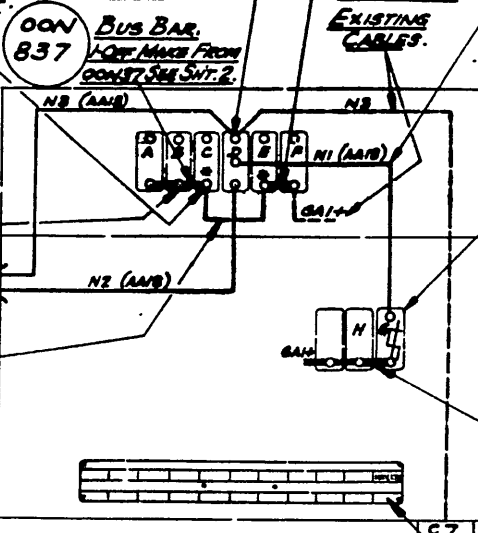
LABEL OON 43 1-OFF. AGS 2001 4BA. STEPPED NUT 2-OFF.

SPDT. SWITCH TYPE D143 G5C 12650 AGS 245 21 RD. HD. STEEL SCREW 4BA. X 3/8" LONG 2-OFF.



INSTALLATION OF NEW TYPE SWITCH.

SEE BELOW FOR DETAILS OF ADDITION OF NEW S.P.D.T. SW. AT THIS POSITION.



OON 885 ND. BUS BAR 1-OFF. MAKE FROM OON37 SEE SHEET 2. EXISTING CABLES.

ROCKS COURTNEY TERN. 2-OFF. ONE FOR EACH END OF CABLE COORD. 'N1'. THIS CABLE TO BE AA18 SPEC. AS. No. UI. LENGTH TO SUIT. REMOVE EXISTING SAMP. 'NAV. L.T.S.' CIRCUIT BREAKER FROM SW. POSITION 'D' & ADD AT SW. POSITION 'G', AFTER REMOVING THE EXISTING SPARE 10 AMP. CIRCUIT BREAKER.

98N 1933 BUS BAR 2-OFF.

98N 2105 SQUARE NUT 2-OFF.

A25 1B 4BA. HEX. HD. BOLT 2-OFF.

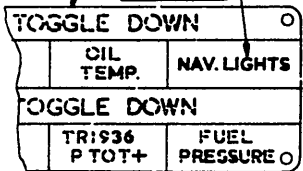
SPI3 B WASHER 2-OFF. ASSEMBLE BETWEEN SW. LUG & NEW BUS BAR AT SW. 'G'.

1208 SHAKESPROOF WASHER 2-OFF.

MODIFICATION TO J.B.I. WIRING.

OPEN UP EXISTING HOLE IN BOX FOR TOGGLE TO 1/2" DIA.

PAINT OVER EXISTING WORD 'SPARE' IN BLACK & ADD WORDING 'NAV. L.T.S.' IN WHITE.



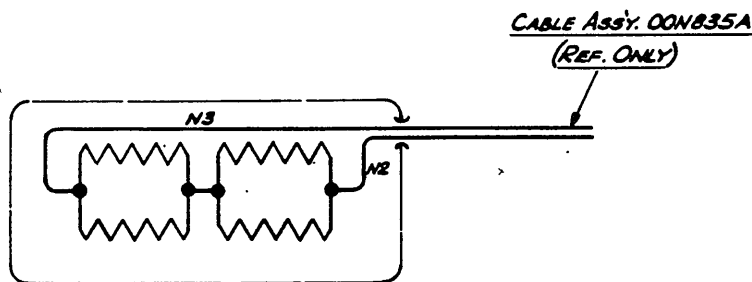
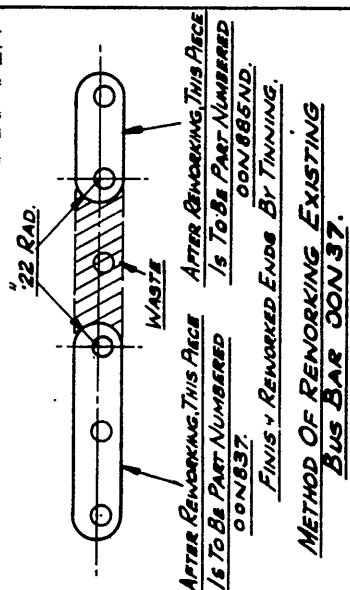
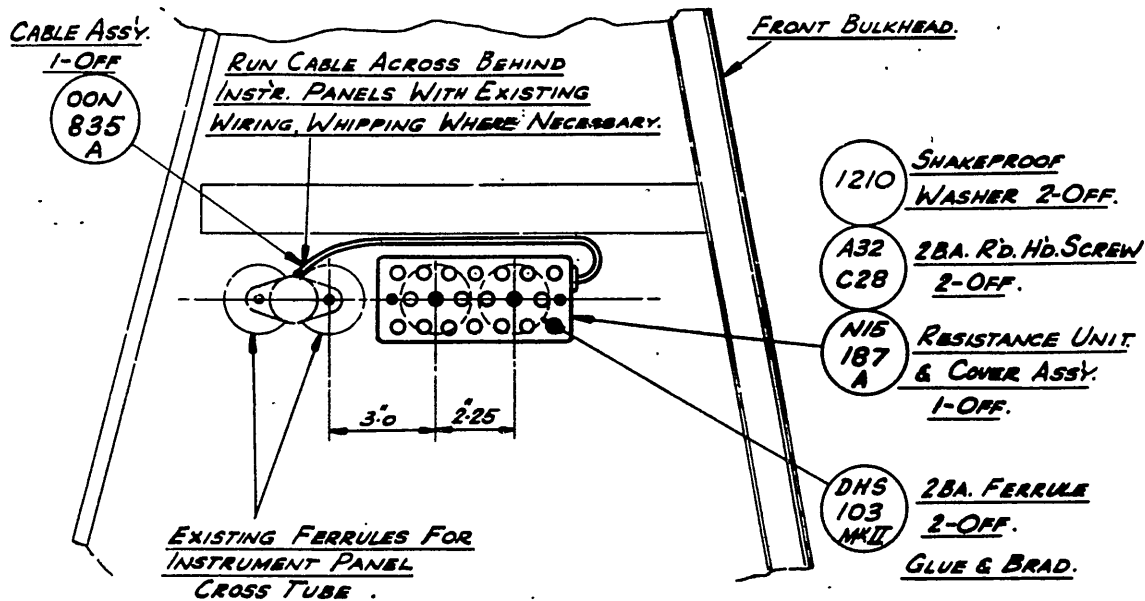
MODIFICATION TO LABEL.

SHEET. 1.

DE HAVILLAND DRG. No. OOM296 No. OF SHEETS 2.

REFERENCE	ISSUED BY	TITLE
	DIRECTORATE OF TECHNICAL SERVICES R.A.A.F.	INTRODUCTION OF DIMMER SWITCH FOR NAVIGATION LIGHTS.
LIMITS UNLESS STATED	MATERIAL	COMPONENT OF
DECIMALS ± .010"	SPEC.	MACHINE
FRACTIONS ± 1/32"	TREATMENT	ENGINE
ANGLES ± 1°	FINISH	TECH. ORDER
SURFACE FINISH	SCALE	YAMPIRE MOD. NY 152
AUSTRALIAN STANDARD	DRAWN	APPROVED
ENG. DWG. PRACTICE A.S. 21	TRACED	CHECKED
		DRAWING NO. A-12368 SH. 1
		DRG. A SIZE

DO NOT SCALE



WIRING AT RESISTANCE UNIT.

SHEET 2.
DE HAVILLAND DES. NO. OOM 296 No. OF SHEETS 2.

ISSUED BY

DIRECTORATE OF TECHNICAL SERVICES - R.A.A.F.

INTRODUCTION OF DIMMER SWITCH FOR NAVIGATION LIGHTS.

LIMITS UNLESS STATED	MATERIAL	CONSTRUCTION OF
DIMENSIONS ± .010"	SPEC.	MACHINE
FRACTIONS ± 1/32"	TREATMENT	ENCLOSURE
ANGLES ± 1°	FINISH	TEMP. COVER
SURFACE FINISH	SCALE	YAMPIRE MOD. N° 152
AUSTRALIAN STANDARD	DRAWN	APPROVED
ENCL. PRACTICE A.S. 621	TRACED	CHECKED
		DRAWING NO. A-12368-SMT 2
		DRWG

Restricted

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VAMPIRE MODIFICATION NO. 154

Class 2

RE-DESIGNED STOP PIN FOR THE CANOPY WINDING HANDLE -
INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the introduction of a re-designed stop pin for the canopy winding handle. Due to excessive wear on this pin, which will cause inadvertent opening of the canopy, an easier method of replacement is required.

Application

2. This work is to be carried out on all Vampire Mk.30 and Mk.31 aircraft.

Responsibility for Incorporation

3. The modification is to be incorporated by operating units, aircraft depots or civilian contractors responsible for servicing Vampire aircraft.

Action in Respect of Spares

4. 100 Spare Handle Assemblies, Part No. A002054A, Ident No. A79/501250 have been delivered and are to be reworked to A79/503608 as in paragraphs 11(v) to 11(viii) inclusive. The split pins, item 3, are to be discarded from the modification sets.

Spare gear box assemblies will be modified by the manufacturer before delivery to the R.A.A.F. and will be Part No. A002053A/2, Ident No. A79/503609.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V207 and Air Ministry Modification VAM.970.

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2.

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VAMPIRE MODIFICATION NO. 154

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident No.	Part No.	Nomenclature	No. off per set	Stores Class
1	A79/503607	A007263	Pin, stop	1	
2	H28/776	A16Y/ET	Nut, steel, Hex., thin, 1/4" B.S.F.	1	
3	H28B/5031 or H28B/5031	AGS.784/2: (Z) or SP9/C6	Pin, split, nickel alloy, 1/16" dia. x 3/4" long Pin, split, nickel alloy, 1/16" dia. x 1/4" long	1 1	
4	K3/353		Compound, jointing, DTD.369A	A.R.	
5	K3/175		Primer, Zinc Chromate Spec.2K7	A.R.	

Note:- (a) Items 1, 2 and 3 will be delivered from De Havilland Aircraft Pty.Ltd., Bankstown, N.S.W. to the Contractor's Modification Centre Store which will issue items on demand.

(b) Items 4 and 5 will be drawn from unit stores.

Disposal of Parts Removed

8. The following part will be rendered redundant by the incorporation of this modification:-

Item No.	Ident No.	Part No.	Nomenclature	No. off per set	Stores Class
6	A79/501282	A00.4090	Pin, stop	1	

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VAMPIRE MODIFICATION NO. 154

Note:- Item 6 is obsolescent and is to be discarded as being damaged.

Disposal of Parts in Stock

9. Stocks of item 6, AOO.4090, Ident No. A79/501282 could be reworked to Drawing No. A.12567, Sheet 1, pending supplies of the new Part No. AOO/7203, Ident No. A79/503607, when they will become obsolete.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next "D" servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately four (4)
man-hours will be required
to incorporate this
modification.
- (b) Special Tools, Jigs &c : No special tools or jigs
required.
- (c) Sequence of Operations :
- (i) Locate the canopy winding gear handle forward on the starboard side of the cockpit.
- (ii) Remove the slight burr which locks the $\frac{1}{8}$ inch diameter pin attaching the crank by means of a link to the spring loaded plunger at the centre of the gear box.
- (iii) Remove this pin by the use of a small screw-driver, and retain for reassembly.
- (iv) Remove the split pin and $\frac{3}{16}$ inch diameter pin attaching the handle to the gear box, discarding the split pin only, and remove the handle.
- (v) Proceed to rework the crank by referring to Drawing No. A.12567, Sheet 1.

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VAMPIRE MODIFICATION NO. 154

- (vi) Drill out the existing stop pin, item 6, and discard.
- (vii) File the crank to the dimensions as shown on the drawing, removing all sharp edges. Treat reworked area with zinc chromate primer, item 5.
- (viii) Using jointing compound, item 4, fit and secure new stop pin, item 1, to the canopy winding gear handle by means of a nut, item 2. Rivet pin slightly to lock. Alter the Part No. of the handle assembly to A00.7267A, Ident No. A79/503608.
- (ix) Reassemble the handle, replacing the pin removed in operation (iv) and using a new split pin, item 3.
- (x) Locate the hole and picking up the link again, screw back into place the $\frac{1}{8}$ inch diameter pin removed in operation (ii).

Note:- Do not screw this pin too tightly but burr the edge of the hole in the crank to lock.

- (d) Tests : Wind the handle and check the operation of the stop pin and plunger.

IMPORTANT: When the handle is in the locked position, it should be horizontal and pointing forward. Refer to Aust. Air Publication 828, Fig.50. In order to ensure that the correct amount of force is used in locking, the micrometer locking plate should be positioned in such a way that with the

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VAMPIRE MODIFICATION NO. 154

canopy wound fully forward and then the handle released, there is one pin diameter distance between the centre of the hole into which the pin is to be forced and the centre of the pin.

(e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. Drawing A.12567 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 9/84/67 and 150/4/9030

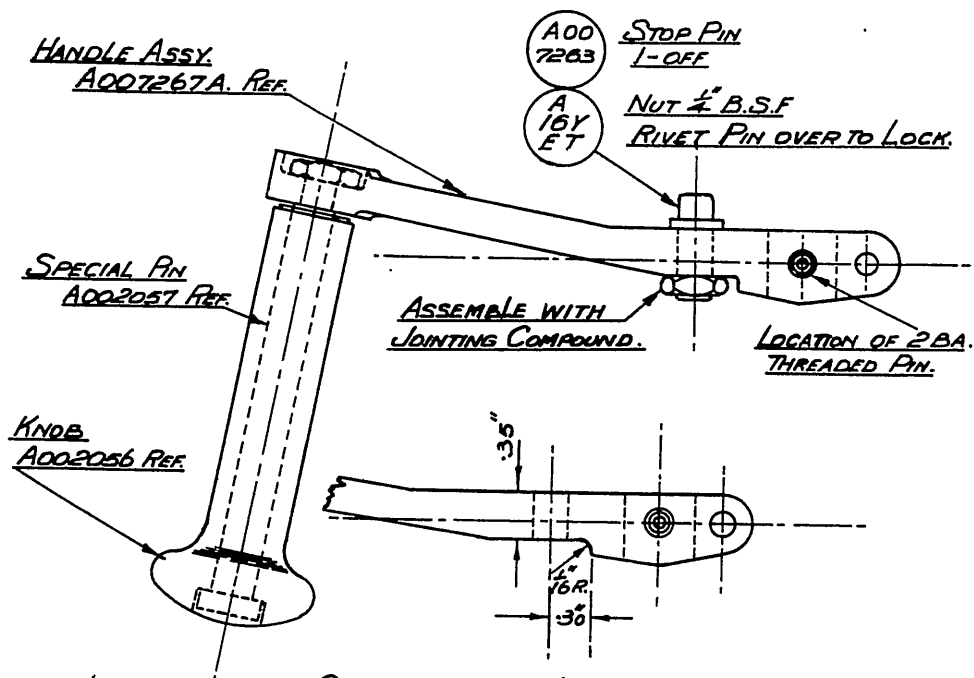
Attachment : Drawing A.12567

Date of Issue : 11th June, 1956

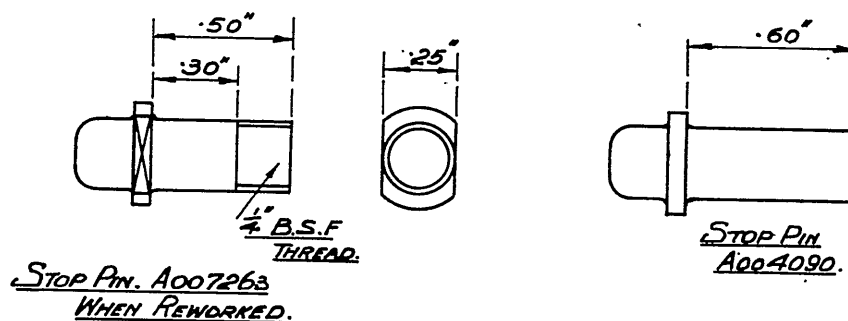
(Issued with A.L.49 - June, 1956)

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DO NOT SCALE



CRANK OF HANDLE ASSY. A002054 A. TO BE
REWORKED TO ABOVE DIMENSIONS.
TREAT REWORKED AREA WITH
ZINC CHROMATE PRIMER.



CANOPY WINDING HANDLE.
REWORK OF CRANK AND STOP PIN.

SHEET No. 1.

REFERENCE		ISSUED BY		De HAVILLAND DRWG. No 00M295 No of SHEETS. 1.	
		DIRECTORATE OF TECHNICAL SERVICES R.A.A.F.		TITLE	
				<u>RE-DESIGNED STOP PIN FOR CANOPY</u> <u>WINDING HANDLE-INTRODUCTION.</u>	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	CANOPY
DECIMALS	± .010"	SPEC.		MACHINE	VAMPIRE MK ³ 30 +31
FRACTIONS	± 1/32"	TREATMENT		ENGINE	NENE 2VH,
ANGLES	± 1°	FINISH		TECH. ORDER	VAMPIRE MOD. No 154
SURFACE FINISH		SCALE		DRAWING NO.	A12567
AUSTRALIAN STANDARD		DRAWN			DRWG A
E.C. 1010. PRACTICE A.S. 621		TRACED			C.L.E.
			APPROVED		
			CHECKED		

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VAMPIRE MODIFICATION NO. 155

Class 2

RUDDER BALANCE LEVER - STRENGTHENING

Reason for and Description of Modification

1. This modification authorizes the introduction of steel levers in lieu of the existing light alloy levers. The increased strength is provided as cases have been reported in U.K. of these rudder balance levers breaking away.

Application

2. This work is to be carried out on all Vampire Mk. 33 Aircraft Serial Nos. A79/801 to A79/836 inclusive.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units, aircraft depots or civilian contractors responsible for servicing Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Two (2) off Boom and Fin Assemblies, L.H. Part No. TB15.1A, Ident No. A79/502109 and two (2) off Boom and Fin Assemblies, R.H. Part No. TB15.3A, Ident No. A79/502110 are to be modified in accordance with paragraphs 11(c) (i) to (xviii) inclusive except (xvi) and re-identified as Part Nos. TB15.1A/1 and TB15.3A/1, Ident Nos. A79/503649 and A79/503650 respectively.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V671 and Air Ministry Modification VAM3344 are the equivalent modifications.

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2.

Supply

7. The following parts are required for one complete modification set:-

<u>Item</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. off per Set</u>	<u>Stores Class</u>
1	A79/503648	12CF.503A	Lever, Rudder Balance	2	
2	H28/5316	A16Y/CP	Nut, Plain, M.S. Hex. 2BA	4	
3	H28/7922	A25/24C	Bolt steel, Hex. Hd. 2BA x 2.8"	4	
4	H28B/5032	SP9/C8	Pin, split, Nickel Alloy 1/16" dia.	36	
5.	K2/210		Grease XG275, Spec. DTD825	A.R.	
6	K3/353		Compound Jointing DTD369A	A.R.	
7	I1/2700		Wire Iron Soft Galv. 20 SWG.	A.R.	

- Notes: (a) Items 1 to 4 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre.
- (b) Items 5 to 7 inclusive are to be drawn from unit stores.

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VAMPIRE MODIFICATION NO. 155

3.

Disposal of Parts Removed

8. The following part will be rendered redundant by the incorporation of this modification:-

<u>Item</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. off per Set</u>	<u>Stores Class</u>
8	A79/500469	K00339A	Lever, Rudder Balance	2	

Note: Item 8 is to be examined and, if serviceable, is to be returned to stores for use on Mk. 30 and 31 Vampire Aircraft.

Disposal of Parts in Stock

9. Stocks of item 8 are to be treated as in note to paragraph 8.

When the Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next "D" servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved: Approximately 52 man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs, etc.: No special tools are required.
- (c) Sequence of Operations:
- (i) Remove the tail boom rear end fairing. Retain the attachment screws for reassembly. Disconnect the navigation lamp in the port boom.
 - (ii) Remove the rear access panels on the outboard side of the booms. Retain panels and screws for reassembly.

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4.

- (iii) Refer to A.A.P.721:79/33, Vol.1, Section 3, Chapter 4, Figure 15, and remove the balance weights from the rudder balance lever and retain for reassembly.
- (iv) Remove the bonding strip attached to rudder, then proceed to remove the two bolts attaching the rudder to the rudder pedestal, also the bolt from the top rudder hinge. Retain bolts and nuts, also bonding strip for reassembly. Remove the rudder.
- (v) Remove fairleads where pitot head pipes pass through casting on port boom only. Then proceed to disconnect pitot head pipes inside the boom and at the rear of the port fin. When withdrawing the pipes be careful not to twist or bend them. Retain the pipes for reassembly.
- (vi) Remove the five (5) bolts in each boom attaching control links to rudder and elevator control levers, then remove the nut and bolt attaching rudder static balance lever to the rudder pedestal. Retain bolts and nuts for reassembly.
- (vii) Remove the eight retaining nuts from rear end of boom casting, taking care to number nuts and washers as they are removed to ensure they go back on the same bolts (re split pinning).
- (viii) Manipulate casting assembly until clear of boom.
- (ix) Remove split pin and nut from rudder balance lever, then remove the bolt holding lever to casting. Retain the nut, bolt and washer for re-assembly and discard the lever, item 8.
- (x) Clean the bore of the new rudder balance lever, item 1, and apply XG275 spec. DTD825

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5.

grease, item 5, to the bore. Insert the lever in position in preparation for assembly.

- (xi) Using the retaining bolts and nuts removed in operation (ix) insert the bolt in position and secure with nut and new split pins, item 4.
- (xii) Apply jointing compound, item 6, to the balance weights and secure them to the lever by means of two new bolts, item 3, and nuts, item 2, the bolt shanks having been coated with the compound. Pean the bolts to lock taking care to use a suitable backing when peaning over to ensure no strain is brought to bear on the lever or its attachment bolt.
- (xiii) Replace casting in rear of boom taking care to replace nuts and washers on correct bolts, tighten and lock with new split pins, item 4. Connect rudder static balance lever, using original bolt and nut (operation (vi)), using new split pin, item 4, to lock.
- (xiv) Replace pitot head pipes, tighten joints and lock with 20 SWG lock wire, item 7. Replace fairleads around pipes on casting, being careful to position pipes correctly.
- (xv) Re-attach controls to elevator and rudder control levers using bolts and nuts removed in operation (vi). Lock with new split pins, item 4. Ensure that heads of bolts attaching control links to control levers are placed on inside of each lever to prevent fouling of movement.
- (xvi) Replace rudder using original bolts as in operation (iv) locking with new split pins, item 4. Connect bonding strap to bottom of rudder ensuring that the tongue of the clip faces towards the nose of the aircraft. This is to prevent fouling on the boom rear end fairing. Ensure that the clip has good contact on rudder pole, restore finish.

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VAMPIRE MODIFICATION NO. 155

6.

Note: It is to be ensured that there is at least a 0.06" clearance between the rudder static balance lever and the rudder hinge spigot. If there is insufficient clearance, file the excess thread from the rudder hinge spigot bolt to obtain the necessary clearance.

- (xvii) Secure access panels in position using the original screws.
- (xviii) Reconnect the navigation lamp in the port boom and replace the tail rear end fairing.
- (d) Tests: Check the rudder and elevator for correct and free movement. Megger Rudder for bonding check.
- (e) Recording: Record this modification in Airframe log book.

Drawings

12. Nil.

Effect on Weight and Balance

13.

<u>Description</u>	<u>Weight (lb.)</u> +	<u>Arm. (in.)</u> +	<u>Moment (lb.in.)</u> +
Rudder Balance	+1.2	+227	+272.4
Lever Installation			

Amendments to the Weight Sheet Summaries will be consolidated and issued by Department of Air.

References: Files Department of Air 9/84/275 and 150/4/9031.

Date of Issue: 14th August, 1956.

(Issued with A.L.54 - August, 1956)

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A.A.P.721:79, Vol. 2, Part 2 VAMPIRE MODIFICATION No. 156
Class 2.

TYPE 100A INVERTER IN LIEU OF EXISTING
TYPE 100B - INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the introduction of a Type 100A Inverter in lieu of the existing Type 100B Inverter, to meet the additional loads imposed by the introduction of electric flight instruments and a Power Failure warning light. It is also considered that the Type 100A Inverter will not be subject to some of the "brush" trouble that has been experienced with the Type 100B. The new Inverter is mounted on the Radio Shelf to enable easier maintenance and to avoid electrical interference with the AN/ARN/6 Radio Compass.

Application

2. This work is to be carried out on Vampire Mk.33 aircraft, Serial No. A79-801 to A79-833 inclusive. Aircraft Serial No. A79-834 and subsequent will be modified by the manufacturer.

Responsibility for Incorporation

3. The electrical fitters of units and contractors concerned are responsible for incorporation of this modification.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.670 is the manufacturer's equivalent modification.

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Supply

7. The following parts are required to complete one modification set:

Item	Ident No.	Part No.	Nomenclature	No. off per set	Stores Class
1.	G5U/4938		Inverter, type 100A	1	
2.	G5U/4939		Panel, control, type 12	1	
3.	G5A/27705	AGS.1651/3	Ferrule, plain, circular	1	
4.	G5A/500070		Socket, "Breeze" type 5X/6190	1	
5.	G5A/500057		Sleeve, type 5X/3148	3	
6.	G5A/500065		Socket, "Breeze" (CZ.27902) type 5X/6014	1	
7.	H28/26761		Ferrule, cut, type Z.2277/2	1	
8.	350/500859	Z.27330 N15.93A	Socket Invert Breeze Cable assy. (inverter to control panel)	1	
9.		N15.171A	Plate, mounting, compass inverter	1	
10.	H28/ ⁷²⁹⁵ 7445	A25/ 1E	Bolt, H.T.S., Hex. Hd., $\frac{1}{4}$ " B.S.F. x 1.760 " long	4	
11.	H28/27026	AGS.2001E/1	Nut, stiff, M.S., Hex., "Nyloc" insert, $\frac{1}{4}$ " B.S.F.	4	
12.	H28/11555	AS.1246/3E	Bolt, H.T.S., Rd. Hd., $\frac{1}{4}$ " B.S.F. x .75" long	4	
13.	H28C/12253	SP.13/E	Washer, M.S., plain 18 S.W.G.	4	
14.		No.18 x 2BA	Terminal, "Ross Courtney"	1	

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(Cont'd)

Item	Ident No.	Part No.	Nomenclature	No. off per set	Stores Class
15.	G5E/30161	N.P.N.	Cable, A.A.16 one core vin Spec. AS. No. U.1. 17" long	1	
16.	G5E/30187 I32A/2006	N.P.N.	Twine, binder core less	A.R.	
17.	I1/1010		Wire, copper, soft, comm'l	A.R.	
17A	G5E/500001	Tape handling	P.V.C. 5/8" wide	A.R.	

Notes.- (a) Items 1 to 14 inclusive will be delivered from De Havilland Aircraft Pty. Ltd., Bankstown, N.S.W. to the Contractor's Modification Centre Stores, which will issue items on demand to units concerned.

(b) Items 15 to 17A inclusive are to be drawn from Unit Stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:

Item	Ident No.	Part No.	Nomenclature	No. off per set	Stores Class
18.	G5U/4935		Inverter, type 100B	1	
19.		13.N.349A	Channel support (G4F Control unit)	1	
20.		13.N.353A	Channel support (G4F Control unit)	1	
21.		13.N.525	Fairlead	2	
22.	G5A/28640		Socket, "Breeze" type CZ.27900	1	
23.	G5A/500068		Socket, "Breeze" type CZ.50399	1	
24.	H28/26771		Ferrule, cut, type Z.2272/2	2	

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- Notes.- (a) Items 18, 22, 23 and 24 are to be examined and if serviceable are to be returned to store.
- (b) Items 19 to 21 inclusive are now obsolete and are to be disposed of in accordance with current authorized procedure.

Disposal of Parts in Stock

9. Item 18 is to be held until all Vampire aircraft are modified and then to be transferred for use on other types of aircraft.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than next minor inspection after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately twelve (12) man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs, etc: No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Ensure that the aircraft accumulators are disconnected in accordance with current authorized procedure.
 - (ii) Remove the starboard detachable nose fairing, and the inverter access panel, and locate the inverter type 100B, item 18, mounted below the cockpit floor. Disconnect the breeze socket, item 22, from the inverter.
 - (iii) Remove the four screws and nuts securing the fairlead, item 21, also the bolt which holds the earthing terminal, and discard these items.
 - (iv) Trace the cable from the inverter, which runs forward and up bulkhead No. 1 and forms part of loom 'C2A'. Detach the cable

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Restricted

Restricted

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by removing the nine 'P' clips and discarding these clips along with their attachment items.

- (v) Proceed to remove the inverter assembly by undoing the four bolts which secure the channels to two brackets on the aircraft. Discard the bolts but return the inverter to store. The support channels, items 19 and 20, which form part of the bracket assembly, are also discarded.
- (vi) Position the mounting plate, item 9, ^{on top of lead cable} using the existing holes, on the radio shelf forward of bulkhead No. 1, and attach it using four bolts, item 10, and four nuts, item 11. ALL
- (vii) Refer to Drawing No. A12464, Sheet No. 2, which shows the attachment of the cable assembly N15-91A to the control panel. Bare one end of the cable, item 15, and attach the terminal, item 14. Remove the coupling nut which is supplied with the new control panel, item 2, and with the ferrule, item 3, inside, slip on to the other end of the cable. Bend the ferrule securely to the cable using, item 16, maintaining a length of 8 feet of cable measuring from the coupling nut to the end. This cable assembly becomes Part No. N15-91A.
- (viii) Remove the existing spare terminal lug from the control panel and attach to the earth cable as shown, and then connect up the coupling nut to the panel. The part no. of the panel becomes N15-97A.
- (ix) Offer up and secure into place the Inverter type 100A, item 1, and the modified control panel, using four bolts, item 12, and four washers, item 13. Connect the earthing cable as shown, to the existing earthing point on the radio shelf.

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- (x) Proceed now to rework the existing cable loom C2A by removing the breeze socket, item 22, from the end of the cable, coded "GC3+" and retain the cut ferrule for reassembly. Disconnect this cable from Pin "K" in the breeze socket at bulkhead No. 1 end, and completely remove the cable from the loom. Add a new piece of cable, item 15A, coded "GC3+" to Pin "K" of the breeze socket, using socket insert, item 7A, and feed through the nylax tubing in a similar manner to that used for the original cable prior to its removal. Assemble a new socket, item 6, together with the existing cut ferrule to the end of this cable, bind the cut ferrule with a few turns of 26 SWG. copper wire, item 17, and lightly solder to prevent unravelling. Seal cut ferrule by wrapping with nylax tape, item 17A, for approximately 1.5" from the back of the coupling nut. Alter the Part No. of this modified C2A loom to N15-105A. Connect

Note:

This cable loom is also used prior to the introduction of the G.S.A.P. AN-N6 Camera Gun (D.H. Aust. Mod. No. V661, R.A.A.F. Vampire Mod. No. 168).

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~~control panel and wrap~~
existing cables running up the forward face of bulkhead No. 1 as shown on Sheet No. 1 of the drawing.

The connecting details at the control panel end are as follows:-

Connect	Red core	'GC+AC'	to Pin	'A'
"	Blue	"	"	"
"	Yellow	'GC2+AC'	"	"

Pins 'D' and 'E' are blank.

- (xiii) Connect the new cable, item 8, running from the inverter to the control panel, the sockets being the same at both ends.

- (xiv) Reconnect the aircraft accumulators. Check the installation for wiring.

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continuity and correctness of connection. Replace the detachable nose fairing and the inverter access panel, after finalizing tests.

- (d) Tests : As in operation (xiv).
- (e) Recording : Record the modification in the Airframe Log Book as Vampire Modification No. 156.

Drawing

12. Drawing A12464 Sheets 1 and 2 are attached herewith.

Effect on Weight and Balance

13. Amendments to weight sheet summaries will be issued and consolidated by Department of Air. The effect of the incorporation of this modification on the weight and balance of the aircraft is as follows:-

Item	Weight (lb.) (+)	Arm. (in.) (+)	Moment (min.) (+)
Inverter 100B.	-10	-73.6"	+736
Inverter 100A and Control Panel	+11	-122.1"	-1343

References: Files Department of Air 150/4/9121, 150/4/8621.

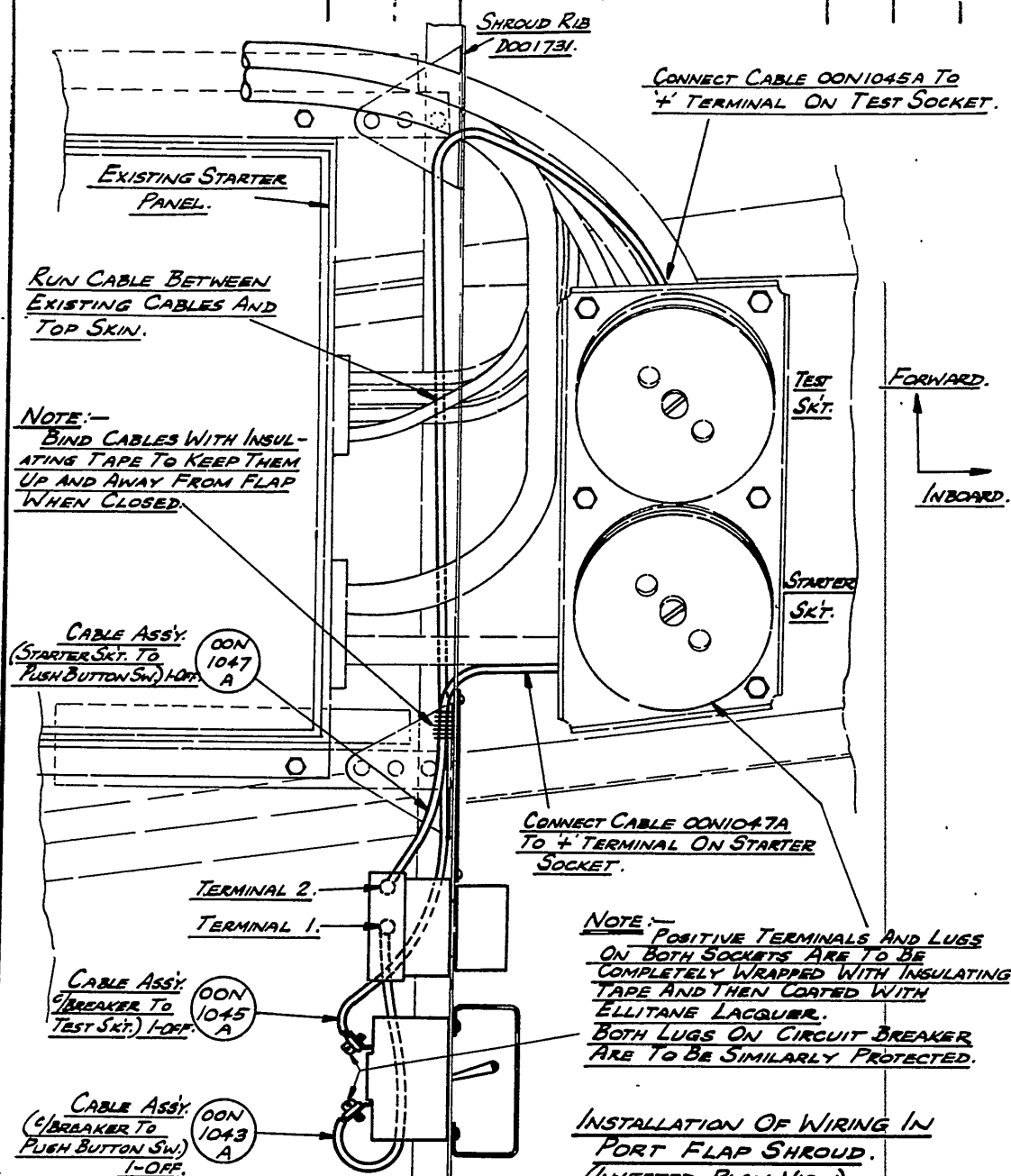
Attachments: Drawing A.12464 Sheets 1 and 2.

Date of Issue: 7th December, 1955

(Issued by A.L.44 - December, 1955)

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DO NOT SCALE



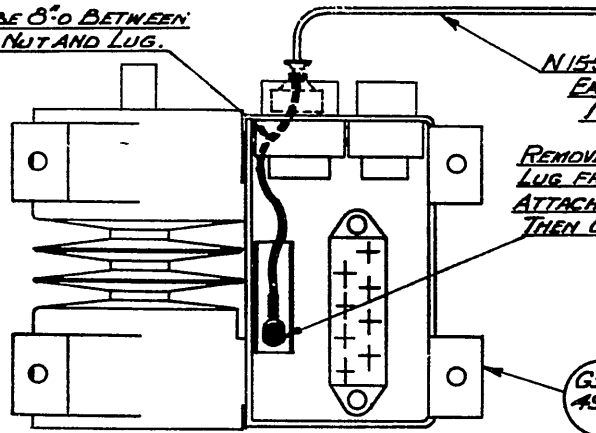
DE HAVILLAND DRG. NO. DOO3215HT.2, NO. OF SHTS. 2.

REFERENCE		ISSUED BY		TITLE	
		DEPARTMENT OF AIR DIRECTORATE OF TECHNICAL SERVICES		IMPROVED GROUND STARTING FACILITIES - INTRODUCTION	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	ELECTRICAL STARTING SYSTEM
SEALING	± .010"	SPEC.		MACHINE	VAMPIRE MK 30 & 31
	± 1/2"	TREATMENT		ENGINE	NENE 2VH
	± 1/2"			TECH. ORDER	VAMPIRE MOD NO 183
SCHEMATIC				DRAWING NO.	A 12633
AUS. RAL. 144 STANDARD			APPROVED		SHEET 2
ENG. CRAW. PRACTICE			6-46000		

DO NOT SCALE

AFTER ADDING CABLE ASSY. N15-91A THE P.T. NO.
OF THE PANEL BECOMES N15-97A.

CABLE TO BE 8" O BETWEEN
COUPLING NUT AND LUG.



N1591A (REF ONLY)
EARTH CABLE
1-OFF.

REMOVE THE EXISTING SPARE TERMINAL
LUG FROM THE CONTROL PANEL,
ATTACH TO THE EARTH CABLE &
THEN CONNECT AS SHOWN.

G5U
A939

CONTROL PANEL
TYPE 12
1-OFF.

VIEW ON UNDERSIDE OF PANEL

De HAVILLAND DRWG. N° 00M305 N° OF SHEETS 2. SHEET N° 2

REFERENCE		ISSUED BY		TITLE	
				<u>TYPE 100A INVERTER-INTRODUCTION.</u>	
WTS UNLESS STATED	MATERIAL			COMPONENT	
WTS UNLESS STATED	SPEC.			OF	
WTS UNLESS STATED	TREATMENT			MAX	
WTS UNLESS STATED	FINISH			ENG	
WTS UNLESS STATED	SCALE			TECH	
WTS UNLESS STATED	DRAWN			DRAWING NO.	A12464
WTS UNLESS STATED	TRADES				SHT. 2
		APPROVED		VAMPIRE MOD. N° 156	
		CHECKED		OF	
				SIZE	

Class 2.H.P. FUEL COCK LEVER - REPOSITIONING

Reason for and Description of Modification

1. This modification authorizes the introduction of a redesigned H.P. fuel cock lever causing it to be more accessible to the operator. This enables the pilot, if he experiences a flame out, to quickly shut off the high pressure supply and thus avoid engine flooding.

Application

2. This work is to be carried out on all Vampire Mk. 33 Aircraft, Serial Nos. A79-801 to A79-836.

Note:- Aircraft Serial No. A79-829 was modified during trial installation of Ejection Seats etc.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units, aircraft depots or civilian contractors responsible for servicing Vampire Aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Two (2) spare control box assemblies, port, part No. 15 C.E.233a, Ident No. A79/502205 are to be modified to Vampire Modification No. 102 (D.H. Mod. V636) and then modified further in accordance with paragraphs (iv) to (xxi). The modified box is then D.H. Part No. CE15.49A/1, Ident No. A79/503737. One further spare control box assembly, part No. CE15.49A, Ident No. A79/503473 is to be modified in accordance with paragraphs (iv) to (xxi) and then be identified as D.H. Part No. CE15.49A/1, Ident No. A79/503737. It would be convenient to modify these control boxes to Vampire Modification 161. (D.H. Mod. V642) at the same time, as this latter modification cancels paragraphs 31 of Vampire Mod. 102 thus retaining the dive brake knob halves 13 CE.305. The fully modified control box is then D.H. Part No. CE15.49A/~~13~~ Ident No. A79/50~~3737~~
4021.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Mod. V.672 is the equivalent modification.

Supply

7. The following parts are required for one complete modification set:

(Issued with A.L.66 - October, 1956)

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VAMPIRE MODIFICATION NO. 158

<u>Item No.</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off Per Set</u>	<u>Stores Class</u>
1.	A79/503673	4022 317 CE15.83A	Lever Assy., H.P. Cock	1	
2.		CE15.173	Casting, Lever, Bare	1	
3.		CE15.179	Clip, Cables on Throttle	1	
4.	A79/503731	CE15.181ND	Plate Cover, cables in lever	1	
5.		15.CE.829	Shaft	1	
6.	A79/503676	15.CE.833	Hub, Throttle	1	
7.	A79/503677	15.CE.835	Label, throttle, shut-open	1	
8.	A79/503678	15.CE.837	Label, H.P. Fuel Cock	1	
9.		15.CE.839	Open-Shut	1	
10.	H128F/5307		Catch, H.P. Fuel Cock	1	
11.	H128F/2661		Screw Steel, P.K. Type	2	
12.	H28/13018	AGS.2031/2	Z Rd.Hd. No.4x5/16"	2	
13.	H28/12728	AGS.2031/12	Screw Steel, P.K. Type	2	
14.	H28C/12252	SP.13/C	Z Rd.Hd. No.4 x 1/4"	3	
15.	H28/27025	AGS.2001C/1	Circlip, External 1/8" dia.	1	
16.	H28/7141	A25/6C	Circlip, External 1/8" dia.	2	
17.	H28/12141	AS.1246/10C	Washer, M.S., Plain, .048" thick, 2BA	2	
18.	H28/	AS.1246/11C	Nut, Stiff, M.S., Hex, thick, 2BA	3	
19.	H128F/2654		Bolt, H.T.S., Hex.Hd., 2BA x 1.05" long	1	
20.	H128F/5271		Bolt, H.T.S., Rd.Hd., 2BA x 1.4" long	1	
21.	I1/2700		Bolt, H.T.S., Rd.Hd., 2BA x 1.5" long	1	
			Screw Steel, P.K. Type A, Rd.Hd., No. 4 x 1/4"	2	
			Screw Steel, P.K. Type Z Csk. Hd. No.4 x 1/4"	2	
			Wire, iron, soft galvanised, 20 SWG	A.R.	

Notes:- (a) Items 1 to 20 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre.

(b) Item 21 is to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

(Issued with A.L.66 - October, 1956)

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VAMPIRE MODIFICATION NO. 158

<u>Item No.</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off Per Set</u>	<u>Stores Class</u>
22.	A79/503766	15.CE.639	Casting, Lever, Bare	1	
23.	A79/502779	15.CE.333	Knob Halves	2	
24.	A79/502207	15.CE.317	Shaft, Throttle Lever	1	
25.	A79/502211	15.CE.345	Hub, Throttle	1	
26.		15.CE.327A	Lever, HP. Cock	1	
27.	A79/502149	15.CE.203A	Label, Throttle, Shut-open	1	
28.	A79/502770	L002552	Label, H.P. Fuel Cock open- shut	1	
29.	A79/503490	15.CE.1085	Catch, Spring	1	
30.		15.CE.1087	Guard	1	
31.	A79/503558	CE.15.69ND	Plate, Cover, Cables, in Lever	1	

- Notes:-
- (a) Items 22, 23, 27 and 31 are to be examined and, if serviceable, returned to store for use elsewhere on Mk. 33, Vampire aircraft.
 - (b) Item 28 is to be examined and, if serviceable, returned to store for use elsewhere on Mk. 30 Vampire aircraft.
 - (c) Items 24, 25, 26, 29 and 30 are obsolete and are to be disposed of in accordance with current authorized procedure.

Disposal of Parts in Stock

9. Stocks of Teleflex Box Part No. C.36548, Ident. No. T27K/1076 are to be reworked in accordance with paragraph 11 (c) (xv) and Part No. changed to CE15.185ND, Ident. No. A79/503675.

Stocks of distance piece part No. 15.CE.343, Ident. No. A79/502780 are to be reworked in accordance with paragraph 11(c) (xiv) and Part No. changed to 15.CE.831, Ident. No. A79/503804.

Stocks of 15.CE.647A, Ident. No. A79/502771 are to be reworked by shortening the electrical cable (Part No. 15.N.573A) from 2'-9" to 2'-3" and repart numbering 15.CE.649A, Ident. No. A79/502790.

Stocks of 15.R.25A, Ident. No. A79/502206 are to be dismantled and the push switch binned under Ident. No. G5D/534.

Stocks of other detail items are to be treated as in notes to paragraph 8.

When the Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next "D" Servicing after receipt of modification sets.

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VAMPIRE MODIFICATION NO. 158

Method of Incorporation

11. (a) Man-hours Involved : Approximately 34 man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs &c : No special tools are required.
- (c) Sequence of Operations :
- (i) Place the throttle lever in fully open position. This is for the purpose of reassembly, i.e. correct positioning of control levers. Remove cover plate from control cables at rear of engine control box on the wall of the cockpit. Retain plate and screws for reassembly.
 - (ii) Disconnect at terminal blocks, the electrical wiring which runs from the throttle lever assembly through the body of the engine control box to a terminal block situated on the cockpit wall just forward of the engine control box and to a second terminal block situated on the cockpit wall just below the U/C. selector lever. It will be necessary to remove whipping which is holding these two wires in position.
 - (iii) Remove trim control wheel from engine control box by releasing the circlip and withdrawing off the spline. Retain for reassembly, discard circlip.
 - (iv) Unscrew the five screws holding cover plate on engine control box. Withdraw the plate as much as possible then remove the push rod and bell crank assembly from the dive brake lever by freeing the top ball joint on the push rod. Withdraw the dive brake assembly together with the cover plate, retain all parts for reassembly.
 - (v) Withdraw the throttle hub and throttle lever assembly for rework as below.
 - (vi) Refer to Drawing A.12632 sheet 3 and remove the gun-sight rheostat from the throttle lever casting by removing the two (2) screws holding the cover in position. Remove the cover and retain with screws for reassembly. Remove the pinion from the switch spindle by unscrewing the grub screw holding it in position. Retain the pinion and grub screw for reassembly. Using a tube spanner undo the lock nut on the spindle then slide the spindle with switch attached free of the throttle lever. Retain the lock nut, spindle and switch for reassembly.

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- (vii) Remove the throttle handgrip assembly from the throttle lever by removing the nut on the end of the handgrip spindle. To undo the nut it will be necessary to remove by scraping with the edge of a file the centre pops locking it to the spindle. Retain the handgrip assembly for reassembly and dispose of throttle hub item 25 and throttle lever casting item 22.
- (viii) Remove the circlip holding the H.P. fuel cock lever assembly in position and withdraw the lever assembly. Remove knob halves by drilling off the rivet attaching the knobs to the lever. Dispose of lever item 26, and knob halves, item 23.
- (ix) Remove the three screws holding the H.P. fuel cock Teleflex box in the engine control box and retain the screws for reassembly. Cut the locking wire locking the two conduit nipples in the Teleflex box and screw both the top and bottom nipple free of the box. Unscrew the nut at the rear of the engine control box cover which holds the short end of the H.P. fuel cock conduit in position. Remove and retain for reassembly the short end of conduit and the nipple.
- (x) Remove the top engine cowl and refer to A.A.P. 721:79/33, Sect. 4, Chap. 1, Fig. 8 top left hand corner. Disconnect the splined joint from the upper Teleflex box on the engine bulkhead (H.P. cock) and then by rotating the H.P. cock shaft in the throttle box, feed back the Teleflex sufficiently to allow the Teleflex box in the throttle box to be withdrawn. Rotate the box in a clockwise direction to withdraw the upper short length of Teleflex conduit from its recess.
- (xi) Disconnect throttle control chain by releasing connections on adjustment rods and slipping chain off the sprocket. Care should be taken if the connections are entirely released, that on reassembly the L.H. thread connection goes to the top.
- (xii) Remove the shaft together with the remainder of the attachments. Draw the Teleflex box off the shaft and retain for reassembly, remove the distance piece, retain and rework as in paragraph (xiv). Remove and discard the circlip holding the chain sprocket in position and retain the sprocket for reassembly.
- (xiii) Position circlip, item 12, on the new shaft, item 5, then place sprocket removed in operation (xii) in position against the circlip on the shaft.

- (xiv) Refer to Drawing A.12632 sheet 3 and rework distance piece removed in operation (xii) to an overall length of 1.69 inch. This distance piece fits between the chain sprocket and throttle hub to prevent side movement. If the length of 1.69 inch is found unsatisfactory adjust length to suit. Place the distance piece on the shaft.
- (xv) Refer to Drawing A.12632, sheet 3, and cut back the barrel of the Teleflex box at the end where the H.P. fuel cock lever assembly fits over it to the dimension .1 inch. Position box on the shaft together with box cover plate and screws.
- (xvi) Position the throttle lever, item 2, to the throttle hub, item 6, and secure with two 2BA bolts, items 17 and 18, nuts and washers, items 15 and 14 respectively, placing the clip, item 3 on the bottom bolt.
- (xvii) Refer to Drawing A.12632, sheet 4. Take the throttle lever and throttle hub which have been assembled and measure 3.15 inches from the bottom of the lever on the side where the electrical wires pass through the channel, mark this position on the lever. Lay the cover plate, item 4, on the throttle lever at the point previously marked across the channel, spot from the existing No. 32 holes in the cover plate and drill two holes in the lever with a No. 39 drill being careful not to drill deeper than $\frac{1}{4}$ inch, chamfer the drill holes.
- (xviii) Place the throttle handgrip assembly removed in operation (vii) in position on the throttle lever, tighten the nut at the rear of the assembly and centre pop to lock. Run the electric cables from the handgrip assembly down through the clip provided on the bottom of the throttle lever, then secure cover plate (over electric wires) as in operation (xvii) with two P.K. screws, item 19.
- (xix) Replace the gunsight rheostat to the throttle handgrip assembly by removing the back cover of resistance and set to mid position of travel, replace cover and assemble to the casting with centre terminal lug vertical.

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Replace the lock nut removed in operation (vi).

Turn handgrip assembly until setting lines are in position shown on attached Drawing A.12632, sheet 3. Slide the pinion removed in operation (vi) on to its spindle and lock in position using original grub screw.

- (xx) The H.P. fuel cock lever, item 1, circlip, item 13, throttle lever assembly and circlip, item 12, have to be placed on the shaft together and in sequence as above. Refer to Drawing A.12632, sheet 2. When in place on the shaft, place the 2BA bolt, item 16, in the bottom hole of the throttle lever assembly and secure with 2BA nut, item 15, lock with circlips. Test to see if the throttle lever assembly and H.P. fuel cock lever are free to move, if not it will be necessary to further shorten the distance piece. It is essential that there is no side play in the two levers.
- (xxi) Dismantle all fittings from the shaft except the distance piece, chain sprocket and circlip which holds the sprocket in position. Place the shaft in the engine control box. Replace the Teleflex box removed in operation (xii) on the shaft.
- (xxii) Turn the Teleflex box in a clockwise direction and replace the Teleflex, feeding it manually into the top of the box. Turn the box anti-clockwise to fully replace the Teleflex. Replace the short length of conduit removed in operation (ix) and reconnect the top and bottom conduit nipples in the Teleflex box, when the nipples are properly secured, lock them with lock wire, item 21. Tighten into position the bottom Teleflex nut at the rear of the engine control box.
- (xxiii) Secure the Teleflex box with the three original screws. Temporarily place the H.P. cock lever on the shaft and check full movement from "open" to "closed". Feed Teleflex forward or aft to suit. Remove H.P. cock lever and then reassemble it with the throttle lever together with circlips in position on the shaft as in paragraph (xx).

Note:- Place H.P. fuel cock lever and throttle lever in position on the shaft in the fully open position.

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(xxiv) Position the electrical wiring from the handgrip assembly at the same time reattaching the push rod from the dive brake bell crank to the dive brake lever. Secure cover plate with five original screws. Replace the trim control wheel and secure with new circlip, item 12.

(xxv) Reconnect the shaft disconnected in operation (x) ensuring that lever position agrees with cock position.

Note:- As the throttle lever and H.P. cock lever position has been changed, it will be necessary to alter the stops accordingly.

(xxvi) Replace cover plate over control cables removed in operation (i) using original screws.

(xxvii) Remove existing H.P. fuel cock label, item 28, from top of back cover plate and replace with new throttle label, item 7. Line up with two existing inboard holes previously used for the H.P. fuel cock label. Attach with P.K. screws, item 11. Refer to Drawing A.12632, sheet 4.

(xxviii) Remove existing throttle label, item 27, from face of front cover and replace with new H.P. fuel cock label, item 8. Line up with existing holes and attach with P.K. screws, item 20. Refer to Drawing A.12632, sheet 4.

(xxix) Place H.P. fuel cock lever in fully open position. Refer to Drawing A.12632, sheet 4 and position catch on the front cover plate so that there is a .12 inch gap between the lever and the lip of the catch. Mark the position of the existing holes in the catch and proceed to drill two No. 39 drill holes in the cover plate. Secure the catch with two P.K. screws, item 10.

Notes:- (a) If the correct travel of the H.P. fuel cock is unobtainable from the stops, refer to A.A.P.721:79/33, Vol. 3, Pt. 1, Plate 28. Remove the three bolts attaching the H.P. fuel shaft to the Teleflex box at the top, port rear of bulkhead four. By slipping the serrated socket, from which bolts were removed along the H.P. fuel shaft, release the

shaft from the spline. Replace the shaft, engaging a different spline in the direction required to obtain correct travel of the H.P. fuel cock.

- (b) If the correct travel of the throttle lever is unobtainable from the stops, then adjust the sprocket chain cables on the port side of the cockpit until correct travel is obtained. After adjusting the cables, ensure that the threads are in safety in the turnbuckles.

(xxx) Replace engine cowl.

- (d) Tests : Function and check for full movement, the throttle, fuel cock and gunsight ranging controls.
- (e) Recording : Record modification in the Airframe Log Book.

Drawings

12. Drawing A.12632, Sheets 1 to 4, is attached.

Effect on Weight and Balance

13. The effect of this modification on the weight and balance of the aircraft is negligible.

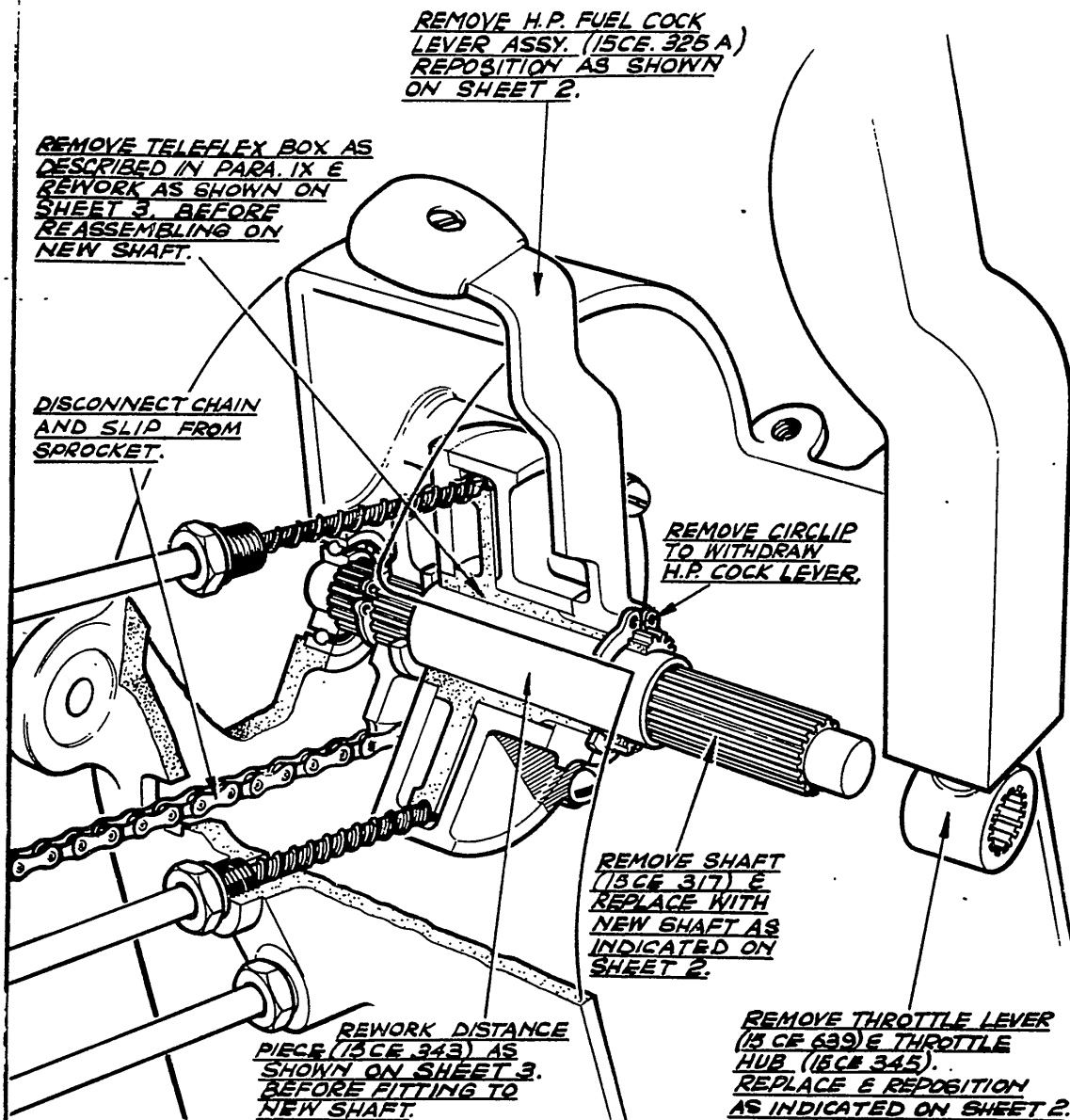
References : Files Department of Air 9/84/74 and 150/4/9123

Attachment : Drawing A.12632, Sheets 1 to 4.

Date of Issue : 1st October, 1956.

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	D I L	INITIALS	APPROVED



REMOVAL OF REDUNDANT H.P. FUEL COCK LEVER, THROTTLE LEVER & SHAFT.

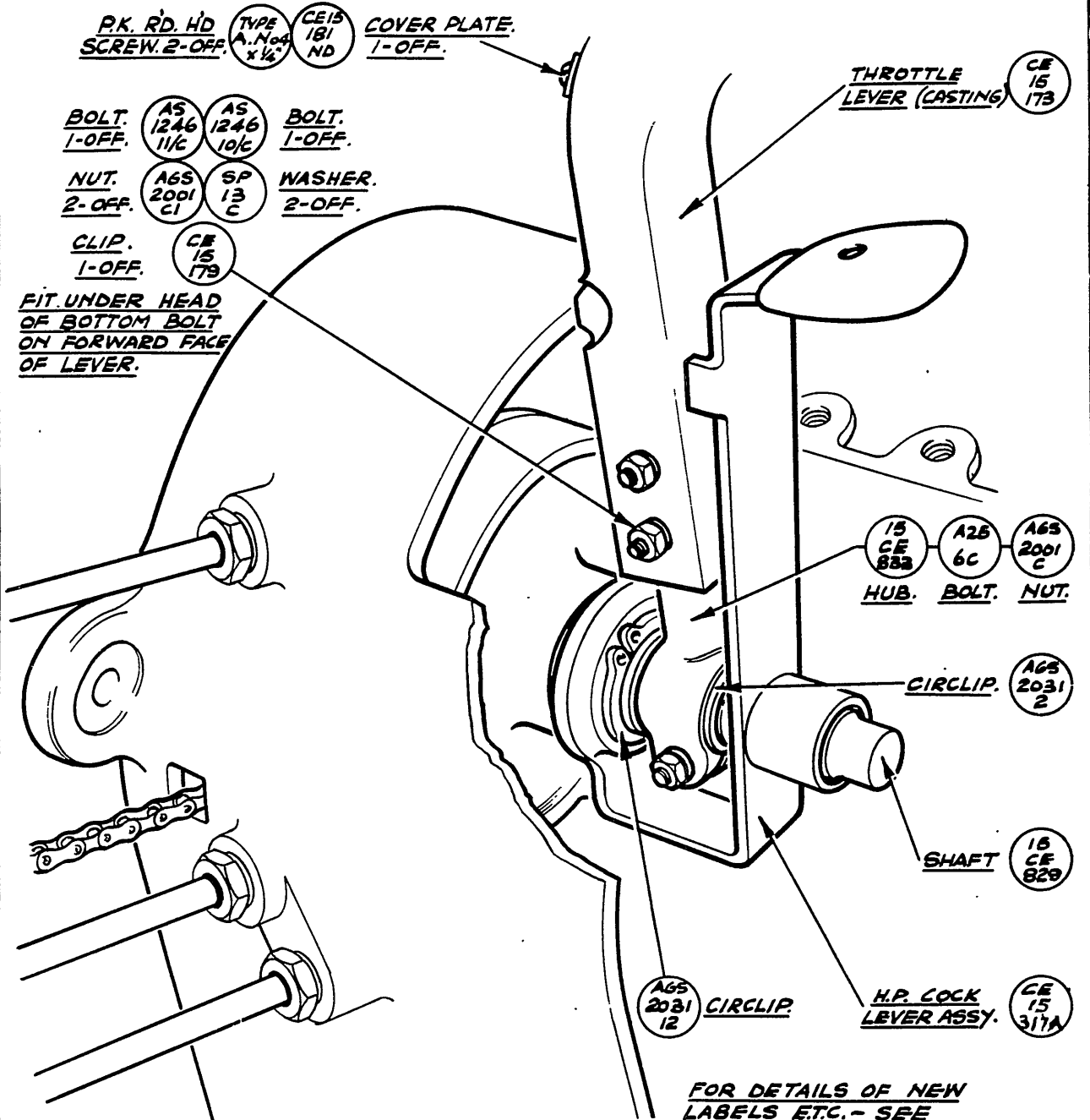
DE HAVILLAND DRWG. No. 00M307. No OF SHEETS 4. SHEET No 1.

REFERENCE		ISSUED BY			TITLE		
					<u>H.P. FUEL COCK LEVER.</u> <u>- REPOSITIONING.</u>		
LIMITS UNLESS STATED		MATERIAL			COMPONENT OF		
DECIMALS	± .010"	SPEC.			MACHINE		
FRACTIONS	± 1/2"	TREATMENT			ENGINE		
ANGLES	± 1°	FINISH			TECH. ORDER		
SURFACE FINISH		SCALE			DRAWING NO.	A 12632 SHEET 1	DRWG. A SIZE
AUSTRALIAN STANDARD		DRAWN		APPROVED			
ENG. DRWG. PRACTICE A.3.21		TRACED		CHECKED			

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED
2.	19-8-58	C.E. 317A WAS CE. 15-83A.			

(FOR DIMENSIONS SEE SHEET 4)



SHOWING ASSEMBLY OF NEW H.P. FUEL COCK LEVER & THROTTLE LEVER.

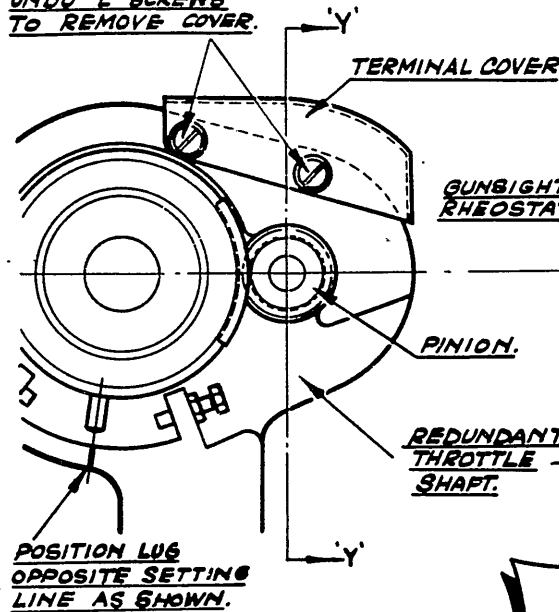
DE HAVILLAND DRWG. NO. 00M307. No. OF SHEETS 4. SHEET NO. 2.

REFERENCE		ISSUED BY		TITLE	
				H.P. FUEL COCK LEVER. ~ REPOSITIONING.	
LIMITS UNLESS STATED	MATERIAL			COMPONENT OF	
DECIMALS ± .010"	SPEC.			MACHINE	
FRACTIONS ± 1/32"	TREATMENT			ENGINE	
ANGLES ± 1°	FINISH			TECH. ORDER	
SURFACE FINISH	SCALE			DRAWING NO.	A 12632
AUSTRALIAN STANDARD	DRAWN	APPROVED		SHEET 2	
ENG. DRWG. PRACTICE A.S. 221	TRACED	CHECKED		DRWG. A SIZE	

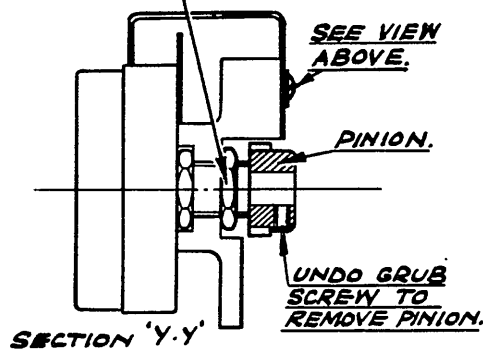
DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED

UNDO 2 SCREWS
TO REMOVE COVER.

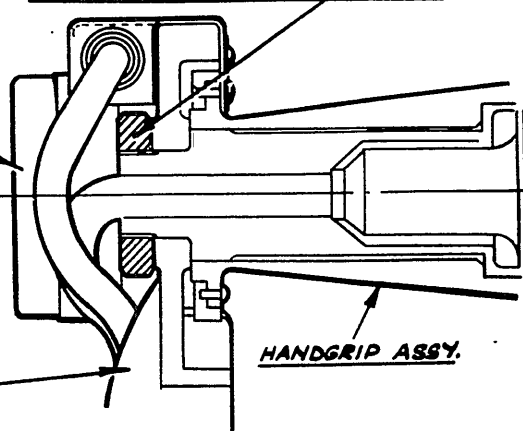


USING TUBE SPANNER REMOVE
LOCK NUT AND WITHDRAW
SWITCH & SPINDLE FROM LEVER.

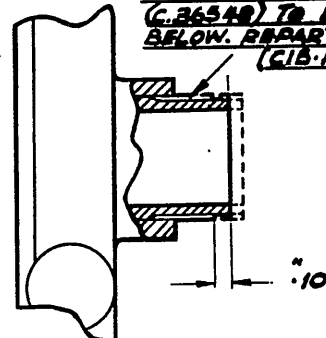


REMOVAL OF GUNBIGHT RHEOSTAT
& THROTTLE HANDGRIP ASSY.
FROM THROTTLE LEVER.

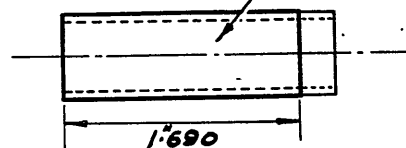
REMOVE THROTTLE HANDGRIP ASSY.
BY UNDOING NUT ON END OF
HANDGRIP SPINDLE. FIRSTLY REMOVE
CENTRE POPS WITH END OF FILE.



REWORK TELEPLEX BOX
(C.26548) TO DIMENSION
BELOW. RE-PART NUMBER
(CIB.185-ND)



REWORK DISTANCE TUBE (15CE.343)
TO DIMENSION BELOW - RE-PART No
TO. (15CE.831).

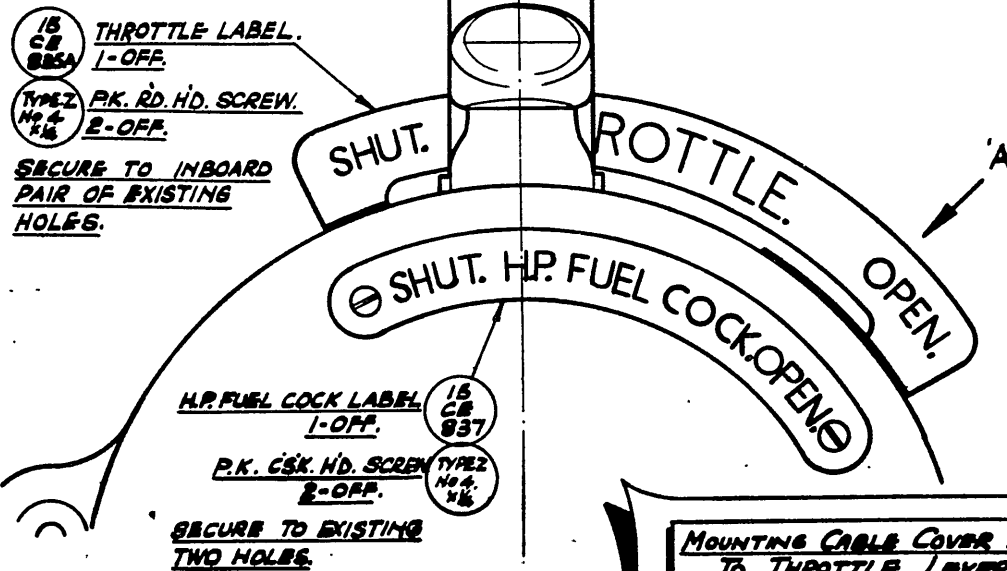


DE HAVILLAND DRWG. No. 00M307. No of SHEETS 4. SHEET No. 3.

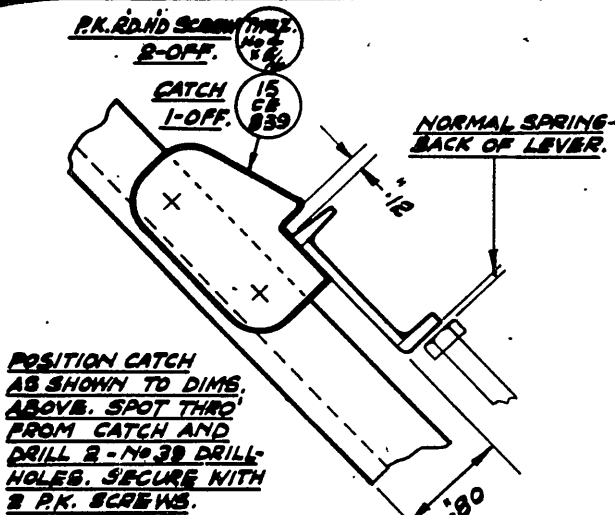
REFERENCE		ISSUED BY		TITLE	
				H.P. FUEL COCK LEVER. ~ REPOSITIONING.	
LIMITS UNLESS STATED	MATERIAL			COMPONENT OF	
DECIMALS $\pm .010"$	SPEC.			MACHINE	
FRACTIONS $\pm \frac{1}{32}"$	TREATMENT			ENGINE	
ANGLES $\pm \frac{1}{2}^\circ$	FINISH			TECH. ORDER	
SURFACE FINISH	SCALE			DRAWING NO.	A 12632
AUSTRALIAN STANDARD	DRAWN	APPROVED		SHEET 3	
ENG DRWG. PRACTICE A.S.21	TRACED	CHECKED		DRWG. A SIZE	

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED

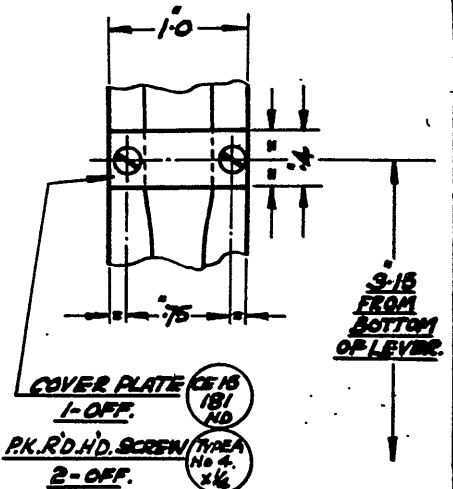


MODIFIED ARRANGEMENT OF LABELS.



VIEW ON ARROW 'A' - SHOWING MOUNTING OF H.P. FUEL COCK CATCH.

MOUNTING CABLE COVER PLATE TO THROTTLE LEVER.



DE HAVILLAND DRWG. No. 00M207. No. of SHEETS 4. SHEET No. 4.

REFERENCE		ISSUED BY		TITLE	
				H.P. FUEL COCK LEVER. - REPOSITIONING.	
LIMITS UNLESS STATED	MATERIAL			COMPONENT OF	
DECIMALS $\pm .010"$	SPEC.			MACHINE	
FRACTIONS $\pm \frac{1}{32}"$	TREATMENT			ENGINE	
ANGLES $\pm 1^\circ$	FINISH			TECH. ORDER	
SURFACE FINISH	SCALE			DRAWING NO.	A 12632
AUSTRALIAN STANDARD	DRAWN	APPROVED		SHEET-4	
ENG. DRWG. PRACTICE A.S.21	TRACED	CHECKED		DRWG. A SIZE	

Restricted

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VAMPIRE MODIFICATION NO. 160

Class 2

CLOCK STOP TYPE V.308 - INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the fitment of clock stop type V.308. This clock, having a dial approximately twice as large as other clocks, is easier to read, this fact being of importance during instrument flying. Also being a stop clock it gives the pilot a record of elapsed flying time.

In addition this clock requires less maintenance than the present one installed.

Application

2. This modification is to be carried out on all Vampire Mk.30 and Mk.31 aircraft.

Responsibility for Incorporation

3. This modification will be carried out by units holding the applicable aircraft.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled.

Equivalent Modifications

6. The equivalent modification is De Havilland Mod. V.204.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	G6A/3157		Clock, time of flight Smith's type V.308	1	A
2	"G6AA/500571".	G11784	Screw, 4 B.A. Shear Head	4	C
3		OOB97ND	Adapter plate	1	
4		OOB105	Packing, front	1	
5		OOB107	Packing, base	1	
6	H28/27033	AGS.2002/ C/1	Nut M.S. Hex. thin Nyloc insert 2 B.A.	9	

Restricted

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VAMPIRE MODIFICATION NO. 160

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
7	H28/11210	AS.1246/3C	Bolt, H.T.S. Rd.Hd 2 B.A. x .70" long	4	
8	H28/12139	AS.1246/60	Bolt, H.T.S. Rd.Hd. 2 B.A. x 1.0" long	2	
9	H28/12708	AS.1246/90	Bolt H.T.S. Rd.Hd. 2 B.A. x 1.3" long	2	
10		AS.1246/15C	Bolt H.T.S. Rd.Hd. 2 B.A. x 1.9" long	1	
11	H128F/32690	AS.2227/205	Rivet, Al.Alloy, Snap Hd. 1/16" D. x 5/16" long	6	
12	H128F/30260	AS.2227/305	Rivet Al.Alloy, Snap Hd. 3/32" D. x 5/16" long	6	
13	H128F/61880	AS.2229/407	Rivet, Al.Alloy, Csk. Hd. 90°, 1/8" D. x 1/2" long	4	
14	H128F/62317	AS.2229/408	Rivet, Al.Alloy, Csk. Hd. 90°, 1/8" D. x 1/2" long	2	
15	H28C/12252	SP/13C	Washer M.S. plain t. 2 B.A.	5	
16	K3/321		Enamel, Cellulose black	As Req'd.	

Notes: (a) Items No.1 to 15 inclusive will be delivered from De Havilland Aircraft Pty. Ltd. to their own Modification Centre, which will issue items on demand.

(b) Item No.16 will be drawn from unit stores.

Disposal of Parts Removed

8. The following part is redundant:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
17	G6A/1150		Clock Mk.2 8 day	1	A

Note: Item No.17 is to be returned to store for use on other aircraft.

Disposal of Parts in Stock

9. Item No.17 is no longer required for Vampire aircraft but is applicable to other types of aircraft.

When Modification is to be Incorporated

10. This modification is to be carried out at soon as possible, but not later than the next major servicing.

Method of Incorporation

11. (a) Man-hours Involved : Approximately fourteen (14) man-hours are required to incorporate this modification.
- (b) Special Tools, Jigs, &c. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Disconnect the aircraft accumulators in accordance with current authorized procedure. Locate the bottom centre instrument panel and proceed to remove it from the aircraft by undoing the attachment bolts from the bracket on the wheel fairing and also the top mounting tube, retaining all items for reassembly.
 - (ii) Disconnect the electrical connections to the five fuel gauges and remove the panel from the aircraft.
 - (iii) Drill out the four 1/16 inch diameter rivets securing the label to the top of the panel and retain the label. Remove the five fuel gauges and the clock, item 17, from the panel, retaining the attachment items of the gauges. The screws holding the clock will be mutilated by removal.
 - (iv) Position the adapter plate, item 3, as shown on the Drawing A.12396, sheet 1, and mark on the panel the new positions of the three apertures for the port inboard tank gauge, the clock and the starboard inboard tank gauge. The corners on the top and sides of the instrument panel will need to be rounded by filing to fit the adapter plate. Cut these three apertures to the dimensions shown, using the plate as a template, and finish by filing.
 - (v) Temporarily position the plate and drill the four No.11 holes to mount the two gauges, the four No.20 holes to mount the clock, and the six No.30 holes to accommodate the countersunk rivets to secure the adapter plate to the panel.
 - (vi) Remove the plate and open up the four No.11 holes in the panel and 18 S.W.G. stiffener to $\frac{1}{2}$ inch diameter as shown on the drawing.
 - (vii) Rivet the adapter plate to the panel using four rivets, item 13, and two rivets, item 14.

- (viii) Make the label, removed in operation (iii), into two labels by cutting them 1.85 inch long and drilling with a No.52 drill a hole .20 inch from the end. Radius the corners .12 inch. Attach these labels as shown for the port and starboard inboard tanks, picking up with the existing rivet holes and using four rivets, item 11.
 - (ix) Make a third label for the main tank by cutting to size 2.05 inch x .35 inch wide from the piece of the original label left over. Chamfer the corners .06 inch x 45°. Drill two (2) holes No.52, .15 inch from each end. Attach this label as shown using two rivets, item 11.
 - (x) Refer to sheet 2 of the drawing and drill through the adapter six No.40 holes into the flange of the stiffener. Attach by means of six (6) rivets, item 12.
 - (xi) Cut the aperture for the main tank gauge to the dimensions as shown on Drawing A.12396, sheet 1, and accurately position and drill the three No.11 holes.
 - (xii) Refer to sheet 2 of the drawing and assemble together the main tank gauge, the front packing, item 4, and the base packing, item 5. Secure these, using two (2) bolts, item 9, two washers, item 15, and two nuts, item 6.
 - (xiii) Secure this assembly to the panel with bolts, item 10, and item 8, washers, item 15, and nuts, item 6.
 - (xiv) Replace the port and starboard inboard fuel tank gauges and secure with four bolts, item 7, and four nuts, item 6. Replace the port and starboard outboard fuel tank gauges using their original attachment items as removed in operation (iii).
 - (xv) Secure the new stop block, item 1, to the panel with four one way screws, item 2. Alter the Part No. of the bottom centre instrument panel to OOB99ND.
 - (xvi) Reposition the bottom centre instrument panel, connect up all electrical connections and re-attach the panel using the original attachment items removed in operation (i).
 - (xvii) Repair any paint finish locally using item 16. Reconnect the aircraft accumulators.
- (d) Tests : Check the fuel tank gauges for normal functioning.
 - (e) Recording : Record the modification in the Airframe Log Book.

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VAMPIRE MODIFICATION NO. 160

Drawings

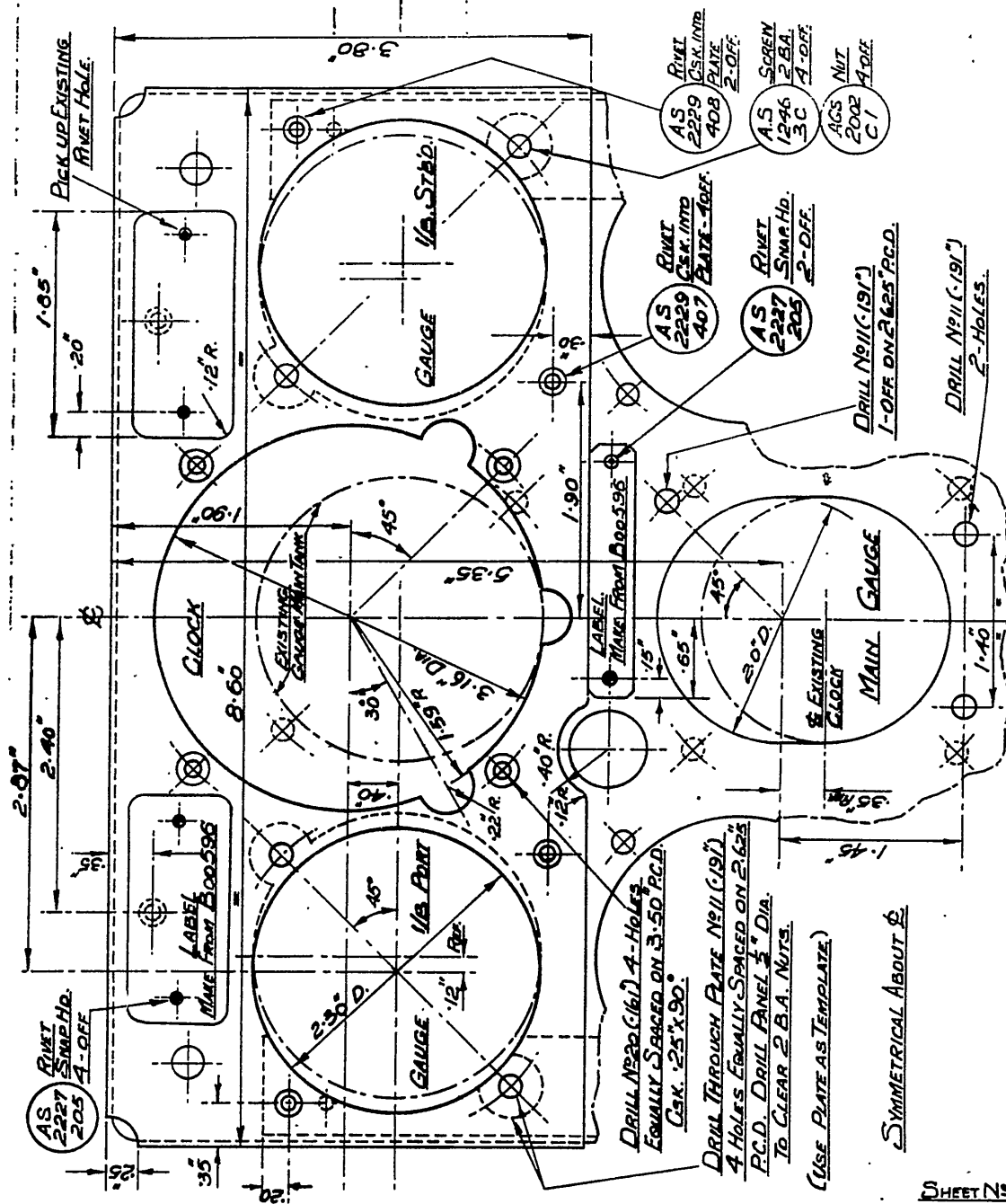
12. Drawing A.12396 consisting of 2 sheets is attached.

Effect on Weight and Balance

13. The weight and balance effect of this modification is negligible.

References : Files Department of Air 9/84/203^{II} and 150/4/9033
Attachment : Drawing A.12396, sheets 1 and 2
Date of Issue : 18th April, 1955.

DO NOT SCALE



REFERENCE		ISSUED BY		TIT E	
UNITS UNLESS STATED		MATERIAL		COMPONENT OF	
DECIMALS	± .010"	SPEC.		MACHINE	
FRACTIONS	± 1/32"	TREATMENT		ENGINE	
ANGLES	± 1°	FINISH		TECH. ORDER	
SURFACE FINISH		SCALE		DRAWING NO.	
MILITARY STANDARD		DRAWN		VAMPIRE MOD 160	
		APPROVED		A-12396 SHT 1	
		CHECKED			

DO NOT SCALE

CROSS TUBE B0049A
(REF.)

IF BACK OF CLOCK
FOULS ELECTRIC CABLES
RUN CABLES ALONG FWD.
FACE OF CROSS TUBE
AND RE-BIND.

RIVET
SNAP HD.
6-OFF
AS 2227
305

DRILL 6-№40 HOLES

ADAPTOR
PLATE
1-OFF
00B 97
N.D.

G6A
500144

TIME OF FLIGHT CLOCK
SMITH'S TYPE V30B
1-OFF

00B
115

SCREW, ONE WAY
4 B.A. 4-OFF

FILE PANEL TOP & SIDES
TO FIT ADAPTOR PLATE

ALL SCREW AND RIVET HEADS
TO BE PAINTED MATT BLACK.

00B
105

PACKING, FRONT
1-OFF

AS
1246
15C

BOLT
2 B.A. 1 OFF

AGS
2002
C1

NUT, THIN
2 B.A. 5 OFF

SP
13
C

WASHER
5-OFF

MAIN TANK GAUGE
G6A/2581 OR G6A/3661- REF.

AS
1246
9C

BOLT
2 B.A. 2 OFF

AS
1246
6C

BOLT
2 B.A. 2 OFF

00B
107

PACKING, BASE
1-OFF

BOTTOM CENTRE INST. PANEL
00B 99 N.D. REF.
MAKE FROM B00588A

SHEET N92

DE HAVILLAND DRWG. N° 00M297 N° OF SHEETS 2

REFERENCE	ISSUED BY	TITLE
		STOP CLOCK SMITH'S TYPE V30B - INTRODUCTION. Mk30-31.
UNLESS STATED	MATERIAL	COMPONENT OF
FILES	± 0.01"	MACHINE
DRILL	± 0.01"	ENGINE
FINISH	SCALE	FINISH C-DR
STANDARD	DRAWN	DRWG
1:1	APPROVED	
	CHECKED	
		COMP. NO. A 12396 SHT 2

FILLER, FUSELAGE FUEL TANK - PROVISION OF IMPROVED SEALING TO ALLOW FOR USE OF AVTAG FUEL

Reason for and Description of Modification

1. This modification is introduced to effect efficient sealing at the tank filler neck and so prevent fuel seepage into the tank bay during refuelling. The modification authorizes the installation of a new sealing ring.

Application

2. This modification is to be incorporated on all Vampire Mk.30 and Mk.31 aircraft and on Vampire Mk.33 aircraft serial numbers A79-801 to A79-824, both inclusive. A79-825 to A79-828 have the new sealing rings fitted but require correct sealing as detailed. A79-829 and subsequent will have this modification incorporated during production.

Responsibility for Incorporation

3. The modification is to be incorporated by operating units, aircraft depots, or the civilian contractor responsible for servicing Vampire aircraft.

Action in Respect of Spares

4. Future supplies of fuselage fuel tanks will be modified by the contractor before delivery. Eight (8) spare Mk.30 and 31 Fuselage Fuel Tanks Part No. P002470 (Ident. No. A79/501335) are to be modified to instructions detailed in paragraph 11(c), operations (i) to (vi) inclusive of this modification. No change of ident. number has been made, but the tank can be identified by reference to the Modification Panel.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V205 and Air Ministry Modification Vam. 3249 are equivalent modifications.

Supply

7. The following parts are required for complete modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	A79/503625	12PT1429	Ring, Sealing	1	
2	K3/436	-	Bostik No.1410	A.R.	

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VAMPIRE MODIFICATION NO. 164

Notes:- (a) Item 1 will be retained as a modification set at De Havilland Modification Centre. Units requiring modification sets are to demand from De Havilland Modification Centre.

(b) Item 2 is to be drawn from unit stores.

Disposal of Parts Removed

8. The following part will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
3	A79/501312	P00222	Ring, Sealing, fuel tank.	1	

Note:- Item 3 is obsolete and is to be discarded as being damaged.

Disposal of Parts in Stock

9. Any stocks of item 3 will become obsolete and are to be disposed of in accordance with current authorized procedure.

When Modification is to be Incorporated

10. This modification is to be incorporated whenever it is necessary to remove the fuselage fuel tank.

Method of Incorporation

11. (a) Man-hours Involved : Approximately $1\frac{1}{2}$ man-hours will be required to incorporate this modification. This figure does not include time required for removal and installation of tank.
- (b) Special tools, jigs, &c. : No special tools or jigs are required.
- (c) Sequence of Operations :

Note:- These operations are written assuming that the tank is removed from the aircraft.

- (i) Remove the ten visible nuts around the filler neck assembly and detach the metal sealing ring complete with eight cup washers and the earthing socket. Retain all parts removed.
- (ii) Remove the existing rubber sealing ring, item 3: This may be attached to the metal sealing ring, removed in operation (i) above, or to the filler neck locating block on the fuselage.

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VAMPIRE MODIFICATION NO. 164

- (iii) Thoroughly clean the metal sealing ring.
- (iv) Bolt temporarily the earthing socket to the metal sealing ring in its correct position.
- (v) Apply an even film of item 2 to the mating surfaces of the metal sealing ring and item 1. Allow from 15 to 20 minutes to elapse, position item 1 centrally on the metal sealing ring and apply an even pressure all around until joint has set.

Note:- Item 1 must be distorted locally to suit earthing socket.

- (vi) Remove earthing socket from the metal sealing ring. Locate the sealing ring assembly on the tank, ensuring that the 1/4 inch diameter hole mates with the drain hole in the base ring. Locate the earthing socket in its original position and replace the nuts and washers retained in operation (i), using sufficient item 2 to effect a good seal.
- (vii) Thoroughly clean the mating face of filler neck locating block in fuselage, ensuring that no trace of old adhesive remains.
- (viii) Apply an even coat of item 2 to the upper surface of item 1 and to the undersurface of filler neck locating block. It is imperative that these coated surfaces be brought together within the period between 15 and 20 minutes after applying the adhesive. To obtain a good sealed joint, ensure that item 1 is compressed around its entire circumference between the metal sealing ring and the filler neck locating block.

(d) Tests : No tests are necessary.

(e) Recording :

Record the modification in the Airframe Log. Fuselage Fuel Tanks, Part No. P002470 (Ident. No. A79/501335) must be marked with the modification number in the appropriate panel. Fuselage Fuel Tanks, Part No. P003279A (Ident. No. A79/502153) must be marked with the modification number and in addition the part number is to be changed to P003279A/1.

Drawings

12. No drawings are required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 9/84/74 and 150/4/9054
Date of Issue : 20th June, 1955.

Restricted

A.A.P.721:79, Vol.2, Pt.2

VAMPIRE MODIFICATION NO. 166

Class 2

IMPROVED TOP ATTACHMENT PIN IN MAIN U/C RETRACTING
JACK - INTRODUCTION

Reason for and Description of Modification

1. This modification introduces a stronger main undercarriage jack top attachment bolt. These bolts were introduced on some aircraft during manufacture as an alternative, but must now be fitted to all aircraft.

Vampire Modifications Nos. 72 and 5 must be carried out before this modification is incorporated.

Modification sets for Vampire Modification No.93 will include these bolts. This new bolt can be identified by a raised pip on the head. It may have been already fitted during manufacture. (Refer to paragraph 11 (c) (ii)).

Application

2. This work is to be carried out on all Vampire aircraft which do not have D.H. (Aust.) Modification V.193 incorporated.

Responsibility for Incorporation

3. The modification is to be incorporated by operating units, aircraft depots or the civilian contractor responsible for servicing Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Spare wings will be already modified. Aircraft being fitted with replacement spare modified wings must have the Aircraft Log Book endorsed.

Orders Superseded or Cancelled

5. No orders are superseded or Cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.193 and Air Ministry Modification VAM.3153 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Restricted

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VAMPIRE MODIFICATION NO. 166

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
1	A79/502010	G001901	Bolt, special	2	
2	H28B/5031	SP.9/C6	Pin, split, Nickel Alloy	2	

"Note: Items 1 and 2 will be assembled into modification sets and retained at the De Havilland Modification centre pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre."

t Pty. Ltd.,
Issue

(Issued with A.L.38 July 1955)

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
3	A79/500248	G0050	Bolt, Special	2	
or 4	A79/502029	G001825	Bolt, Special	2	

"Notes: (i) Item 4 is obsolete and is to be disposed of in accordance with current authorized procedure.

(ii) Item 3 is to be examined and if serviceable returned to store for use elsewhere on all marks of Vampire A/C".

"9 Any stocks of Bolts, Part No. G001825 and Ident No. A79/502029, are obsolete and are to be disposed of in accordance with current authorized procedure".

9/500248, or
posed or as in

(Issued with A/L No.117)

10. The modification is to be incorporated:-

- (a) Aircraft in service are to be modified as soon as practicable, but not later than the next minor servicing after receipt of modification sets.
- (b) Aircraft undergoing repair or servicing are to be modified during such repair or servicing.

Method of Incorporation

- 11. (a) Man-hours Involved : Approximately twenty (20) man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs, &c. : No special tools are required to incorporate this modification.

(c) Sequence of Operations :

- (i) Trestle the aircraft in accordance with A.A.P.828, Figure 9. Release the hydraulic pressure from the hydraulic accumulator with the main wheels down.
- (ii) Temporarily unclip the two hydraulic hoses from the diaphragm in order to provide access and then examine the jack attachment bolt.
- (iii) If the head of this bolt, (one on each wing) has a raised "pip", about 1/2" diameter by approximately 1/32" high, this modification is satisfied and the Airframe Log Book and wing modification plates can be endorsed accordingly.
- (iv) If there is no raised "pip" on the heads of these bolts, remove bolts, nuts and washers. Retain nuts and washers and discard bolts item 3 or 4.
- (v) Disconnect and retain grease nipple and brass shim from bolt, items 3 or 4.
- (vi) Fit grease nipple and brass shim (retained in operation (v)) to item 1.
- (vii) Replace bolt, item 1, nut and washer (removed in operation (iv)) and lock nut with a new split pin, item 2.

Note:- Care is to be taken that after fitting the new bolt, the grease nipple is pointed downwards.

- (viii) Refit the clips removed in operation (ii).

- (d) Tests : Check functioning of the under-carriage.
- (e) Recording : Record Modification No. (i.e. 166) on wing modification plates and in Airframe Log Book.

Drawings

12. No drawings are required.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 9/84/91 and 150/4/9057.

Date of Issue : 19th July, 1955.

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
5	H28/7487	A25/36J	Bolt, H.T.S. Hex.Hd. $\frac{3}{8}$ " B.S.F. x 4.25" long.	4	
6		N15-153ND. or	Washer, M.S. Plain .05" thick	1	
	H28C/3071(Z)	A.G.S.160/C	Washer M.S. Plain .05" thick	1	
7	H28C/2170(Z)	A.G.S.250/36	Wood screw, Brass Csk. Hd., No.6 x $\frac{3}{8}$ " long.	1	
8	H128F/31627	A.S.2227/403	Rivet, Alum.Alloy Rd. Hd. $\frac{1}{8}$ " D. x $\frac{3}{16}$ " long	4	
9	G5F/500001		Tape, Insulating P.V.C. $\frac{5}{8}$ " wide	A.R.	
10	I32A/2006	B.P.L.M	Twine, binder, coreless	A.R.	
10A	K3/321	SL3019	Paint Matt Black Enamel	A.R.	

Notes:- (a) Items Nos. 1 to 8 will be supplied by De Havilland Aircraft Pty. Ltd.

(b) Units are to demand on the contractors Modification Centre for their requirements.

(c) Items Nos. 9 and 10 are to be ~~obtained~~ from unit stores.
and 10A DRAWN

Disposal of Parts Removed

8. The following parts are redundant:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per set	Stores Class
11	G5C/2497		Switch S.P. 7 amp.	1	
12	G5C/958		Socket Type S. 7 way	1	
13	G5C/1004		Stowage, Dummy Type B.	1	
14		15.N.571A	Cable Assy., Camera Exposure Switch	1	
15		15.N.399A	Cable Assy., Footage Indicator	1	
16		15.N.187A	Cable Assy., Camera Gun to terminal	1	
17		15.N.1249	Bracket, Camera Exposure Switch	1	
18		A1/23J	Bolt, M.S. Hex.Hd., $\frac{3}{8}$ " B.S.F. x 2.9" long	4	

- Notes:-
- (a) Item No.11 is, if serviceable, to be retained against current usage.
 - (b) Items No.12 and 13, if serviceable, are to be retained for use on Vampire Mk.30 and Mk.31 aircraft.
 - (c) Items Nos. 14 to 18 are to be disposed of by current authorized procedure.

Disposal of Parts in Stock

9. Camera G45B Mk.3, Ident. No. F14A/1380, cover, canvas, Ident. No. T27D/500005 and Adapter Type 32, Ident. No. F14A/1423 are no longer required for Mk.33 Vampire, but are to be held in stock for use on Vampire Mk.30 and 31 aircraft.

When Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, after receipt of parts, but not later than the next minor servicing.

Method of Incorporation

- 11.
- (a) Man-hours Involved : Approximately ten (10) man-hours are required to incorporate this modification.
 - (b) Special Tools, Jigs, &c. : No special tools or jigs are required to incorporate this modification.
 - (c) Sequence of Operations :
 - (i) Ensure that the aircraft accumulators are disconnected in accordance with current authorized procedure.
 - (ii) Locate the camera exposure switch and bracket mounted on the starboard side of the cockpit. Remove the switch, item 11, and retain, but discard the two attachment screws and nuts.
 - (iii) Completely remove the camera exposure switch cable assembly, item 14, which runs from the camera switch to the two-way connector block, which is mounted on the starboard cockpit wall between bulkhead 1 and J.B.1. Remove also the cable assembly, footage indicator, item 15, which runs from this two way connector block to the earth terminal on No.1 bulkhead and discard.
 - (iv) Remove and discard the switch bracket, item 17, along with its attachment items.

- (v) Using, item 8, plug the four No.31 holes left by the removal of the switch bracket, to ensure that the drip plate does not leak.
- (vi) Refer to Drawing No. A.12406 showing ballast weights in the nose of the aircraft. Locate these weights and proceed to remove the four $\frac{3}{8}$ inch bolts, item 18, and washers securing them in the aircraft.

Position two new ballast weights, item 3, and secure them, using four new bolts, item 5, and the four washers removed in operation (vi).
~~Important:~~ "VII(a) Delete notice"
 Important When G45 Camera is not installed, fit Ballast Weight F15-35ND from Camera mounting bracket by painting out using item 10a"
 engages the small stop plate up the two bolts.

- (ix) The cable assembly, item 16, which runs from the terminal block to the camera is to be completely removed from the aircraft and discarded. The socket, item 12, if serviceable, may be salvaged from this cable.
- (x) The dummy stowage, item 13, which was used when this cable was not connected to the camera is to be removed by taking out the two woodscrews.
- (xi) Replace this cable by a new cable, item 4, connecting the three ferrules on the cable ends to their respective terminals CG6, CG4 and E.
- (xii) Offer up in place of the dummy stowage, a "Breeze" coupling nut, item 1, which is secured in the same position by means of a washer, item 6, and the wood-screw, item 7.
 The plug assembly which is at the end of the new cable, item 4, is screwed to the coupling nut when the new G.S.A.P. AN-N6 Camera is not in use.
- (xiii) Locate the cable loom C2 assembly Part No. 15.N.111A (Ref. only) which is attached to bulkhead 1 by a "Breeze" plug and runs to J.B.1, and proceed to rework it as follows:-

Check the six terminal ends which run to the connector blocks and select terminal CG2 which runs to pin coded 'R', and terminal CG3 which runs to pin coded 'S'. These two terminals are to be insulated with item 9, and bound back on the cable using twine, item 10. The cable loom C2 is not re-part numbered N15-207A, and is reconnected as before.

- (xiv) Locate the cable loom C2A Part No. 15.N.231A (Pre-Modification V.670) or Part No. N15-105A (Post Modification V.670) which runs forward from bulkhead No.1 and trace it to the five terminals which terminate at the terminal block situated near the camera mounting on the starboard side and rework the loom as follows:-

The terminal ends CG2 and CG3, which run to Pin 'R' and 'S' respectively are to be insulated and bound as in operation (xiii).

The cable loom C2A is now re-part numbered Z15-175 (Pre-Modification V.670) or N15-205A (Post Modification V.670). The remaining terminals 'E', 'CG4', and 'CG6' are reconnected to the terminal block.

- (xv) Reconnect the aircraft accumulators, and test the circuit for correct functioning, then lower the nose cap.

Note: De Havilland (Aust.) Modification V.670 introduced an Inverter (Type 100A) in lieu of an existing Inverter (Type 100B).

- (d) Tests : As in operation (xv).
- (e) Recording : Record the modification in the Airframe Log Book.

Drawings

12. Drawing No. A.12406 consisting of one sheet is attached herewith.

Effect on Weight and Balance

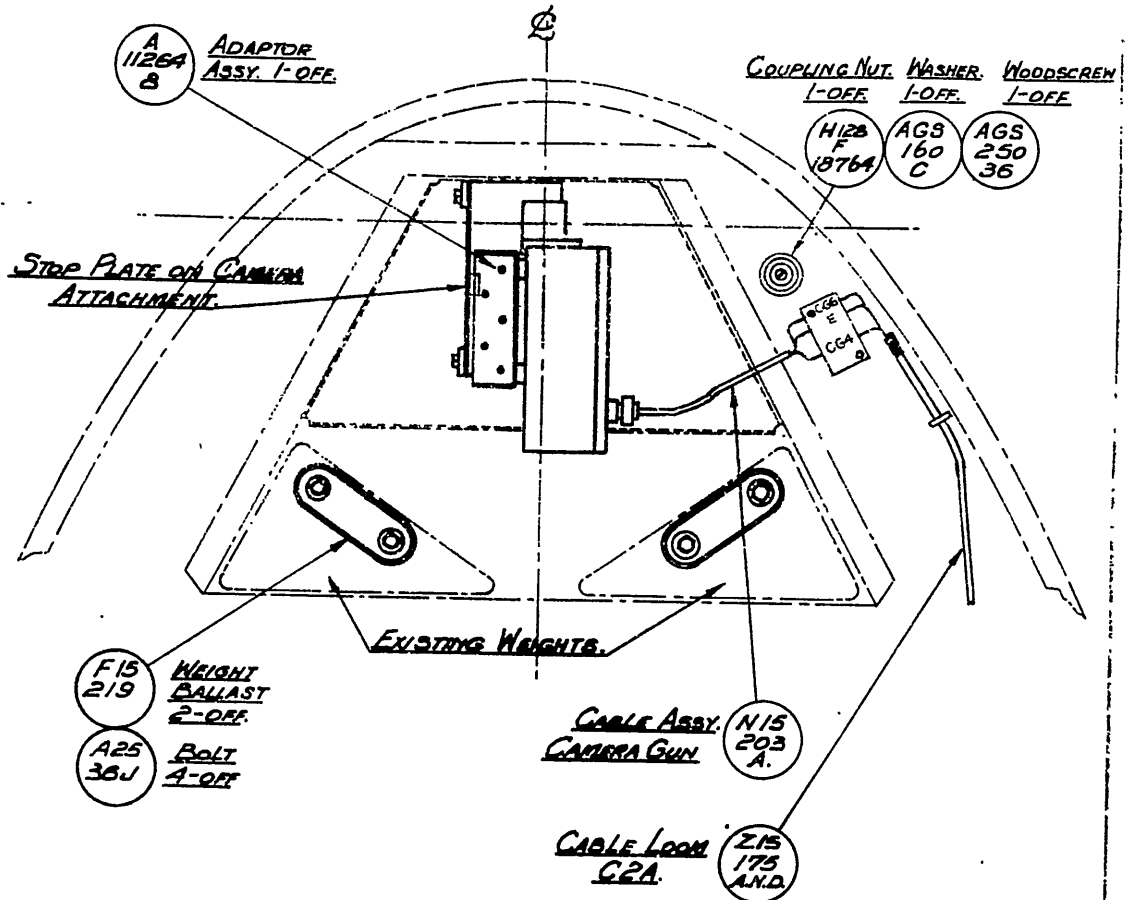
13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 113/2/1371 and 150/4/9059

Attachment : Drawing A.12406

Date of Issue : 10th May, 1955.

DO NOT SCALE



SHEET No. 1

DeHavilland Draw. No. 00M303. No. of Sheets. 1.

REFERENCE		ISSUED BY		TITLE	
				G.S.A.P. AN-NO CAMERA GUN - INTRODUCTION.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	
DECIMALS	± .010"	SPEC.		MACHINE	
FRACTIONS	± 1/32"	TREATMENT		ENGINE	
ANGLES	± 1°	FINISH		TECH. ORDER	VAMPIRE MOD. 168
SURFACE FINISH		SCALE		DRAWING NO.	A 12406
AUSTRALIAN STANDARD		DRAWN			
ENG. D.D. PRACTICE A.S. 221		TRACED			
			APPROVED		
			CHECKED		

DWG
A
SIZE

PROVISION FOR TESTING CAMERA GUN CIRCUIT - INTRODUCTION

Reason for and Description of Modification

1. This modification authorises the introduction of provision for testing the Camera Gun circuit, without interference with the gun firing safety circuit.

The introduction of a double pole spring switch in this circuit obviates the possibility of accidental firing of the guns during camera tests.

Application

2. This work is to be carried out on Vampire Mk.33 aircraft Serial No.A79-801 to 815 inclusive. Aircraft A79-816 and subsequent will be modified by the manufacturer.

Responsibility for Incorporation

3. The electrical fitters of units and contractors concerned will be responsible for incorporation of this modification.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by the introduction of this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V668 and Air Ministry Modification Vam.3186 are the equivalent modifications.

Supply

7. The following parts are required to complete one modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
1		12N1301A	Label	1	C
2	G5C/4226		Switch 'Rotax' Single Unit	1	A
3	G5A/500007		Socket Assy. Type 5H/15	1	A

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Item No.	Ident. No.	Part No.	Nomenclature	No. Off Per Set	Stores Class
4	G5A/500008		Socket Assy. Type 5H/16	2	A
5	G5A/28719		Ferrule, Type 5H/24	3	C
6	G5A/28647		Ferrule, Type 5H/25	7	C
7	H28C/6287	A32/B6	Screw, M.S. metal Rd.Hd. 4BA x 3/16" long.	4	C
8	H28C/11067	AGS.2035B	Washer, steel shakeproof internal teeth 4 BA	4	C
9	H28B/5045 or	SP.9/G12	Pin split, Nickel alloy. 1/8" dia. x 1 1/2" long	2	C
	H28B/1221	AGS.166/21	Pin split M.S. 1/8" dia. x 1 1/2" long	2	C
10	G5E/30161	A.A.16	Cable, one core, Vin. to Spec. A.S. No. U.1.	A.R.	C

Notes: (a) Items 1 to 9 inclusive will be delivered from De Havilland Aircraft Pty. Ltd., Bankstown, N.S.W. to the Contractor's Modification Centre Store, which will issue items on demand.

(b) Item 10 is to be drawn from unit stores.

Disposal of Parts Removed

8. No parts will be rendered redundant by the incorporation of this modification.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than next minor inspection after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately seven (7) man-hours are required to incorporate this modification.

(b) Special tools, jigs, &c. : R.A.A.F. Ident. No. G5A/50057¹⁰ AL3
Crimping pliers tool kit.

A.A.P.721:79, VOL.2, PT.2.

VAMPIRE MODIFICATION NO. 169

(c) Sequence of Operations :

- (i) Ensure that the aircraft accumulators are disconnected in accordance with current authorised procedure.
- (ii) Refer to Australian Air Publication 721:79/33 Volume 1, Section 3, Chapter 1, paragraph 15 and remove the starboard pilot's seat, discarding the two $\frac{1}{8}$ inch split pins.
- (iii) Locate the armament service junction box, mounted on the forward face of bulkhead 2. Disconnect the cable looms C30 and C31 from the junction box, together with all other cables that will prevent the removal of the box from the bulkhead. Remove the box, retaining the attachment items for reassembly.

Note: Carefully note from which connections the respective leads are removed to ensure their correct re-attachment on replacement of the box.

- (iv) Refer to sheet 2 of Drawing No. ^A12405 and mark out the out-cut to dimensions shown, on the outboard face of the box. Drill a series of holes around the inside perimeter of the cut out, and cut and file to size the rectangular hole, removing any sharp edges. AL
- (v) Refer again to the drawing and mark out and drill the four located holes, using a No.26 drill.
- (vi) Position the new Rotax switch, item 2, in the cut-out and secure with four screws, item 7, and four washers, item 8, at the same time attach the label, item 1, utilising the two top screws.
- (vii) Refer to sheet 1 of the drawing and revise the internal wiring of the junction box as follows:-
- (viii) Secure a double tier socket, item 4, at terminals 13 and 15 of the "fifteen way" block, and a single tier socket, item 3, to terminal 14.
- (ix) Locate the existing cable coded GF6, running between the loom C31 plug pin 'L' and terminal 2 of the lower three way terminal block. Disconnect this cable at the terminal block end, and re-connect it to terminal 14 of the "fifteen way" block. Re-code this cable GF19.
- (x) Locate the existing cable coded GF5 + running between the loom C31 plug, pin 'K' and terminal 1 of the lower three way terminal block. Disconnect the cable at the terminal block end and re-connect it to terminal 13 of the "fifteen way" block.

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- (xi) Locate the existing cable coded GF9 + running between the loom C30 plug, pin 'U' and fuse No.9, disconnect this cable at the fuse end and re-connect it to terminal 15 of the "fifteen way" block.

Note: The three existing cables which are necessarily shortened when re-routed, are to be treated as follows. Before their free ends are attached to their respective terminals on the 'fifteen-way' block, short lengths of nyllex tubing are slipped on and the cables correctly coded. A ferrule, item 5, is then crimped to each end.

- (xii) Complete the new wiring of the junction box using cable, item 10, linking terminals 3, 4 and 5 of the new Rotax switch to terminals 14, 15 and 13 respectively of the 'fifteen way' block, and terminal 2 of the switch to terminal 2 of the three way terminal block.

- (xiii) Link terminal 13 of the 'fifteen way' block to terminal 1 of the three way terminal block and terminal 15 to fuse No.8.

Note: The ends of the new cables which are attached at the 'fifteen way' and three-way terminal blocks are to be treated similarly using 7 ferrules, item 6, crimped to their ends.

- (xiv) Lower the gun bay doors and locate the armament services relay panel on the forward face of bulkhead No.4. Recode the cable coded GF6 (running between the main terminal block and the inner guns firing relay) to be GF19. Change also the coding marked in ink on the top of the terminal block. Close the gun bay doors.

- (xv) Re-attach the armament services junction box to bulkhead No.2 using the original attachment items, reconnect the looms C30 and C31, and all electrical leads disconnected on removal.

- (xvi) Reconnect the aircraft accumulators and test the circuit for correct functioning, then lower the nose cap.

- (xvii) Replace the pilot's seat using new split pins, item 9. Alter the part number of the Armament Services junction box to 15N381A/1.

- (d) Tests : As in operation xvi.
- (e) Recording : Record the modification in the Airframe Log Book as Vampire Modification No. 169.

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VAMPIRE MODIFICATION NO. 169.

Drawings

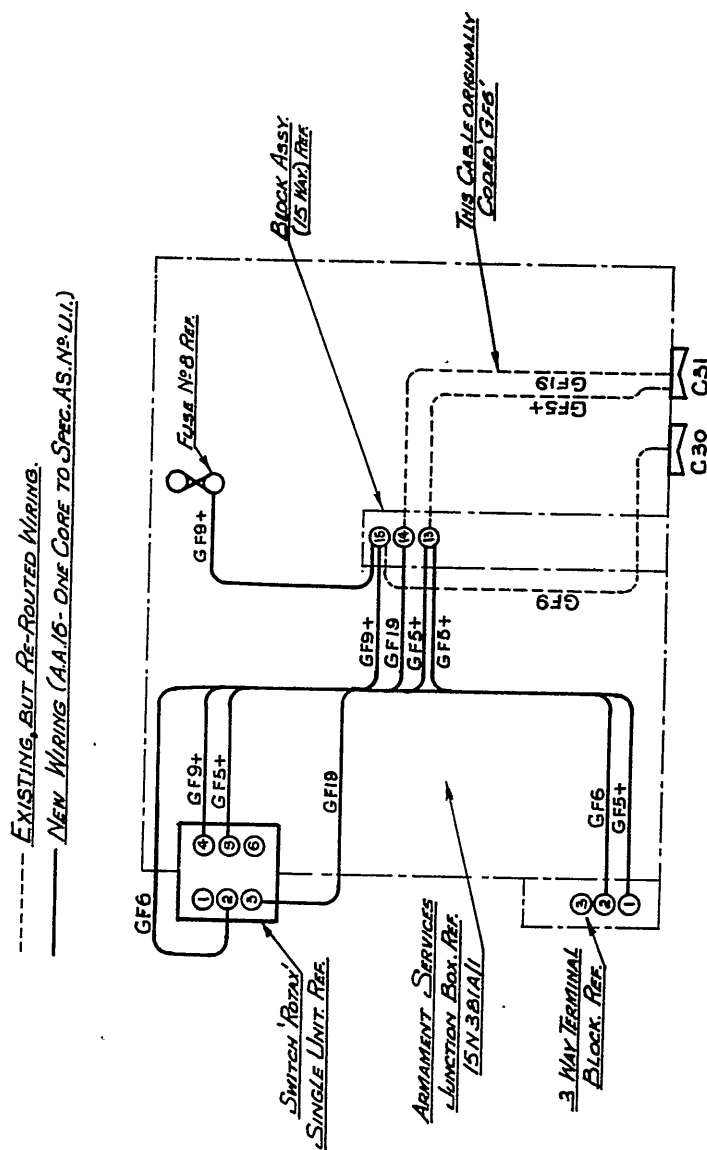
12. Drawing No. ^A12405 consisting of two sheets is attached. AL 29

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 150/4/9060 and 150/4/8621
Attachment : Drawing ^A12405 sheets 1 and 2 AL 29
Date of Issue : 25th March, 1955.

ISSUE NO	DATE	ALTERATION	D I L	INITIALS	APPROVED



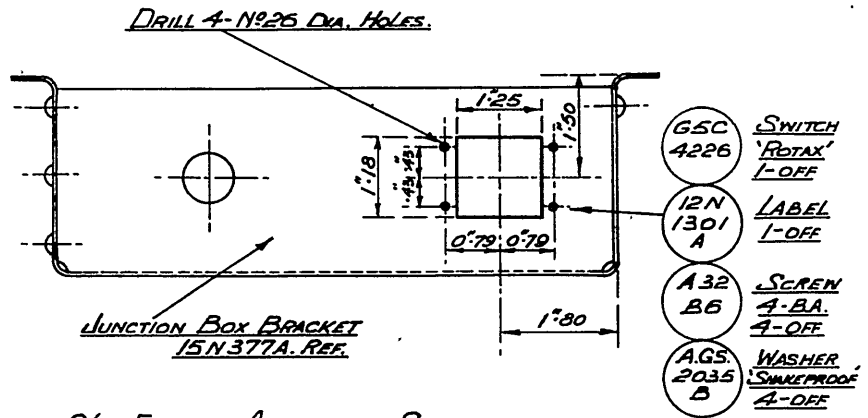
REVISED WIRING OF
ARMAMENT SERVICES JUNCTION BOX,
MOUNTED ON FWD. FACE OF BULKHEAD 2.

DeHAVILLAND DRWG. No ODM293 No OF SHEETS 2.

REFERENCE		ISSUED BY			DeHAVILLAND DRWG. NO. OOM293 NO. OF SHEETS 2.	
					TITLE	
					<u>PROVISION FOR TESTING CAMERA</u> <u>GUN CIRCUIT - INTRODUCTION.</u>	
LIMITS UNLESS STATED		MATERIAL				
DECIMALS	$\pm .010''$	SPEC.				
FRACTIONS	$\pm \frac{1}{32}''$	TREATMENT	COMPONENT OF			
ANGLES	$\pm \frac{1}{2}^\circ$	FINISH	MACHINE			
SURFACE FINISH AUSTRALIAN STANDARD ENG. DRWG. PRACTICE A.S. 21		SCALE	ENGINE			
		DRAWN	TECH. ORDER			
		TRACED	VAMPIRE MOD. 169			
		APPROVED	DRAWING NO.		A 12405 REV. 1	
		CHECKED			DRWG. A SIZE A	

DO NOT SCALE

REVISION NO. DATE



VIEW ON O/B FACE OF ARMAMENT SERVICES
JUNCTION BOX SHOWING CUT-OUT FOR NEW ROTAX SWITCH.

SHEET №2

DE HAVILLAND DRWG. №00M293. № OF SHEETS 2

REFERENCE		ISSUED BY		TITLE	
				<u>PROVISION FOR TESTING CAMERA GUN</u> <u>CIRCUIT- INTRODUCTION.</u>	
1. PURPOSE STATED	MATERIAL			COMPONENT	
2. DIMENSIONS	SPEC.			EXTENSION	
3. TOLERANCES	TREATMENT			SPECIAL	
4. FINISH	FINISH			WIRE GAUGE	VAMPIRE MOD. 169
5. TEST STANDARDS	SCALE			DRWG. NO.	A12405 SH.2
6. APPROVED	DATE				
7. CHECKED	DATE				

Restricted

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VAMPIRE MODIFICATION NO. 172

Class 2.

TELEFLEX GREASER - MAIN UNDERCARRIAGE WHEEL DOOR - INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the introduction of a Teleflex greaser unit in the main undercarriage wheel door lock mechanism. Semi-seizure has been experienced with the Teleflex cables between the undercarriage radius rod and the plunger in the wheel well through lack of greasing facilities.

Application

2. This work is to be carried out on all Marks 30, 31 and 33 Vampire Aircraft.

Note:- Aircraft A79/175 has been modified on port side only.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units, aircraft depots or civilian contractors for servicing Vampire aircraft. The trade mustering responsible is Airframe Fitter.

Action in Respect of Spares

4. Spare wings delivered after June 1956, will be modified and the modification plate stamped accordingly.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V209 is an equivalent modification.

Supply

7. The following parts are required for one complete modification set:-

<u>Item</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off Per Set</u>	<u>Stores Class</u>
1.	A79/503803	OOG67A	Block, Clamp, Teleflex Connector	4	
2.	T27K/717	B10898	Connector, Conduit Greaser type, No.2	4	

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2.

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<u>Item</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. off per Set</u>	<u>Stores Class</u>
3.	H128F/62263	AS.2229/507	Rivets, Al.Alloy Csk., Hd., 90° 5/32" dia. x 7/16" long	8	
4.	∅ T27K/196	OOG77ND X	Conduit Teleflex No.2 Port.	1	
5.	∅ T27K/196	OOG78ND X	Conduit, Teleflex No. 2, Stbd.	1	
6.	∅ T27K/196	OOG75ND X	Conduit, Teleflex No. 2, Port.	1	
7.	∅ T27K/196	OOG76ND X	Conduit, Teleflex No. 2, Stbd.	1	
8.	∅ T27L/196	OOG71ND X	Conduit, Teleflex No. 2, Port	1	
9.	∅ T27K/196	OOG72ND X	Conduit, Teleflex No. 2, Stbd.	1	
10.	∅ T27K/196	OOG73ND X	Conduit, Teleflex No.2, Port.	1	
11.	∅ T27K/196	OOG74ND X	Conduit, Teleflex No.2, Stbd.	1	
12.	T27K/504	DS.47/2	Spring, Teleflex Lock	4	
13.	K3/353		Compound, Jointing	A.R.	
14.	I1/2700		Wire, Iron, Soft, Galv., 20 S.W.G.	A.R.	
15.	K2/210		Grease, XG275, Spec., D.T.D.825	A.R.	
16.	H28/8326	AS.1242/5E	Bolt, H.T.S., Csk. Hd., 1/4" BSF x 1" long	2	

∅ Make from to make X

Notes:-(a) Items 1 to 12 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre, pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre.

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3.

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- (b) Items 13 to 15 inclusive are to be drawn from Unit Stores. Item 16 is to be drawn from Unit Stores if required (i.e. if the A/C has had R.A.A.F. Modification 132 D.H., (Aust.) Modification V130 incorporated retrospectively).

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

<u>Item</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off Per Set</u>	<u>Stores Class</u>
17.	H28/7066	A15Y/5E	Bolt, H.T.S. Hex., Hd., $\frac{1}{4}$ " BSF x 1" long.	2	
18.	T27K/568	B29140-1	Clamp, Teleflex No.2 Type 2	4	
19.	A79/501825	G001781	Block, Clamp, Teleflex Connector	4	
20.		G0096ND	Conduit, Teleflex No.2, Stbd.	1	
21.		G0097ND	Conduit, Teleflex No.2, Port	1	
22.		G0092ND	Conduit, Teleflex No. 2, Stbd.	1	
23.		G0093ND	Conduit, Teleflex No. 2, Port.	1	
24.		G00100ND	Conduit, Teleflex No. 2, Stbd.	1	
25.		G00101ND	Conduit, Teleflex No. 2, Port	1	
26.		G0098ND	Conduit, Teleflex No. 2, Stbd.	1	
27.		G0099ND	Conduit, Teleflex No. 2, Port.	1	
28.	T27K/504	DS.47/2	Spring, Teleflex Lock	4	

Notes:- (a) Items 17 and 18 are to be examined and if serviceable returned to store.

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Note:- Nipples are to be salvaged from Teleflex conduits and refitted to item 18 before returning them to Store.

- (b) Items 19 to 27 inclusive are obsolete and are to be disposed of in accordance with current authorized procedure.
- (c) Item 28 is to be discarded as being damaged and of no value.
- (d) Item 17 will only become redundant where R.A.A.F. Mod. 132, D.H. (Aust.) Mod.V130 has been incorporated retrospectively.

Disposal of Parts in Stock

9. Part No. G001781, Ident No. A79/501825 is obsolete and is to be disposed of as in note to paragraph 8 above.

When Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next "D" servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately 30 man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs &c : No special tools are required.
- (c) Sequence of Operations :
- (i) Jack the aircraft and release the air pressure from the hydraulic accumulator.
 - (ii) Remove the forward and rear Teleflex barrels from inside the port and starboard wheel wells by removing the ten screws in each. Retain barrels and screws for re-assembly.
 - (iii) Loosen the lock nut holding the plungers to the slide tubes. Screw the plungers off the slide tubes and retain for reassembly. Screw off and dispose of the lock springs, item 28, on the Teleflex cables. Slide the slide tubes off the conduit and Teleflex cables, retain for reassembly.

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- (iv) Remove and retain for reassembly the clamp blocks which hold the conduit in position inboard of the slide tubes.
- (v) Remove and discard the clamp blocks, item 19, which clamp the Teleflex connectors in position in the wheel wells on Rib 3. Unscrew the conduit from the Teleflex connectors, Item 18, and discard connectors. Retain bolts, nuts, and washers from rear clamp blocks for reassembly, retain bolts, nuts, washers and packing piece from forward clamp blocks for reassembly.
- (vi) Loosen the clamp blocks where the Teleflex cables enter the radius rods. Remove and discard the conduit, items 20 to 27 inclusive, between the radius rods and slide tubes.
- (vii) Refer to Drawing A.12630. To fit the forward Teleflex connector clamps it is necessary to remove the bottom 5/32" Rd.Hd. rivet attaching the front wheel well walls to No. 3 rib. Drill out with a No. 21 drill. Countersink skin and replace with 5/32" csk. head rivet, item 3. To fit the rear Teleflex connector clamps, it is necessary to remove and discard the 1/4" Hex. head bolt, item 17, from the arched stiffener on No. 3 rib, where the greaser connection fits. Countersink this stiffener and replace with 1/4" csk. head bolt, item 16. Place jointing compound, item 13, on the shank of the bolt.

Note:- Where R.A.A.F. Mod. 132, De Havilland (Aust.) Mod. V130 has been incorporated on production, it will have a csk. head bolt fitted.
- (viii) Check the belling on the new conduit, items 4 to 11 inclusive, where it fits the new greaser connectors, item 2. Lightly grease the Teleflex cables with anti-freeze grease, item 15.
- (ix) Remove the nipples from the Teleflex connectors, item 2, and place them on the eight lengths of conduit, items 4 to 11 inclusive.
- (x) Place conduit, item 8, over the port forward Teleflex cable and through No. 3 rib to the clamp block, situated at the bottom of the radius rod. Position the forward grease connection, item 2, and clamp block, item 1 on No. 3 rib, using original bolts, nuts, washers and original packing piece under the clamp.

Screw the conduit, item 6, into the grease connection, with the nipple from the grease connection, which is on the conduit. (See operation (ix)).

Substitute item 9 for item 8 on the starboard side.

- (xi) Place conduit, item 10, over the port rear Teleflex cable through No. 3 rib to the clamp block, situated at the bottom of the radius rod. Position the rear grease connection, item 2, and clamp block, item 1, on No. 3 rib, using original bolts, nuts and washers. Screw the conduit, item 10, into the grease connection, which is on the conduit. (See operation (ix)).

Substitute item 11 for item 10 on the starboard side. Tighten the clamp blocks at the bottom of the radius rods.

- (xii) Place conduit, item 6, over the forward Teleflex cable through the forward wheel well wall. Tighten nipple into greaser connection and replace the clamp block which is just inboard of the slide tube.

Substitute item 7 for item 6 on the starboard side. This operation is the same for the rear Teleflex conduits, substituting items 4 and 5 for 6 and 7.

Note:- Use jointing compound, item 13, behind the clamp connections and on the shanks of the bolts.

- (xiii) Lock the nipples on the greaser connections with lock wire, item 14.
- (xiv) Refer to Vampire Instructions No.11 and replace slide tube, new locking spring, item 12 and plunger. When adjusted as per Vampire Instruction No. 11 replace forward and rear barrels removed in operation (i) in the port and starboard wheel well, using original screws.
- (xv) Grease the new greaser connections.
- (xvi) Recharge the hydraulic accumulator and give main wheel retraction test, ensure that the door locks are functioning correctly.

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7.

VAMPIRE MODIFICATION NO. 172

(xvii) Remove the jacks from the aircraft.

(d) Tests : Retraction tests carried out in paragraph 11,
(c) (xvi).

(e) Recording : Record modification in Airframe Log Book.

Drawings

12. Drawing A.12630 is attached.

Effect on Weight and Balance

13. The effect of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 9/84/91 and 150/4/9115

Attachments : Drawing A.12630

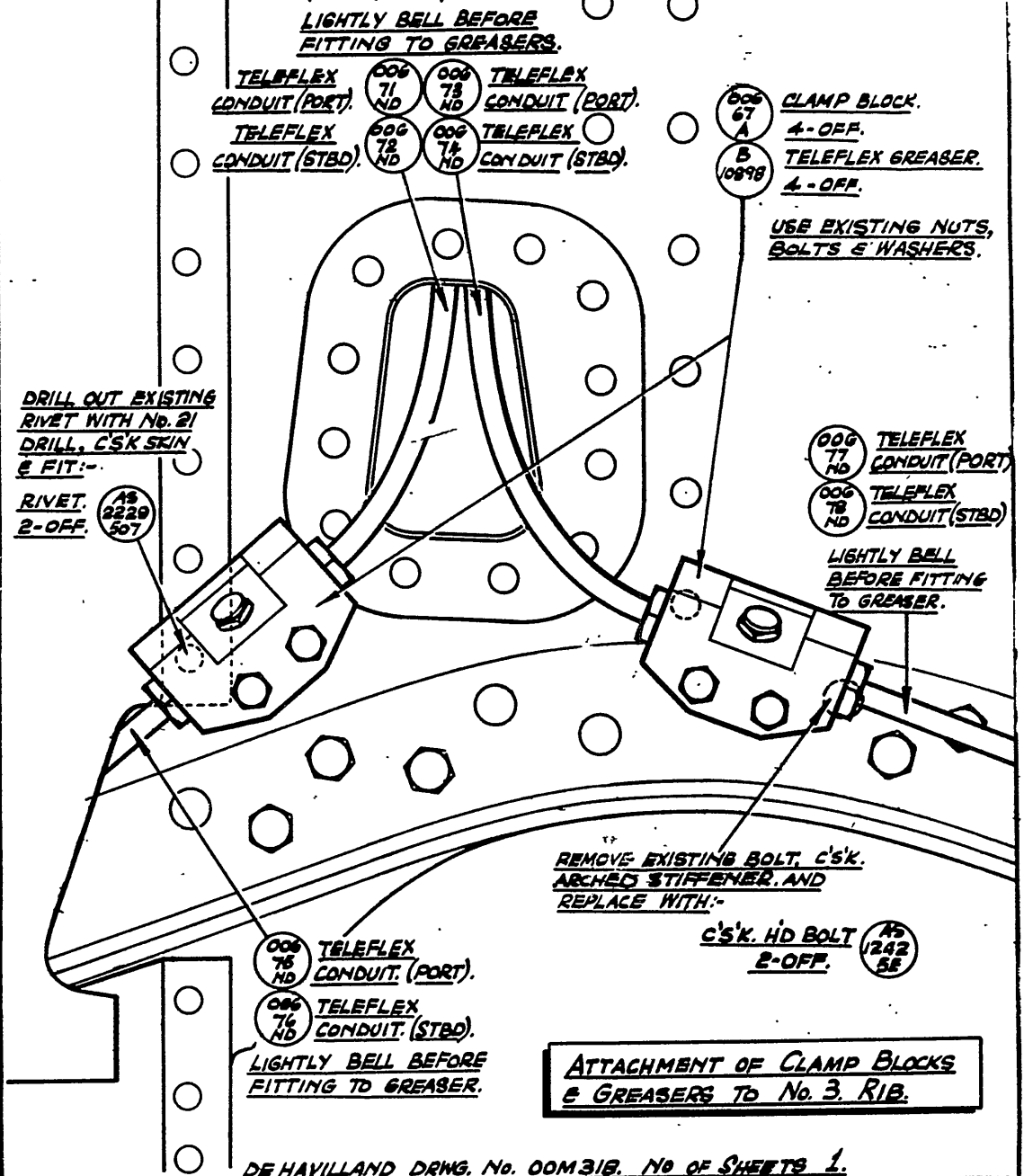
Date of Issue : 1st October, 1956.

(Issued with A.L.68 - October, 1956)

Restricted

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	D.I.L.	INITIALS	APPROVED



REFERENCE	ISSUED BY		TITLE	
			TELEFLEX GREASER - MAIN U/C DOOR - INTRODUCTION.	
LIMITS UNLESS STATED	MATERIAL		COMPONENT OF	
DECIMALS $\pm .010"$	SPEC.		MACHINE	
FRACTIONS $\pm \frac{1}{32}"$	TREATMENT		ENGINE	
ANGLES $\pm \frac{1}{2}^\circ$	FINISH		TECH. ORDER	
SURFACE FINISH AUSTRALIAN STANDARD ENG. DAWG. PRACTICE A 9.221	SCALE		DRAWING NO.	A12630
	DRAWN	APPROVED		DRWG. A SIZE
	TRACED	CHECKED		

Restricted

A.A.P. 721:79, Vol.2, Pt.2.

VAMPIRE MODIFICATION NO. 173
Class 2

TO INTRODUCE A FLASHING UNIT IN U/C.WARNING LIGHT
CIRCUIT

Reason for and Description of Modification

1. This modification introduces a Flashing Unit in the undercarriage Warning Light Circuit to enhance visual Indication in the event of failure of the Undercarriage retraction system, and deletes the Warning Horn.

Application

2. This modification is applicable to all Vampire Mk.30 and 31 aircraft and is to be embodied after or concurrently with Vampire Mod. No. 131 (D.H. Mod. V100).

Responsibility for Incorporation

3. The electrical fitters of operating units aircraft depots and contractors concerned are responsible for the incorporation of this modification.

Action in Respect of Spares

4. Instrument Panels B001093A/2 (A79/503623) are to be reworked as per paragraph 11 (c) (v) and then re-part numbered B001093A/3 (A79/503859).

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V210 is an equivalent modification.

Supply

7. The following parts are required for one complete modification set:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
1.		N15-241A	Lamp Assembly	1	
2.		OON1031A	Cable Assembly	1	

(Issued with A.L.89 - August, 1957).
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Disposal of Parts Removed

8. The following parts will be rendered redundant upon the incorporation of this modification:-

Item No.	Ident. No.	Part No.	Nomenclature	No. off per Set	Stores Class
16.		OON157	Support Plate.	1	
17.		OON159	Clamping Plate.	1	
18.		98.H.771	Special Stud.	2	
19.		98.N.777A	Mounting Bracket.	1	
20.		OON163A Mk.10	Cable Assembly.	1	
21.		NOO255A Mk.3	Earth Cable	1	
22.		BOO252	Label	1	
23.	G5C/1961 or G5C/12039		Horn, C/W. Bracket G5C/2455. Horn, R.V.B. Type D.117	1 1	
24.	G5C/1553		Warning Light	1	
25.	G5A/1928		Filament, Type "A"	1	

NOTES: (a) Items 16 to 22 inclusive are now obsolete and are to be disposed of in accordance with current authorized procedure.

(b) Items 23, 24 and 25 are to be examined and if serviceable are to be returned to store.

Disposal of Parts in Stock

9. No action.

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but not later than the next 'D' servicing after receipt of modification kits.

(Issued with A.L.89 - August, 1957)

(iv) Locate and remove U/C. warning light (Item 24) on L.H. instrument panel, together with Filament (Item 25) and Label, (Item 22) and dispose of as per paragraph 8. Existing cable coded "U12" detached from the redundant light is to have its end taped over securely and the cable coiled and stowed in a satisfactory manner. The earth cable (Item 21) also detached is to be removed and disposed of by current authorised procedure.

(v) Refer to Drawing A12747, Sheet 1, and modify L.H. instrument panel as shown.

NOTE: Particular care must be taken to prevent any damage to instruments on panel whilst modifying.

(vi) Refer to Drawing A12747, Sheet 1, and assemble Blanking Plate (Item 4) 1-off, using Screws (Item 8) and stiffnuts (Item 9) 2-off of each as shown.

(vii) Refer to Drawing A12747, Sheet 2 and attach Ferrules (Item 7) 4-off in the position shown, using Glue (Item 12), Hardener (Item 13) and Brads (Item 14).

(viii) Refer to Drawing A12747, Sheet 3, and assemble U/C Flasher Relay Mounting Box (Item 6) to the above ferrules, using Screws (Item 8) 4-off and Shake-proof Washer (Item 10) 4-off making sure that the end with grommet faces aft.

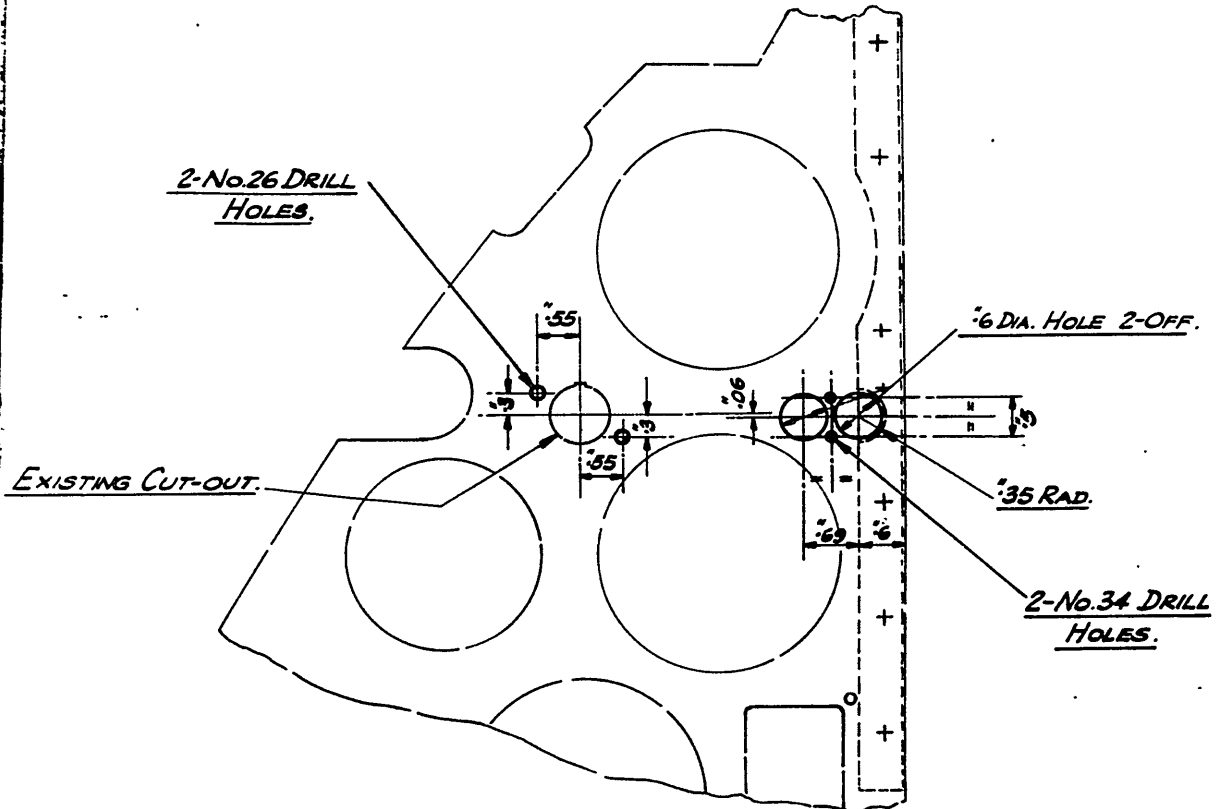
(ix) Obtain Cable Assembly (Item 2) and run and connect as shown.

Obtain Cable Assembly (Item 3) and run and bind with existing Cables where possible, using black Insulating Tape (Item 15) for binding. Prepare warning light end of cable, ready for connecting.

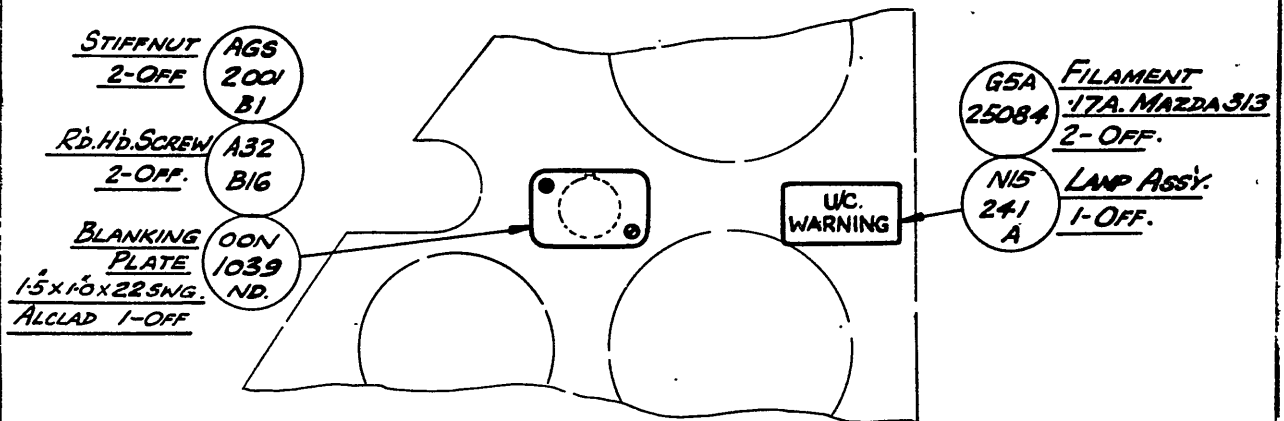
(Issued with A.L.89 - August, 1957)

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ISSUE NO.	DATE	ALTERATION	D.I.L.	INITIALS	APPROVED



MODIFICATIONS TO L.H. INSTRUMENT PANEL.



ADDITION OF EQUIPMENT.

DE HAVILLAND DRS. No. 00M324 SHt. 1.

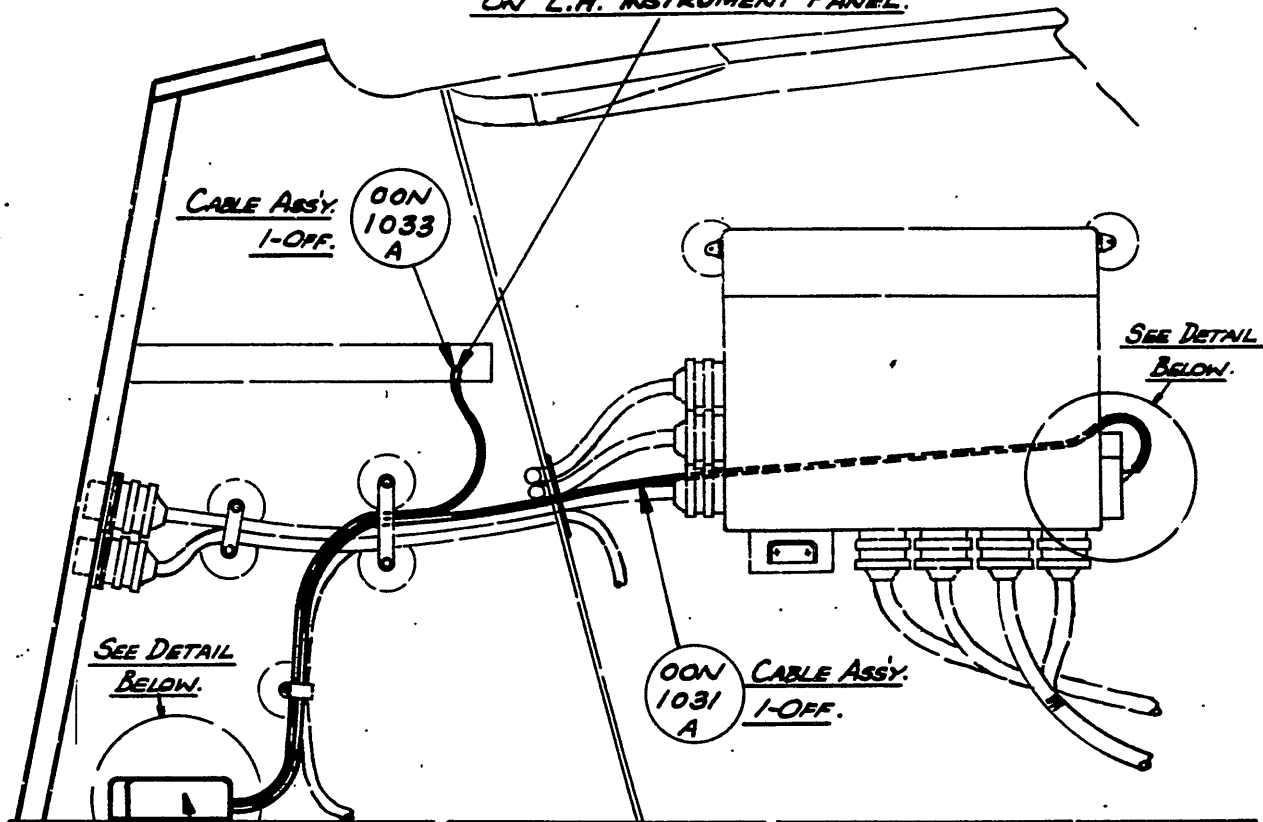
No. of SHts. 3.

REFERENCE		ISSUED BY		TITLE	
		Department of Air Directorate of Technical Services		INTRODUCTION OF FLASHING UNIT IN U.C. WARNING LIGHT CIRCUIT.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	
DECIMALS	± .010"	SPEC.		MACHINE	Vampire
FRACTIONS	± 1/32"	TREATMENT		ENGINE	
ANGLES	± 1°	FINISH		TECH. ORDER	Vampire Mod. 173
SURFACE FINISH		SCALE		DRAWING NO.	A12747 Sh.t. 1.
AUSTRALIAN STANDARD		DRAWN			DRWS. A SIZE
ENG. DRWG. PRACTICE A.S. 221		TRACED		APPROVED	
				CHECKED	

DO NOT SCALE

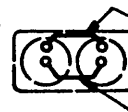
ISSUE NO.	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED
2	14-3-58	D.H. AL. N° 120			

CONNECT TO U/C. WARNING LIGHT
ON L.H. INSTRUMENT PANEL.



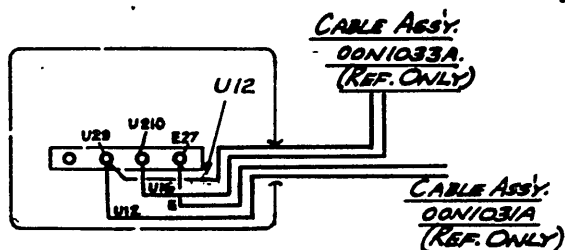
U/C. FLASHER EA3
RELAY BOX 80
1-OFF. 0442
RD. HD. SCREW A32
4-OFF. B16
AGS 2035
3
SHAKEPROOF
WASHER
4-OFF.

SOLDER CABLES
AT EACH
CONNECTION.

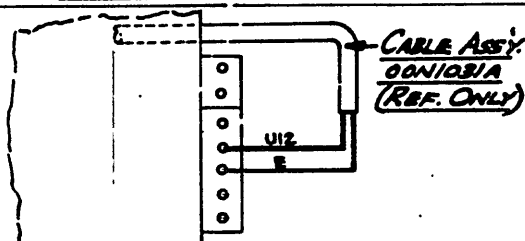


LINK WIRING A20
ONE CORE VIN. SPEC.
AS NO. U1. 2-OFF.
(GSE/50154)

DETAIL SHOWING LINK WIRING & CONNECTIONS
AT FLASHING U/C. LIGHT.



WIRING DETAILS IN
RELAY BOX.



WIRING DETAILS ON AFT END
OF JUNCTION BOX 1.

DE HAVILLAND DRG. No 00N324 SHT. 3. No. of SHTS. 3.

REFERENCE		ISSUED BY		TITLE	
		Department of Air Directorate of Technical Services		INTRODUCTION OF FLASHING UNIT IN U/C. WARNING LIGHT CIRCUIT.	
LIMITS UNLESS STATED		MATERIAL		COMPONENT OF	
DECIMALS	± .010"	SPEC.		MACHINE	Vampire
FRACTIONS	± 1/32"	TREATMENT		ENGINE	
ANGLES	± 1°	FINISH		TECH. ORDER	Vampire Mod. 1.7.3
SURFACE FINISH		SCALE		DRAWING NO.	A12747 Sht. 3
AUSTRALIAN STANDARD		DRAWN			DRWG. A SIZE
ENG. DRWG. PRACTICE A.9.221		TRACED		APPROVED	
				CHECKED	

Restricted

A.A.P. 721:79, Vol. 2, Part 2.

VAMPIRE MODIFICATION NO. 174

Class 2

VOLTAGE REGULATOR, TYPE B - TO PROVIDE INSULATION BETWEEN
VOLTAGE REGULATOR & FUSELAGE BULKHEAD

Reason for and Description of Modification

1. This modification authorizes the introduction of fibre glass insulator sleeves in place of the present insulation on wires leading from the Ballast Resistor to the Carbon Pile, resistor and trimmer, also for the replacement of the existing "Back Cover Plate" by a new one made of Fibre Glass. The above modifications are necessary to obviate charring between the Voltage Regulator and the fuselage.

Application

2. This work is to be carried out on an all Vampire Mk.33 Aircraft, Serial Nos. A79-801 to A79-836 inclusive.

Responsibility for Incorporation

3. This modification is to be incorporated by electrical fitters of operating units, aircraft depots or civilian contractors concerned.

Action in Respect of Spares

4. Spare Voltage Regulators type 'B' Ident No. G5U/3880 which are intended for use on Vampire Mk.33 aircraft are to be modified in accordance with paras. 11(c) to 11(d) prior to fitment in aircraft.

Orders Superseded or Cancelled.

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V669 and Air Ministry Modification VAM.3326 are equivalent modifications. Air Ministry Modification Elec. B/146 is equivalent of para. 11(c) (viii).

Supply

7. The following parts are required for one complete modification set:-

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2.

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VAMPIRE MODIFICATION NO. 174

Item No.	Ident No.	Part No.	Nomenclature	No. off per set	Stores Class
1	Use G5A/ 25450 in lieu G5U/3273 G5E/30154	12.2.N817ND N.P.N.	Cover Plate	1	
2			Vide Flex 943 Fibre Glass Sleeve. Bore 2.5mm - 15" LG.	1	
3		AGS.1691A	Cable End, Crown Eye Type Mk.A	3	
4			Ballast Resistor 26 OHMS	1	
5			AA20 one core vin cable spec.AS.No. U1 - 24" LG.	1	

Note:- All items listed in above table will be supplied by De Havilland Aircraft P.L. Bankstown, N.S.W., to the contractors modification centre stores which will issue items on demand by units concerned.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

Item No.	Ident No.	Part No.	Nomenclature	No. off per Set	Stores Class
6	G5U/2857	N.P.N.	Back Cover Plate	1	
7			Ballast Resist- or 33 OHM	1	

Note:- (a) Item 6 is to be disposed of as being of no value.

(b) Item 7 return to stores for use on other aircraft after checking that it is serviceable.

Disposal of Parts in Stock

9. Not applicable.

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3.

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VAMPIRE MODIFICATION NO. 174

When the Modification is to be Incorporated

10. This modification is to be incorporated as soon as practicable, but no later than next 'D' inspection after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately four (4) man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs &c : None required.
- (c) Sequence of Operations :
- (i) Open the starboard ammunition access door and locate and remove the voltage regulator and cut-out type 'B' on the aft face of bulkhead 2. Retain the fixing screws.
 - (ii) Place the voltage regulator on a bench and remove the back cover plate.
 - (iii) Refer to Drawing No. A12559 and disconnect and remove the following wires:-

Link between slide and ballast resistor;
wire between ballast resistor and trimmer.
- Note:- The trimmer must be removed by unscrewing two screws in the outer case to enable the wire to be removed.
- (iv) Disconnect the following wires at ballast resistor end only:-

Wire between ballast resistor and carbon file,
wire between ballast resistor and stabilising resistor.

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Remove the existing crown and washer at ballast resistor end and external covering on the leads. Replace removed covering with 2 lengths of fibre glass sleeving, item 2.

Replace original crown and washer with new ones as called for, item 3.

Important: The new sleeving running from the ballast resistor to the carbon pile must cover the wire as far as entry into base of regulator. This may require the temporary displacement of wire in vicinity of exit to carbon pile.

- (v) Using wires supplied, item 5, cut 2 new lengths of wire to replace the 2 wires removed (see para. (iii)). Remove covering on wires and replace with fibre glass sleeving item 2. Assemble crowns and washers to new lengths of wire.
- (vi) Before reconnecting wires, check ohmic value of ballast resistor using a Wheatstone bridge or ohmmeter. If found to be 33 ohm, remove from voltage regulator and replace with ballast resistor 26 ohm, item 4.
- (vii) Reconnect wires, ensuring that original spring and plain washers have been replaced.
- (viii) As the slide on the ballast resistor may have been disturbed whilst new wiring is incorporated, it may be necessary to reset the slide.

The voltage regulator must therefore be tested in accordance with A.P.4343B, Vol.1, Section 1, Chapter 19.

After ensuring that the regulator is adjusted to correct values, fit new fibre glass back cover plate, item 1.

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5.

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VAMPIRE MODIFICATION NO. 174

(ix) Replace the voltage regulator and cut-out assembly in the aircraft and reconnect the wires. (Refer wiring diagram in A.A.P.721.79/33, Vol.1, Sect. 5, Chap.1, Fig.5).

(d) Tests : Test voltage regulator and cut-out assembly during engine run as in A.P.4343, Vol.1, Section 1, Chapter 19.

(e) Recording : Record this modification in Aircraft Log Book as Vampire Modification No. 174.

Drawings

12. R.A.A.F. Drawing No. A.12559 is attached.

Effect on Weight and Balance

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 150/4/9117, 150/4/8621

Attachment : Drawing A.12559

Date of Issue : 12th June, 1956

(Issued with A.L.50 - June, 1956)

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REFERENCE		ISSUED BY		TITLE	
LIMITS UNLESS STATED		DIRECTORATE OF TECHNICAL SERVICES		MODIFICATION TO VOLTAGE REGULATOR TYPE B. TO PROVIDE INSULATION BETWEEN VOLTAGE REGULATOR AND FUSELAGE BULKHEAD.	
		R. A. A. F.			
		MATERIAL			
		SPEC.			
DECIMALS = 1/10"		TREATMENT		COMPONENT OF	
FRACTIONS = 1/16"		FINISH		MACHINE	
ANGLES = 1/2°		SCALE		ENGINE	
SURFACE FINISH		DRAWN D.F.C.	APPROVED	TECH. ORDER	VAMPIRE MOD. No 174
AUSTRIAN STANDARD		DRAWN	CHECKED	DRAWING NO.	A12559
DPT. 21 - PART 1A 1512		TSAGED			DRWG. 9
					SIZES

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VAMPIRE MODIFICATION NO. 177

Class 3

DORSAL FINS - INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the introduction of a dorsal extension to the fins. This eliminates rudder overbalance and gives improved spin facility to the aircraft. It also authorizes the introduction of modified rudder secondary stops on the port pilot's rudder pedals, so as to avoid the possibility of them acting simultaneously with the primary stops, which are situated on the stern frame of each tail boom. Positive wire locking is also introduced on the primary stops.

Application

2. This work is to be carried out on all Vampire Mk.33 aircraft Serial Nos. A79-801 to A79-836 inclusive.

Responsibility for Incorporation

3. This modification is to be incorporated by aircraft depots or civilian contractors. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. For early spare boom and fin assemblies refer to Vampire Mod. No. 186 D.H. (Aust.) Mod. V.685, (D.H. Aust.) Instruction Leaflet 315). Spare boom and fin assemblies L.H. Part No. TB.15.1A, Ident. No. A79/502109 and R.H. Part No. TB.15.3A, Ident. No. A79/502110, are to be modified in accordance with paragraph 11C (ii) to (xliii) inclusive, with the exception of paragraphs (xxxiii) to (xxxix) inclusive, and re-identified as L.H. Part No. TB.15.23A, Ident. No. A79/503764 and R.H. Part No. TB.15.25A, Ident. No. A79/503765 respectively. Spare boom and fin assemblies will be modified before delivery if modification parts are available.

Orders Superseded or Cancelled

5. This modification cancels D.T.S. Special Instruction Vampire 101 in regard to rudder movement only.

Equivalent Modifications

6. De Havilland (Aust.) Mod. V.625 and Air Ministry Mods. VAM.3215 with VAM.3354 are equivalent modifications.

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VAMPIRE MODIFICATION NO.177

Item No.	Ident. No.	Part No.	Nomenclature	No. off Per Set	Stores Class
21.	H128F/60873	AGS.2050/429/B.H.	Rivet, Al. Alloy, Pop, $\frac{1}{8}$ " dia. x .29" long	20	C
22.	H128F/64150	AGS.2051/524/B.S.	Rivet, Nickel Alloy, Pop, $\frac{5}{32}$ " dia. x .24" long	100	C
23.	H128F/63553	AGS.2051/530/B.S.	Rivet, Nickel Alloy, Pop, $\frac{5}{32}$ " dia. x .3" long	4	C
24.	H28/5316	A16/Y/C.P.	Nut, M.S., Hex., Plain 2BA	12	C
25.	H28/27012	AGS.2008/C1	Nut, Al. Alloy, Double Anchor Nyloc, 2BA	4	C
26.	H28B/5032	SP9/C8	Pin, Split, Ni. Alloy, $\frac{1}{16}$ " dia. x 1" long	8	C
27.	H28F/62229	AS2229/303	Rivet, Al. Alloy, Csk. Hd., 90°, $\frac{3}{32}$ " dia. x $\frac{3}{16}$ " long	8	C
28.	K3/353		Compound, Jointing, DTD. 369A	A.R.	C
29.	K3/175		Primer, Zinc Chromate	A.R.	C
30.	I1/2700		Wire, Iron Soft, Galvanised, 20 SWG.	A.R.	C
31.	K3/346		Colour Red Matching, B.S.I., 538, Paint	A.R.	C
32.	K3/342		White, Glossy, Paint	A.R.	C
33.	K3/365		Coverings Camouflage - Aluminium, High Speed, DTD.772	A.R.	C
34.	K3/371		Stopper, Heavy, DTD.591	A.R.	C

NOTES: (a) Items 1 to 27 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue on demand. Units requiring modification sets are to demand from De Havilland Modification Centre.

(b) Items 28 to 34 inclusive will be drawn from unit stores.

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VAMPIRE MODIFICATION NO. 177

(b) Special Tools, Jigs, : The following will be required:
&c.

1. A drilling jig Tool No. TM.1612 - 1 off.
2. Pins, Gripping 3/32", Ident. No. D1B/4270 - 100 off.
3. Pins, Gripping 1/8", Ident. No. D1B/4271 - 80 off.
4. Pins, Gripping 5/32", Ident. No. D1B/4272 - 50 off.

1 off Item 1 will be supplied to the De Havilland Modification Centre and will be made available under special arrangements. Items 2, 3 and 4 are to be obtained from unit stores.

(c) Sequence of :
Operations

(i) Disconnect the aircraft batteries.

NOTE: The following operations are common to both port and starboard tail boom and fin.

- (ii) Refer to A.A.P. 721.79/33, Vol.1, Sect.3, Chap.3, Page 2 and remove the rudder. Retain nuts, bolts and washers for reassembly, discard split pins.
- (iii) Refer to Sheet 1 of attached Drawing A12690 and remove the fin to tailplane fairing, items 35 and 36, by releasing the 88, 2BA csk.hd. screws and their cup washers. Dispose of the fairing. Retain the washers and screws for assembly of new fairings.
- (iv) Remove and retain the rear outboard access panel and its 16 4BA attachment bolts, and the two rear inboard access panels and their 10 4BA attachment bolts, fitted in the sides of the boom.
- (v) Mark off an accurate centre line along the top of the boom for approximately a distance of five feet from the tail fin as indicated on Drawing A12690 Sheet 2. Locate on this centre line the anchor nut, formerly the foremost attachment for the fin to tailplane fairing, and using a No. 41 (0.096" dia.) drill, drill out the two 3/32" dia. rivets that attach this now redundant anchor nut to the inner face of the top skin of the boom.

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VAMPIRE MODIFICATION NO. 177

- (xi) On both sides of the boom mark off a centre line and datum point from each of the three existing anchor nuts formerly used in the attachment of the old fin to tailplane fairing, to facilitate back marking their position on the new dorsal fin extension. Also mark off the positions of the boom diaphragms for reference.
 - (xii) Temporarily attach the new dorsal fin extension to the boom with six 2BA bolts and washers picking up the three anchor nuts in each of the two forward fin extension saddles and four 2BA bolts, nuts and washers, items 14, 24 and 20 respectively, at the rear saddle as shown on sheet 3 of the drawing.
 - (xiii) With the pilot holes in the new fin extension as guides and using a No. 35 drill, drill eighty-six holes in the top skin of the boom. Use skin pins to ensure that the fin extension skin is pulled hard down into position.
- NOTE: Care must be taken when drilling in the vicinity of the boom diaphragm to avoid permitting the drill to enter the boom more than $\frac{1}{4}$ " and so foul the top flange of the diaphragm.
- (xiv) Using the centre line and datum point marked off from each of the three rear anchor nuts on both sides of the boom in operation (xi), back mark and drill off six pilot holes in the fin extension skin with the $\frac{3}{32}$ " dia. drill.
 - (xv) Starting at the top and working downwards evenly on both sides, drill fifty holes in the fin with the $\frac{3}{32}$ " dia. drill using the pilot holes in the top and rear edge of the fin extension as guides. Use skin pins at frequent intervals during the drilling operation and ensure that the fin extension skin is pulled hard down to avoid wrinkling between rivets.
 - (xvi) Refer to Sheet 3 of the drawing and using a $\frac{3}{32}$ " dia. drill, drill one hole through both sides of the fin extension and fin at the intersection of the centre lines of the stringer in the fin and the pilot holes in the rear edge of the fin extension.

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saddles. Using 86 120° csk.hd. rivets, item 19, rivet the fin extension along the bottom sides and front of the boom. Using 4 bolts, nuts and washers, items 14, 24 and 20 respectively, secure the rear supporting saddle of the fin extension to the boom. Cut the ends of the bolts, protruding through the nuts to .15" and peen the ends of the bolts, to lock, using a riveting dolly under the heads of the bolts. Using 50 tucker pop rivets, item 22, secure the rear of the fin extension to the fin skin, use 2 tucker pop rivets, item 23, along the row of rivets attaching the stringer to the fin. Using 10 tucker pop rivets, item 21, attach the flanges of the fin extension to both sides of the fin. Using four countersunk head bolts, item 16, two on each side, bolt the fin extension to the boom in the two forward No. 17 holes at the bottom rear of the fin extension.

- NOTES:- (a) Coat all bolt and nuts with jointing compound item 28.
- (b) Use skin pins throughout riveting operations to ensure that the fin extension is drawn up tight to the boom and fin.
- (xxv) Remove the top panel from the tailplane extension by removing the countersunk screws. Retain with screws for reassembly. Remove and discard the 4 split pins locking the tailplane extension attachment bolts and nuts. Remove bolts and nuts and retain with tailplane extension for reassembly. Remove the elevator control lever inspection panel on the outboard side of the tail fin, retain with screws for reassembly.
- (xxvi) Refer to attached drawing A12690 Sheet 6 and locate positions on the rear of the inboard and outboard skins of the existing fin, where the two new anchor nuts, item 25, fit. Mark these positions and drill through the skin using a No. 12 drill. Temporarily position the anchor nuts on the inside of the skin, using a 2BA bolt, with two lock nuts attached to provide a medium for tightening. Spot the existing rivet holes in the anchor nuts and back drill, using a No. 41 drill and right angle air drill. Remove the anchor nuts and deburr the rivet holes in the skin and anchor nuts. Countersink the fin skin 90° at the position of the anchor nuts to allow for the dimples in the fillets. Apply

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Restricted

NOTE:- On the port side only it will be necessary to reconnect the rear navigation light cable socket as the rear fairing is replaced.

- (xl) Ensure that the tail unit is clean and that the inside of the boom is free from swarf.
- (xli) Coat the mating surfaces of the fillets, items 6 to 9 inclusive and fillet angles, items 10 to 13 inclusive with jointing compound. Secure in position with 2BA countersunk head screws. Use csk.hd. washers, item 18, and serviceable washers, retained in operation (ii), under the heads of the screws securing the fillets.
- (xlii) Coat the heads of the rivets with zinc chromate primer item 29, and fill where necessary with stopper, item 34. Mark off the surrounding areas including the pitot head, with masking tape, and mark the identification flashes, using paint, items 31 and 32. Touch up the dorsal fin and fillets with aluminium high speed finish, item 33.
- (xliii) Replace the rudder removed in operation (ii) and reconnect the aircraft batteries.
- (d) Tests : Check rigging of rudder and elevator.

Drawings

12. Drawing A12690, Sheets 1-6 refer. Units requiring drawings are to demand from Department of Air.

Effect on Weight and Balance of Aircraft

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is as follows:-

FIXED EQUIPMENT

Item	Weight (lbs.) <u>±</u>	Arm. (in.) <u>±</u>	Moment (lb.in.) <u>±</u>
2 Compressibility Fairings (13.T.9-10A)	-5.5	+205	-1128
2 Fin extensions (15.TF.11A)	+12.0	+193	+2316
Fillets inboard L.H. & R.H. (15.TF.75-76A)	+4.0	+210	+840
Fillets outboard L.H. & R.H. (15.TF.77-78A)			
Fillet Angles L.H. & R.H. (15.TF.81-82)			
Fillet Angles L.H. & R.H. (15.TF.83-84)			
Rivets, screws, washers & nuts	+1.0	+193	+193
	<u>+14.5</u>		<u>+2221</u>

(Issued with A.L.92 - December, 1957)

Restricted

Restricted

A.A.P. 721:79, Vol.2, Pt.2.

Vampire Modification No.178

Class 2

ELECTRICAL - MKS. 30, 31 AND 33 - INTRODUCTION
OF IMPROVED GUN-FIRING CABLES WITH ELECTRICAL
BREAK AND PLUG

Reason for and Description of Modification

1. This modification introduces a cable of greater flexibility, and adds an extra break on the gun stirrup, to prevent breaking of the gun-firing cable assembly at the maxiflux plug, due to insufficient cable anchorage.

Application

2. This modification is applicable to all Vampire aircraft and is divided into two parts:-

Part "A" is applicable to Mk.30 and Mk.31 aircraft.

Part "B" is applicable to Mk.33 aircraft.

Responsibility for Incorporation

3. The electrical fitters of units or contractors concerned will be responsible for the incorporation of this modification.

Action in Respect of Spares

4. At the direction of Headquarters, Maintenance Command Stirrup Castings D.H. Part No.50056 Ident. No. A79/501133 are to be reworked to conform with requirements of Drawing A.12369, Sheets 1 and 2. D(7)
12637

Orders Superseded or Cancelled

5. There are no orders superseded or cancelled by the incorporation of this order.

Equivalent Modifications

6. De Havilland (Aust.) Modification V211 and Air Ministry Modification Vam.3333 are equivalent modifications.

Part "A" - Mk.30 and Mk.31 Aircraft

Supply

7. The following parts are required to complete one modification set:-

(Issued with A.L.72 - October, 1956)

Restricted

Restricted

2.

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Vampire Modification No.178

Item No.	Ident No.	Part No.	Nomenclature	No. off per Set	Stores Class
1		12.20N.1531	Bracket	4	
2		12.20N.1533	Packing	4	
3		12.N.2183A	Cable Assy. Break to Gun	4	
4		OON10171A	Cable Assy. T.B. to Gun Break	2	
5		OON1019A OON117A	Cable Assy. T.B. to Gun Break	2	
6	H28C/ ³⁸⁷⁶ 2864	A32/ ^{A2H} 416	Screw, steel, Rd/Hd. 6BA x 3 1/4" long 1/6 -	16	
7	H28C/ 12429	SP.10/A	Washer, Steel, Plain, .123 I/D x .233" O/D x .018" thick	16	
8	H28/27023	AGS.2001A/1	Stiffnut, Steel, Hex, thick 6BA	16	
8A	H28-2006		<i>Spine Endless</i>		

Note A Items 1 to 8 inclusive will be delivered from De Havilland Aircraft Pty. Ltd., Bankstown, N.S.W. to their own Modification Centre Store which will issue items on demand.

NOTE B, Item 8 (A) is to be drawn from unit store

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification:-

(Issued with A.L.72 - October, 1956)

Restricted

Item No.	Ident No.	Part No.	Nomenclature	No. off per Set	Stores Class
9		NOO491AND	Cable Assy. Stbd. O/B	1	
10		NOO492AND	Cable Assy. Port O/B	1	
11		NOO493AND	Cable Assy. Stbd. I/B	1	
12		NOO494AND	Cable Assy. Port I/B	1	

Note.- Remove plugs (G5D/1389) from items 9 to 12 inclusive and, if serviceable, return to stores. The remainder of cable assemblies, items 9 to 12 inclusive are to be disposed of in accordance with current authorized procedure.

Disposal of Parts in Stock

9. Not applicable.

When Modification is to be Incorporated

10. See paragraph 13, Part "B".

Method of Incorporation

11. (a) Man-hours Involved : Approximately 13 man-hours will be required to incorporate this modification.
- (b) Special Tools and Jigs, etc. : No special tools and jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Remove the cannon bay doors and disconnect the aircraft batteries and remove the two outer guns.

(Issued with A.L.72 - October, 1956)

Restricted

- (ii) Locate the gun stirrup castings and remove and ~~retain~~ the cable clips, screws and nuts. Locate the 3-way terminal block situated on the gun bay roofing. Disconnect the cable assemblies, items 9 to 12 inclusive, from the terminal block. Remove the four (4) clips and screws holding the cables to the gun bay roofing, and retain. Disconnect the cables from the maxiflux units on the guns and remove, retaining the gun clips for operation (viii).
- (iii) Locate the upper clip attachment holes in the gun stirrups and using a No. 32 (.116 inch diameter) drill, drill the two inner gun stirrups on the inboard side and the two outer gun stirrups on the outboard side in accordance with Drawing ~~A12369~~ ^{A12639}, Sheet 1. Care must be taken to ensure that no swarf enters the breech blocks of the guns.
- (iv) Refer to Drawing ~~A12369~~ ^{A12639}, Sheet 1, and assemble the four (4) brackets, item 1, to the gun stirrups together with the four (4) packings, item 2. The packings are to be assembled between the stirrups and brackets. Secure the brackets and packings to the gun stirrups using sixteen (16) screws, washers and stiffnuts, items 6, 7 and 8 respectively.
- (v) Connect the new cable assemblies, items 4 and 5 to the appropriate terminals on the terminal block on the gun bay roofing, by referring to their coding. Attach them to the gun bay roofing with the four (4) original clips and screws, retained in operation (ii).
- (vi) Refer to Drawing ~~A12369~~ ^{A12639}, Sheet 1, and assemble the sockets on the cable assemblies fitted in operation (v), to the brackets fitted in operation (iv).

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- (vii) Connect the plugs of the new cable assemblies, item 3, to the sockets which were mounted to the brackets in operation (vi). Attach these cables to the side of the gun stirrup castings, picking up on existing holes and using the remainder of the clips, screws and nuts retained in operation (ii). *Attach these cables to the side of the gun stirrup castings using their retention*
- (viii) Assemble the new cables to the guns using the retained gun clips (see operation (ii)) and connect the plugs at the free end of the cables to the maxiflux units on the guns.
- (ix) Reconnect the aircraft batteries, replace two outboard cannons and replace the cannon bay door after testing.

(d) Tests : Function the gun firing circuits up to the maxiflux plugs.

Part "B" - Mk.33 Aircraft

Supply

12. The following parts are required to complete one modification set:-

Item No.	Ident No.	Part No.	Nomenclature	No. off per Set	Stores Class
13		12.20N.1531	Bracket	2	
14		12.20N.1533	Packing	2	
15		12.N.2183A	Cable Assy., Break to Gun	2	
16		15.N.1885A	Cable Assy., T.B. to Gun Break	1	
17		15.N.1889A	Cable Assy., T.B. to Gun Break	1	

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Restricted

6.

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Vampire Modification No.178

Item No.	Ident No.	Part No.	Nomenclature	No. off per Set	Stores Class
18	H28C/ ²⁸⁷⁶ 2864	A32/A ³⁴ 18	Screw, steel, Rd. Hd. 6BA x ^{2 1/8} " long ⁸	8	
19	H28C/ 12429	SP.10/A	Washer, steel, plain, .123" I/D x .233" O/D x .018" thick	8	
20	H28/27023	AGS.2001/ A1	Stiffnut, steel hex, thick, 6BA	8	
20.17	132/A/2006		<i>Change, Supply Corlen to required</i>		

Note.^A Items 13 to 20 inclusive will be supplied by De Havilland Aircraft Pty. Ltd., Bankstown, N.S.W. to the Contractors Modification Centre Store which will issue items on demand.

NOTE.(B) Item 20(A) is to be drawn from unit stores

Disposal of Parts Removed

13. The following parts will be rendered redundant by the incorporation of this modification:

Item No.	Ident No.	Part No.	Nomenclature	No. off per Set	Stores Class
21		15.N.431AND	Cable Assembly, Port	1	
22		15.N.432AND	Cable Assembly, Stbd.	1	

Note.- Remove the plugs (G5D/1389) from items 21 and 22, and, if serviceable, return to Stores. The remainder of the cable assemblies, items 21 and 22, are to be disposed of in accordance with current authorized procedure.

Disposal of Parts in Stock

14. Not applicable.

(Issued with A.L.72 - October, 1956)

Restricted

When the Modification is to be Incorporated

15. This modification is to be incorporated as soon as practicable, but not later than the next "D" servicing after receipt of modification sets.

Method of Incorporation

16. (a) Man-hours Involved : Approximately six (6) man-hours will be involved to incorporate this modification.
- (b) Special Tools, or Jigs, etc. : No special tools or jigs are required to incorporate this modification.
- (c) Sequence of Operations :
- (i) Remove the cannon bay doors and disconnect the aircraft batteries.
 - (ii) Locate the gun stirrup castings and remove and ~~retain~~ ^{disconnect} the cable clips, screws and nuts. Locate the 3-way and 5-way terminal blocks, situated on the gun bay roofing and disconnect the cable assemblies, items 21 and 22, from these terminal blocks, retaining the two (2) clips and screws removed from the gun bay roofing. Disconnect the cables from the maxiflux units on the guns and remove, retaining the gun clips for operation (viii).
 - (iii) Locate the upper clip attachment hole in the gun stirrup castings and using a No.32 (.116 inch diameter) drill, drill the inboard sides of the gun stirrups in accordance with Drawing ~~A-12369~~ ^{A-12639}, Sheet 2. ~~72369~~ ⁷²⁶³⁹ Care must be taken to ensure that no swarf enters the breech blocks of the guns.
 - (iv) Refer to Drawing ~~A-12369~~ ^{A-12639}, Sheet 2, and assemble the two (2) brackets, item 13, together with the two (2) new packings, item 14, which fit between the bracket and stirrup, using eight (8) screws, washers and stiffnuts, items 18, 19 and 20 respectively.

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- (v) Connect the new cable assemblies, items 16 and 17 to their appropriate terminals on the terminal blocks situated on the gun bay roofing by referring to their coding. Attach them to the gun bay roofing with the two (2) original clips and screws retained in operation (ii).
 - (vi) Refer to Drawing ^{A12639} A12369, Sheet 2, and assemble the sockets on the cable assemblies, fitted in operation (v), to the brackets fitted in operation (iv). PA;
 - (vii) Connect the plugs of the new cable assemblies, item 15, to the sockets which were mounted on the brackets in operation (vi). ~~attach these cables to the side of the gun stirrup castings, picking up on existing holes and using the remainder of the clips, screws and nuts retained in operation (ii).~~
 - (viii) Assemble the new cables to the guns using the retained gun clips (see operation (ii)) and connect the plugs at the free end of the cables to the maxiflux units on the guns.
using item 20 (A) as noted in drawing A12639, sheet 2.
 - (ix) Reconnect the aircraft batteries and replace the cannon bay doors after testing.
- (d) Tests : Function the gun firing circuits up to the maxiflux plugs.
- (e) Recording : Record this modification in the Aircraft Log Book as Vampire Modification No.178.

Drawings

17. Drawing ^{A12639} A12369, Sheets 1 and 2, is attached.

Effect on Weight and Balance of Aircraft

18. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

(Issued with A.L.72 - October, 1956)

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A.A.P. 721:79, Vol.2, Pt.2. 9. Vampire Modification No.178

References: Files Department of Air 150/4/9152 and
150/4/8621.

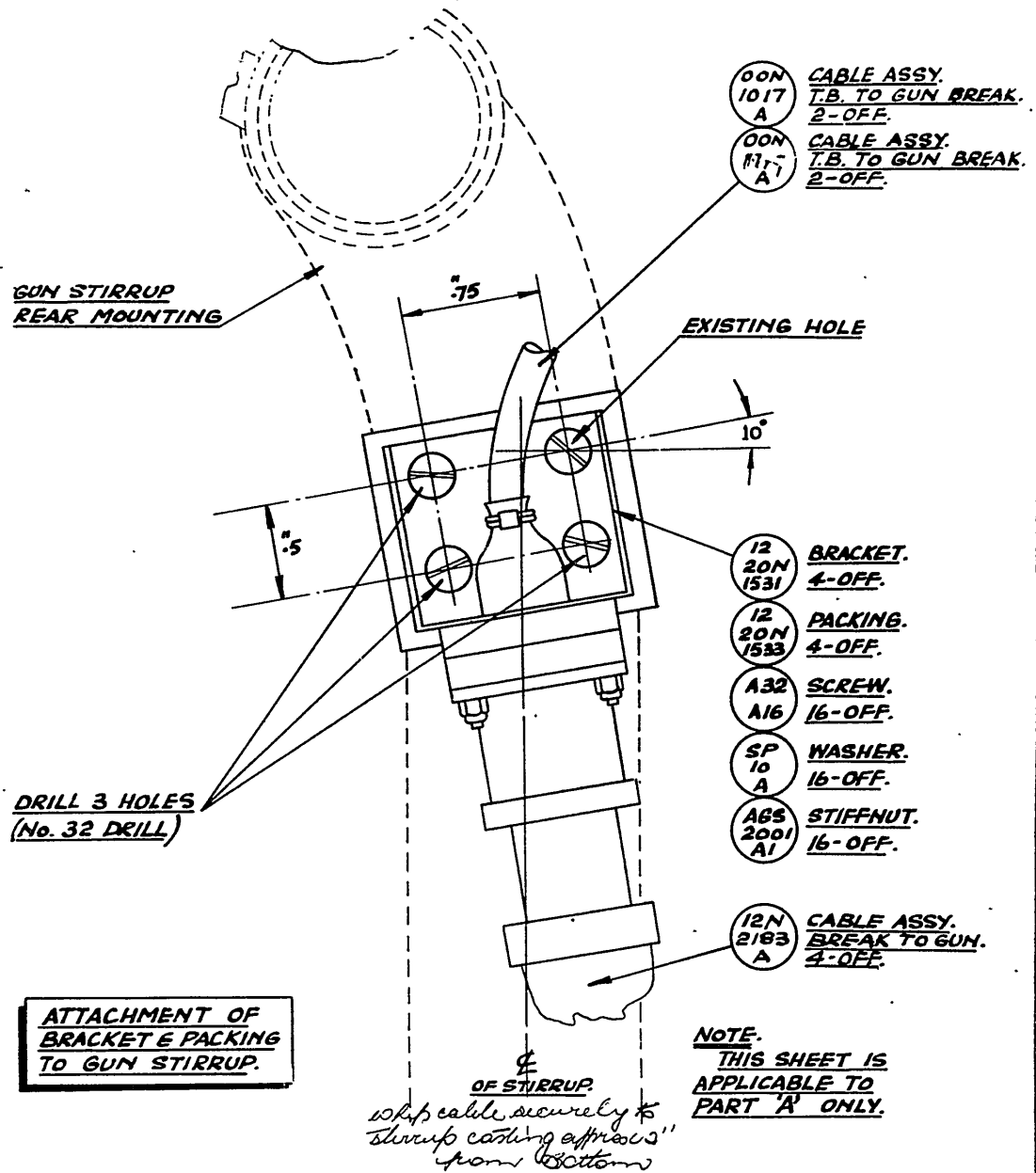
Attachments: Drawing ¹²⁶⁸⁹~~412359~~, Sheets 1 and 2. 121 75'

Date of Issue: 16th October, 1956.

(Issued with A.L.72 - October, 1956)

Restricted

DO NOT SCALE



DEHAVILLAND DRWG. No. 00M310. No of SHEETS 2. SHEET No 1

REFERENCE	ISSUED BY	TITLE
		IMPROVED GUN FIRING CABLES. - INTRODUCTION.
APPROVED		COMPONENT OF
		MACHINE
		ENGINE
		TECH. CHGR
		DRAWING NO.
		A12639
		SHEET No 1

[illegible]

REFERENCE	ISSUED BY	TITLE
		<u>IMPROVED GUN FIRING CABLES.</u> <u>- INTRODUCTION.</u>
UNLESS STATED	MATERIAL	COMPONENT OF
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10. FILE NO.	11. APPROVED	12. BY
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Restricted

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VAMPIRE MODIFICATION NO.180

Class 2

COVER PLATE OVER G4B COMPASS CONTROL UNIT - INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the introduction of a cover plate over G4B Compass Control Unit. This is necessary to prevent entry of water in the unit in aircraft with the original type of canopy.

Application

2. This work is to be carried out on all Vampire Mk. 33 Aircraft, Serial Nos. A79-801 to A79-836 inclusive, which have not been modified to Vampire Modification No. 161 (De Havilland Aust. Modification No. V642.).

Note for De Havilland:- Aircraft A79-829 and A79-836 have been modified to DH Aust. Mod. V642.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units and aircraft depots or the civilian contractor responsible for the repair of Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. This modification will be superseded by Vampire Modification 161 (D.H. Aust. Mod. V642).

Equivalent Modifications

6. De Havilland (Aust.) Modification V680 is the equivalent modification.

Supply

7. The following parts are required for one complete modification set:

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3.

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VAMPIRE MODIFICATION NO.180

(ii) Position Cover Plate, item 1, on the Chain Guard which is situated on Port cockpit wall above G4B Compass Control Unit, as per attached drawing. Spot through existing 4 holes in the Cover hinge with No. 30 drill. Debur holes and attach with 4 Pop rivets (item 2).

(d) Tests : Raise and lower cover plate to ensure that it does not catch on G4B Compass Control Unit.

(e) Recording : Record this modification in Aircraft Log Book.

Drawings

12. Drawing A12638 is attached.

Effect on Weight and Balance of Aircraft

13. The effect of this modification on the weight and balance of the aircraft is negligible.

References: Files Department of Air 113/2/1371 and 150/4/9155.

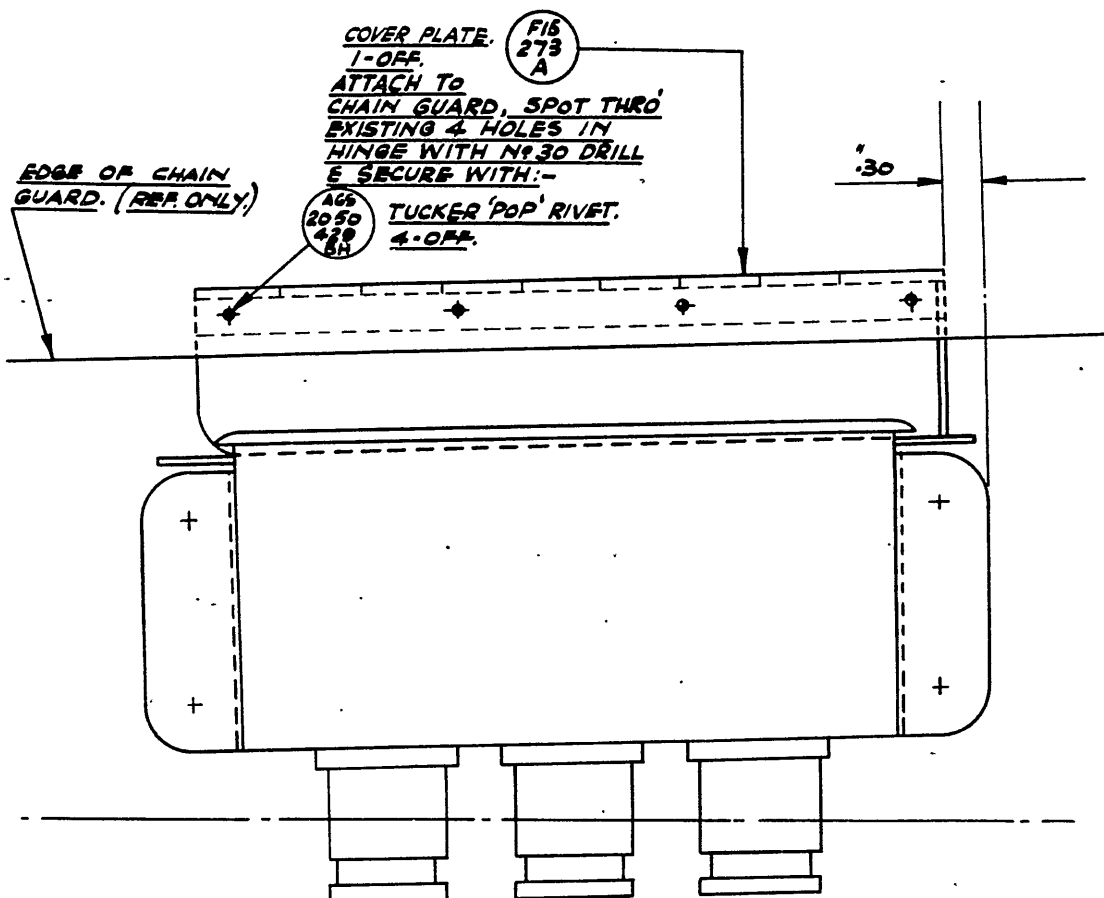
Attachment: A12638.

Date of Issue: 11th February, 1957.

(Issued with A.L.79 - February, 1957)

Restricted

ISSUE NO	DATE	ALTERATION	D I L	INITIALS	APPROVED



DE HAVILLAND DRWG. No. OOM313. No of SHEETS. 1.

REFERENCE		ISSUED BY				TITLE	
						COVER PLATE FOR G.A.B. COMPASS CONTROL UNIT ~ INTRODUCTION.	
LIMITS UNLESS STATED		MATERIAL				COMPONENT OF	
DECIMALS	± .010"	SPEC.				MACHINE	
FRACTIONS	± 1/32"	TREATMENT				ENGINE	
ANGLES	± 1°	FINISH				TECH. ORDER	
SURFACE FINISH		SCALE				DRAWING NO.	A12638
AUSTRALIAN STANDARD		DRAWN	APPROVED		DWG. A SIZE		
ENG. DWG. PRACTICE A 321		TRACED	CHECKED				

Restricted

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Vampire Modification No.181,
Class 2

FUEL TANK FILLER CAP DOOR - STRENGTHENING

Reason for and Description of Modification

1. This modification authorizes the introduction of a stronger hinge on the fuel tank filler cap door. Failures of the existing hinge are occurring during flight causing the door to bend back and in some cases become detached.

Application

2. This work is to be carried out on all Vampire Mk.33 aircraft Serial Nos. A79-801 to A79-836 which have not been modified to Vampire Modification No. 140 (D.H. Aust. Mod. V.641).

Responsibility for Incorporation

3. This modification is to be incorporated by operating units, aircraft depots or civilian contractors responsible for servicing Vampire Aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Three (3) off Fairing Canopy Rear Assemblies Pt. No. 15FC.167 Ident No. A79/502514 are to be modified using three (3) rivets AS2229/305 to attach the hinge, item 1, to the door and two (2) rivets AS2229/505 in the outside holes of the fairing skin, and re-identified as Pt. No. FC15.55AND Ident No. A79/503739.

Eleven (11) off Door, Filler Cap Assemblies Pt. No. 15FC.1043AND Ident No. A79/502515 are to be modified using three (3) rivets AS2229/305 to attach the hinge to the door and re-identified as Pt. No. 15FC.4109AND Ident No. A79/503736.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V.681 and Air Ministry Modification VAM.3360 are equivalent modifications.

(Issued with A.L. 62 - October,
1956)

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A.A.P. 721:79, Vol.2, Pt.2. 2. Vampire Modification No.181

Supply

7. The following parts are required for one complete modification set:

Item No.	Ident No.	Part No.	Nomenclature	No. off per Set	Stores Class
1		15.FC. 4107ND	Hinge, Double Flange Plates, A1.A1. 2"	1	
2	H128F/ 62076	AS.2229/ 305	Rivets, A1.A1.C's'k 90° 3/32" dia. x 5/16" lg.	3	
3	H28C/ 2493	AGS.251/ 39	Screw, wood No.6 x 3/4" long, C's'k steel	3	
4	K3/386		Bostik 1751 Primer	A.R.	
5	K3/387		Bostik 1790 Filleting Compound	A.R.	
6	K3/353		Compound Jointing DTD369A	A.R.	
Ø Item 1 can be made from H28/10363.					

Notes:- (a) Items 1 to 3 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre.

(b) Items 4 to 6 inclusive will be drawn from unit stores.

Disposal of Parts Removed

8. The following part will be rendered redundant by the incorporation of this modification:

(Issued with A.L.62 - October, 1956)

Restricted

Restricted

3.

A.A.P. 721:79, Vol.2, Pt.2.

Vampire Modification No.181

Item No.	Ident No.	Part No.	Nomenclature	No. off per Set	Stores Class
7	A79/502516	15.FC. 69ND	Hinge, Single Flange Plates A1.A1.	1	

Note:- Item 7 is obsolete and is to be disposed of in accordance with current authorized procedure.

Disposal of Parts in Stock

9. Stocks of item 7 are to be disposed of as in paragraph 8.

When Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next "D" servicing after receipt of the modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately five (5) man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs, etc. : No special tools are required.
- (c) Sequence of Operations :
- (i) Locate the fuselage fuel tank filler door situated on the port side of the aft end of the canopy.
 - (ii) Drill out the rivet attaching the door to the canopy skin using a No. 41 (0.096" diameter) drill, taking care to limit the penetration. Remove and dispose of the two woodscrews.

(Issued with A.L.62 - October, 1956)

Restricted

Restricted

4.

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Vampire Modification No.181

- (iii) Withdraw the door assembly and drill off the rivets attaching the hinge to the door using the same size drill. Discard the hinge, item 7.
- (iv) Using the new hinge, item 1, as a guage, enlarge the cut-out in the spruce member, under the canopy fairing by removing $\frac{1}{8}$ " extra towards centre line of aircraft, using a 1/16" wood chisel, and by increasing depth to allow for extra thickness of new hinge using 1" wood chisel.

Note: New hinge is double thickness 20 SWG whereas old hinge was single thickness 18 SWG. Nominal increase is .024".
- (v) Place the new hinge, item 1, in position under the canopy skin. Attach the door in position with Dzus fastener and mark off holes for rivets on hinge from three holes in door.
- (vi) Remove the door and hinge and drill the hinge at the three positions marked, with a No. 41 (.096" diameter) drill. Thoroughly debur the new holes and coat hinge flap with jointing compound, item 6. Rivet the door to the hinge using three AS.2229/305 rivets, item 2.
- (vii) Place the door with hinge attached in position and close the Dzus fastener. By picking up on original holes in the canopy skin drill three holes with a No. 27 drill taking care not to drill too deep. Remove the door and debur the new holes in the hinge flap.
- (viii) Cover the hinge flap with Bostik, items 4 and 5, and replace the door in position and close the dzus fastener. Attach the hinge to the canopy skin and spruce member using the three woodscrews, item 3.

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Restricted

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5.

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Vampire Modification No. 181

(d) Tests : Open and shut door after allowing time for bostik to set making sure that it does not foul on the canopy skin.

(e) Recording : Record modification in Airframe Log Book.

Drawings

12. No drawings are required.

Effect on Weight and Balance

13. The effect of this modification on the weight and balance of the aircraft is negligible.

References: Files Department of Air 9/84/74 and 150/4/9156.

Date of Issue: 1st October, 1956.

(Issued with A.L.62 - October, 1956)

Restricted

Restricted

VAMPIRE MODIFICATION NO. 182

A.A.P.721:79, Vol.2, Pt.2

Class 2

GREASE NIPPLE - EXTENDED TYPE ON NOSEWHEEL
JACK - INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the introduction of an extended type of grease nipple on nosewheel jack attachment bolt as the existing grease nipple is inaccessible.

Application

2. This work is to be carried out on all Vampire Mk.33 aircraft Serial Nos. A79-8-1 to A79-836 inclusive..

Responsibility for Incorporation

3. This modification is to be incorporated by operating units, aircraft depots or civilian contractors responsible for servicing Vampire aircraft. The trade mustering responsible is aircraft fitter.

Action in Respect of Spares

4. Not applicable.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Modification V682 is the equivalent modification.

Supply

7. The following parts are required for one complete modification set:-

<u>Item</u> <u>No.</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off</u> <u>Per Set</u>	<u>Stores</u> <u>Class</u>
1.	A79-8-344 ^{179/503742}	G60434 ^{600732P}	Nipple, Grease, Extended type	1	

(Issued with A.L.67 - October, 1956)

Restricted

Restricted

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VAMPIRE MODIFICATION NO. 182

2.

<u>Item No.</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off Per Set</u>	<u>Stores Class</u>
2.	A79/502022	G001765ND	Shim, Laminum $\frac{3}{8}$ " O/D x $\frac{1}{4}$ " I/D x .01" max.	1	
3.	H28/776	A16Y/ET	Nut, Thin, Hex. Steel $\frac{1}{4}$ B.S.F.	2	
4.	H28B/5032	SP.9/C8	Pin, Split, Nickel Alloy 1/16" Dia. x 1" long.	1	

Note:- Items 1 to 4 inclusive will be assembled into Modification Sets and retained at the De Havilland Modification Centre pending issue or demand. Units requiring Modification Sets are to demand from De Havilland Modification Centre.

Disposal of Parts Removed

8. The following part will be rendered redundant by the incorporation of this modification:-

<u>Item No.</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off Per Set</u>	<u>Stores Class</u>
5.	T27H/24789	6878/1	Nipple, Grease	1	

Note:- Item 5 is to be examined and, if serviceable, is to be returned to stores for use on all marks Vampire aircraft.

Disposal of Parts in Stock

9. Not applicable.

When the Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next "D" servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved: Approximately six (6) man-hours will be required to incorporate this modification.

(Issued with A.L.67 - October, 1956)

Restricted

3.

(b) Special Tools, Jigs etc.: No special tools or jigs are required.

(c) Sequence of Operations:

- (i) Jack the nose of the aircraft and release air pressure from hydraulic accumulator.
- (ii) Unscrew the existing grease nipple from the nosewheel jack upper attachment bolt and discard the grease nipple, item 5.
- (iii) Remove the split pin and unscrew the castellated nut and washer on the attachment bolt, retain the nut and washer for reassembly.
- (iv) Lightly tap the bolt out sufficiently far to clear the shoulder on the jack which normally prevents the bolt turning.
- (v) Fit the two nuts, item 3, to the bolt and tighten one against the other so as to provide a medium for turning the bolt.
- (vi) Fit new grease nipple, item 1, and shim, item 2, to the bolt and tighten by means of the locknuts.

Note:- Adjust thickness of laminum shim by peeling off layers of metal till extension on grease nipple points vertically downwards.

- (vii) Remove locknuts and refit nut and washer removed in operation (ii), lock with split pin, item 4.
- (viii) Recharge hydraulic accumulator and carry out retraction test on nosewheel to ensure that the new grease nipple does not foul the structure.
- (ix) Grease the jack attachment bolt.
- (x) Remove the aircraft trestle.

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Restricted

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VAMPIRE MODIFICATION NO. 182

4.

(d) Tests: Retraction test carried out in para. 11
(c) (viii) as applicable to nosewheel.

(e) Recording: Record modification in Airframe Log
Book.

Drawings

12. No drawings are required.

Effect on Weight and Balance

13. The effect of this modification on the weight and
balance of the aircraft is negligible.

References: Files Department of Air 9/84/91 and
150/4/9157.

Date of Issue: 1st October, 1956.

(Issued with A.L.67 - October, 1956)

Restricted

Restricted

A.A.P. 721:79, Vol. 2, Pt. 2.

VAMPIRE MODIFICATION NO. 183

Class 2.

GROUND STARTING - IMPROVED FACILITIES

Reason for and Description of Modification

1. The modification authorizes the introduction of an emergency starting switch to improve ground starting facilities. Some difficulty has been experienced in starting aircraft which have partially discharged batteries, and where only limited ground starter units are available.

Application

2. This work is to be carried out on all Vampire Mk. 30 and 31 aircraft.

Responsibility for Incorporation

3. The electrical fitters of aircraft depots and units or contractors concerned are responsible for the incorporation of this modification.

Action in Respect of Spares

4. No action required.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modifications

6. De Havilland (Aust.) Mod. V214. is an equivalent modification.

Supply

7. The following parts are required for one complete modification set:-

<u>Item No.</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. Off Per Set</u>	<u>Stores Class</u>
1.	G5C/4061		Switch, push button, B.T.H. Type P4-2	1	A
2.	G105C/1400 ALT G105C/1870		Circuit Breaker 20 amp. Switch, Toggle Square 'D'.	1	A
3.		OON1041A	Guard Assembly	1	
4.		OON1043A	Cable Assembly	1	

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VAMPIRE MODIFICATION NO.183

<u>Item No.</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No.Off Per Set</u>	<u>Stores Class</u>
5.		OON1045A	Cable Assembly	1	
6.		OON1047A	Cable Assembly	1	
7.		OON1053	Label	1	
8.	H128F/31154		Screw, Steel, Rd.Hd. $\frac{3}{8}$ " long x 6-32	2	C
9.	H28C/3501	A32/A8	Screw, Steel, Rd.Hd. 6BA. x $\frac{1}{4}$ "	2	C
10.	H28/27023	AGS2001/ A/1	Nuts M.S. Self locking Nyloc, 6BA.	2	C
11.	H28C/11067	AHS2035/B	Washer, Steel, Shake- proof, 4 B.A.	2	C
12.	G5E/457		Tape, Insulating P.V.C. $\frac{5}{8}$ " wide	AR	C
13.	K4/10506		Varnish, sealing and Insulating Spec. S.A.A. Int.45	AR	C

Notes:- (a) Items 1 to 11 inclusive will be delivered from De Havilland Aircraft Pty.Ltd. to their own modification centre ~~which will issue sets as required.~~ *units requiring modification to be drawn from De Havilland's modification centre* AL74

(b) Items 12 and 13 are to be drawn from Unit Stores.

Disposal of Parts Removed

8. No action.

Disposal of Parts in Stock

9. No action.

When Modification is to be Embodied

10. This modification is to be incorporated as soon as practicable, but not later than next 'D' servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately five (5) man-hours will be required to incorporate this modification.

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Restricted

- (b) Special Tools, Jigs &c : No special tools and jigs are required to incorporate this modification.
- (c) Sequence of Operations:-
 - (i) Disconnect the aircraft accumulators.
 - (ii) Set flaps in fully down position and locate starter control panel with adjacent ground starter and test sockets assembly mounted on underside of port inner flap shroud.
 - (iii) Locate flap shroud rib No. 1 positioned between starter control panel and ground starter and test sockets assembly. Refer to Drawing A.12633, sheet 1, and modify rib as shown.
 - (iv) Refer to Drawing A.12633, sheet 1, and assemble push button switch, item 1, circuit breaker, item 2, and guard assembly, item 3, using screws, item 8, washers, item 11, two (2) off each, and label, item 7, one (1) off, using screws, item 9, stiffnuts, item 10, two (2) off each as shown.
 - (v) Remove ground starter and test sockets assembly from fixed position by unscrewing five attachment bolts. Retain bolts reassembly.
 - (vi) Disconnect wiring to positive terminals of each socket and note connections.
 - (vii) Refer to Drawing A.12633, sheet 2, and run and connect cable assemblies, item 4, 5 and 6 in a manner as shown, binding with insulating tape, item 12, where called for.

Note:- Care must be taken to ensure cables are kept well up and away from flap when closed.

- (viii) Replace existing wiring disconnected in operation (v) and then cover positive terminals of each socket by binding with insulating tape, item 12, and finally sealing with varnish, item 13. In addition both cable connections on circuit breaker are to be protected in a similar manner.
- (ix) Reassemble ground starter and test sockets assembly with five bolts removed in operation (v).
- (x) Reconnect aircraft accumulators.

(Issued with A.L.64 - October, 1956)

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VAMPIRE MODIFICATION NO. 183

- (d) Tests : Function for correct operation of starting circuit.
- (e) Recording : Record this modification in the Aircraft Log Book as Vampire Modification No. 183.

Drawings

12. R.A.A.F. Drawing No. A.12633 consisting of 2 sheets is attached.

Effect on Weight and Balance of Aircraft

13. The effect of the incorporation of this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 150/4/9181, 150/4/8621

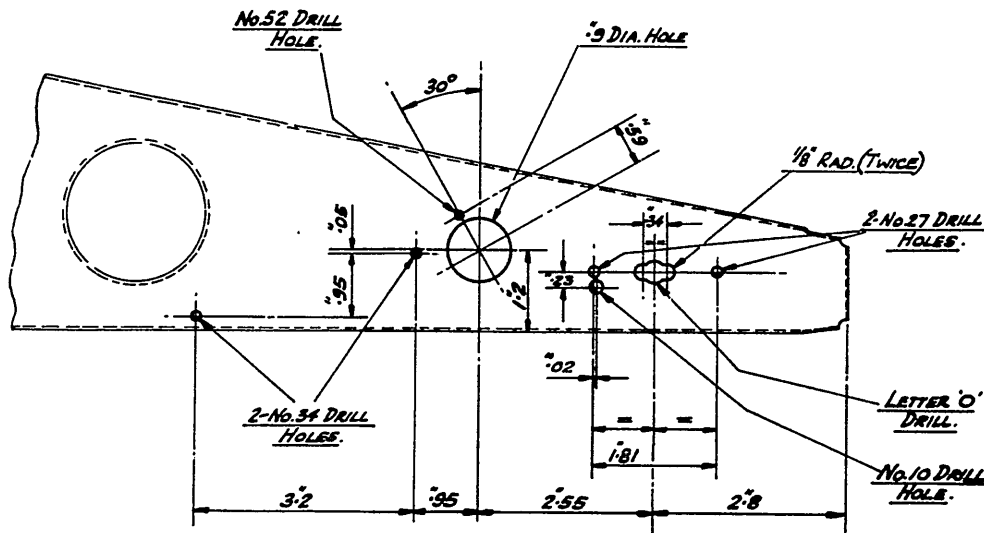
Attachments : Drawing A.12633, Sheets 1 and 2.

Date of Issue : 1st October, 1956

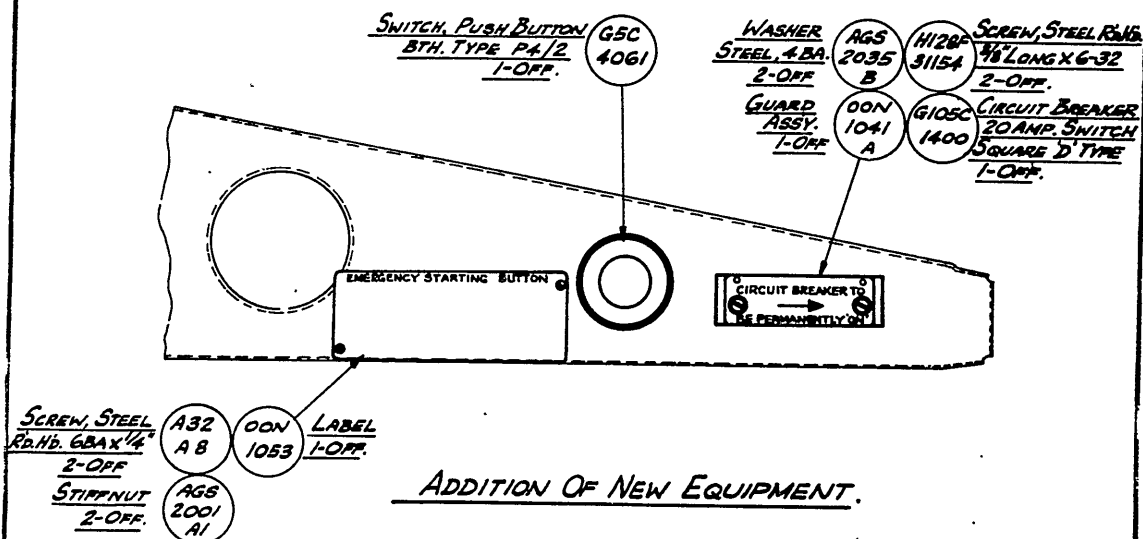
(Issued with A.L.64 - October, 1956)

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D.T.	INITIALS	APPROVED



MODIFICATION OF FLAP SHROUD RIB NO. 1. - L.H. ONLY.



ADDITION OF NEW EQUIPMENT.

DE HAVILLAND DR'G. NO. 00M321 SHT. 1. No. OF SHEETS. 2.

REFERENCE		ISSUED BY		TITLE	
		DEPARTMENT OF AIR DIRECTORATE OF TECHNICAL SERVICES		IMPROVED GROUND STARTING FACILITIES - INTRODUCTION	
LIMITS UNLESS STATED	MATERIAL			COMPONENT OF	ELECTRICAL STARTING SYSTEM
FORMALITY	SPEC.			MACHINE	VAMPIRE MK 30+31
	TREATMENT			ENGINE	NENE 2 VH
	FINISH			TECH. ORDER	VAMPIRE MOD NO 183
SURFACE FINISH	SCALE			DRAWING NO.	A 12633 SHT. 1.
AUSTRALIAN STANDARD			APPROVED		DRWG. A
ENG. DRAW. PRACTICE A.S. 621			CHECKED		SIG.

Restricted

A.A.P. 721:79, Vol.2, Pt.2 VAMPIRE MODIFICATION NO. 184

Class 2

BOOSTER COIL - DELETION

Reason for and Description of Modification

1. This modification authorizes the deletion of the ignition booster coils and associated wiring. During the transition period when Vampire Modification 125, D.H. (Aust.) Modification V647 "Introduction of High Energy Ignition" was being incorporated, it was necessary to provide for the installation of either modified or unmodified engines. As most of the aircraft are now modified and spare modified engines are available, this modification deletes the booster coils.

Application

2. This work is to be carried out on all Vampire Mk. 33 aircraft, Serial Nos. A79-801 to A79-836, which have been modified to D.H. (Aust.) Modification V647, and in which the engines have been modified to Goblin Modification 830.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units, aircraft depots or civilian contractors responsible for servicing Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. No action required.

Orders Superseded or Cancelled

5. No orders are superseded or cancelled by this modification.

Equivalent Modification

6. De Havilland Modification No. V684 is the equivalent modification.

(Issued with A.L.53 - August 1956)

Restricted

Restricted

A.A.P.721:79, Vol.2, Pt.2 VAMPIRE MODIFICATION NO. 184

2.

Supply

7. No parts are required.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification.

<u>Item</u>	<u>Ident No.</u>	<u>Part No.</u>	<u>Nomenclature</u>	<u>No. off</u> <u>per Set</u>	<u>Stores</u> <u>Class</u>
1.	N41/22245	BTH.C2TS/1	Coil, Booster	2	
2.	A79/502912	L00775	Bracket, Booster Coil	2	
3.		N15.245AND	Booster Coil Lead	1	
4.		N001882AND	Booster Coil Lead	1	
5.	A79/50345	13.N.821A	Bracket, Mounting, Breeze Plugs	1	
6.	A79/502973	N00622	Clamp for Coil Leads	2	
7.		15.N.1281A	Cable Assembly	2	
8.			Cap, Sealing, Plug (A.M. Ref. 5X/1963)	2	

- Notes: (a) Item 1 is to be examined and, if serviceable, returned to store for use on Mk. 30 and 31 Vampire Aircraft.
- (b) Items 2, 3, 4, 5 and 6 are obsolete and are to be disposed of in accordance with current authorised procedure.

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Restricted

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VAMPIRE MODIFICATION NO. 184

3.

(c) Item 7 is to be dismantled. The breeze plugs G5/500147 are to be returned to store, and the remainder disposed of in accordance with current authorized procedure.

(d) Item 8 is to be discarded as being of no value.

Disposal of Parts in Stock

9. Stocks of Part No. L00775, Ident No. A79/502912, Part No. 13.N.821A, Ident No. A79/503545 and Part No. N00622, Ident No. A79/502973 are to be disposed of as in Note to Paragraph 8, above.

When Modification is to be Incorporated

10. This modification is to be incorporated at next "D" servicing after R.A.A.F. Vampire Modification 125 and Goblin Modification 830 have been incorporated.

Method of Incorporation

11. (a) Man-hours Involved: Approximately four (4) man-hours will be required to incorporate this modification. 1

(b) Special Tools, Jigs, etc.: No special tools are required.

(c) Sequence of Operations:

(i) Remove top engine cowl.

(ii) Refer to Drawing A.12354, Sheets 4 and 5, attached to Vampire Modification No. 125 (D.H. Aust. Modification V647). Remove and discard the five clips, fibre block and bonding strap, which hold the two conduits, through which the electric cables run, one from the booster coil, across the top engine cowl supporting ring, to the port spark plug, and one from the booster coil, under the cowl supporting ring, to the starboard spark

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VAMPIRE MODIFICATION NO. 184

4.

plug. Discard the conduits and electric cables, items 3, 4 and 6.

- (iii) Locate the cable assemblies that run from the booster coils to the mounting bracket, which is positioned on the lower starboard engine support frame.

Remove and discard the two cable assemblies and the caps, items 7 and 8.

- (iv) Release the two Jubilee clips holding the mounting bracket in place. Discard the bracket, item 5, and clips.

- (v) Remove the two bolts and nuts, which hold the booster coil bracket in position on the top starboard engine support frame. Discard the bolts and nuts.

- (vi) Remove the booster coils from the brackets by releasing the four Jubilee clips holding them in place. Discard the booster coils and brackets, items 1 and 2, respectively and the four (4) Jubilee clips.

- (vii) Replace the top engine cowl, removed in operation (i).

(d) Tests: Nil.

(e) Recording: Record the modification in the Airframe Log Book.

Drawings

12. No drawings are required.

Effect on Weight and Balance

13. The effect of this modification on the weight and balance of the aircraft is negligible.

References: Files Department of Air 69/35/248 and 150/4/9182.

Date of Issue: 3rd August, 1956.

(Issued with A.L.53 - August, 1956)

Restricted

LOCKING PLATE, TOWING BOBBIN ON NOSE WHEEL STRUT - INTRODUCTION

Reason for and Description of Modification

1. This modification authorizes the introduction of a Locking Plate in lieu of existing 1/16" Split Pin in the Towing Bobbin. The Locking Plate is provided as cases have been reported of the Towing Bobbin shearing the existing Split Pin, thus allowing the Nose Wheel Pivot Bolt to become loose.

Application

2. This work is to be carried out on all Mark 30, 31 and 33 Vampire aircraft.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units, aircraft depots or civilian contractors responsible for servicing Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. (a) Mk. 30 and 31 Vampire Nose Wheel assemblies, Part No. G001098A, Ident No. A79/500801 are to be reworked to R.A.A.F. Mod. No. 19, D.H. (Aust.) Mod. V38, R.A.A.F. Mod. 47, D.H. (Aust.) Mod. V98, R.A.A.F. Mod. No. 185, D.H. (Aust.) Mod. V215, and reidentified Part No. OOG79AND, Ident No. A79/503771. Nose Wheel assemblies Part No. OOG27AND, Ident No. A79/501615, are to be reworked to R.A.A.F. Mod. 47, D.H. (Aust.) Mod. V98, R.A.A.F. Mod. No. 185, D.H. (Aust.) Mod. V215, and reidentified Part No. OOG79AND Ident No. A79/503771. Nose Wheel assemblies Part No. OOG41AND, Ident No. A79/501844, are to be reworked to R.A.A.F. Mod. No. 185, D.H. (Aust.) Mod. V215, and reidentified Part No. OOG79AND, Ident No. A79/503771.
- (b) Mk. 33 Vampire Nose Wheel assemblies Part No. 15.UN.15AND, Ident No. A79/502155, are to be reworked to R.A.A.F. Mod. No. 185, D.H. (Aust.) Mod. V215 and reidentified Part No. UN15.13AND, Ident No. A79/503770. Nose Wheel assemblies Part No. 15.UN.21AND, Ident No. A79/503685 are to be reworked to R.A.A.F. Mod. No. 185, D.H. (Aust.) Mod. V215 and reidentified Part No. UN15.13AND, Ident No. A79/503770. Future spares will be modified before delivery.

(Issued with A.L.80 - February, 1957)

Restricted

When Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next "D" inspection after receipt of modification sets.

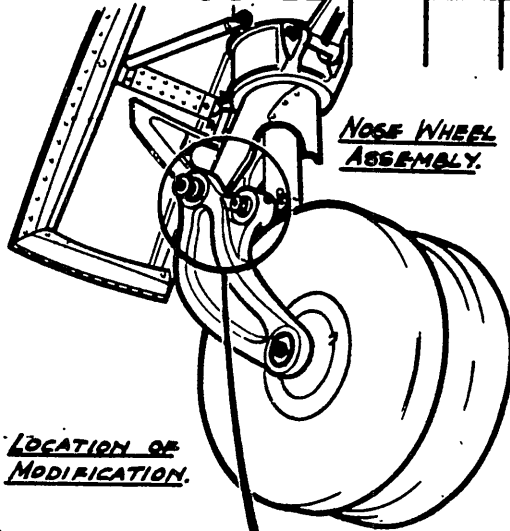
Method of Incorporation

11. (a) Man-hours Involved : Approximately six (6) man-hours will be required to incorporate this modification.
- (b) Special Tools, Jigs, etc. : No special tools are required.
- (c) Sequence of Operations :
- (i) Jack the nose of the aircraft and release the pressure from the hydraulic accumulator.
 - (ii) Locate the towing bobbin on the port side of the nose wheel fork and remove the split pin which locks the bobbin in position. Screw the bobbin off the bolt and retain for re-assembly.
 - (iii) Place the laminated shim, item 3, on the bolt and screw the bobbin back in position. Apply jointing compound, item 4, to both sides of the laminated shim.
 - (iv) Refer to attached Drawing A12631 and by peeling sheets from laminated shim, tighten bobbin until one flat side of the bobbin is in position shown $\pm 10^\circ$.
 - (v) Place the lock plate, item 1, hard against the face of the flat side of the bobbin in position shown and accurately spot through the holes of the plate. Drill these positions in the fork with a No. 30 drill to a depth of .30". Deburr the new holes.
 - (vi) Attach the lock plate in position using two P.K. screws, item 2. Apply jointing compound, item 4, under the lock plate and on the P.K. screws.

(Issued with A.L.80 - February, 1957)

DO NOT SCALE

ISSUE NO.	DATE	ALTERATION	D. I. L.	INITIALS	APPROVED



DWS
69
F

LAMINATED SHIM, 1-OFF.
MAX. THICKNESS .015
TO BE USED UNDER
BOBBIN TO BRING FLAT
TO LINE UP WITH LOCKING
PLATE. - APPLY JOINTING
COMPOUND D.T.D. 369A TO
BOTH SIDES OF LAMINATED
SHIM.

BOBBIN (600 330).
POSITION WITHIN $\pm 10^\circ$
OF $\angle$ OF FORK BY
PEELING SHEETS FROM
LAMINATED SHIM.

LOCKING PLATE, 1-OFF
PLACE HARD AGAINST
FLAT SIDE OF BOBBIN IN
POSITION SHOWN, WITHIN $\pm 10^\circ$
OF $\angle$ OF FORK, & ACCURATELY
SPOT THRU THE HOLES IN THE
PLATE. DRILL HOLES IN FORK
WITH N° 30. DRILL TO DEPTH
OF .30. SECURE PLATE TO
FORK WITH:-
P.K. SCREW, C'S K H.D. (TYPE 1756)
2-OFF.

APPLY JOINTING COMPOUND
UNDER LOCK PLATE AND
ON P.K. SCREWS.

SHOWING METHOD OF ATTACHMENT OF
LOCKING PLATE TO N/WHEEL STRUT.

De Havilland Dwg. No. 00M314. No. of Sheets. 1.

REFERENCE		ISSUED BY		TITLE	
				LOCKING PLATE FOR TOWING BOBBIN ON NOSE WHEEL STRUT - INTRODUCTION.	
LIMITS UNLESS STATED	MATERIAL			COMPONENT	
DECIMALS	$\pm .010"$	SPEC.		OF	
FRACTIONS	$\pm \frac{1}{32}"$	TREATMENT		MACHINE	
ANGLES	$\pm \frac{1}{2}^\circ$	FINISH		ENGINE	
SURFACE FINISH		SCALE		TECH. ORDER	
AUSTRALIAN STANDARD		DRAWN		DRAWING NO.	A.12631
ENG. DWG. PRACTICE A.3.121		TRACED		APPROVED	
				CHECKED	
				DWG. A SIZE	

ELEVATOR CONTROL -
REDESIGNED FORK END

Reason for and Description of Modification

1. This modification authorizes the introduction of a deeper fork end and shorter strut in the elevator mechanism. Fouling between the fork end and lever has been experienced with the elevator in the extreme up position resulting in bending of the fork end. It is necessary to shorten the strut because the deeper fork end will not allow enough adjustment which, in turn, might cause the elevator to droop excessively.

Application

2. This work is to be carried out on all Vampire Mk. 33 Aircraft, Serial No. A79-801 to A79-836 inclusive.

Responsibility for Incorporation

3. This modification is to be incorporated by operating units, aircraft depots or civilian contractors responsible for servicing Vampire aircraft. The trade mustering responsible is airframe fitter.

Action in Respect of Spares

4. Ten (10) off Part No. 13 CF.285A, Ident No. A79/502117 are to be modified in accordance with paragraph 11(c)(v) to (x) inclusive and reidentified as Part No. Z15.671AND, Ident No. A79/503746. Future deliveries of spares will be Part No. 13.OF.601A, Ident No. A79/503615. Two (2) off boom and fin assemblies L.H. Part No. TB15.1A/1, Ident No. A79/503649 and two (2) off boom and fin assemblies R.H. Part No. TB15.3A/1, Ident. No. A79/503650 are to be modified in accordance with paragraph 11(c) (ii) to (xi) inclusive and reidentified as Part No. TB15.1A/2 and TB15.3A/2, Ident Nos. A79/503768 and A79/503769 respectively, one (1) off boom and fin assembly L.H. Part No. TB15.1A, Ident No. A79/502109 and one (1) off boom and fin assembly R.H. Part No. TB15.3A, Ident No. A79/502110 are to be reworked and brought up to R.A.A.F. Vampire Modification 155 D.H. (Aust.) Mod. V671 standard, and then further modified in accordance with paragraph 11(c) (ii) to (xi) inclusive and reidentified as Part Nos. TB.15.1A/2 and TB15.3A/2, Ident Nos. A79/503768 and

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NO. 186

A79/503769 respectively. Future spares will be fully modified and will be L.H. Part No. TB15.23A, Ident No. A79/503764 and R.H. Part No. TB15.25A, Ident No. A79/503-765 (i.e. will include D.H. (Aust.) Mod. V625 R.A.A.F. Vampire Modification No. 177).

Orders Superseded or Cancelled

5. This modification cancels D.T.S. Special Instruction Vampire/85.

Equivalent Modifications

6. De Havilland (Aust.) Modification V685 and Air Ministry Modification VAM3397 and VAM3343 are the equivalent modifications.

Supply

7. The following parts are required to one complete modification set:-

Item No.	Ident No.	Part No.	Nomenclature	No.off per set	Stores Class
1.	A79/503616	12.2.CF 225	Fork End	2	
2.	H28/6959	A30/7E	Bolt, H.T.S. Hex.Hd. $\frac{1}{4}$ " BSF x 1.2" long	2	
3.	H28B/5032	SP.9/C8	Pin, Split, Nickel Alloy, $\frac{1}{16}$ " Dia. x 1" long.	4	
4.	I1/2700		Wire, Iron Soft. Galv., 20 S.W.G.	A.R.	

Notes:- (a) Items 1 to 3 inclusive will be assembled into modification sets and retained at the De Havilland Modification Centre pending issue or demand. Units requiring modification sets are to demand from De Havilland Modification Centre.

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(b) Item 4 is to be drawn from unit stores.

Disposal of Parts Removed

8. The following parts will be rendered redundant by the incorporation of this modification.

Item No.	Ident No.	Part No.	Nomenclature	No. off per set	St. Cl.
5.	A79/502652	13CF. 487	Fork End	2	
6.	H28/11737	AS.2504/6E	Bolt, H.T.S., Hex. Hd., $\frac{1}{4}$ " BSF x 1.05" long	2	

Notes :- (a) Item 6 is to be examined and, if serviceable, returned to store for future use.

(b) Item 5 is obsolete and is to be disposed of in accordance with current authorized procedure.

Disposal of Parts in Stock

9. Stocks of item 5 are obsolete and are to be disposed of in accordance with current authorized procedure.

When Modification is to be Incorporated

10. The modification is to be incorporated as soon as practicable, but not later than the next "D" servicing after receipt of modification sets.

Method of Incorporation

11. (a) Man-hours Involved : Approximately twelve (12) man-hours will be required to incorporate this modification.

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(b) Special Tools, Jigs &c : No special tools are required.

(c) Sequence of Operations :

Note:- The following operations are common to both port and starboard booms and controls.

- (i) Remove and retain the fin to tailplane fairing at the intersection of the fin and tailplane, by releasing the eighty eight 2BA countersunk head screws and their cup washers.
- (ii) Remove and retain the top and bottom inspection panels with screws, from the tailplane extension.
- (iii) Remove and retain the rear outboard access panel from the boom, by releasing the 16 4BA attachment bolts. Remove and retain the outboard access panel from the bottom of the fin, which is inboard of the tailplane extension, by removing the 10 4 BA attachment bolts.
- (iv) Refer to A.A.P. 721:79/33, Vol. 1, Section 3, Chapter 4, figure 15 and lock the control levers in rear end of tail booms by inserting the locking pin Y0011A. Locate the elevator operating rod at the rear end of the boom. Withdraw the split pins, nuts and attaching bolts. Retain the bolt and nut from the top of the control rod, discard the bolt, item 6, but retain the nut from the lower end. Remove the operating rod from the boom.
- (v) Break and remove the locking wire securing the lock nut on the fork end which is attached to the elevator operating rod. Unscrew the lock nut and remove and discard the fork end item 5. Retain the lock nut.

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- (vi) Refer to Drawing A.12641 and machine .1" from the end of the operating rod where the fork end fits. Drill a new wire locking hole in the control rod for the fork end lock nut on the opposite side to the previous hole, with a No. 58 drill .15" from the machined end and at an angle of 45°.
- (vii) Screw the new fork end item 1 in the end of the control rod, using the lock nut retained in operation (v).
- (viii) Replace the reworked operating rod in the aircraft and attach to the top elevator lever with original bolt and nut removed in operation (iv) with split pin, item 3.
- (ix) Correctly position the fork end by turning, and attach to the bottom elevator control lever using bolt, item 2, and original nut retained in operation (iv). Drill a 1/16" hole through the bolt in appropriate position and lock with split pin, Item 3. Tighten the lock nut and lock with locking wire, item 4.

Note:- It is essential that all the bolts are assembled with heads toward the centre of the booms.

- (x) Remove the control lever locks and test the controls for full and free movement.
- (xi) Replace the panels and fairings, removed in operations (i), (ii) and (iii), using the original screws and cup washers.

Note:- If any cup washers are missing from under heads of bolts, attaching fairings, they should be obtained from store. (Ident No. H28C/36365)

- (d) Tests : Test the elevator for correct and free movement.
- (e) Recording : Record this modification in Aircraft Log Book.

Drawings

12.

Drawing A.12641 is attached.

Restricted
6.

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VAMPIRE MODIFICATION
NO. 186

Effect on Weight and Balance

13. The effect on this modification on the weight and balance of the aircraft is negligible.

References : Files Department of Air 9/84/275 and
150/4/9184

Attachment : Drawing A.12641

Date of Issue : 14th August, 1956.

(Issued with A.L.55 - August, 1956)

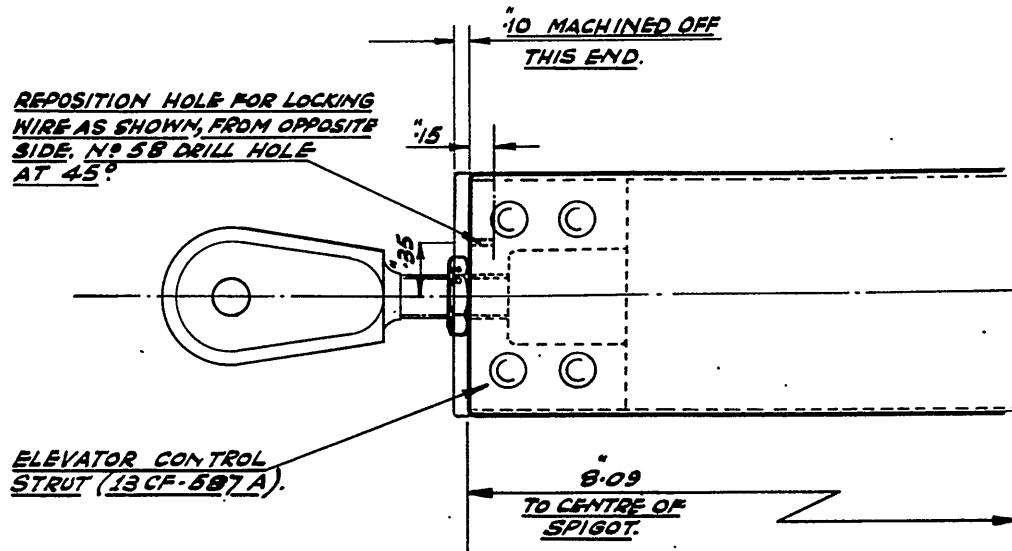
Restricted

DO NOT SCALE

ISSUE NO	DATE	ALTERATION	D I L	INITIALS	APPROVED

REPLACE FORK END (13.CF 487) WITH FORK END
USING ORIGINAL LOCKNUT.

12.
2.CF
225



MODIFICATION TO ELEVATOR
CONTROL STRUT.

DE HAVILLAND DRWG. No. 00M216 No of SHEETS. 1.

REFERENCE		ISSUED BY				TITLE	
						<u>ELEVATOR CONTROL -</u> <u>- REDESIGNED FORK END.</u>	
LIMITS UNLESS STATED		MATERIAL				COMPONENT OF	
DECIMALS	± .010"	SPEC.				MACHINE	
FRACTIONS	± 1/32"	TREATMENT				ENGINE	
ANGLES	± 1°	FINISH				TECH. ORDER	
SURFACE FINISH AUSTRALIAN STANDARD ENG. DRWG. PRACTICE A S.621		SCALE				DRAWING NO.	A 12641
		DRAWN		APPROVED			
		TRACED		CHECKED			
						DRWG. A SIZE	

FROM : Headquarters (Tech). R.R.A.F. Technical Staff Instruction
Royal Rhodesian Air Force Vol.3.Sect.2.Sub-Sect.B 114.(Issue 1)

TO : R.R.A.F. New Sarum
R.R.A.F. Thornhill
O.C. Central Equip Depot.

COPY TO: S.E.S.O.
DATE : 5th April, 1963.

This T.S.I. is issued in accordance with R.R.A.F. T.S.I. Vol.1. No.2. Issue 8.

Vampire T. Mk.11 and F.B. 9 Aircraft -
To Overcome Buckling of Undercarriage Diaphragms
(Modification/RRAF/Vampire/22)
Class B.2.

INTRODUCTION

During the embodiment of Mod/Vamp/3494 on R.R.A.F. 411, progress was prevented due to buckling of the port and starboard undercarriage diaphragms immediately above the forward undercarriage attachment fittings. This modification introduces the sand wiching of the diaphragms between the box bracket of Mod/Vamp/3494 on the forward face, and Stainless Steel Plate fitted to the rear face.

EMBODIMENT

This modification is to be embodied concurrently with Mod/Vamp/3494 if undercarriage diaphragms are found buckled.

APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 16 manhours.

DRAWINGS REQUIRED

Drawing No. AV72A is required for the embodiment of this modification and is available on request from the Drawing Office, Royal Rhodesian Air Force, New Sarum.

PARTS, MATERIALS AND SPECIAL TOOLS REQUIRED

1. PARTS

<u>Sect./Ref.</u>	<u>Nomenclature</u>	<u>Qty.</u>	<u>Class of Store</u>
3C4/2290	16 S.W.G. Backing Plate	1	C
	Stainless Steel		
28D/9133011	Bolts, 2 B.A.	4	C
28D/12531	Bolts, 2 B.A.	1	C
28M/10288	Nuts Stiff 2 B.A.	5	C

2. MATERIALS

33H/2202110	Varnish, Pigmented Jointing	As reqd.	C
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6. PARTS REMOVED
Nil

7. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS
Nil

8. SEQUENCE OF OPERATIONS

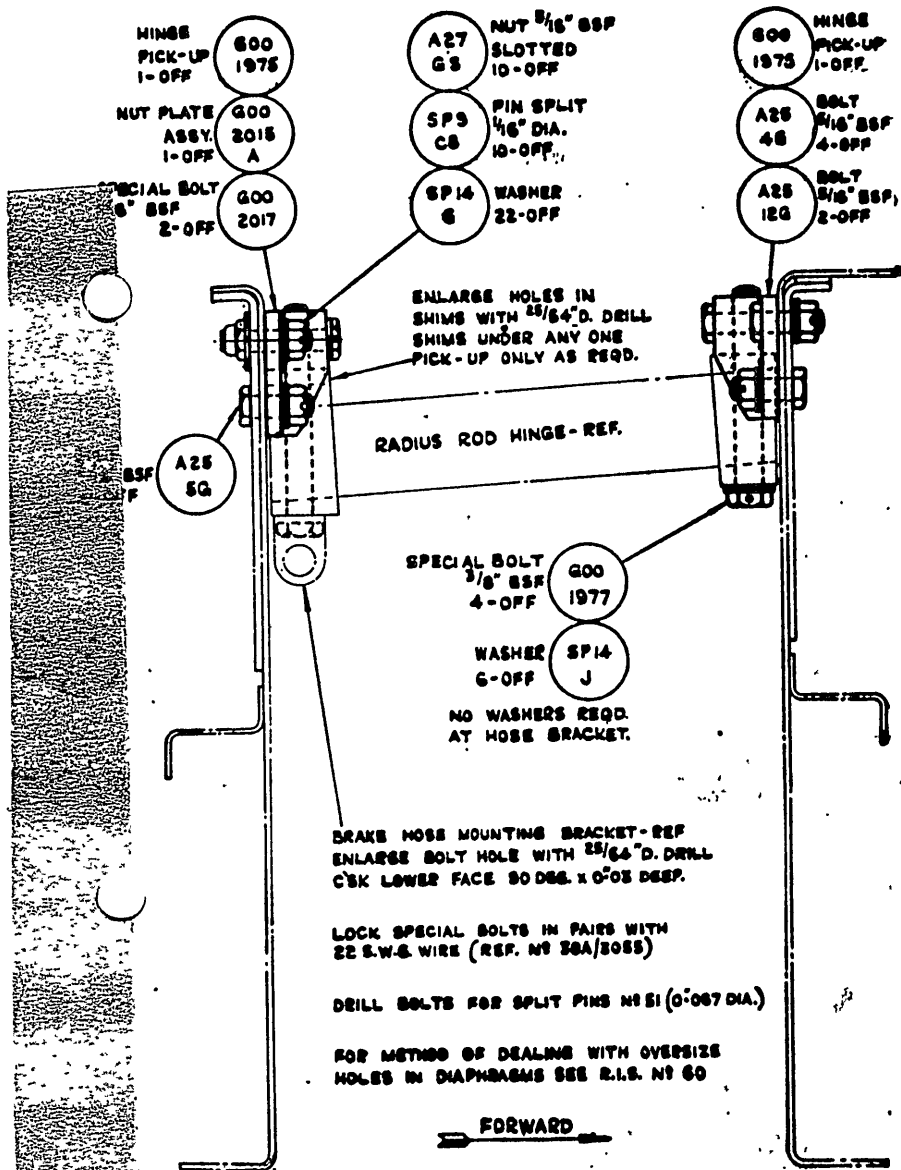
(a) Remove main undercarriage leg, undercarriage operating jack, hydraulic pipe, Varnish, varnished pipe, micro switch, brackets and clips to ensure sufficient working space.

SOURCE: Mod. Folio/RRAY/VAMP/M.49 (AP)

Vol 3-2-B54

Mod VAMP/3495

Refer to Print V 199

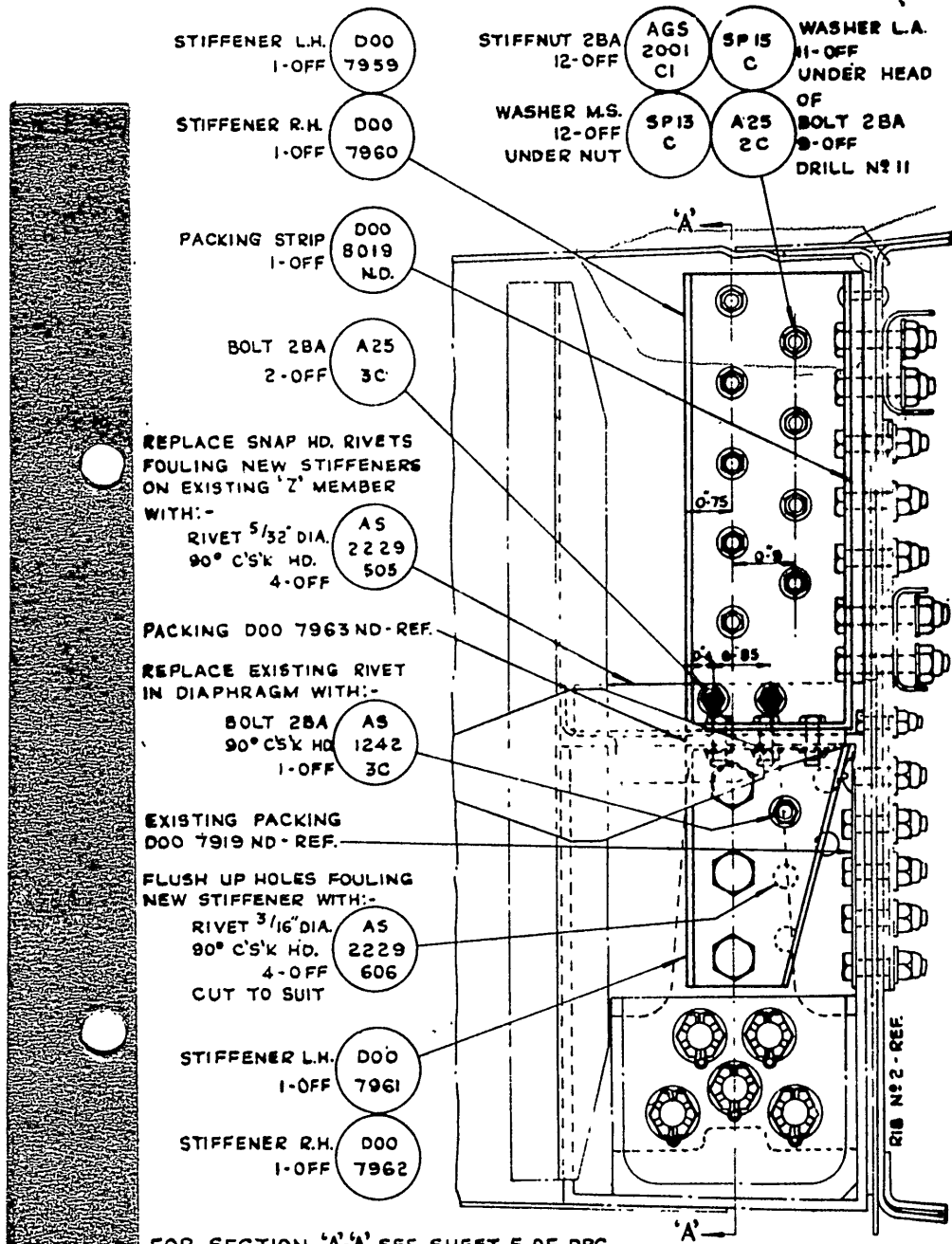


STRENGTHENED ATTACHMENT FITTINGS AT U/C DIAPHRAGMS (PORT DRAWN)

STRICTED

Drg. No. A.P.40991/B.10/57

U 199



REINFORCEMENT OF REAR U/C DIAPHRAGM (PORT DRAWN)

1100/VAMP/34-94

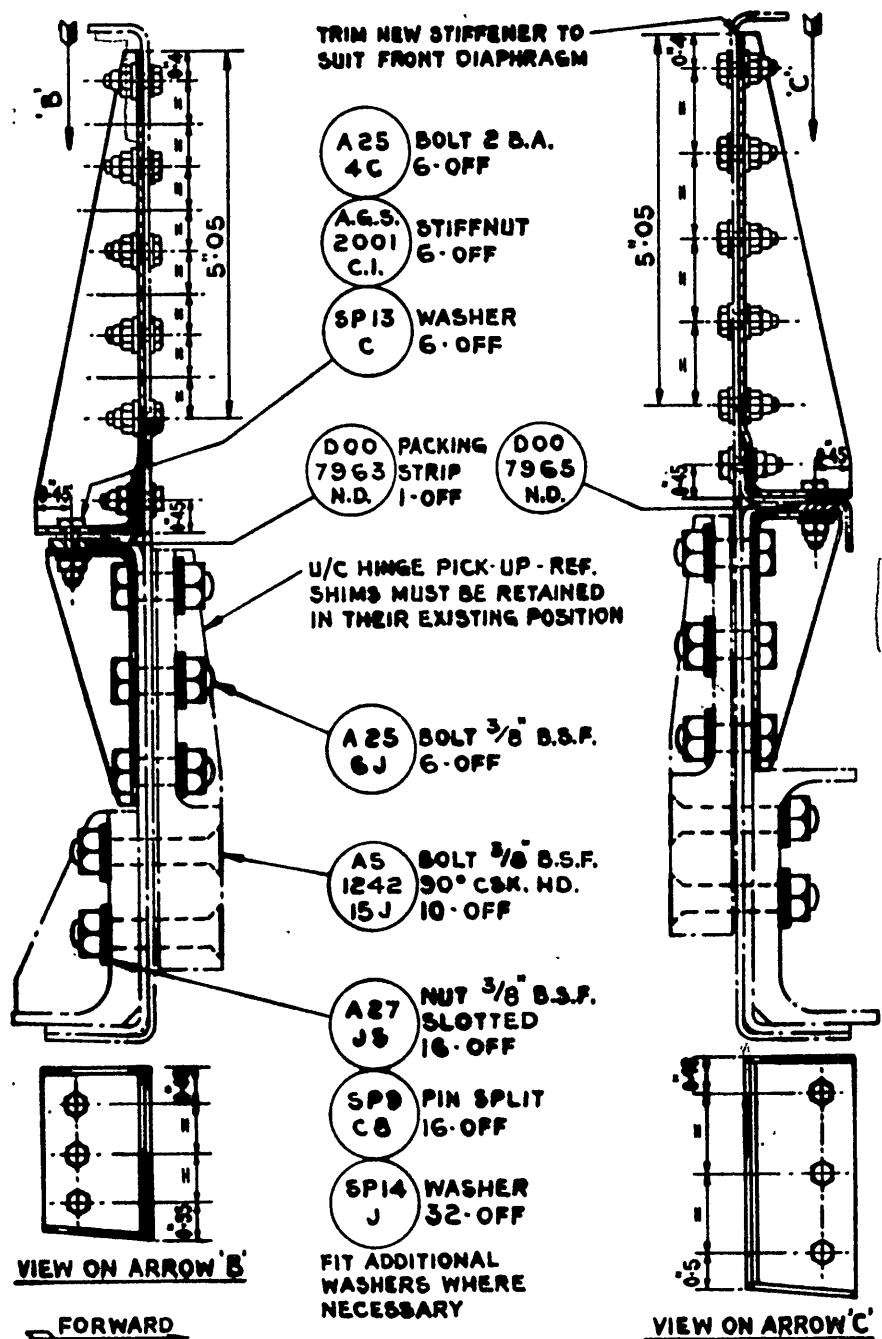
DRG. N# A.R. 4099 J/A. 10/56

SHEET 4

RESTRICTED

LP31459 9/56 1000 C & P Gp. 959 (4)

U199



SECTION 'A-A' THROUGH U/C DIAPHRAGMS (PORT DRAWN) SEE SHEETS 426

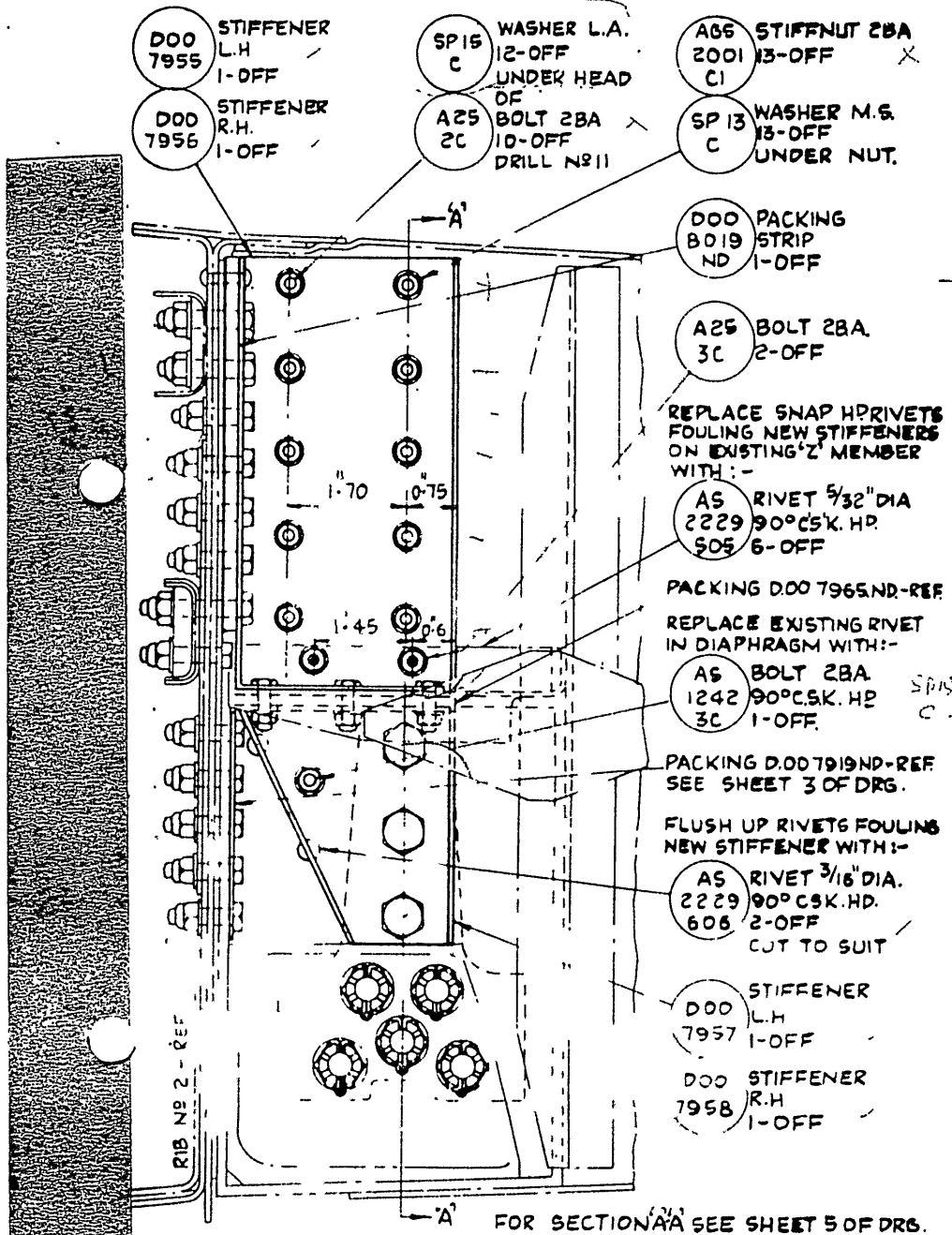
MCD/VAMP/3494

DRG. N2 A.R. 4099 J / A. 10 / 56

SHEET 5

RESTRICTED

LP31459 9/56 1000 C&P Gp. 959 (4).



REINFORCEMENT OF FRONT U/C DIAPHRAGM (PORT DRAWN)

DRG. NO A.P. 4099 J/A. 10/56

SHEET 6

RESTRICTED

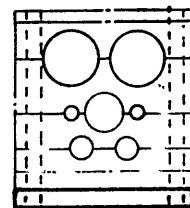
LP: 459 9/56 1000 C & P Gp. 959 (4)

RESTRICTED

LP31459 9/56 1000 C & P Gp. 959 (4)

DRG. NO. A.R. 4092 J/A. 10/56
SHEET 7

MOD/VAMP/3474



CLAMP BLOCK EXISTING
ON PORT WING ONLY.

EXISTING PACKING STRIP

Q00
2620
PACKING
STRIP
1-OFF

VIEW ON ARROW 'D'

EXISTING 'P' CLIPS

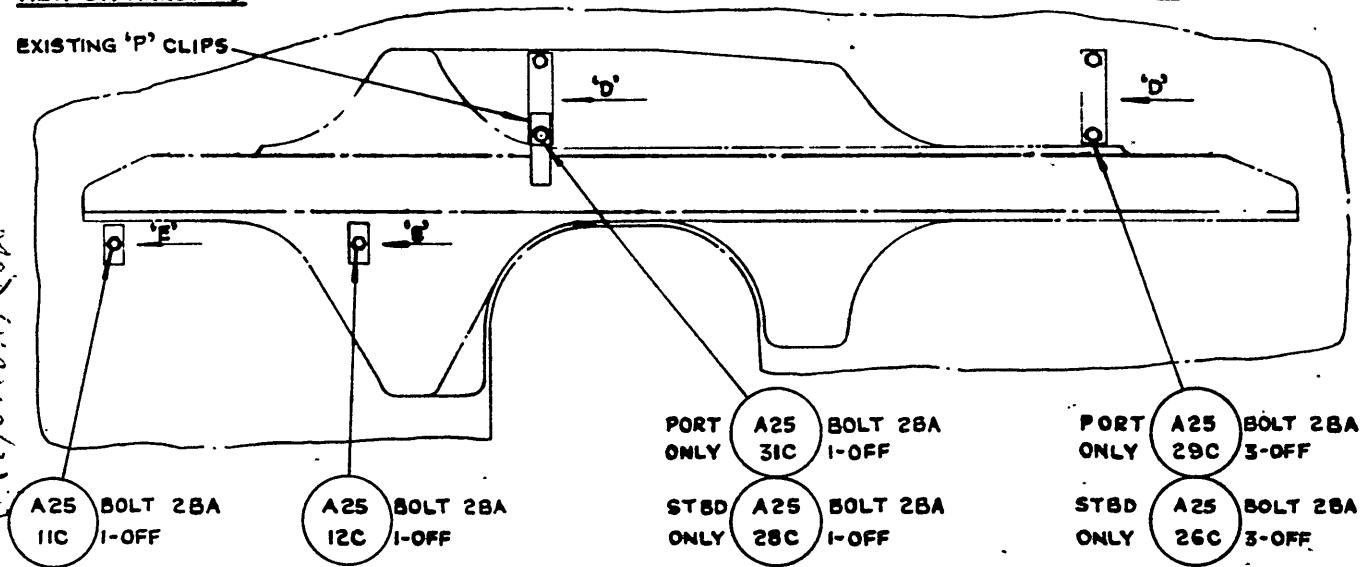


REPLACE EXISTING
PACKING WITH: -
PACKING
STRIP
1-OFF

Q00
3783

VIEW ON ARROW 'E'

FORWARD.

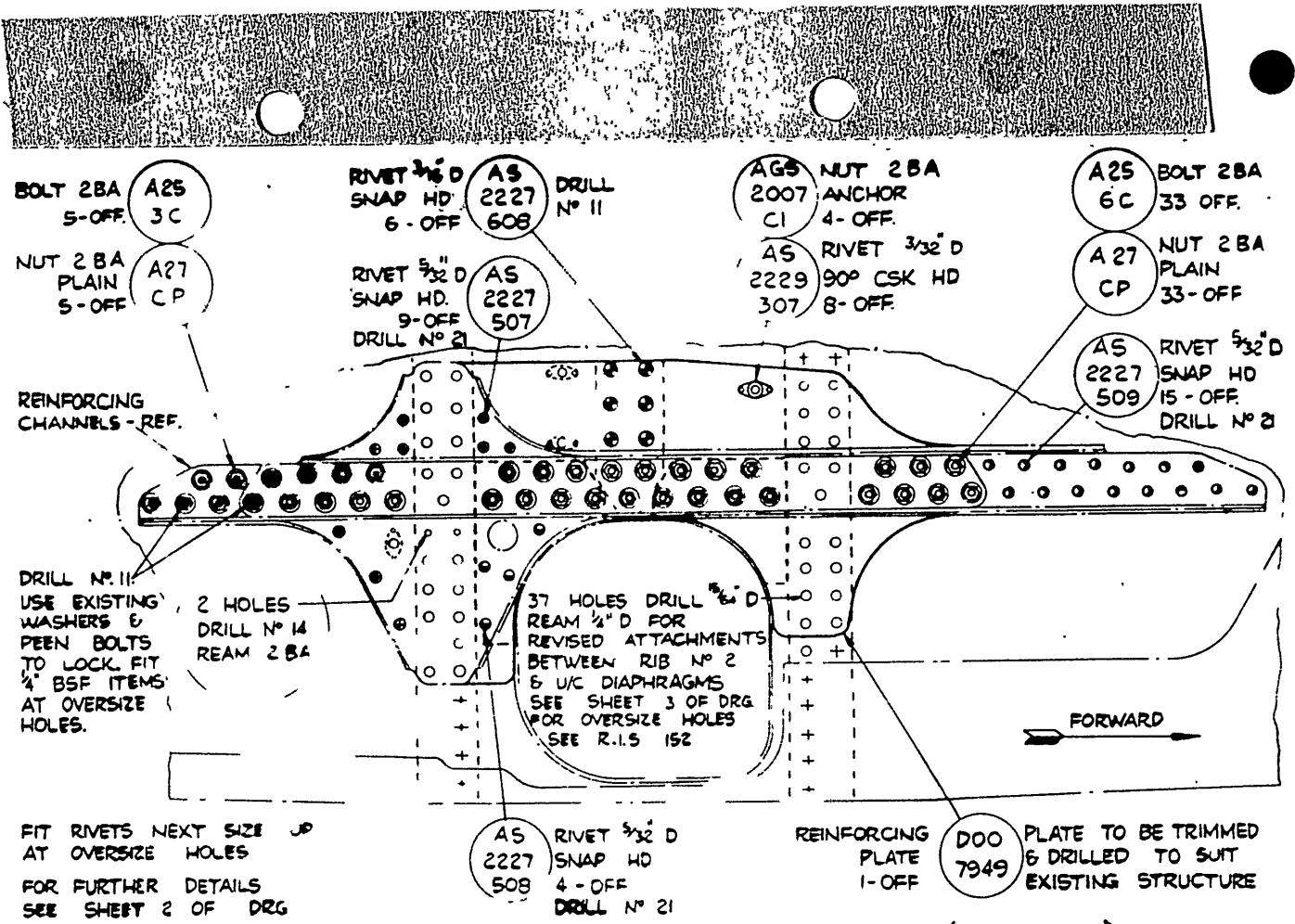


REVISED PACKING UNDER EXISTING CLAMP BLOCKS ON RIB N°2 (PORT DRAWN)

RESTRICTED

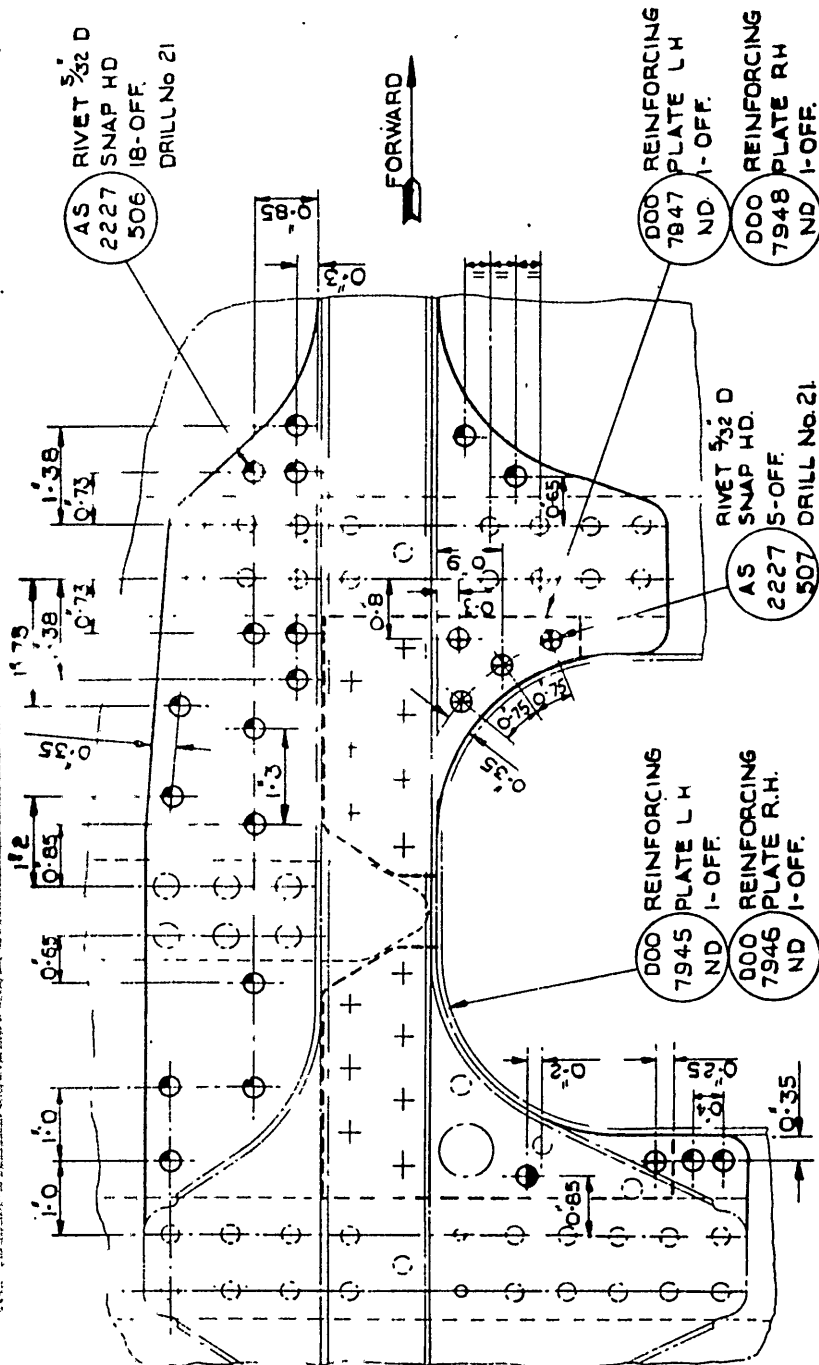
LP31459 9/56 1000 CAP GP. 959 (4)

DRG. NO. A.R. 4099 J/A. 10/56
SHEET 1



ADDITIONAL REINFORCING PLATE ON INBOARD FACE OF RIB NO 2 (PORT DRAWN)

VIC



FURTHER DETAILS OF REINFORCING PLATES ON RIB No.2 (PORT DRAWN STARBOARD OPPOSITE HAND)

DRG. Nº A.P. 4099 J / A. 10 / 56

SHEET 2

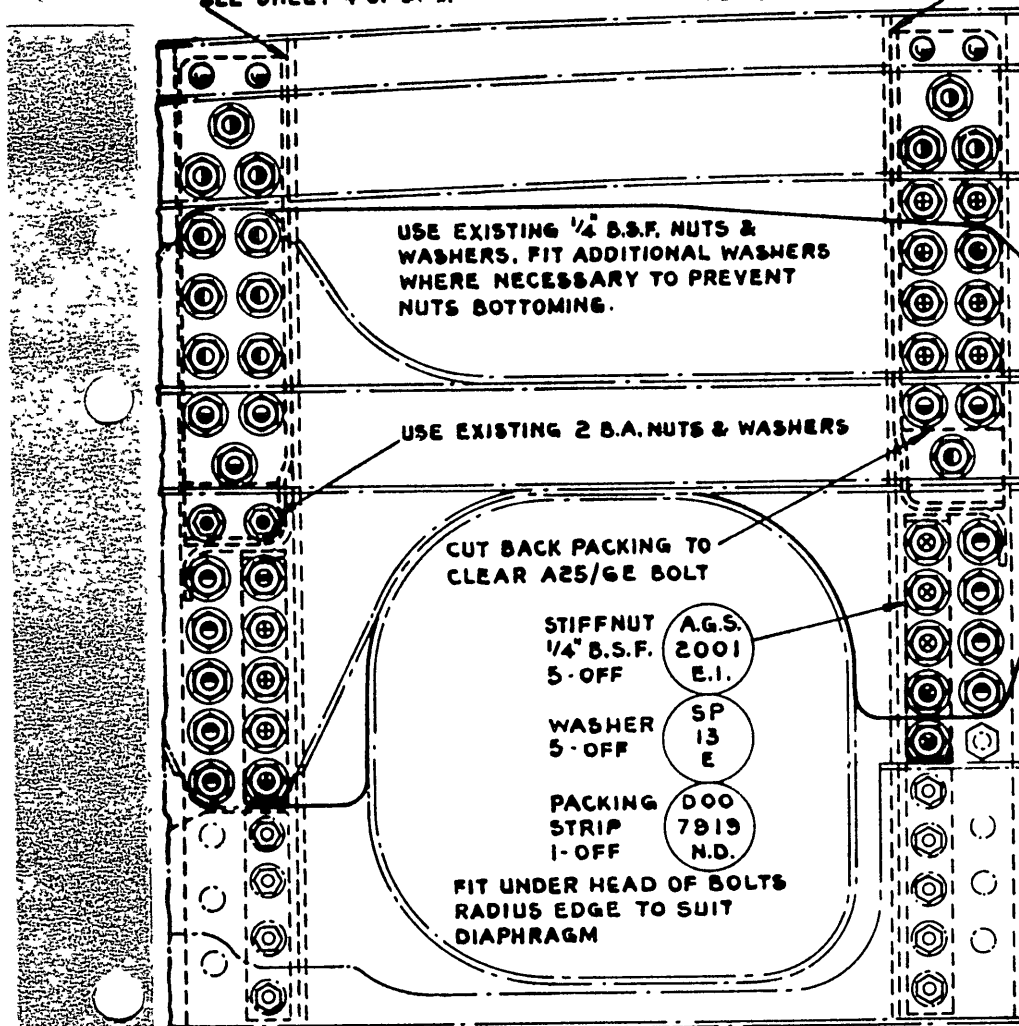
RESTRICTED

LP31459 9/56 1000 C & P Gp. 959 (4)

V 149

REAR U/C DIAPHRAGM
SEE SHEET 4 OF DRG.

FRONT U/C DIAPHRAGM
SEE SHEET 6 OF DRG.



⊙	A5 2227/512	RIVET	4-OFF
⊙	A25 /3C	BOLT	2-OFF
⊙	A25 /3E	BOLT	9-OFF
⊙	A25/4E	BOLT	5-OFF
⊙	A25/5E	BOLT	12-OFF

⊙	A5 1246/5E	BOLT	1-OFF
⊙	A25/6E	BOLT	7-OFF
⊙	A25/7E	BOLT	6-OFF
⊙	A25/9E	BOLT	5-OFF

ATTACHMENTS BETWEEN RIB N°2 & U/C DIAPHRAGMS (PORT DRAWN)

DRG. N° A.R. 4099 J / A 10 / 54

SHEET 3

RESTRICTED

LP31459 9/56 1000 C & P Gp. 959 (4)

Vampire B29/21 Aircraft - Mainplanes - To
Introduce Strengtheners on Rib No.2 and U/C Diaphragm

26FC 1103494.

Mod. No. VAMPIRE/3494)

(Class B/2)

HSC REFER AL. 307.

1. INTRODUCTION

Reports indicate that Rib No.2 may crack and buckle in the vicinity of the undercarriage aperture. This modification introduces additional steel reinforcing plates and stiffeners on both sides of Rib No. 2 and on the back face of the rear undercarriage diaphragm and on the forward face of the front undercarriage diaphragm. Fixing holes through Rib 2 and the diaphragms found oversize during the embodiment of this modification are to be dealt with in accordance with Repair Instruction Sheet No. 152, Issue 2.

- (1) This modification plus Mod. No. Vampire/3495 satisfies the work called for by Mod. No. Vampire/3306 (Main Undercarriage-To Improve Locking of Attachment Bolts to Facilitate Replacement) and supersedes S.T.I./Vam/101. This modification supersedes the work called for by R.I.S. Nos. 1 and 137.
- (2) This modification is essentially connected with Mod. No. Vampire/3495 (Main Undercarriage-To Introduce Strengthened Radius Rod Assembly and Attachment Fittings); if that work is not already embodied it must be effected concurrently.

2. EMBODIMENT

This modification will be embodied by Maintenance Unit at Major Inspection only.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 80 man-hours (15 to strip; 45 to embody; 20 to re-assemble).

4. DRAWINGS REQUIRED

- (1) Drawing No. A.P. 4099J/A.10/56, Sheets 1-7, is incorporated in this leaflet.
- (2) The following drawing is also required and is to be demanded from Drawing Office on loan.

The de Havilland Aircraft Co., Ltd., R.I.S. No. 152, Issue No. 3, Drawing No. R.O.O.D.465-Assembly of reinforcing plates to Rib 2.

5. PARTS AND SPECIAL TOOLS REQUIRED

- (1) Parts and Materials

- (a) The Modification Kit, which consists of the following items supplied by the contractor, will be demanded from O.C. Equipment Depot.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store.
26FC/-	DOO.7919ND	Strip, lower, U/C diaphragm	2	-
26FC/-	DOO.7945ND	packing	1	-
26FC/-	DOO.7945ND	Plate, Rib 2 reinforcing L.H.	1	-
26FC/-	DOO.7946ND	Plate, Rib 2 reinforcing R.H.	1	-

Stores Ref.	Part No.	Description	Qty	Class of Store.
26FC/-	D00.7949	Plate, reinforcing	2	-
26FC/-	D00.7955	Stiffener, front U/C	1	-
26FC/-	D00.7956	diaphragm, front U/C	1	-
26FC/-	D00.7957	Stiffener, front U/C	1	-
26FC/-	D00.7958	Diaphragm, front U/C	1	-
26FC/-	D00.7959	Stiffener, upper	1	-
26FC/-	D00.7960	diaphragm, L.H.	1	-
26FC/-	D00.7961	Stiffener, upper	1	-
26FC/-	D00.7962	diaphragm, R.H.	1	-
26FC/-	D00.7963ND	Stiffener, lower, rear U/C	1	-
26FC/-	D00.7965ND	diaphragm, L.H.	1	-
26FC/-	D00.8019ND	Stiffener, lower, rear U/C	1	-
26FC/-	Q00.2620	diaphragm, R.H.	1	-
26FC/-	Q00.3783	Strip, rear U/C diaphragm packing	2	-
28D/12513	A.25/2C	Strip, front U/C diaphragm packing	2	-
28D/12531	A.25/3C	Strip, upper, U/C diaphragm packing	4	-
28D/12532	A.25/4C	Strip, clamp block packing	4	-
28D/12566	A.25/6C	Strip, clamp block packing	4	-
28D/12516	A.25/11C	Bolt, hex./hd. 2 B.A. x 0.65 in.	38	-
28D/12535	A.25/12C	Bolt, hex./hd., 2 B.A. x 0.75 in.	22	-
28D/13105	A.25/26C	Bolt, hex./hd. 2 B.A. x 0.85 in.	12	-
28D/12934	A.25/28C	Bolt, hex./hd. 2 B.A. x 1.05 in.	66	-
28D/12714	A.25/29C	Bolt, hex./hd. 2 B.A. x 1.55 in.	2	-
28D/12715	A.25/31C	Bolt, hex./hd., 2 B.A. x 1.65 in.	2	-
28D/12519	A.25/3E	Bolt, hex./hd. 2 B.A. x 3.05 in.	3	-
28D/12520	A.25/4E	Bolt, hex./hd. 2 B.A. x 3.25 in.	1	-
28D/12542	A.25/5E	Bolt, hex./hd. 2 B.A. x 3.35 in.	3	-
28D/12543	A.25/6E	Bolt, hex./hd. 2 B.A. x 3.55 in.	1	-
28D/12633	A.25/7E	Bolt, hex./hd. $\frac{1}{4}$ in. B.S.F. x 0.8 in.	18	-
28D/12674	A.25/9E	Bolt, hex./hd. $\frac{1}{4}$ in. B.S.F. x 0.9 in.	10	-
28D/12553	A.25/6J	Bolt, hex./hd. $\frac{1}{4}$ in. B.S.F. x 1.0 in.	2	-
28M/2929	A.27/CP	Bolt, hex./hd. $\frac{1}{4}$ in. B.S.F. x 1.1 in.	14	-
28M/13123	A.27/JS	Bolt, hex./hd. $\frac{1}{4}$ in. B.S.F. x 1.2 in.	10	-
28M/10288	AGS.2001/C1	Bolt, hex./hd. $\frac{1}{4}$ in. B.S.F. x 1.4 in.	12	-
28M/10290	AGS.2001/E1	Bolt, hex./hd. $\frac{3}{8}$ in. B.S.F. x 1.25 in.	12	-
28M/11957	AGS.2007/C1	Nut, plain, 2 B.A.	76	-
28D/8308	AS.1242/3C	Nut, slo ted, $\frac{3}{8}$ in. B.S.F.	32	-
28D/10904	AS.1242/15J	Nut, stiff, 2 B.A.	62	-
28D/12183	AS.1246/5E	Nut, stiff, $\frac{1}{4}$ in. B.S.F.	10	-
28Q/6672	AS.2227/506	Nut, stiff, double anchor, 2 B.A.	8	-
28Q/10406	AS.2227/507	Bolt, 90 deg. csk./hd., 2 B.A. x 0.7 in.	4	-
28Q/6673	AS.2227/508	Bolt, 90 deg. csk./hd., $\frac{3}{8}$ in. B.S.F. x 2.1 in.	20	-
28Q/11258	AS.2227/509	Bolt, rd./hd., $\frac{1}{4}$ in. B.S.F. x 0.95 in.	2	-
AAP 721 79 V2 P2 B2 Vampire Mods 101-200 OCR	AS.2227/512	Rivet, sp/hd. 5/32 in. dia. x $\frac{3}{8}$ in.	36	-
28Q/6830	AS.2227/512	Rivet, sp/hd. 5/32 in. dia. x $\frac{7}{16}$ in.	28	-
		Rivet, sp/hd. 5/32 in. dia. x $\frac{1}{2}$ in.	8	-
		Rivet, sp/hd. 5/32 in. dia. x $\frac{9}{16}$ in.	30	-
		Rivet, sp/hd. 5/32 in. dia. x $\frac{1}{2}$ in.	8	-

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store.
28Q/11162	AS.2229/505	Rivet, 90 deg. csk./hd., 5/32 in. dia. x 5/16 in.	20	C
28Q/10411	AS.2229/606	Rivet, 90 deg. csk./hd., 3/16 in. dia. x $\frac{3}{8}$ in.	12	C
28P/12462	SP.9/C8	Pin, split, 1/16 in. dia x 1 in.	32	C
28W/12252	SP.13/C	Washer, M.S., 2 B.A.	62	C
28W/12253	SP.13/E	Washer, M.S., $\frac{1}{4}$ in. B.S.F.	10	C
28W/12500	SP.14/J	Washer, S.S. $\frac{3}{8}$ in. B.S.F.	64	C
28W/12296	SP.15/C	Washer, L.A., 2 B.A.	46	C

(b) The following materials are also required, and are to be provided under Unit arrangements :

30A/3055	-	Wire, nickel alloy, 22 s.w.g.	As Reqd.	C
30B/1730	-	Alum. alloy sheet, B.S.L.72 18 s.w.g. 0.6x 3.5 in.	As reqd.	C
33B/9429196	-	Primer, etch, base	As reqd.	C
33B/9429195	-	Primer, etch, accelerator	As reqd.	C
33B/865	-	Finish, cellulose, aluminum D.T.D.772	As reqd.	C
33C/1264	-	Compound, pigmented varnish jointing.	As reqd.	C

(2) Special Tools and Test Equipment

There are no special tools or test equipment required for the embodiment of this modification.

6. SPARES AFFECTED

The following list shows the spares affected by this modification, and the parts required to modify them:

26FC/3880	D00.5159A	Diaphragm, u/c, front port	-	-
26FC/3881	D00.5160A	Diaphragm, u/c, front, stbd.	-	-

The method for modifying either of the above spares is detailed in para 8, operation (23), and on sheet 6 of the drawing.

Parts required for each spare :-

28Q/11162	AS.2229/505	Rivet, 90 deg. csk./hd., 5/32 in. dia. x 5/16 in.	6	C
28Q/10411	AS.2229/606	Rivet, 90 deg. csk./hd. 3/16 in. dia. x $\frac{3}{8}$ in.	2	C

Spare affected :

26C/3878	D00.5161A	Diaphragm, u/c, rear, port	-	-
26C/3879	D00.5162A	Diaphragm, u/c, rear, stbd.	-	-

The method for modifying either of the above spares is detailed in para operations (13) and (14), and on sheet 4 of the drawing.

Parts required for each spare :

28Q/11162	AS.2229/505	Rivet, 90 deg. csk./hd., 5/32 in. dia. x 5/16 in.	4	C
28Q/10411	AS.2229/606	Rivet, 90 deg. csk./hd. 3/16 in. dia. x $\frac{3}{8}$ in.	4	C

Spare affected :

26FC/4605	D00.5197A/2	Rib No. 2, port	-	-
26FC/5738	D00.7673A/ND	Rib No. 2 and joint fittings, port	-	-

The method for modifying either of the above spares is detailed in para 8, operations (12) and (13), and on sheets 1 and 2 of the drawing.

Parts required for each spare :

Attaching parts for D00.7945ND, D00.7947ND and D00.7949 plates. Class of

Stores Ref.	Part No.	Nomenclature	Qty	Class of store.
28D/12531	A.25/3C	Bolt, hex/hd., 2 B.A. x 0.75 in.	5	C
28D/12566	A.25/6C	Bolt, hex/hd., 2 B.A. x 1.05 in.	33	C
28M/12929	A.27/CP	Nut, plain, 2 B.A.	38	C
28Q/6672	AS.2227/506	Rivet, sp/hd. 5/32 in. dia. x $\frac{3}{8}$ in.	18	C
28Q/10406	AS.2227/507	Rivet, sp/hd. 5/32 in. dia. x 7/16 in.	14	C
28Q/6673	AS.2227/508	Rivet, sp/hd. 5/32 in. dia. x $\frac{1}{2}$ in.	4	C
28Q/12358	AS.2227/509	Rivet, sp/hd. 5/32 in. dia. x 9/16 in.	15	C
28Q/6827	AS.2227/608	Rivet, sp/hd. 3/16 in. dia. x $\frac{1}{2}$ in.	6	C
28M/11957	AGS.2007/C1	Nut, stiff, double anchor, 2 B.A.	4	C

Attaching parts for AGS.2007/C1 nuts.

28Q/10905	AS.2229/307	Rivet, 90 deg. csk/hd. 3/32 in. dia. x 7/16 in.	8	C
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Spare affected :

26FC/4606	D00.5198A/2	Rib No. 2, stbd.
26FC/5739	D00.7674A/ND	Rib No. 2 and joint fittings. stbd.

The method for modifying either of the above spares is detailed in para 8, operations (4) to (12), and on sheets 1 and 2 of the drawing.

Parts required for each spare :

26FC/-	D00.7946ND	Plate, rib 2 reinforcing R.H.	1
26FC/-	D00.7984ND	Plate, rib 2 reinforcing, R.H.	1
26FC/-	D00.7949	Plate, rib 2 reinforcing	1

Attaching parts for D00.7946ND, D00.7948ND and D00.7949 plates.

28D/12531	A.25/3C	Bolt, hex/hd., 2 B.A. x 0.75 in.	5	C
28D/12566	A.25/6C	Bolt, hex/hd. 2 B.A. x 1.05 in.	33	C
28M/12929	A.27/GP	Nut, plain, 2 B.A.	38	C
28Q/6672	AS.2227/506	Rivet, sp/hd. 5/32 in. dia. x $\frac{3}{8}$ in.	18	C
28Q/10406	AS.2227/507	Rivet, sp/hd. 5/32 in. dia. x 7/16 in.	14	C
28Q/6673	AS.2227/508	Rivet, sp/hd. 5/32 in. dia. x $\frac{1}{2}$ in.	4	C
28Q/12358	AS.2227/509	Rivet, sp/hd. 5/32 in. dia. x 9/16 in.	15	C
28Q/6827	AS.2227/608	Rivet, sp/hd. 3/16 in. dia. x $\frac{1}{2}$ in.	6	C

and
28M/11957 AGS.2007/C1 Nut, stiff, double anchor, 2 B.A. 4

Attaching parts for AGS.2007/C1 nuts.

28Q/10905	AS.2229/307	Rivet, 90 deg. csk/hd. 3/32 in. dia. x 7/16 in.	8	C
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Spare affected :

26FC/-	15.W.193A/4	Wing complete, port.
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The method for modifying the above spare is detailed in para, 8, operations (i) to (30) and on sheets 1 to 7 of the drawing.

Parts required :

26FC/-	D00.7919ND	Strip, lower, U/C diaphragm packing	1	-
26FC/-	D00.7945ND	Plate, rib 2, reinforcing, L.H.	1	-
26FC/-	D00.7947ND	Plate, rib 2, reinforcing L.H.	1	-

28D/12542	A.25/5E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.0 in.	4	C
28D/12543	A.25/6E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.1 in.	1	C
28M/12929	A.27/CP	Nut, plain, 2 B.A.	38	C
28M/10290	AGS.2001/E1	Nut, stiff, $\frac{1}{4}$ in B.S.F.	5	C
28D/12183	AS.1246/5E	Bolt, rd/hd. $\frac{1}{4}$ in B.S.F. x 0.95 in.	1	C
28Q/6672	AS.2227/506	Rivet, sp/hd. 5/32 in. dia. x $\frac{3}{8}$ in.	18	C
28Q/10406	AS.2227/507	Rivet, sp/hd. 5/32 in. dia. x 7/16 in.	14	C
28Q/6673	AS.2227/508	Rivet, sp/hd. 5/32 in. dia. x $\frac{1}{2}$ in.	4	C
28Q/12358	AS.2227/509	Rivet, sp/hd. 5/32 in. dia. x 9/16 in.	15	C
28Q/6827	AS.2227/608	Rivet, sp/hd. 3/16 in. dia. x $\frac{1}{2}$ in.	6	C
28W/12253 and	SP.13/E	Washer, M.S. $\frac{1}{4}$ in. B.S.F.	5	C
28M/11957	AGS.2007/C1	Nut, stiff, double anchor 2 B.A.	4	C
Attaching parts for AGS.2007/C1 nuts.				
28Q/10905 and	AS.2229/307	Rivet, 90 deg. csk/hd. 3/32 in. dia. x 7/16 in.	8	C
28Q/11162	AS.2229/505	Rivet, 90 deg. csk/hd. 5/32 in. dia. x 5/16 in.	10	C
28Q/10411 and	AS.2229/606	Rivet, 90 deg. csk/hd. 3/16 in. dia. x $\frac{3}{8}$ in.	6	C
26FC/-	DOO.8019ND	Strip, upper, U/C diaphragm packing	1	-
26FC/-	DOO.7955	Stiffener, upper, front U/C diaphragm L.H.	1	-
Attaching parts for DOO.7955 stiffener				
28D/12513	A.25/2C	Bolt, hex/hd. 2 B.A. x 0.65 in.	10	C
28D/12531	A.25/3C	Bolt, hex/hd. 2 B.A. x 0.75 in.	2	C
28D/12542	A.25/5E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.0 in.	8	C
28D/12633	A.25/7E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.2 in.	3	C
28D/12674	A.25/9E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.4 in.	2	C
28D/10288 and	AGS.2001/C1	Nut, stiff, 2 B.A.	12	C
28D/6830	AS.2227/512	Rivet, sp/hd. 5/32 in. dia x $\frac{3}{4}$ in.	2	C
28W/12252	SP.13/C	Washer, M.S., 2 B.A.	12	C
28W/12296 and	SP.15/C	Washer, L.A., 2 B.A.	12	C
26FC/-	DOO.7965ND	Strip, front U/C diaphragm packing	1	-
26FC/-	DOO.7957	Stiffener, lower, front U/C diaphragm L.H.	1	-
Attaching parts for DOO.7957 stifener				
28D/12532	A.25/4C	Bolt, hex/hd., 2 B.A. x 0.85 in.	3	C
28D/12553	A.25/6J	Boltm hex/hd., $\frac{3}{8}$ in. B.S.F. x 1.25 in.	3	C
28M/13123	A.27/JS	Nut, slotted, $\frac{3}{8}$ in. B.S.F.	3	C
28M/10288	AGS.2001/C1	Nut, stiff, 2 B.A.	4	C
28D/8308	AS.1242/3C	Bolt, 90 deg. csk/hd., 2 B.A. x 0.7 in.	1	C
28F/12462	SP.9/C8			

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store.
28W/12252	SP.13/C	Washer, M.S., 2 B.A.	4	C
28W/12500	SP.14/J	Washer, S.S. $\frac{3}{8}$ in. B.S.F.	6	C
and				
26FC/-	D00.809ND	Strip, upper, U/C diaphragm packing	1	-
26FC/-	D00.7959	Stiffener, upper, rear U/C diaphragm L.H.	1	-
Attaching parts for D00.7959 stiffener				
28D/12513	A.25/2C	Bolt, hex/hd., 2 B.A. x 0.65 in.	9	C
28D/12531	A.25/3C	Bolt, hex/hd., 2 B.A. x 0.75 in.	2	C
28D/12543	A.25/6E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.1 in.	6	C
28D/12633	A.25/7E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.2 in.	3	C
28D/12674	A.25/9E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.4 in.	3	C
28M/10288	AGS.2001/C1	Nut, stiff, 2 B.A.	11	C
28Q/6830	AS.2227/512	Rivet, sp/hd. 5/32 in. dia. x $\frac{5}{8}$ in.	2	C
28W/12252	SP.13/C	Washer, M.S. 2 B.A.	11	C
28W/12296	SP.15/C	Washer, L.A., 2 B.A.	11	C
and				
26FC/-	D00.7963ND	Strip, rear U/C diaphragm packing	1	-
26FC/-	D00.7961	Stiffener, lower, rear U/C diaphragm L.H.	1	-
Attaching parts for D00.7961 stiffener				
28D/12532	A.25/4C	Bolt, hex/hd., 2 B.A. x 0.85 in.	3	C
28D/12553	A.25/6J	Bolt, hex/hd. $\frac{5}{8}$ in. B.S.F. x 1.25 in.	3	C
28M/13123	A.27/JS	Nut, slotted, $\frac{3}{8}$ in. B.S.F.	3	C
28M/10288	AGS.2001/C1	Nut, stiff, 2 B.A.	4	C
28D/8308	AS.1242/3C	Bolt, 90 deg. csk/hd., 2 B.A. x 0.7 in.	1	C
28P/12462	SP.9/C8	Pin, split, 1/16 in. dia. x 1 in.	3	C
28W/12252	SP.13/C	Washer, M.S., 2 B.A.	4	C
28W/12500	SP.14/J	Washer, S.S. $\frac{5}{8}$ in. B.S.F.	6	C
and				
26FC/-	Q00.2620	Strip, clamp block packing	2	-
Attaching parts for Q00.2620 strip				
28D/12714	A.25/29C	Bolt, hex/hd., 2 B.A. x 3.35 in.	3	C
28D/12715	A.25/31C	Bolt, hex/hd., 2 B.A. x 3.55 in.	1	C
and				
26FC/-	Q00.3783	Strip, clamp block packing	2	-
Attaching parts for Q00.3783 strip				
28D/12516	A.25/11C	Bolt, hex/hd., 2 B.A. x 1.55 in.	1	C
28D/12535	A.25/12C	Bolt, hex/hd., 2 B.A. x 1.65 in.	1	C
and				
28M/13123	A.27/JS	Nut, slotted, $\frac{3}{8}$ in. B.S.F.	10	C
28D/10904	AS.1242/15J	Bolt, 90 deg. csk/hd., $\frac{3}{8}$ in. B.S.S. x 2.1 in.	10	C
28P/12462	SP.9/C8	Pin, split, 1/16 in. dia. x 1 in.	10	C
28W/12500	SP.14/J	Washer, S.S. $\frac{3}{8}$ in. B.S.F.	20	C
Spare affected :				
26FC/-	15.W.195A/4	Wing complete, stbd.		

The method for modifying the above spare is detailed in para 8, operations (1) to (30) and on Sheets 1 to 7 of the drawing.

Parts required :

26FC/-	D00.791ND	Strip, lower, U/C diaphragm packing	1	Page 512-
26FC/-	D00.791ND	Plate rib 2 reinforcing R.H.	1	-

Stores Ref.	Part No.	Nomenclature	qty	Class of Store
28D/12531	A.25/3C	Bolt, hex/hd., 2 B.A. x 0.75 in.	7	C
28D/12566	A.25/6C	Bolt, hex/hd., 2 B.A. x 1.05 in.	33	C
28D/12519	A.25/3E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 0.8 in.	9	C
28D/12520	A.25/4E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 0.9 in.	5	C
28D/12542	A.25/5E	Bolt, Hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.0 in.	4	C
28D/12543	A.25/6E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.1 in.	1	C
28M/12929	A.27/CP	Nut, plain, 2 B.A.	38	C
28M/10290	AGS.2001/E1	Nut, stiff, $\frac{1}{4}$ in. B.S.F.	5	C
28D/12183	AS.1246/5E	Bolt, rd/hd. $\frac{1}{4}$ in. B.S.F. x 0.95 in.	1	C
28Q/6672	AS.2227/506	Rivet, sp/hd, 5/32 in. dia. x $\frac{3}{8}$ in.	18	C
28Q/10406	AS.2227/507	Rivet, sp/hd, 5/32 in. dia. x $\frac{7}{16}$ in.	14	C
28Q/6673	AS.2227/508	Rivet, sp/hd. 5/32. in. dia. x $\frac{1}{2}$ in.	4	C
28Q/12358	AS.2227/509	Rivet, sp/hd. 5/32. in. dia. x $\frac{9}{16}$ in.	15	C
28Q/6827	AS.2227/608	Rivet, sp/hd. 3/16 in. dia. x $\frac{1}{2}$ in.	6	C
28W/12253	SP.13/E	Washer, M.S. $\frac{1}{4}$ in. B.S.F.	5	C
28M/11957	AGS.2007/C1	Nut, stiff, double anchor, 2 B.A.	4	C
Attaching parts for AGS.2007/C1 nuts				
28Q/10905	AS.2229/307	Rivet, 90 deg. csk/hd. 3/32 in. dia. x $\frac{7}{16}$ in.	8	C
28Q/11162	AS.2229/505	Rivet, 90 deg. csk/hd., 5/32. in. dia. x $\frac{5}{16}$ in.	10	C
28Q/10411	AS.2229/606	Rivet, 90 deg. csk/hd. 3/16 in. dia x $\frac{3}{8}$ in.	6	C
26FC/-	D00.8019ND	Strip, upper, U/C diaphragm packing	1	-
26FC/-	D00.7956	Stiffener, upper, front U/C diaphragm R.H.	1	-
Attaching parts for D00.7956 stiffener				
28D/12513	A.25/2C	Bolt, hex/hd. 2 B.A. x 0.65 in.	10	C
28D/12531	A.25/3C	Bolt, hex/hd. 2 B.A. x 0.75 in.	2	C
28D/12542	A.25/5E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.2 in.	3	C
28D/12674	A.25/9E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.4 in.	2	C
28M/10288	AGS.2001/C1	Nut, stiff, 2 B.A.	12	C
28D/6830	AS.2227/512	Rivet, sp/hd. 5/32. in. dia. x $\frac{3}{4}$ in.	2	C
28W/12252	SP.13/C	Washer, M.S., 2 B.A.	12	C
28W/12296	SP.15/C	Washer, L.A., 2 B.A.	12	C
26FC/-	D00.7965ND	Strip, front U/C diaphragm packing	1	-
26FC/-	D00.7958	Stiffener, lower, front U/C diaphragm, R.H.	1	-
Attaching parts for D00.7958 stiffener				
28D/12532	A.25/4C	Bolt, hex/hd. 2 B.A. x 0.85 in.	3	C
28D/12553	A.25/6J	Bolt, hex/hd. $\frac{3}{8}$ in. B.S.F. x 1.25 in.	3	C
28M/13123	A.27/JS	Nut, slotted. $\frac{3}{8}$ in. B.S.F.	3	C

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Stores Ref.	Part No.	Nomenclature	Qty.	Store.
28W/12500	SP.14/J	Washer, S.S. $\frac{3}{8}$ in. B.S.F.	6	C
and				
26FC/-	D00.8019ND	Strip, upper, U/C diaphragm packing	1	-
26FC/-	D00.7960	Stiffener, upper, rear U/C diaphragm, R.H.	1	-

Attaching parts for D00.7960 stiffener

28D/12513	A.25/2C	Bolt, hex/hd. 2 B.A. x 0.65 in.	9	C
28D/12531	A.25/3C	Bolt, hex/hd. 2 B.A. x 0.75 in.	2	C
28D/12543	A.25/6E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.1 in.	6	C
28D/12633	A.25/7E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.2 in.	3	C
28D/12674	A.25/9E	Bolt, hex/hd. $\frac{1}{4}$ in. B.S.F. x 1.4 in.	3	C
28M/10288	AGS.2001/C1	Nut, stiff, 2 B.A.	11	C
28Q/6830	AS.2227/512	Rivet, sp/hd. 5/32 in. dia. x $\frac{3}{4}$ in.	2	C
28W/12252	SP.13/C	Washer, M.S., 2 B.A.	11	C
28W/12296	SP.15/C	Washer, L.A., 2 B.A.	11	C
and				
26FC/-	D00.7963ND	Strip, rear U/C diaphragm packing	1	-
26FC/-	D00.7962	Stiffener, lower, rear U/C diaphragm R.H.	1	-

Attaching parts for D00.7962 stiffener

28D/12532	A.25/4C	Bolt, hex/hd., 2 B.A. x 0.85 in.	3	C
28D/12553	A.25/6J	Bolt, hex/hd. $\frac{3}{8}$ in. B.S.F. x 1.25 in.	3	C
28M/13123	A.27/JS	Nut, slotted, $\frac{3}{8}$ in. B.S.F.	3	C
28M/10288	AGS.2001/C1	Nut, stiff, 2 B.A.	4	C
28D/8308	AS.1242/3C	Bolt, 90 deg. csk/hd., 2 B.A. x 0.7 in.	1	C
28P/12462	SP.9/C8	Pin, split, 1/16 in. dia. x 1 in.	3	C
28W/12252	SP.13/C	Washer, M.S., 2 B.A.	4	C
28W/12500	SP.14/J	Washer, S.S. $\frac{3}{8}$ in. B.S.F.	6	C
and				
26FC/-	Q00.2620	Strip, clamp block packing	2	-

Attaching parts for Q00.2620 strip

28D/13105	A.25/26C	Bolt, hex/hd. 2 B.A. x 3.05 in.	3	C
28D/12934	A.25/28C	Bolt, hex/hd. 2 B.A. x 3.25 in.	1	C
and				
26FC/-	Q00.3783	Strip, clamp block	2	-

Attaching parts for Q00.3783 strip

28D/12516	A.25/11C	Bolt, hex/hd. 2 B.A. x 1.55 in.	1	C
28D/12535	A.25/12C	Bolt, hex/hd., 2 B.A. x 1.65 in.	1	C
28M/13123	A.27/JS	Nut, slotted, $\frac{3}{8}$ in. B.S.F.	10	C
28D/10904	AS.1242/15J	Bolt, 90 deg. csk/hd. $\frac{3}{8}$ in. B.S.F. x 2.1 in.	10	C
28P/12462	SP.9/C8	Pin, split 1/16 in. dia. x 1 in.	10	C
28W/12500	SP.14/J	Washer, S.S. $\frac{3}{8}$ in. B.S.F.	20	C

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Stores Ref., Part and Assembly Nos. as follows :

Stores Ref.	Old Part/Assy No.	Nomenclature	New Part/Assy No.	Stores Ref.
26FC/3880	D00.5159A	Diaphragm, U/C, front, port	D00.5159A/1	26FC/11909
26FC/3881	D00.5160A	Diaphragm, U/C, front, port	D00.5160A/1	26FC/11910
26FC/3878	D00.5161A	Diaphragm, U/C, rear, port	D00.5161A/1	26FC/11907

Stores Ref.	Old Pt/Assy. No.	Nomenclature	New Pt. Assy. No.	Stores Ref.
26FC/4606	D00.5198A/2	Rib No. 2, stbd.	D00.5198A/3	26FC/11904
26FC/5738	D00.7673A/ND	Rib No. 2 and joint fittings, port	D00.8013A/ND	26FC/11905
26FC/5739	D00.7674A/ND	Rib No. 2 and joint fittings, stbd.	D00.8014A/ND	26FC/11906
26FC/-	15.W.189A/5	G.A. of wing, port	15.W.189A/6	26FC/-
26FC/-	15.W.191A/5	G.A. of wing, stbd.	15.W.191A/6	26FC/-
26FC/-	15.W.193A/4	Wing complete (spares) port	15.W.193A/5	26FC/-
26FC/-	15.W.195A/4	Wing complete (spares) stbd.	15.W.195A/5	26FC/-

SEQUENCE OF OPERATIONS

The following is the sequence of operations :-

NOTE : The following operations (1) to (30) apply to both port and starboard mainplanes.

(Refer to sheets 1 to 7 of the drawing)

- (1) Remove the main undercarriage as detailed in A.P.4099J, Vol 1, Sect. 3, Chap. 5, and the No. 1 wing fuel tank as detailed in A.P.4099J, Vol. 1, Sect. 4, Chap. 2. Remove and retain the No. 1 fuel tank strap structure and its attachment bolts. Remove and retain the fuel balance pipe access panel and the bolts securing it to the under-surface of the wing, forward of the front undercarriage diaphragm.

- (2) In No. 1 fuel tank bay, release the clips securing the electric cables, disconnect and remove the pipes, routed over Rib No. 2 in the vicinity of the reinforcing shown on sheet 1 of the drawing. Blank off the disconnected pipe ends. Remove the blanking plate and the bolts securing it to Tib No. 2 aft of the rear undercarriage diaphragm. Retain all items for re-assembly.

NOTE: On mainplanes repaired to Repair Instruction Sheet No. 1 remove the redundant upper stiffener, Part No. R.00D.351ND, from the front diaphragm and, Part No. R.00D.352ND, from the rear diaphragm. Remove the lower stiffener, Part No. R.00D.354ND (port); R.00D.355ND (Starboard), from the front diaphragm and, Part No. R.00D.356ND (port); R.00D.357ND (starboard), from the rear diaphragm and, if in good condition, retain and re-assemble in place of the new lower stiffeners introduced on this modification.

- (3) Refer to sheets 1, 2 and 3 of the drawing and remove the forty-seven bolts securing the undercarriage diaphragms to Rib No. 2, retaining the packing strip, stiffnuts and washers for re-assembly. Using a No. 21(0.159 in. dia.) drill, carefully remove the four 5/32 in. dia. rivets securing the top of the diaphragms to the rib.

NOTE : Repair Instruction Sheet No. 137 Issue 3 introduced a reinforcing plate, Part No. R.00D.424 (port); R.00D.425 (starboard) on the inboard side of Rib No. 2 similar to that shown on sheet 1 of the drawing and two reinforcing plates, Part Nos. R.00D.378 and R.00D.380 (port); R.00D.379 and R.00D.381 (starboard) on the outboard side of Rib No. 2 similar to those shown on sheet 2 of the drawing. Examine the latter two outboard plates and ensure that their flanges do not exceed 0.125 in. Reduce the flanges to this dimension and remove all sharp edges where necessary. The following operations (4) to (12) do not apply to mainplanes with the aforementioned reinforcing plates already installed.

- (4) Using the No. 21 drill

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- (4) (0.096 in. dia.) drill. Remove the peened bolts and nuts securing the reinforcing channels to Rib No. 2. Retain the reinforcing channels, packing and washers for re-assembly.

NOTE: On mainplanes with Mod. No. Vampire/698 embodied retrospectively, dispose of the redundant reinforcing plate, Part No. R.00D.287 (port); R.00D.288 (starboard).

- (5) Refer to sheet 1 of the drawing. Using the No. 41 drill, remove the existing anchor nuts that lie within the periphery of the new reinforcing plate, Part No. D00.7949. Remove the six $3/16$ in. dia. rivets securing the 'T' section stiffener to Rib No. 2 above the undercarriage cutaway using a No. 11 (0.191 in. dia.) drill. Offer up the new reinforcing plate, trim and radius its edge locally to suit the flange of the undercarriage cutaway.
- (6) Drill the new reinforcing plate with the No. 11 drill, thirty-eight holes to suit the 2 B.A. bolt holes through Rib No. 2 and the existing reinforcing channels, four holes to suit the 2 B.A. anchor nut bolt holes through Rib No. 2 and six holes to suit the $3/16$ in. dia. rivet holes through Rib No. 2 and the 'T' section stiffener. Drill eight holes with the No. 41 drill to suit the $3/32$ in. dia. rivet holes for the anchor nuts. Countersink the inboard face of the new reinforcing plate at these eight holes 90 deg. x 0.16 in. dia.
- (7) Drill two holes with a No. 14 (0.182 in. dia.) drill through the new reinforcing plate and ream to 2 B.A. to suit the 2 B.A. bolt holes through Rib No. 2 and the rear diaphragm below the existing reinforcing channels.
- (8) Drill thirty-six holes with a $15/64$ (0.234) in. dia. drill through the new reinforcing plate to suit the $1/4$ in. B.S.F. bolt holes through Rib No. 2 and the undercarriage diaphragms, opening up the existing smaller diameter holes, except the two dealt with in operation (7), plus the rear hole through the front diaphragm below the new reinforcing plate as shown on sheet 1 of the drawing. Ream all thirty-seven holes to $1/4$ in. dia.
- (9) Offer up the two new undercarriage cutaway reinforcing plates, Part Nos. D00.7945ND and D00.7947ND (port); D00.7946ND and D00.7948ND (starboard), to the outboard side of Rib No. 2 as shown on sheet 2 of the drawing. Drill off seven holes in each plate with the No. 11 drill to suit the 2 B.A. bolt holes through Rib No. 2 and the reinforcing channels. Temporarily bolt the plates in position. Cut a $45/64$ (0.703) in. dia. hole through the reinforcing plates just forward of the rear diaphragm to suit Rib No. 2 and the existing reinforcing channel.
- (10) Drill twenty-seven holes with the No. 21 drill through the new reinforcing plates to suit the $5/32$ in. dia. rivet holes through Rib No. 2 and the existing reinforcing channels as shown on sheet 1 of the drawing. Mark off and drill twenty-four additional holes with the No. 21 drill as shown on sheet 2 of the drawing. Remove the plates and channels and thoroughly deburr all holes.
- (11) Secure the reinforcing plate and original channels to Rib No. 2 as shown on sheets 1 and 2 of the drawing, coating all the mating surfaces with pigmented varnish jointing compound (Stores Ref. 33C/1264). Bolt up with five 2 B.A. bolts, Part No. A.25/30, thirty-three 2 B.A. bolts, Part No. A.25/60, and thirty-eight 2 B.A. plain

- (11) fourteen off, Part No. AS.2227/507, four off, Part No. AS.2227/508; and fifteen off, Part No. AS.2227/509.

NOTE: In cases where the items called for in operation (11) are unsuitable due to the holes being oversize $\frac{1}{4}$ in. B.S.F. items may be used in place of the 2 B.A. items and $\frac{3}{16}$ in. dia. rivets may be used in place of the $\frac{5}{32}$ in. dia. rivets.

- (12) Rivet up the existing 'T' stiffener to Rib No. 2 and the new reinforcing plate with six $\frac{3}{16}$ in. dia. snap-head rivets, Part No. AS.2227/608. Secure four new 2 B.A. anchor nuts, Part No. AGS.2007/C1, to the original positions with eight $\frac{3}{32}$ in. dia. 90 deg countersunk-head rivets, Part No. AS.2229/307. Coat all mating surfaces with pigmented varnish jointing compound.

NOTE: The following operations (13) to (30) apply to all mainplanes.

- (13) Refer to Sheet 4 of the drawing. Remove the eight redundant $\frac{3}{8}$ in. B.S.F. bolts, nuts and washers securing the undercarriage hinge pick-up to the rear diaphragm. Remove the upper two 2 B.A. bolts, nuts and washers, and using the No. 11 drill, remove the existing three $\frac{3}{16}$ in. dia. rivets to permit the new lower stiffener, Part No. D.007961 (port); D00.7962 (starboard), to fit flush against the diaphragm. Countersink the rear face of the diaphragm at the two 2 B.A. bolt holes and the lower two rivet holes 90 deg. x 0.33 in. dia. Flush up these holes with four $\frac{3}{16}$ in. dia. 90 deg. countersunk-head rivets, Part No. AS.2229/606, cut to suit.

NOTE: Care must be taken to ensure that the undercarriage pick-up and its shims are retained for re-assembly at their original position. On mainplanes repaired to Repair Instruction Sheet No. 1 the rivets dealt with in operations (13) and (14) will have already been flushed up.

- (14) Using the No. 21 drill, carefully drill out the existing four $\frac{5}{32}$ in. dia. snap-head rivets through the diaphragm 'Z' member to permit the new upper stiffener, Part No. D00.7959 (port); D00.7960 (starboard), to fit flush on the 'Z' member. Countersink the diaphragm and its 'Z' member at both sides of these four rivet holes 90 deg. x 0.27 in. dia. Flush up the holes with four $\frac{5}{32}$ in. dia. 90 deg. countersunk-head rivets, Part No. AS.2229/505.

- (15) Refer to Sheet 3 of the drawing. Fit two 2 B.A. bolts, Part No. A.25/30, through the rear undercarriage diaphragm and Rib No. 2, adjacent to the 'Z' member, and secure with the original 2 B.A. stiffnuts and washers. Coat all mating surfaces with pigmented varnish jointing compound.

- (16) At the forward row of holes below the 'Z' member, replace the original packing strip, Part No. D00.7919ND retained in operation (3) and fit four $\frac{1}{4}$ in. B.S.F. hexagon-head bolts, Part No. A.25/5E, with one $\frac{1}{4}$ in. B.S.F. round-head bolt, Part No. AS.1246/5E, at the top hole. At the rear row of holes fit five $\frac{1}{4}$ in. B.S.F. hexagon-head bolts, Part No. A.25/3E. Secure with the original stiffnuts and washers. Coat all mating surfaces with pigmented varnish jointing compound.

NOTE: On mainplanes without an existing packing strip, make up one from aluminium alloy, 18 s.w.g. Spec. B.517.72 (Stores Ref. 30B/1730) 0.6 in. x 3.5 in. radius one-edge and drill to suit the rear diaphragm. To access

necessary to prevent nuts bottoming. In cases of oversize holes refer to Repair Instruction Sheet No. 152.

- (17) Refer to Sheet 4 of the drawing. Offer up the new packing strip, Part No. D00.8019ND, with a radius on one edge to suit the diaphragm above the 'Z' member. Position the new upper stiffener on the 'Z' member and against the new packing strip. Drill two holes at the top with the No. 21 drill and twelve holes with the 15/64 in. dia. drill reamed to 1/4 in. dia. to suit the existing holes through Rib No. 2 and the diaphragm flange.

NOTE: On mainplanes repaired to Repair Instruction Sheet No. 1 the following operations (18) and (19) do not apply. The new upper stiffener is to be drilled to suit the existing No. 11 holes in the diaphragm and 'Z' member. The existing lower stiffener, if in good condition, can be re-assembled in place of the new lower stiffener.

- (18) Mark off and drill eleven holes through the new upper stiffener and diaphragm with the No. 11 drill to the dimensions detailed on Sheets 4 and 5 of the drawing. Position the new packing strip, Part No. D00.7963ND, against the new lower stiffener under the 'Z' member and drill three holes with the No. 11 drill to the dimensions detailed on Sheet 5 of the drawing. Drill one hole with the No. 11 drill through the lower stiffener to suit the existing hole in the diaphragm.

- (19) Drill three holes with a 23/64 (0.359) in. dia. drill through the lower stiffener to suit the upper three holes through the diaphragm and the undercarriage hinge pick-up Part No. G00.1010. Ream out the three holes to 3/8 in. - 0.0004.

NOTE: In cases of oversize holes refer to Repair Instruction Sheet No. 152.

- (20) Remove all burrs. Refer to Sheets 3 and 4 of the drawing and secure the upper stiffener and packing to the diaphragm flange and Rib No. 2 with 1/4 in. B.S.F. bolts, six off Part No. A.25/6E, three off, Part No. A.25/7E, and three off Part No. A.25/9E, using the original stiffnuts and washers. Fit two 5/32 in. dia. snap-head rivets, Part No. AS.22 to the two top holes. Coat all mating surfaces with pigmented varnish jointing compound.

NOTE: In cases where the original stiffnuts and washers are available, fit new 1/4 in. B.S.F. stiffnuts and washers, Part AGS.2001/E1 and SP.13/E. Fit additional washers where necessary to prevent nuts bottoming. In cases of oversize holes refer to Repair Instruction Sheet, No. 152.

- (21) Secure the upper stiffener to the diaphragm with nine 2 B.A. bolts, Part No. A.25/2C, two 2 B.A. bolts, Part No. A.25/3C, and eleven 2 B.A. stiffnuts, Part No. AGS.2001/C1, positioning a L.A. washer, Part No. SP.15/C, under the head of each bolt, and a M.S. washer, Part No. SP.13/C, under each nut. Position the lower stiffener and packing, secure them to the 'Z' member and upper stiffener with three 2 B.A. bolts, stiffnuts and washers, Part Nos. A.25/4C, AGS.2001/C1 and SP.13/C respectively. Secure the lower stiffener to the diaphragm with one 2 B.A. 90 deg. countersunk-head bolt, stiffnut and washer, Part Nos. AS.1242/3C, AGS.2001/C1 and SP.13/C respectively. Coat all mating surfaces with pigmented varnish jointing compound.

- (22) Resecure the undercarriage hinge pick-up and its shims

necessary to prevent nuts bottoming. In cases of oversize holes refer to Repair Instruction Sheet No. 152. V 177

- (17) Refer to Sheet 4 of the drawing. Offer up the new packing strip, Part No. D00.8019ND, with a radius on one edge to suit the diaphragm above the 'Z' member. Position the new upper stiffener on the 'Z' member and against the new packing strip. Drill two holes at the top with the No. 21 drill and twelve holes with the 15/64 in. dia. drill reamed to 1/4 in. dia. to suit the existing holes through Rib No. 2 and the diaphragm flange.

NOTE: On mainplanes repaired to Repair Instruction Sheet No. 11 the following operations (18) and (19) do not apply. The new upper stiffener is to be drilled to suit the existing No. 11 holes in the diaphragm and 'Z' member. The existing lower stiffener, if in good condition, can be re-assembled in place of the new lower stiffener.

- (18) Mark off and drill eleven holes through the new upper stiffener and diaphragm with the No. 11 drill to the dimensions detailed on Sheets 4 and 5 of the drawing. Position the new packing strip, Part No. D00.7963ND, against the new lower stiffener under the 'Z' member and drill three holes with the No. 11 drill to the dimensions detailed on Sheet 5 of the drawing. Drill one hole with the No. 11 drill through the lower stiffener to suit the existing hole in the diaphragm.
- (19) Drill three holes with a 23/64 (0.359) in. dia. drill through the lower stiffener to suit the upper three holes through the diaphragm and the undercarriage hinge pick-up, Part No. G00.1010. Ream out the three holes to 3/8 in. - 0.0004.

NOTE: In cases of oversize holes refer to Repair Instruction Sheet No. 152.

- (20) Remove all burrs. Refer to Sheets 3 and 4 of the drawing and secure the upper stiffener and packing to the diaphragm flange and Rib No. 2 with 1/4 in. B.S.F. bolts, six off, Part No. A.25/6E, three off, Part No. A.25/7E, and three off, Part No. A.25/9E, using the original stiffnuts and washers. Fit two 5/32 in. dia. snap-head rivets, Part No. AS.22, to the two top holes. Coat all mating surfaces with pigmented varnish jointing compound.

NOTE: In cases where the original stiffnuts and washers are unavailable, fit new 1/4 in. B.S.F. stiffnuts and washers, Part No. AGS.2001/E1 and SP.13/E. Fit additional washers where necessary to prevent nuts bottoming. In cases of oversize holes refer to Repair Instruction Sheet, No. 152.

- (21) Secure the upper stiffener to the diaphragm with nine 2 B.A. bolts, Part No. A.25/2C, two 2 B.A. bolts, Part No. A.25/3C, and eleven 2 B.A. stiffnuts, Part No. AGS.2001/C1, positioning a L.A. washer, Part No. SP.15/C, under the head of each bolt, and a M.S. washer, Part No. SP.13/C, under each nut. Position the lower stiffener and packing, secure them to the 'Z' member and upper stiffener with three 2 B.A. bolts, stiffnuts and washers, Part Nos. A.25/4C, AGS.2001/C1 and SP.13/C respectively. Secure the lower stiffener to the diaphragm with one 2 B.A. 90 deg. countersunk-head bolt, stiffnut and washer, Part Nos. AS.1242/3C, AGS.2001/C1 and SP.13/C respectively. Coat all mating surfaces with pigmented varnish jointing compound.

- (22) Resecure the undercarriage hinge pick-up and its shims to the diaphragm with three 3/8 in. B.S.F. hexagon-head bolts, Part No. A.25/6J, five 3/8 in. B.S.F. 90 deg. counter-

V 177

B.S.F. slotted nuts, Part No. A.27/JS, with two washers Part No. SP.14/J, under each nut, as shown on Sheets 4 and 5 of the drawing. Drill off the bolts with a No. 51 (0.067 in. dia.) drill and fit eight 1/16 in. dia. split pins, Part No. SP.9/C8. Coat all mating surfaces with pigmented varnish jointing compound.

NOTE: Fit additional washers where necessary to prevent nuts bottoming.

- (23) Refer to Sheet 6 of the drawing and reinforce the front undercarriage diaphragm, adopting a procedure similar to that detailed for the rear diaphragm in operations (13 to (22). Flush up the existing rivets through the 'Z' member with six 5/32 in. dia. rivets and through the diaphragm with two 3/16 in. dia. rivets, Part Nos. AS.2229/505 and AS.2229/606 respectively.
- (24) At the rear row of holes below the 'Z' member fit a new packing strip, five 1/4 in. B.S.F. bolts, stiffnuts and washers, Part Nos. D00.7919ND, A25/4E, AGS.2001/E1 and SP.13/E respectively, as shown on Sheet 3 of the drawing. At the forward row of holes fit four bolts, Part No. A.25/3E. Fit one bolt, part No. A.25/6E, above the 'Z' member and trim the new packing, Part No. D00.8019ND, to clear this bolt. Trim the new upper and lower stiffeners, Part Nos. D00.7955 and D00.7957 (port); D00.7956 and D00.7958 (starboard), as necessary to suit the diaphragm.
- (25) Secure the upper stiffener and packing to the diaphragm flange and Rib No. 2 with 1/4 in. B.S.F. bolts, eight off, Part No. A.25/5E, three off, Part No. A.25/7E, and two off, Part No. A.25/9E. Fit two 5/32 in. dia. snap-head rivets, Part No. AS.2227/512, to the two top holes.
- (26) Secure both stiffeners to the diaphragm and the new packing strip, Part No. D00.7965ND, under the 'Z' member, with 2 B.A. hexagon-head bolts, ten off, Part No. A.25/2C, two off, Part No. A.25/3C, three off, Part No. A.25/4C, and one off 2 B.A. 90 deg. countersunk-head bolt, Part No. AS.1242/3C; using sixteen 2 B.A. stiffnuts and M.S. washers, Part Nos. AGS.2001/C1 and SP.13/C respectively, positioning twelve L.A. washers, Part No. SP.15/C, under the heads of the bolts through the diaphragm.
- (27) Resecure the undercarriage hinge pick-up and its shims to the diaphragm with three 3/8 in. B.S.F. hexagon-head bolts, Part No. A.25/6J, five 3/8 in. B.S.F. 90 deg. countersunk-head bolts, Part No. AS.12412/5J, and eight 3/8 in. B.S.F. slotted nuts, Part No. A.27/JS, with two washers, Part No. SP.14/J, under each nut, as shown on Sheets 5 and 6 of the drawing. Drill off the bolts with a No. 51 drill and fit eight 1/16 in. dia. split pins, Part No. SP.9/C8.
- (28) Remove all foreign matter from the mainplane and repair the finish of the undercarriage diaphragms and Rib No. 2 with etch primer, base and accelerator, and aluminium cellulose finish, Spec. D.T.D.772 (Stores Refs. 33B/1021, 33B/1023 and 33B/1060 or 865 respectively.
- (29) Resecure the blanking plate to Rib No. 2 with its original bolts retained in operation (2). Reconnect the pipes disconnected in operation (2). Refer to Sheet 7 of the drawing. Fit an additional packing strip, Part No. Q00.2620, under the two large clamp blocks and secure the blocks and pipes to Rib No. 2 using three new 2 B.A. bolts, Part No. A.25/29C (port): A.25/26C (starboard) and A.25/27C (starboard).

packing strip, Part No. Q00.3783, in place of the redundant strip, Part No. Q00.2621 under the two small clamp blocks and secure the blocks and the pipes to Rib No. 2, with one 2 B.A. bolt at the rear position and one at the forward position, Part Nos. A.25/11C and A.25/12C respectively. Lock the pipe couplings with 22 s.w.g. nickel alloy wire (Stores Ref. 30A/3055).

- (30) Replace the No. 1 fuel tank strap structure. Replace the No. 1 wing fuel tank and the main undercarriage in accordance with the procedure detailed in the appropriate Aircraft Handbook.

9. TESTING AFTER EMBODIMENT

When this modification has been embodied and inspected in accordance with current procedure, the following tests are to be carried out :-

- (1) Leak, pressure and fuel flow test the wing fuel tanks in accordance with current authorized procedure.
- (2) Carry out a retraction test of the main undercarriage in accordance with current authorized procedure.

10. RECORDING ACTION

Record on Aircraft Form 700 and 4801.

11. DISPOSAL OF REDUNDANT PARTS

The undermentioned parts rendered redundant by the embodiment of this modification are to be returned to O.C. Equipment Depot for disposal

Stores Ref.	Part No.	Nomenclature	Qty	Class	Store
26FC/-	Q00.2621	Strip, clamp block packing	4		

The following items are also redundant on aircraft with Mod. No. Vampire/698 embodied retrospectively.

26FC/7817	R.OOD.287	Plate, Rib 2 reinforcing L.H.	1		
26FC/7818	R.OOD.288	Plate, Rib 2 reinforcing R.H.	1		

The following items are also redundant on aircraft repaired to Repair Instruction Sheet No. 1:

26FC/-	R.OOD.351ND	Stiffener, upper, front U/C diaphragm	2		
26FC/-	R.OOD.352ND	Stiffener, upper, rear U/C diaphragm	2		

12. EFFECT ON WEIGHT AND C. OF G.

The modification causes a weight change of 5.82 lb., and a change of moment of +12.0 lb. ft.

(B.H. GIBBONS)
Wing Commander
S.T.S.O. A.H.Q. R.R.A.F.

Source : 4099J. V2.A10

Distribution :-

One copy to essential recipients

Plus the 2621 Vending Mods. 101-200 OCR

SCHEME 'A'

SCHEME 'B'

A25.
2C

A27
CP

SP.
13.C

PICK UP EXISTING HOLES WITH $\frac{3}{16}$ "
DIA. SN. HD. RIVETS AS. 2227/607.
IF HOLES HAVE BECOME ELONGATED
THE NEXT OVERSIZE RIVETS MAY BE USED.

FILE BACK AN
OF RIB TO AL
FORCING PL
SNUGLY ROU
EXISTING REIN
AS SHOWN.

SCHEME 'B'

- A25.2C - BOLT
 - A27.CP - NUT
 - SP.13.C - WASHER
- 7 OFF EACH

REINFORCING PLATES
1 OFF EACH

R.OO.
D. 346 L.H.

R.OO.
D. 347 R.H.

R.OO.
D. 348 L.H.

R.OO.
D. 349 R.H.

FILE BACK AND SHAPE WEB
OF RIB TO ALLOW REIN-
FORCING PLATES TO FIT
SNUGLY ROUND FLANGE OF
EXISTING REINFORCING PLATE
AS SHOWN.

SECTION 'X-X'

MUST

it is not to be
omission of the

WHEN MODIFYING N.D. PARTS REFER TO N.D. LIST AS THE PARTS MAY BE

SECTION 'X'-X

-	R00D 294.	-	-
	ASSEMBLY N°	SCHEDULE N°	N° OFF

THE DE HAVILLAND AIRCRAFT CO LTD		HATFIELD, HERTS	
ISSUE NO	1	2	
MOD NO	—	R.T.S. 52	
ALTERATION EMBODIED	NEW DRAWING	ASSY No ADDED	
CHECKED			
DATE OF MOD.			
Stress Approval			
FINISH	MATERIAL	SPEC.	DESCRIPTION
			REPAIR TO RIB 2 AT U/C
			PART No. 800D 345

FOR EXISTING HOLES WITH 7/16
DIA. SN. HD. RIVETS AS.2227/607.
● HOLES HAVE BECOME ELONGATED
THE NEXT OVERSIZE RIVETS MAY BE USED.

NOTE :-

BUCKLE IN RIB AND DOUBLER PLATE MUST
BE DRESSED OUT BEFORE FITTING
REINFORCING PLATE.

FOR MARK 1 AIRCRAFT & MARK 3 PRE. MOD. VAM. 391.

INSTRUCTIONS FOR REPAIR.

In all cases where an exceptionally heavy landing has been made, Rib 2 should be carefully examined for sig can be obtained by removing the inboard fuel tank. The damage should be thoroughly assessed so that the appropriate given below. Further, the undercarriage diaphragms must also be checked for buckling in the panel immediately above in accordance with Drawing No. R.O.O.D.350.

Mark 1 Aircraft and Mark 3 Aircraft pre-Mod. Vam. 391.

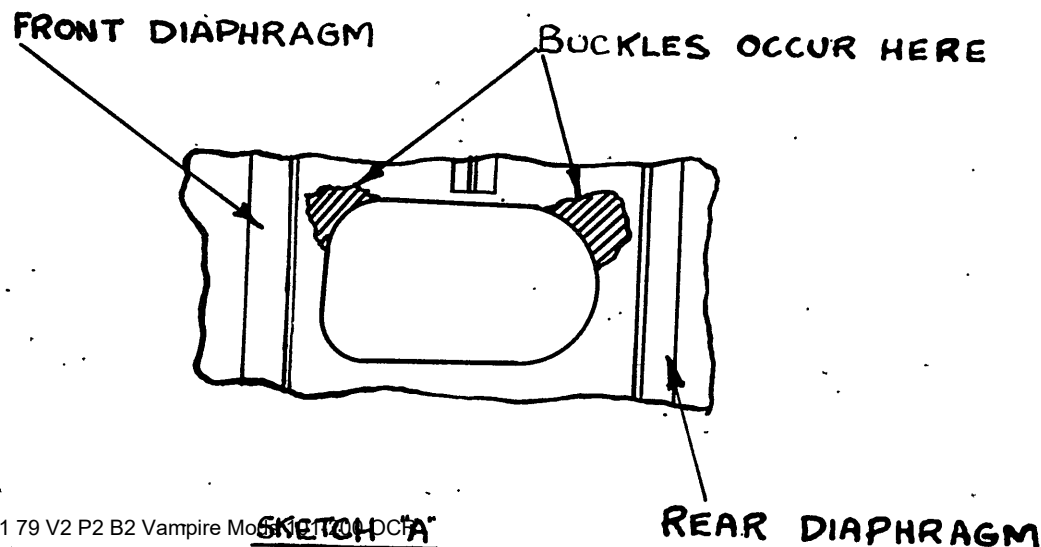
1. Ribs buckled at undercarriage out-outs:-

Mark 3 Aircraft post Mod Vamp. 391 and all other Where Mod. Vamp. 698 (factory version) has not

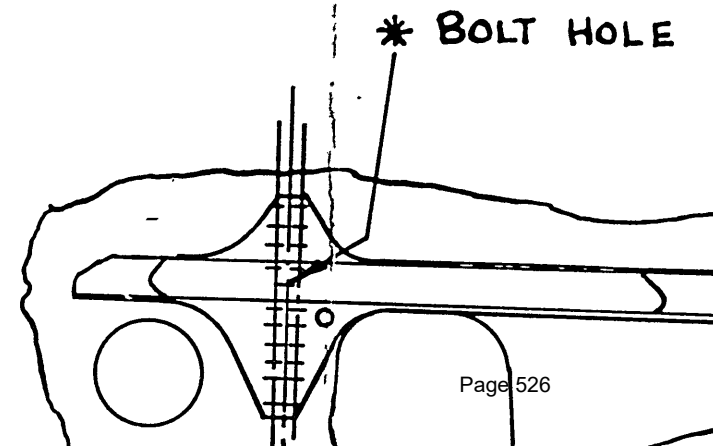
1. Damage in the form of buckling may be repair incorporation of Mod. Vamp. 698 (retrospect
2. Damage in the form of buckling and cracking repaired by the incorporation of Mod. Vamp. (retrospective version) and the fitting of reinforcing plates on the outboard side of Drawing ROOD.397.

N.B.

If it is discovered that both reinforcing p main web are cracked beyond the hole marked in sketch 'B', application should be made for instructions.



SKETCH 'A'



INSTRUCTIONS FOR REPAIR.

has been made, Rib 2 should be carefully examined for signs of damage. Access to the inboard side of the rib age should be thoroughly assessed so that the appropriate repair scheme may be selected from the information to be checked for buckling in the panel immediately above the undercarriage attachments, and, if damaged, repaired

Mark 3 Aircraft post Mod Vamp. 391 and all other marks.
Where Mod. Vamp. 698 (factory version) has not been fitted.

1. Damage in the form of buckling may be repaired by the incorporation of Mod. Vamp. 698 (retrospective version).
2. Damage in the form of buckling and cracking may be repaired by the incorporation of Mod. Vamp. 698 (retrospective version) and the fitting of the small reinforcing plates on the outboard side of the rib to Drawing ROOD.397.

N.B.

If it is discovered that both reinforcing plate and main web are cracked beyond the hole marked * shown in sketch 'B', application should be made for repair instructions.

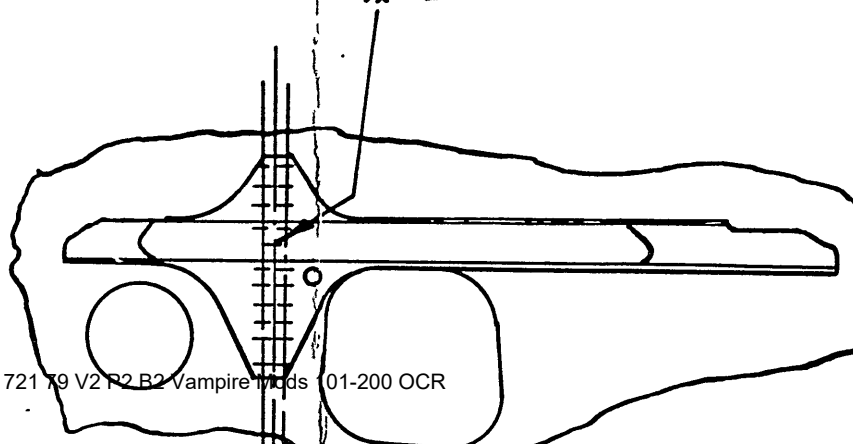
Mark 3 Aircraft Post Mod. Vamp. 391 and all other marks
where Mod. Vamp. 698 (factory version) has been fitted.

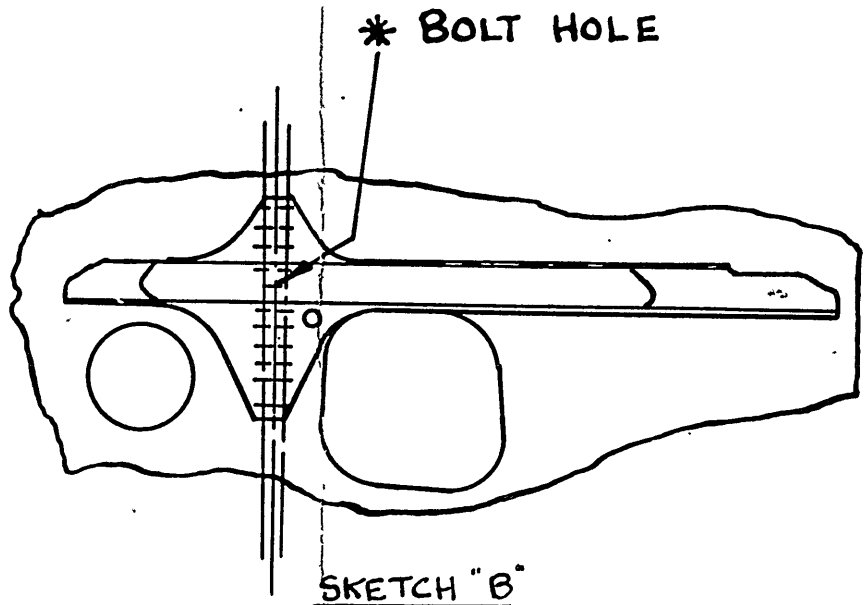
1. Damage in the form of buckling may be repaired by the introduction of Mod. Vamp. 698 (retrospective version incorporating steel reinforcing plate).
2. Damage in the form of buckling and cracking within the limits shown on Sketch 'B' * may be repaired by the introduction of Mod. Vamp. 698 (retrospective version incorporating steel reinforcing plate) and the fitting of the small reinforcing plates on the outboard side of the rib to Drawing ROOD.397.

NOTE:

In the case of Vampire trainers, where Mod. Vamp. 698 (retrospective version) is being carried out, the reinforcing plates to ROOD.397 should also be fitted.

* BOLT HOLE





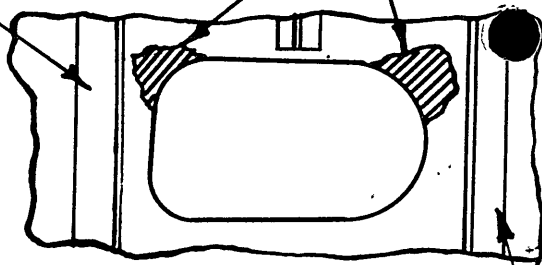
It should be noted that the main web is on the outboard of the rib and is of thinner gauge than the reinforcing plate.

	ASSEMBLY N°	SCHEDULE N°	N° OFF

THE DE HAVILLAND AIRCRAFT CO LTD HATFIELD, HERTS.						
ISSUE N°	4					
MOD. N°	R.T.S. 52.					
ALTERATION EMBODIED	REDRAWN.					
CHECKED						
DATE OF MOD.						
Stress Approval	<i>[Signature]</i>					
FINISH	MATERIAL	SPEC.	DESCRIPTION		PART No.	
—	—	—	REPAIR TO RIB 2.		ROOD 294.	
DRAWN <i>[Signature]</i>		APPROVED <i>[Signature]</i>		DATE 5.12.53.		TRACED BY

ot to be
in of the

AAP 721 79 121 252 Sample Mods 104200 000
 WHEN MODIFYING N.D. PARTS REFER TO N.D. LIST, AS THE PARTS MAY BE USED ON OTHER ASSEMBLIES



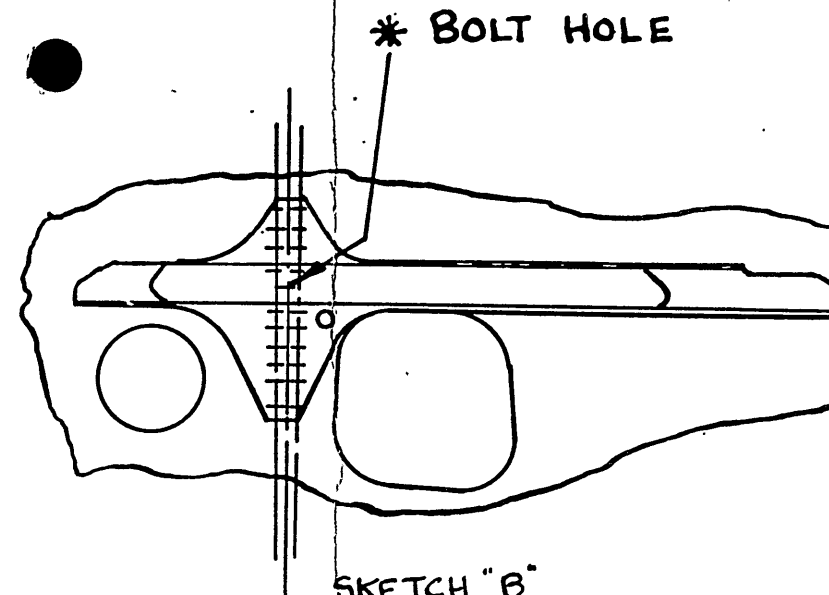
SKETCH "A"

REAR DIAPHRAGM

Repair to Drawing R.O.O.D.345, Scheme 'A' for buckles at front diaphragm, Scheme 'B' for buckles at rear diaphragm.

2. Ribs cracked at undercarriage cut-outs:-

If ribs are cracked in the same place as where the buckles are shown in Sketch 'A' application should be made for a special repair scheme.



SKETCH "B"

It should be noted that the main web is on the outboard of the rib and is of thinner gauge than the reinforcing plate.

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