VOL 3-2-B

AIRFRAME

VAMPIRE

MODIFICATIONS

TECHNICAL STAFF INSTRUCTIONS — AF. 2516

INDEX SHEET.

VOLUME TITLE: AIRFRAME — VOLUME NO: 3

SECTION TITLE: VAMPIRE — SECTION NO: 2

SUB SECT TITLE: MODIFICATIONS — SUB SECT NO: B

TITLE	MOD STI OR ST NO. etc.	TSI No.	Issue No. 1	2	3	4	5	6
FUEL TANKS IN WING	CANCELLED BY AL 3/40 SUMMARY OF MODS	1	√					
MODIFIED CANNON DROPPING BRACKET	STSO - ~~SAAF 20~~	2	J					
OXYGEN SYSTEM - DELETE R/V VALVE	VAMP/3309	3	J					
GROUND/FLIGHT SWITCH - FAILURE	RRAF/VAMP/1	4	J					
PROVISION FOR OVERBOARD DRAIN PIPE AT REAR OF JET PIPE	VAMP/3163	5	√					
MODIFIED BRAKE UNIT	DUNLOP/2165	6						
FUEL TANK FILLER PACKING RING	VAMP/3248	7						
IMPROVED SEALING - FUSELAGE TANK FILLER	VAMP/3249	8						
INTR. NITRIDES STOP PIN FOR CANOPY	VAMP/3255	9						
REPOSITION PILOTS MIC/TEL. SOCKET	RRAF/RADIO/4	10						
REPLACEMENT OF ANCHOR NUTS WITH BOLT PLATES	VAMP/3263	11						
RUBBER MOULDED SLEEVES - N° 1+3 FUEL TANKS	VAMP/3257	12						
REDESIGNED FORK END FOR FLYING CONTROLS	VAMP/3343	13						
INTRO. DOUTY SEALS AT FUEL TANK VENT	VAMP/3259	14						
MISC. IMPROVEMENTS TO OIL SUPPLY - C.A.V.	VAMP/3265	15						
LOCKNUTS ON ELEVATOR TRIM CABLE	VAMP/3335	16						
INTRO. HIGH ENERGY EQUIPMENT	VAMP/963	17						
FUEL TANK VENTS - IMPROVED SEALING	VAMP/3500	18						
REPOSITION COCK-PIT LAY-OUT	VAMP/3362	19						
ENLARGED HOLE IN CONTROL COLUMN	VAMP/945	20						
INTRO NEW TYPE FUEL GAUGE	VAMP/3314	21						
NORMAN AD FILTER GAUGE	VAMP/3317	22						

TECHNICAL STAFF INSTRUCTIONS — AF. 2516

INDEX SHEET.

VOLUME TITLE: AIRFRAME — VOLUME NO: 3

SECTION TITLE: VAMPIRE — SECTION NO: 2

SUB SECT TITLE: MODIFICATIONS — SUB SECT NO: B

TITLE	MOD STI OR ST NO. etc.	TSI No.	Issue No. 1	2	3	4	5	6
INTRO. BOLTS MASS MASS BALANCE ARM	VAMP/3472	23						
RUBBER PEDAL, CLASS I LOCKING	VAMP/3354	24						
INTRO. MINIATURE U/C POSITION INDICATOR	VAMP/962	25						
HYD. PIPE, C.O.V. & T.R.V. MAT CHANGE	VAMP/3370	26						
FIRE PROOFED RUBBER ELBOWS - FUEL SYSTEM	VAMP/3275	27						
SEALING GASKET N°4 FILLER NECK	VAMP/3427	28						
CUT-OUT IN COWLINE SUPPORT RING	VAMP/3502	29						
PLASTIC COVER FOR MOLLART JOINT	VAMP/3449	30						
~~INTRO. IRON CABLES L.H.E.V. VIN. OR CEL.~~	~~VAMP/950~~ Cancelled by AL 711	31						
~~INTRO FABRIC COVER FOR GEN. ARM UNIT~~	~~RRAF/3~~ Cancelled by AL 252	32						
" POWER FAILURE W/LIGHT F/INST PANEL	VAMP/3322	33						
" SOLID SHIMS AT ENGINE MOUNTINGS	VAMP/3165	34						
REMOVAL OF I.F.F. AERIALS	RRAF/RAD/7	35						
IMPROVED MAIN U/C DOOR LOCK CONTROL	VAMP/3437	36						
INTRO. MANUAL OPERATED FIRE EXTING.	VAMP/3414	37						
" FIRE WARNING PUSH BUTTON	VAMP/3488	38						
AIRCRAFT CANOPY EXTERNAL MARKINGS	VAMP/3519	39						
INTRO METHOD OF RETAINING DAMPER STRUT	VAMP/3438	40						
IMPROVED CANOPY JETTISON MECHANISM	VAMP/3321	41						
INTRO. REINFORCING CHANNEL IN COW RAIL	VAMP/3531	42						
" 2 INVERTERS, ELECTRICAL	VAMP/3325	43						
" BATTERY CLAMPS	VAMP/3528	44						

TECHNICAL STAFF INSTRUCTIONS AF. 2516

INDEX SHEET.

VOLUME TITLE AIRFRAME — VOLUME NO 3

SECTION TITLE VAMPIRE — SECTION NO 2

SUB SECT TITLE MODIFICATIONS — SUB SECT NO B

TITLE	MOD STI OR ST NO. etc.	TSI No.	Issue No. 1	2	3	4	5	6
COCKPIT - ELIMINATE GAPS IN FLOOR	VAMP/3405	45						
FUEL FILLER IMPROVE SEALING	VAMP/3431	46						
PACKING IN WING TANK BAYS	VAMP/3045	47						
SELF SEALING COUPLINGS	VAMP/996	48						
RELIEF VALVE FUEL SYSTEM	VAMP/3044	49						
RE-ROUTE JET THERMOCOUPLE	VAMP/3575	50						

R.R.A.F. TECHNICAL ORDERS

AMENDMENT RECORD SHEET

TO:- VOLUME:- 3 SECTION:- 2 SUB SECTION 5

R.R.A.F. TECH ORDER NO.	AMENDMENT NUMBER RECEIVED				
					1

NOTE: 1. This Index to Amendments issued, is to be inserted behind the Index Sheet of each Section & Sub. Section of all Volume of Technical Orders.

2. Amendements are to be entered in the columns provided from left to right immediately on receipt, and the Amendment attached to the applicable Technical Order.

Air Headquarters,
Royal Rhodesian Air Force.

14th August, 1958.

R.R.A.F. Technical Order
Vol. 3. Sect. 2. Sub.Sect. B.50 (Issue 2)
Cancelling and Superseding
Vol. 3. Sect. 2. Sub.Sect. B.50 (Issue 1).
(Drawing to be retained)

Vampire F.B. Mk. 9 Mk. 11 Aircraft - Engine Installation - To Introduce Rear Cone Cowling Incorporating Provision for Engines With Re-routed Jet pipe Thermocouple

(Mod. No. Vampire 3575)

(Class C/3 essential when fitting Engines embodying Goblin Mod. No. 1064).

1. INTRODUCTION

Where Goblin engines with Mod. No. Goblin 1064 are installed, a foul occurs between the jet pipe thermocouple lead and three of the formers in the rear tail cone, due to re-routing the jet pipe thermocouple from the inside of the engine fireguard to the outside. This Modification introduces cut-outs in the three rear tail cone formers to provide a clearance for the jet pipe thermocouple lead.

(1) This modification does not cancel, supersede or render unnecessary any work called for by approved modifications, Command modifications, S.T.Is., S.Is., or S.R.I.Ms.

(2) This modification is essentially connected with Modi No. Goblin 1064 (Thermocouple - Exhaust Cone - Improved Insulation) when that work is embodied this modification must be effected concurrently.

2. EMBODIMENT

This modification is to be embodied when fitting engines embodying Goblin Mod. 1064.

NOTE: Engine affected at present - 9530, 16011, 16069, 9671, 16260, 8999, 8554, and 9434.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 10 man hours.

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099G/P.16/57 Sheets 1 - 5, is incorported in this Order.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and/or Materials

(a) The Modification Kit which consists of the following items is to be demanded from O.C. Equipment Depot under Ref. No. 26FC/103575.

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/-	15.EC.211	Plate, cut-out reinforcing	1	-
26FC/-	15.EC.213	Plate, cut-out reinforcing	1	-
26FC/-	15.EC.215ND	Plate, stiffener	1	-
26FC/-	15.EC.217ND	Plate, stiffener	1	-
26FC/-	15.EC.219ND	Packing piece	1	-
26FC/-	15.EC.221ND	Packing piece	1	-
28Q/6638	AS.2227/404	Rivet, $\frac{1}{8}$ in. dia. sp/hd	34	C
28Q/6639	AS.2227/405	Rivet, $\frac{1}{8}$" dia. sp/hd	14	C
28Q/10412	AS.2230/404	Rivet, $\frac{1}{8}$ in. dia. 120 deg. csk/hd	8	C
28Q/10413	AS.2230/405	Rivet, $\frac{1}{8}$ in. dia. 120 deg. csk/hd	23	C
28Q/10681	AS.2230/406	Rivet, $\frac{1}{8}$ in. dia. 120 deg. csk/hd.	7	C

(b) The following materials are also required, and are to be provided under Unit arrangements:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
33B/9429196		Primer etch base	As reqd	C
33B/9429195		Primer etch accelerator	As reqd	C
33B/		Finish, cellulose,	As reqd	C
33C/1264		Compound, pigmented varnish jointing D.T.D.369A	As reqd	C

(2) Special Tools and Test Equipment

No Special Tools and Test equipment are 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:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/957	L00.77A	Front fish plate, for centre bulkhead		

The work involved in modifying this spare is detailed in para 8, operation (2) and on sheet 2 of the drawing. There are no parts required for modifying this spare.

Spares affected :-

26FC/10411 L00.853A/5 G.A. of rear cone

The work involved in modifying these spares is detailed in para 8, operations (1) to (7) and on sheets 1 to 5 of the drawing.

Parts required to modify the above spare :-

26FC/-	15.EC.211	Plate, cut-out reinforcing	1	-
	Attaching parts for 15.EC.211 Plate			
28Q/6638 and	AS.2227/404	Rivet, $\frac{1}{8}$ in. dia. sp/Hd.	13	C
26FC/-	15.EC.213	Plate, cut-out reinforcing	1	-
	Attaching parts for 15.EC.213			
28Q/6638	AS.2227/404	Rivet, $\frac{1}{8}$ in. dia. sp/hd.	21	C
28Q/6639	AS.2227/405	Rivet, $\frac{1}{8}$ in. dia. sp/hd.	14	C
and				
26FC/-	15.EC.215ND	Plate, stiffener	1	-
26FC/-	15.EC.219ND	Packing piece	1	-
26FC/-	15.EC.221ND	Packing piece	1	-
	Attaching parts for 15.EC.215ND, 15.EC.219ND and 15.EC.221ND Packing and Stiffener Plates			
28Q/10413	AS.2230/405	Rivet, $\frac{1}{8}$ in. dia. 120 deg Csk/hd	16	C
28Q/10681	AS.2230/406	Rivet, $\frac{1}{8}$ in. dia. 120 deg. csk/hd	7	C
and				
26FC/-	15.EC.217ND	Plate, stiffener	1	-
	Attaching parts for 15.EC.217ND Plate			
28Q/10412	AS.2230/404	Rivet, $\frac{1}{8}$ in. dia. 120 deg. csk/hd	8	C
28Q/10413	AS.2230/405	Rivet, $\frac{1}{8}$ in. dia. 120 deg. csk/hd	7	C

Spare affected :-

26FC/971 L00.855 Front ring rear tail cone

The work involved in modifying this spare is detailed in para 8, operation (4) and on sheets 4 and 5 of the drawing.

There are no parts required for modifying this spare.

Spare affected :-

26FC/965 L00.856 Bulkhead rear, rear tail cone

The work involved in modifying this spare is detailed in para 8, operation (3) and on sheet 3 of the drawing.

/Page 3 .....

Ref. No.	Part No	Nomenclature	Qty	Class of Equipment
	Parts required :-			
26FC/-	15.EC.211	Plate, cut-out reinforcing	1	-
	Attaching parts for 15.EC.211 Plate			
28Q/6638	AS.2227/404	Rivet, $\frac{1}{8}$ in. dia. sp/hd	13	C

7. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Reference, Part and Assembly Numbers as follows :-

Ref. No.	Old Part/Assy No.	Nomenclature	New Part/Assy. No.	Ref. No.
26FC/-	L00.75A	Bulkhead, centre rear cone	15.EC.227	26FC/-
26FC/957	L00.77A	Front fish plate, for centre bulkhead	15.EC.223	26FC/-
26FC/971	L00.855	Front ring, rear tail cone	15.EC.231	26FC/-
26FC/965	L00.856	Bulkhead rear, rear tail cone	15.EC.229	26FC/-
26FC/10411	L00.853/A/5	G.A. of rear cone	L00.853A/6	26FC/-
26FC/-	L00.3963A/ND	Sub assy. of cone wiring less flame switches and lamps	L00.4033A/ND	26FC/-
26FC/-	L00.3965A/ND	Sub assy. of cone wiring and flame switches less lamps	L00.4035A/ND	26FC/-

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations, the tail cone having been removed :-

(1) Working inside the rear tail cone, locate the centre former or bulkhead, Part No. L00.75A, reference to sheet 1 of the drawing will locate the position. At the top, mid-position of this bulkhead, Detail 'X', will be found two fish plates, one each side of the bulkhead, secured by eighteen $\frac{1}{8}$ in. dia. snaphead rivets. Carefully drill out these securing rivets using a No. 30 (0.1285 in. dia.) drill then discard the rear fish plate, Part No. L00.146, which is rendered redundant. Refer to sheet 2 of the drawing, mark off and cut the cut-out in the bulkhead to the measurements shown, blending in the redundant rivet hole. Remove any sharp edges from the newly cut edge.

(2) Trim the existing front fish plate, Part No. L00.77A as shown on sheet 2 of the drawing rounding the corners with a 0.25 in. radius. Remove any sharp edges. Offer up the new cut-out reinforcing plate, Part No. 15.EC.213, to the rear face of the centre bulkhead, in the position shown, and drill off its eighteen rivet attachment holes in the bulkhead with the No. 30 drill, using the holes in the reinforcing plate as a guide. Drill off the remaining rivet attachment holes in the reinforcing plate from the existing holes in the bulkhead. Deburr all holes. Coat the mating surfaces of the new plate, the modified fish plate, and the bulkhead with pigmented varnish jointing compound (Ref. No. 33C/1264) and rivet these plates into position on the bulkhead using thirty-five $\frac{1}{8}$ in. dia. snaphead rivets, Part No. AS. 2227/405 (fourteen off) and Part No. AS.2227/404 (Twenty-one off) the longer of these rivets being used for securing both the fish plate and the new reinforcing plate into position.

(3) Locate the rear bulkhead Part No. L00.856, in the tail cone, reference to Detail 'Y' sheet 1 of the drawing will show where it is situated. Refer to sheet 3 of the drawing, mark off and cut the cut-out to the measurements shown, removing any sharp edges. Place the new cut-out reinforcing plate, Part No. 15.EC.211 on the rear face of the bulkhead in the position shown and using the No. 30 drill, drill off the attachment rivet holes, using the holes in the reinforcing plate as guide.

Page 4/

deburr all holes. Coat the mating surfaces of the new plate and the bulkhead with pigmented varnish jointing compound and rivet the plate to the bulkhead using thirteen $\frac{1}{8}$ in. dia. snaphead rivets, Part No. AS.2227/404.

(4) Refer to sheet 1 of the drawing and locate the position of the forward ring, Part No. L00.855. Refer to sheet 5 of the drawing, mark off and cut the cut-out to the measurements shown, removing any sharp edges. Refer to sheet 4 of the drawing and using the No. 30 drill, drill out the seven rivets securing the forward edge of the forward ring between the two longitudinal top hat stiffeners and the two rivets securing the end of the inboard flanges on each of the top hat stiffeners adjacent to the forward ring.

(5) Offer up the two new packing pieces, Part Nos. 15.EC.221ND and 15.EC.219ND and the new forward stiffener plate, Part No. 15.EC. 215ND, into the positions shown, and trim the edges, as necessary, to maintain the dimensions given on the drawing. Remove any sharp edges. Mark and drill off the rivet attaching holes from the existing rivet holes in the tail cone, using a No. 35 (0.110 in. dia.) drill, and deburr and dimple countersink these holes to suit the existing dimpling. Mark off on the new stiffener plate the positions for the new rivet holes, to the dimensions shown in the drawing, and again offer up these items into position and drill off the holes just marked using the No. 35 drill. Deburr these holes and dimple countersink them 120 deg. x 0.25 in. dia. Coat the mating surfaces of the packings, stiffener plate and the inside of the cone skin with pigmented varnish jointing compound and rivet them together using twenty-three $\frac{1}{8}$ in. dia. 120 deg. countersunk-head rivets, Part Nos. AS.2230/405 (sixteen off) and AS.2230/406 (seven off).

(6) Working on the aft edge of the forward ring, Part No. L00.855 and referring to sheet 4 of the drawing locate the securing rivet nearest the centre line of the newly made cut-out. Using the No. 30 drill, drill out this rivet and the three rivets each side of it. Offer up the new aft stiffener plate, Part No. 15.EC.217ND and mark off and drill both the vacated and new rivet attachment holes in the stiffener and cone skin using theNo. 35 drill. Trim the edges of the stiffener, if necessary, deburr the holes and remove any sharp edges. Dimple countersink the holes in the cone skin and the holes in the stiffener 120 deg. x 0.25 in. dia., coat the mating surfaces of the cone and stiffener with pigmented varnish jointing compound then rivet the stiffener into position using fifteen $\frac{1}{8}$ in. dia. x 120 deg. countersunk-head rivets. Part Nos. AS.2230/405 (seven off) and AS.223C/404 (eight off).

(7) Repair the finish to the outer surface of the tail cone using primer etch base and accelerator (Ref. Nos. 33B/9429196 and 33B/9429195 and finish cellulose, medium sea grey D.T.D.772 Ref. 33B/). Repair the finish on the inside of the cone where required using primer etch base and accelerator and finish cellulose, aluminium D.T.D.772 (Ref. No. 33B/1060).

9. TESTING AFTER EMBODIMENT

No special tests are required after the embodiment of this modification.

10. RECORDING ACTION

Record on Aircraft Form 700 and 4801.

11. DISPOSAL OF REDUNDANT PARTS

The undermentioned part rendered redundant by the embodiment of this modification is to be returned to O.C. Equipment for disposal as scrap in accordance with current R.R.A.F. Equiipment Regulations.

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/958	L00.146	Fishplate, rear	1	C

This modification causes a weight change of + 0.26 lb., and a change of moment of + 2.0 lb. ft.

for (B.H. GIBBONS)
Wing Commander
S.T.S.O. A.H.Q. R.R.A.F.

Source : A.P. 4099G Vol. 2, Part 1,
Leaflet No. P.16.

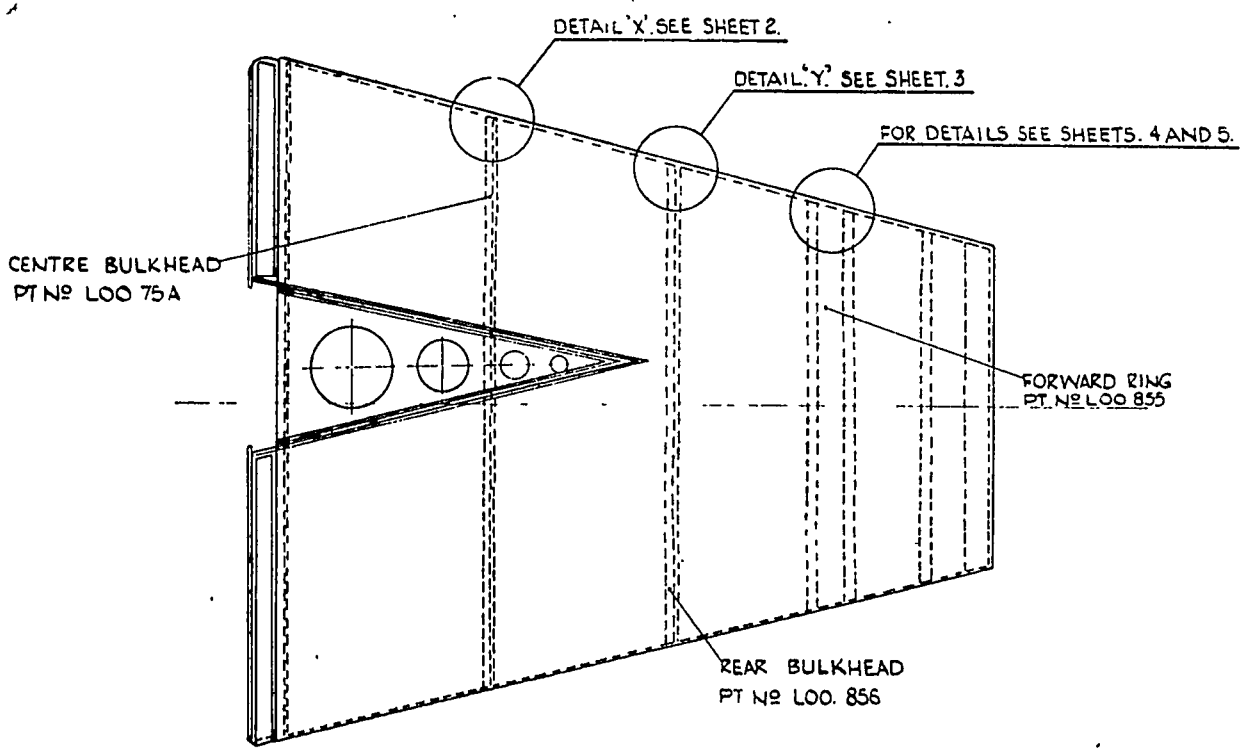
Distribution :

One copy to essential recipients
plus the following :-

W.O. A.R.S.	(2)
W.O. E.R.S.	(2)
W.O. No. 1. Squadron	(2)
W.O. No. 2. "	(2)
O.C. Equipment Depot	(2)
S.E.S.O.	(1)

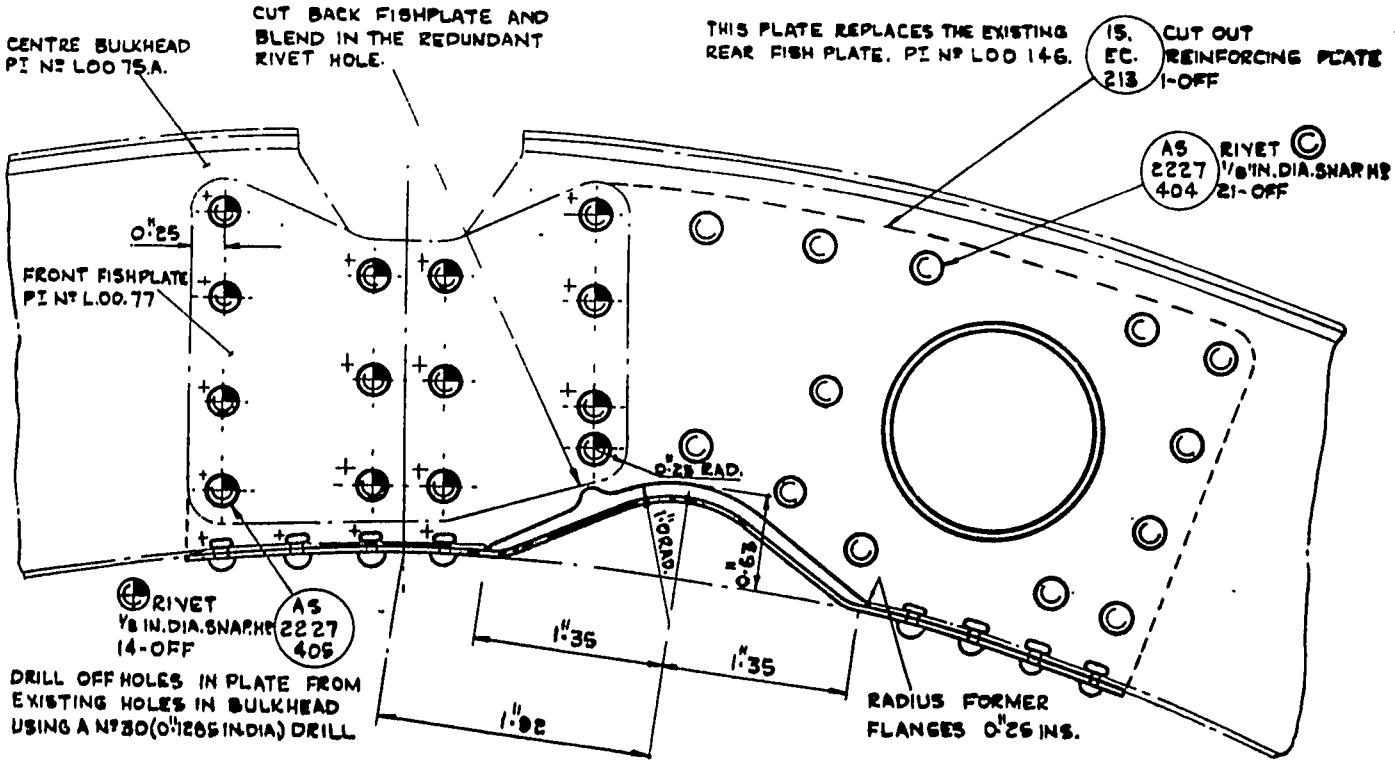
RESTRICTED

Drg. No. A.P.4099G/P.16:57
Sheet 1



VIEW OF REAR CONE SHOWING THE THREE POINTS TO BE MODIFIED.

RESTRICTED

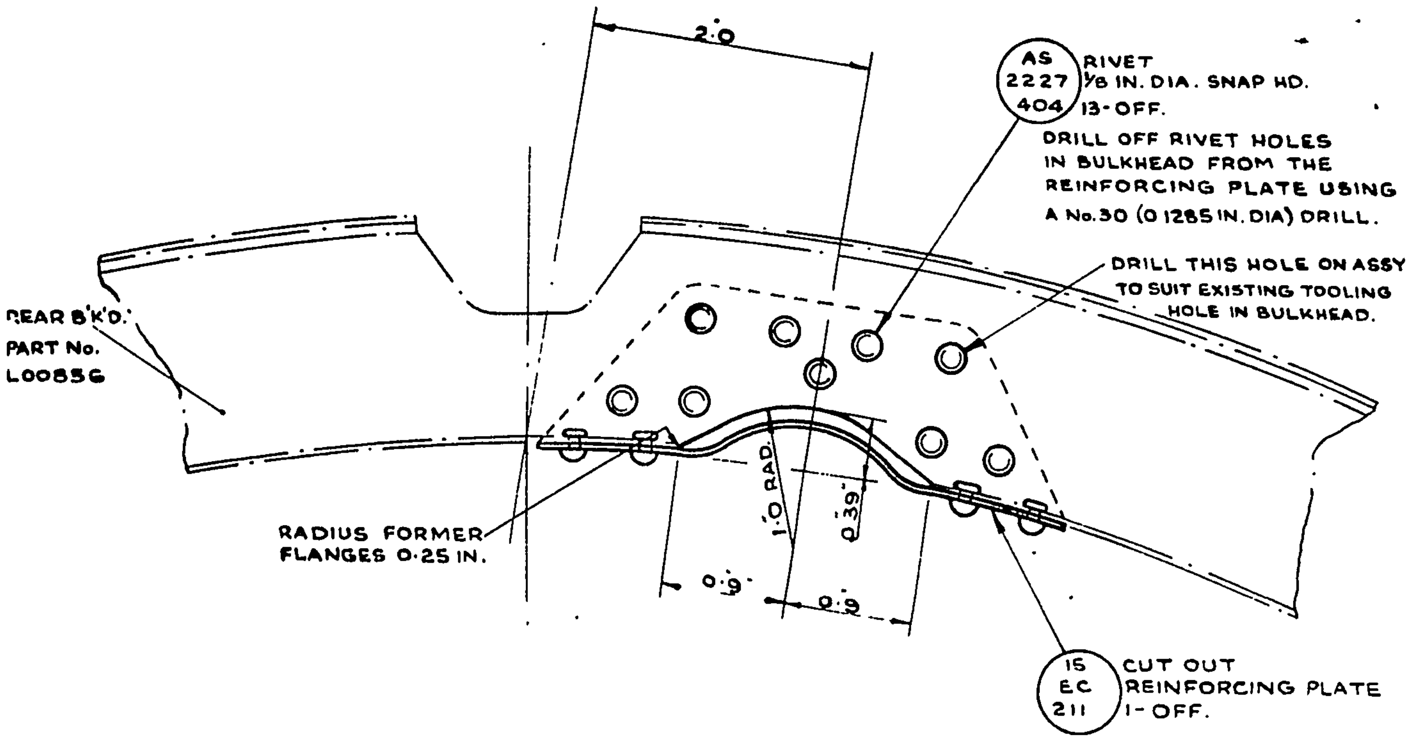


DETAIL 'X' FROM SHEET 1. VIEW LOOKING AFT. SHOWING CUT OUT IN CENTRE BULKHEAD OF TAIL CONE AND FITMENT OF REINFORCING PLATE.

DRG. Nº A.P. 4099 G P 16 57
SHEET 2

LP32322 9 57 625 C&P Gp. 959 (4)

RESTRICTED



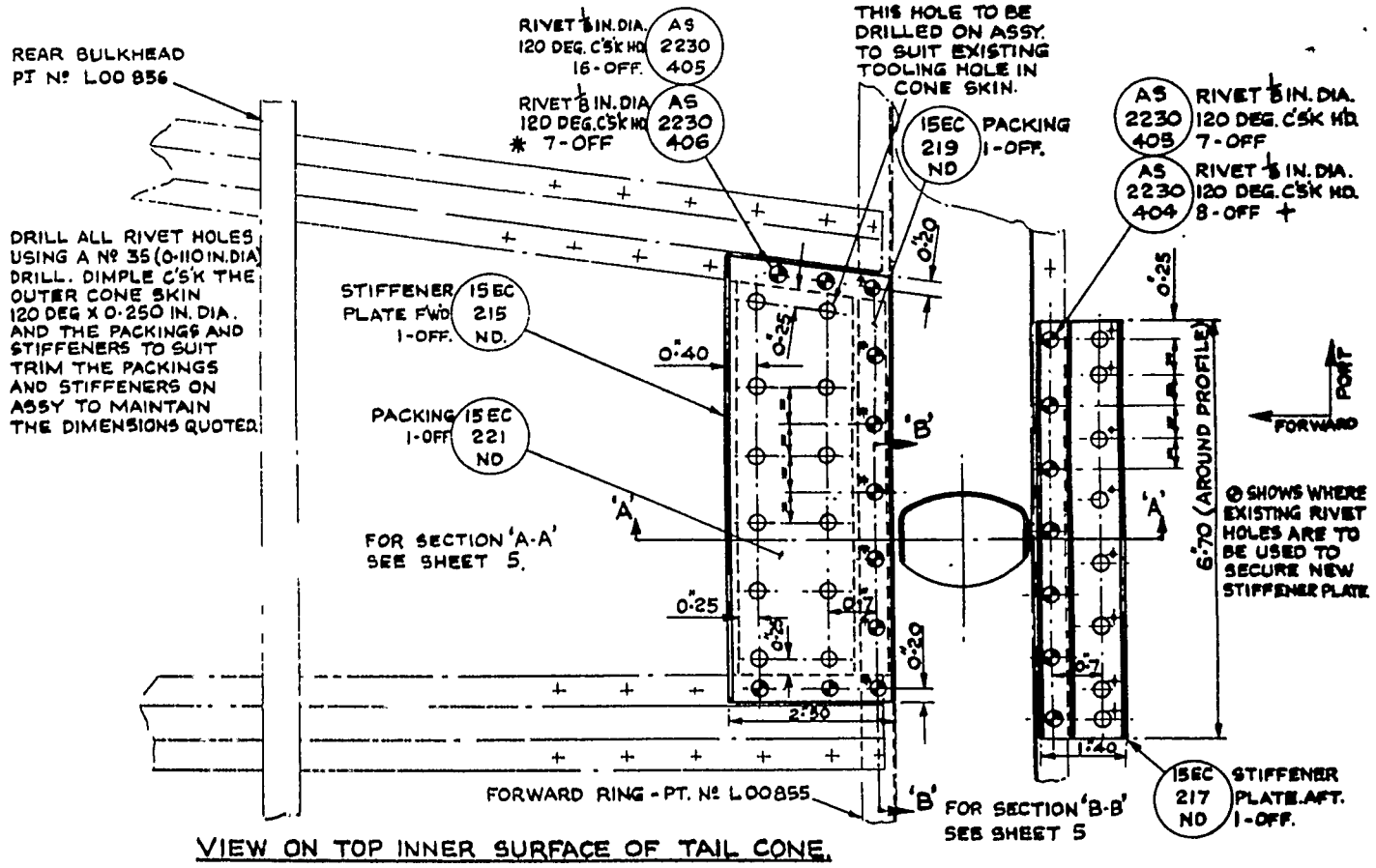
DETAIL Y. FROM SHEET 1. VIEW LOOKING AFT SHOWING CUT-OUT IN REAR BULKHEAD OF TAIL CONE AND FITMENT OF REINFORCING PLATE.

DRG. No A.R. 4099 G P16 57

SHEET 3

LP3232 9/57 625 C&P Gp. 959(4)

RESTRICTED



VIEW ON TOP INNER SURFACE OF TAIL CONE.

DRG. Nº A.P. 4099 G P 16 57

SHEET 4

LP33322 9 57 625 C & P Gp. 959 (4)

RESTRICTED

DRG. No A.R. 4099 G.P. 16.57

SHEET 5

LP33222 9/57 625 C&P Gp. 959 (4)

DETAIL 'C'.

SECTION 'A'–'A' FROM SHEET No 4.

SECTION 'B'–'B' FROM SHEET No 4.

Air Headquarters,
Royal Rhodesian Air Force.
10th April, 1958.

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B49 (Issue 1)

Vampire F.B. Mk. 9 Aircraft - Relief Valve in Fuel System Vent Line - Introduction

(Mod. No. Vampire/3044)

(Class C/3)

1. INTRODUCTION

This modification results from panting of the wing fuel tanks and introduces a relief valve in the vent line to maintain a slightly positive pressure throughout the system.

This modification must not be embodied until the complete embodiment of Mod. No. Vampire/3045. Mod. No. Vampire/996 must be embodied prior to or concurrently with Mod. No. Vampire/3044.

2. EMBODIMENT

Squadrons - This modification is to be embodied when the engine is changed, provided that Mod. No. Vampire/3045 has been embodied in its entirety, or before next Minor Servicing on the following aircraft:-
100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 112, 113, 114 and 115.

Maintenance Unit - Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 7 man hours per aircraft if Mod. No. Vampire/996 is being embodied concurrently; 13 man hours if not embodied concurrently.

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099G/J.10/53 Sheets 1 - 3 is incorporated in this Order.

5. PARTSAND SPECIAL TOOLSREQUIRED

(1) Parts and Materials
(a) The Modification Kit consists of the following items and is to be demanded from O.C. Equipment Depot under Stores Ref. 26FC/103044.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	FMB-A/1	Valve assembly, vent relief Teddington controls type	1	A
26FC/6980	P003727A/1	Valve, vent relief assy.	1	B
26FC/8091	P003897	Packing, fibre	1	C
28D/12511	A25/2B	Bolt	3	C
28D/8300	AS.1242/1B	Bolt	2	C
28D/8301	AS.1242/2B	Bolt	2	C
28Q/6640	AS.2229/404	Rivet	5	C
28Q/10413	AS.2230/405	Rivet	1	C
28Q/10872	AS.2230/505	Rivet	10	C
28M/10287	AGS.2001/B1	Nut	7	C
28W/12306	SP.15/B	Washer	7	C

The undermentioned items are required to embody this modification and are to be supplied under Unit arrangements:-

33C/1264	Compound, pigmented varnish jointing	As reqd	C
9429196 & 9428730	Primer and cellulose, matching finish	As reqd	C
32B/849	Tape, adhesive	As reqd	C
30A/3064	Wire, locking 22 s.w.g. nickel alloy	As reqd	C

/Page 2 ..

6. SPARES AFFECTED

There are no spares affected by the embodiment of this modification.

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS.

The undermentioned part number alterations become necessary upon embodiment of this modification.

Old			New	
Stores Ref.	Part No.	Nomenclature	Part No.	Stores Ref.
26FC/-	A00971ND	Stiffener	A007353ND	26FC/-
26FC/-	A001451ND, Issue 1	Tape, ferodo bonnet	A001451ND, Issue 2	26FC/-
26FC/1038	L00432A/ND	Door, starboard lower inspection	L003757 A/ND	26FC/6758
26FC/3662	P002605A/ND, Issue 1	Pipe assembly	P002605A/ND, Issue 2	26FCE3662

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

Refer to Drg. No. A.P. 4099G/J.10/53 Sheets 1 - 3

(1) If Mod. No. Vampire/996 is not being embodied concurrently:-
(a) Release the hydraulic accumulator pressure and drain the hydraulic fluid from the aircraft.

(b) On the rear face of the fireproof bulkhead, disconnect the hydraulic pipe assemblies, Part No. Q003697A/ND and Q003701A/ND (ref. only); from the ground test connection block, on the port side, and the flanged half couplings on the support bracket at the bottom of the bulkhead.

(c) Remove the pipe assemblies by releasing the two clamp blocks along the bottom of the bulkhead. Retain all these items for future re-assembly.

NOTE: All disconnected pipe ends and adapters must be sealed with adhesive tape or other protective material.

(2) Remove the redundant vent bracket assembly and fibre packing, Part No. A007181A and A004927, respectively (ref. only), by drilling out the eight $\frac{1}{8}$ in. dia. rivets attaching them to the bottom, starboard side, of the rear face of the fireproof bulkhead and the cowling support channel, using a No. 30 (0.1285 in. dia.) drill, and release the hose coupling and clips connecting the vent assembly to the vent pipe. Remove and retain the hose coupling and clips.

(3) Refer to "DEtail 'A'" in Sheet 1 of the drawing. Drill out the first four rivets attaching the bottom of the vertical stiffener to the bulkhead, using a No. 30 drill. Cut back the vertical stiffener, as shown. Obliterate the old Part No. A00971ND (ref. only), and stamp the new Part No. A007353ND on the stiffener.

(4) Refer to "Detail 'A'" in Sheet 1 of the drawing. Mark, cut and file the cutaway for the relief valve assembly in the cowling support channel. Cut back the bonnet tape and drill one hole, using a No. 30 drill. Attach the tape to the cowling support channel with one rivet, Part No. AS.2230/405.

(5) Paint the bared surfaces to match the colour scheme.

(6) Open up the two existing holes, previously used for rivets attaching the redundant vent assembly to the bulkhead, and drill out the third hole as shown in "Detail 'A'" in Sheet 1 of the drawing, using a No. 26 (0.147 in. dia.) drill.

/Page 3 .....

(7) Refer to "Detail 'A'" in Sheet 1 of the drawing. Drill out the six $\frac{1}{8}$ in. dia. rivets attaching the cowling support channel to the bulkhead, where shown, using a No. 30 (0.1285 in. dia.) drill. Open up the six holes and the four redundant holes previously used for rivets attaching the stiffener to the bulkhead with a No. 21 (0.159 in. dia.) drill. Countersink these ten holes 120 deg. to a depth of 0.045 in. and fill up with ten rivets, Part No. As.2230/505.

(8) Offer up the new vent relief valve assembly, Part No. P003727A/1 or Teddington FMB A/1, to the bulkhead. Mark off and cut the existing vent pipe, Part No. P002605A/ND (ref. only), to give a 0.25 in clearance between the end of the valve assembly inlet pipe and the end of the vent pipe. Remove all the burrs from the end of the vent pipe.

(9) Offer up the new vent relief valve assembly in its correct position at the bulkhead and seat it flat on the inside of the cowling support channel. Using the three holes in the bulkhead (drilled in operation (6) as guides, drill off the valve assembly attachment bracket, using a No. 26 (0.147 in. dia.) drill. Temporarily attach the new valve assembly to the bulkhead with at least two 4 B.A. nuts, bolts and washers.

(10) Using the four holes in the base of the valve assembly attachment bracket as guides, drill off the cowling support channel with the No. 26 drill.

(11) Remove the valve assembly and deburr all the holes. Countersink the two outboard No. 26 holes 90 deg. on the underside of the cowling support channel to suit the heads of the 4 B.A. countersunk bolts.

(12) Connect the valve assembly inlet pipe with the hose coupling and clips salvaged in operation (2). Coat all the mating surfaces with compound and assemble the valve assembly and new fibre packing, Part No. P003897, with the attachment items detailed in Sheet 2 of the drawing.

(13) Mark, cut and file the cutaway in the starboard lower inspection door as shown in Sheet 3 of the drawing. Drill off either four or five additional holes, as detailed, using a No. 30 (0.1285 in. dia) drill, and countersink them 90 deg. in the outer skin of the door to suit the rivet heads. Rivet up with either four or five rivets, Part No. AS. 2229/404.

(14) Obliterate the old Part No. L00432A/ND (ref. only), and stamp the new Part No. L003757A/ND on the starboard lower inspection door.

(15) Re-assemble all the items removed in operation (1), wire-locking, where necessary, with 22 s.w.g. nickel alloy wire. If Mod. No. Vampire/996 is not being embodied concurrently, fill, prime and functional test the hydraulic system.

9. TESTING AFTER EMBODIMENT

There are no special tests after embodiment of this modification.

10. RECORDING ACTION

Record on the Form 700 and 4801 as Mod/Vamp/3044 satisfied.

11. DISPOSAL OF REDUNDANT PARTS

The following items are rendered redundant and are to be returned to O.C. Equipment Depot for disposal in accordance with current R.R.A.F. Equipment Regulations.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	A00 4927	Packing, fibre	1	C
26FC/4592	A00 7181 A	Vent bracket assy.	1	C

/Page 4 .....

12. EFFECT ON WEIGHT AND C. OF G.

Negligible

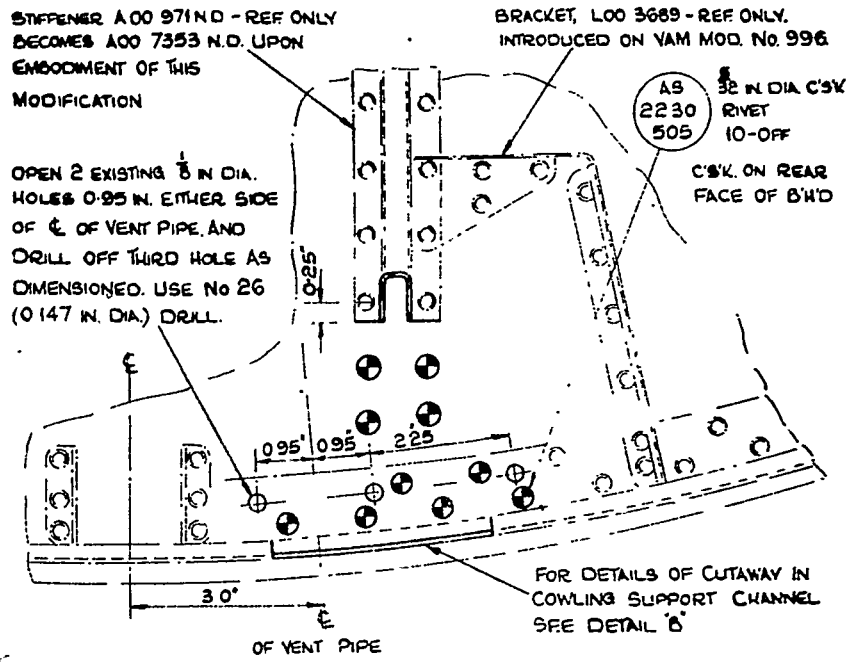
Source: A.P. 4099G, Vol. 2, Part 1,
Leaflet No. J.10

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

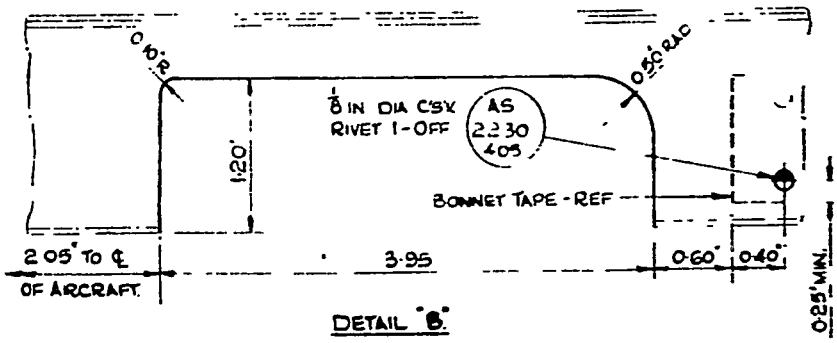
One copy to essential recipients
plus the following:-

S.E.S.O.	(1)
O.C. Equipment	(2)
W.O. A.R.S.	(2)
W.O. E.R.S.	(2)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)



DETAIL 'A'

SCRAP VIEW ON REAR FACE OF FIREPROOF BULKHEAD BOTTOM STB'D. SIDE



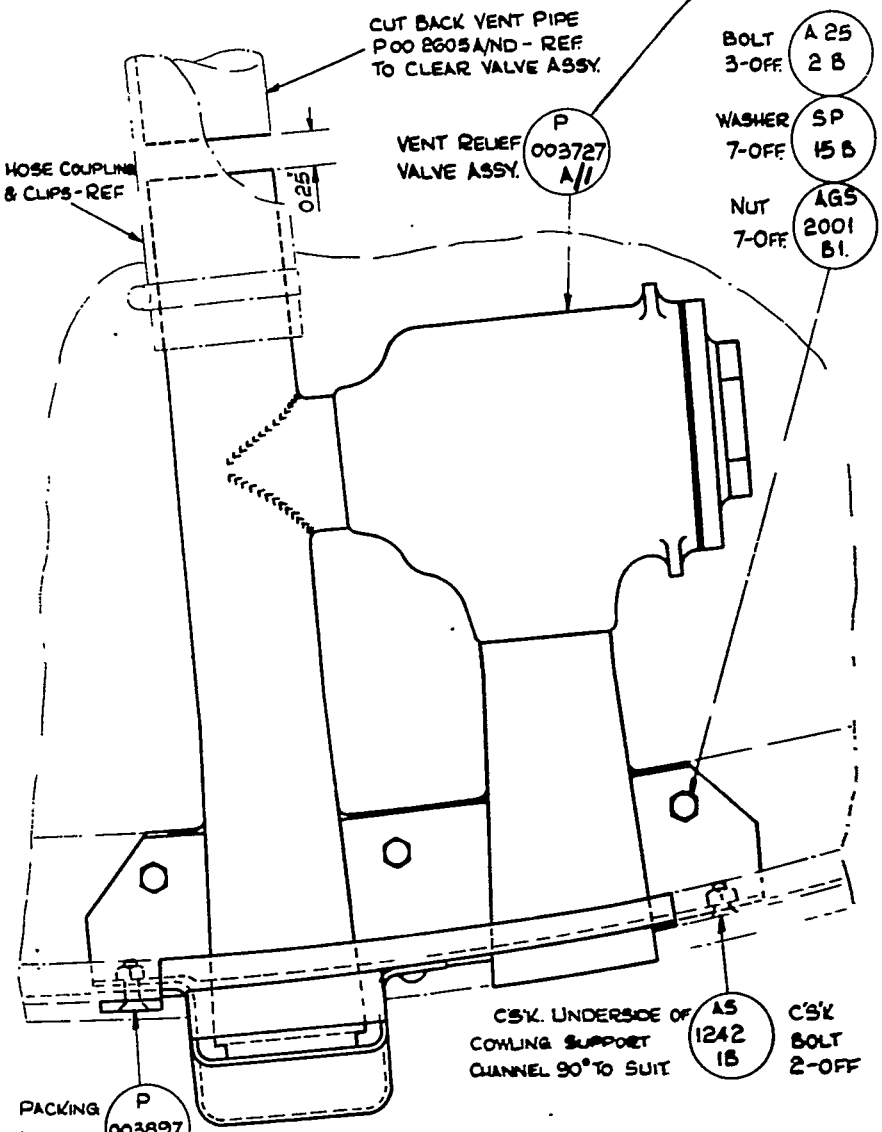
DETAIL 'B'

PLAN VIEW OF COWLING SUPPORT CHANNEL SHOWING CUTAWAY FOR FUEL VENT RELIEF VALVE STARBOARD SIDE ONLY.

Drg. No. A.P.4099G/J.10/53
Sheet 1

RESTRICTED

A.L.N°.111



ATTACHMENT BRACKET OF VALVE ASSY. DRILLED THREE No. 26 HOLES TO MATCH BULKHEAD.
COWLING SUPPORT CHANNEL DRILLED FOUR No. 26 HOLES TO MATCH BASE OF ATTACHMENT BRACKET.

SCRAP VIEW ON REAR FACE OF FIREPROOF BULKHEAD BOTTOM STBD SIDE

DRG. Nº A.P.4099G J.10/53
SHEET 2

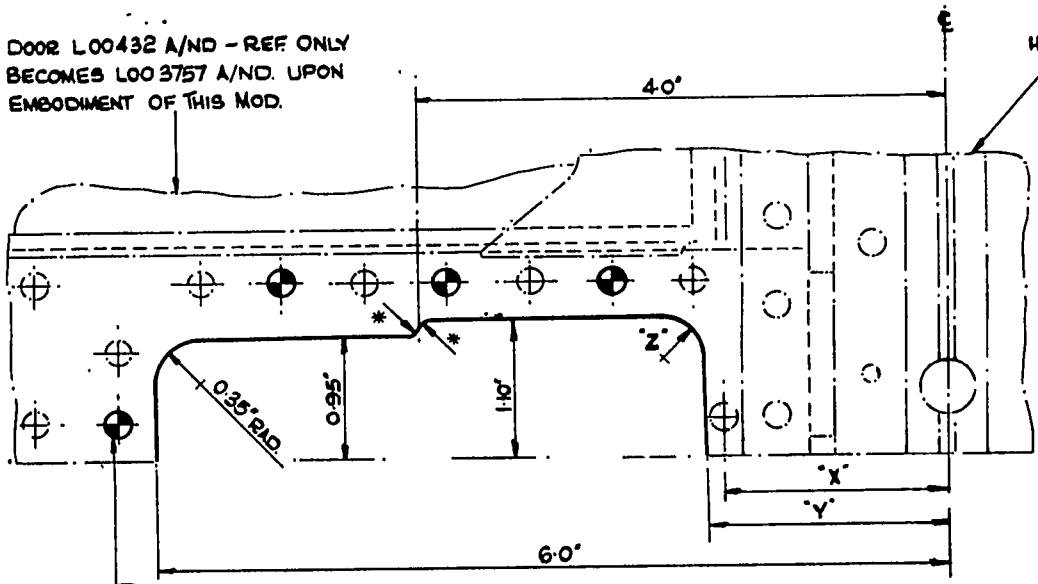
RESTRICTED

LP26389 5/53 350 C&P Gp. 959 (4)

RESTRICTED

DRG. Nº A.P.4099 G /J.10/53
SHEET 3

LP24389 5/53 350 C&P Gp. 959 (4)



NOTE * RADIUS CORNERS
0·05 INCH.

NOTE:- IF DIMENSION "X" TO CENTRE OF EXISTING RIVET DOES NOT EXCEED 1·95 INCH DIMENSION "Y" TO EDGE OF CUTAWAY IS TO BE 2·15 INCH AND RADIUS "Z" TO BE 0·05" INCH
IF DIMENSION "X" EXCEEDS 1·95 INCH, CUT BACK TO CLEAR EXISTING RIVET HOLE TO A MINIMUM DIMENSION "Y" OF 1·85 INCH, INCREASE RADIUS "Z" TO A MAXIMUM OF 0·30 INCH AND INTRODUCE A NEW RIVET ON THE SAME LINE AS THE EXISTING RIVET EQUI-DISTANT BETWEEN CUTAWAY EDGE AND HINGE.

SCRAP PLAN VIEW ON FORWARD EDGE OF STARBOARD LOWER INSPECTION DOOR.

Air Headquarters,
Royal Rhodesian Air Force.

9th April, 1958.

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B48 (Issue 1)

Vampire F.B. Mk. 9 Aircraft - Self-sealing Couplings in Hydraulic Pump Circuit atEngine - Re-positioned

(Mod. No. Vampire/996)

(Class C/3)

1. INTRODUCTION

This modification results from the inaccessibility of the couplings and the inability to use them when carrying out engine changes.

NOTE: This modification must be embodied prior to, or concurrently with, Mod. No. Vampire/3044, because the fuel vent relief valve cannot be fitted until the self-sealing coupling is re-positioned.

2. EMBODIMENT

Squadrons - Before next Minor Servicing on RRAF 100, 101, 102, 103, 104 and 105.

Maintenance Unit - Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 10 man hours.

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099C/M.8/53, Sheets 1 and 2 is incorporated in this Order.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Kit consists of the following items and is to be demanded from O.C. Equipment Depot under Stores Ref. 26FC/100996.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	L00.3689	Bracket, coupling support	1	C
26FC/6783	Q00.3693	Adapter	1	C
26FC/6784	Q00.3695	Adapter	1	C
26FC/6861	Q00.3697A/ND	Pipe assembly	1	C
26FC/8342	Q00.3701A/ND	Pipe assembly	1	C
27M/8762	AVA.58C	Coupling, flanged half	1	C
27M/8900	AVA.58D	Coupling, flanged half	1	C
28D/12511	A25/2B	Bolt	8	C
28M/10287	AGS.2001/B1	Nut	8	C
28Q/10652	AS.2228/405	Rivet	7	C
28Q/10408	AS.2228/406	Rivet	3	C
28Q/10777	AS.2228/407	Rivet	1	C
28Q/6640	AS.2229/404	Rivet	3	C
28Q/6679	AS.2229/405	Rivet	4	C
28Q/10413	AS.2230/405	Rivet	4	C

The undermentioned parts are required and are to be provided under Unit arrangements:-

33C/1264	Compound, pigmented varnish: jointing	As reqd	C
32B/764	Tape, adhesive	As reqd	C
32A/112	Twine, lacing, fire	As reqd	C
33C/10	Beeswax	As reqd	C
30A/3064	Wire, locking, 22 s.w.g. nickel alloy	As reqd	C

/Page 2 .....

6. SPARES AFFECTED

There are no spares affected by this modification.

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

There is no change of Stores References, Part or Assembly Numbers.

8. SEQUENCE OF OPERATIONS

The following isthe sequence of operations:-

(1) Release the hydraulic accumulator pressure and drain the hydraulic fluid from the aircraft.

(2) Remove the pressure and suction flexible hydraulic pipes, Part No. Q00.3717A/ND and Q00.2233A/ND (ref. only), from their adapters at the bottom of the rear face of the fireproof bulkhead and retain them for use on re-assembly.

(3) Locate the engine-driven hydraulic pump on the lower port side of the engine wheel case. Remove the redundant self-sealing stud half couplings, Part No. AVX.553 and AVX.554 (ref. only), from the "in" and "out" ports in the pump housing and replace them with the new adapters, Part No. Q00.3693 and Q00.3695.

(4) Connect the flexible hydraulic pipes removed from the fireproof bulkhead in operation (2), to the new adapters in the pump housing. Use the tube nuts that connected the pipes to the adaptors on the bulkhead to connect the pipes to the pump housing adapters.

(5) Wire-lock the adapters and tube nuts with 22 s.w.g. nickel alloy wire.

(6) Disconnect the redundant hydraulic pipe assemblies, Part Nos. Q00.2280A/ND and Q00.2281A/ND (ref. Only), from the ground test connection block on the port side of the rear face of the fireproof bulkhead. Completely remove the two pipe assemblies and their redundant hose adapters, Part Nos. Q00.1010 and Q00.2104 (ref. only), by releasing the three clamp blocks along the bottom of the bulkhead. Retain all the clamp blocks and their attachment items for use on re-assembly, with the exception of those on the starboard reinforcing angle, Part Nos. Q00.2131 and Q00.2132 (ref. only).

(7) On the forward face of the fire-proof bulkhead, lower the starboard accumulator rack and remove the accumulator in accordance with current authorised procedure.

(8) At the bottom of the lower starboard cowling support channel, drill out the first four countersunk $\frac{1}{8}$ in. dia. rivets attaching the Ferodo Bonnet tape to the support channel, using a No. 30 (0.1285 in. dia.) drill.

(9) Remove the redundant starboard reinforcing angle, Part No. L00. 94A (ref. only), by drilling out the five $\frac{1}{8}$ in. dia. rivets attaching it to the bulkhead and support channel, using a No. 30 (0.1285 in. dia.) drill.

(10) Refer to Sheets 1 and 2 of the drawing. Offer up the new coupling support bracket, Part No. L00.3689, 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. Use a No. 30 (0.1285 in. dia.) drill for the $\frac{1}{8}$ in. dia. rivets, and a No. 21 (0.159 in. dia.) drill for the 5/32 in. dia. rivets.

NOTE: If Mod. No. Vampire/3044 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.

/Page 3 .....

(11) Fill the redundant rivet holes in the bulkhead (previously used for attaching the redundant reinforcing angle) with three $\frac{1}{8}$ in. dia. countersunk rivets, Part No. AS.2229/404, and two $\frac{1}{8}$ in. dia. countersunk rivets, Part No. AS.2229/405.

(12) Again offer up the new coupling support bracket to the bulkhead and drill off the 13 holes with a No. 30 (0.1285 in. dia.) drill. Release the bracket, deburr all the holes, coat the mating surfaces of the bracket with compound, and then attach the bracket to the bulkhead with the rivets detailed in Sheet 1 of the drawing.

(13) Re-assemble all the items removed in operation (7).

NOTE: If Mod. No. Vampire/3044 is being embodied concurrently, the fitment of the fuel vent relief valve and the necessary cutting back of the Ferodo Bonnet tape is most conveniently carried out at this stage in the operations.

(14) Re-attach the Ferodo Bonnet tape to the cowling support channel with four $\frac{1}{8}$ in. dia. countersunk rivets, Part No. AS.2230/405.

(15) Refer to Sheet 2 of the drawing, and attach the two new flanged half coupling, Part No. AVA.58C and AVA58D, to the new coupling support bracket, with their flanges outboard of the bracket, using eight bolts and nuts, Part Nos. A25/2B and AGS.2001/B1, coating the mating surfaces with compound.

(16) Obtain the new hydraulic pipe assemblies, Part No. Q00.3697A/ND and Q00.3701A/ND, and sluice them through with the correct hydraulic fluid for the system to ensure their absolute cleanliness.

(17) Refer to Sheet 2 of the drawing, and connect the two new pipe assemblies to the ground test connection block and the new flanged half couplings at the support bracket. Wire-lock the connections with 22 s.w.g. nickel alloy wire.

(18) Re-assemble the port and central clamp blocks and their attachment items, removed in operation (6), to secure the two new pipe assemblied along the bottom of bulkhead.

(19) When the engine is re-installed, 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 wire-lock them with 22 s.w.g. nickel alloy wire.

(20) Fill, prime and functional test the system.

9. TESTING AFTER EMBODIMENT

There are no special tests after embodiment of this modification.

10. RECORDING ACTION

Record on the Form 700 and 4801 as Mod/Vamp/996 satisfied.

11. DISPOSAL OF REDUNDANT PARTS

The following items are rendered redundant and are to be returned to O.C. Equipment Depot for disposal in accordance with current R.R.A.F. Equipment Regulations.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/1877	L00.94A	Angle, reinforcing	1	C
26FC/3041	Q00.1010	Adapter, hose (pressure)	1	C
26FC/3042	Q00.2104	Adapter, hose (suction)	1	C
26FC/3037	Q00.2131	Clamp block	1	C
26FC/3038	Q00.2132	Clamp block	1	C
26FC/4259	Q00.2280A/ND	Pipe assembly	1	C
26FC/5660	Q00.2281A/ND	Pipe assembly	1	C
27M/9011	AVX.553	Coupling, stud half	1	C
27M/9012	AVX.554	Coupling, stud half	1	C

/Page 4 .....

12. EFFECT ON WEIGHT AND C. OF G.

Negligible

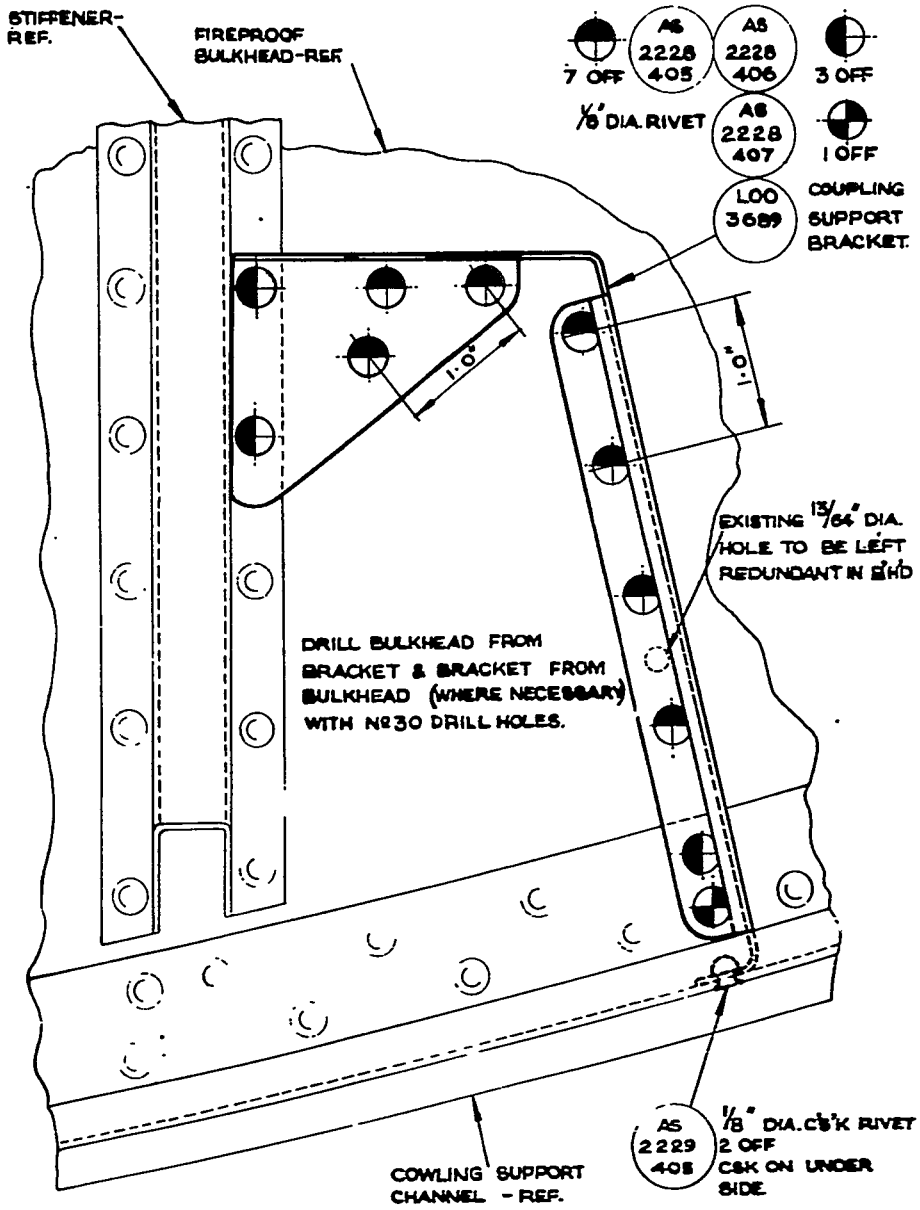
Source: A.P. 4099G, Vol. 2, Part 1, Leaflet M.8

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipients plus the following:-

W.O. A.R.S.	(2)
W.O. E.R.S.	(2)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)
O.C. Equipment Depot	(2)
S.E.S.O.	(1)



SCRAP VIEW ON REAR FACE OF FIREPROOF BULKHEAD, BOTTOM ST'BD SIDE.

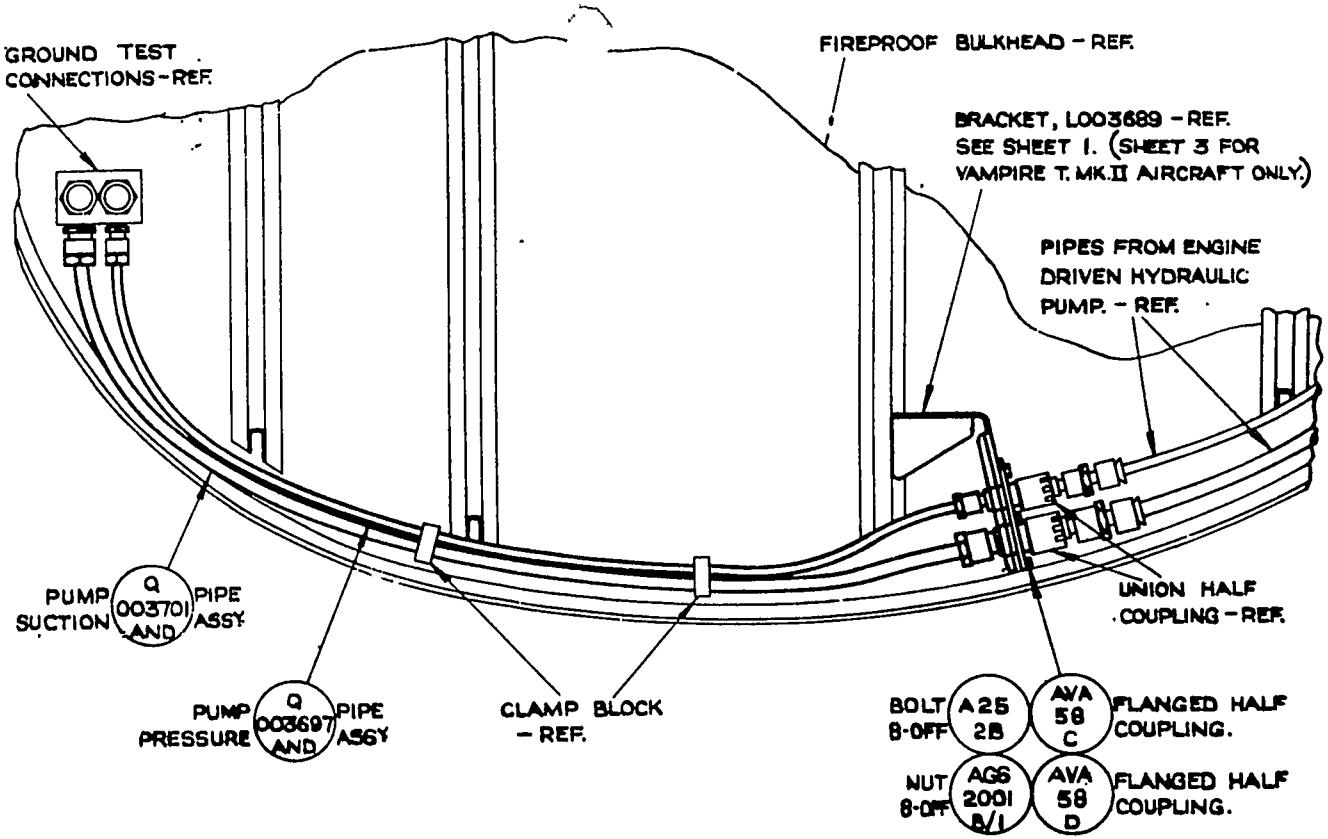
VARIATION 23

RESTRICTED

DRG. Nº A.P.4099G /M.8/53
SHEET 1

LP26633 7/53 350 C&P Gp.959 (4)

RESTRICTED



VIEW ON REAR FACE OF FIREPROOF BULKHEAD BOTTOM HALF.

DRG. Nº A.P.4099G/M.8/53
SHEET 2

LP26633 7/53 350 C&P Gp2.959(4)

Air Headquarters,
Royal Rhodesian Air Force.
9th April, 1958.

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B47 (Issue 1)

Vampire F.B. Mk. 9 Aircraft - Light Weight Packing in Wing Tank Bays between Tanks and Wing Structure, Introduction

(Mod. No. Vampire/3045)

(Class C/3)

1. INTRODUCTION

This modification results from the report that the excessive space between the tank walls and the wing structure allows the tanks to move, and thus imposes undue strain upon the various fuel pipe connections, with a detrimental effect, and makes provision for the introduction of a light weight packing to fill these unnecessary spaces, and hence obviate any tendency for the tanks to move. This modification must be fully embodied prior to the incorporation of Mod. No. Vampire/3044.

2. EMBODIMENT

Squadrons - This modification is to be embodied on RRAF 101, 103, 105, 107 at the next Minor Servicing. Tank Bays 3 and 4 are to be modified concurrently, as they are supported by the same tank door.

Maintenance Unit - Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 3 man hours for No. 1 tank bay, 3 man hours for No. 2 tank bay, and 15 man hours for No. 3 and 4 tank bays, per mainplane.

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099G/H/52, Sheets 1 and 2 is incorporated in this Order.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Kit consists of the following items and is to be demanded from O.C. Equipment Depot under Stores Ref. 26FC/103045.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
		Tank Bay No. 1, Port. Part A		
26FC/-	D007719ND	Packing	1	C
26FC/-	D007721ND	Packing	1	C
26FC/-	D007723ND	Packing	1	C
26FC/-	D007725ND	Packing	1	C
		Tank Bay No. 1, Starboard. Part B		
26FC/-	D007720ND	Packing	1	C
26FC/-	D007722ND	Packing	1	C
26FC/-	D007724ND	Packing	1	C
26FC/-	D007726ND	Packing	1	C
		Tank Bay No. 2, Port. Part C		
26FC/-	D007757ND	Packing	1	C
26FC/-	D007759ND	Packing	1	C
26FC/-	D007805ND	Packing	1	C
26FC/-	D007807ND	Packing	1	C
26FC/-	D007815ND	Packing	1	C
26FC/-	DHS160/N25	Hose joint	1	C
		Tank Bay No. 2, Starboard. Part D		
26FC/-	D007758ND	Packing	1	C
26FC/-	D007760ND	Packing	1	C
26FC/-	D007762ND	Packing	1	C
26FC/-	D007764ND	Packing	1	C
26FC/-	D007772ND	Packing	1	C
26FC/-	DHS.160/N25	Hose joint	1	C

/Page 2 .....

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
		Tanks Bays No. 3 and 4, Port. Part E		
26FC/-	D007727ND	Packing	1	C
26FC/-	D007729ND	Packing	1	C
26FC/-	D007731ND	Packing	1	C
26FC/-	D007733ND	Packing	1	C
26FC/-	D007735ND	Packing	1	C
26FC/-	D007737ND	Packing	1	C
26FC/-	D007739ND	Packing	1	C
26FC/-	D007741ND	Packing	1	C
26FC/-	D007743ND	Packing	1	C
26FC/-	D007745ND	Packing	1	C
26FC/-	D007747ND	Packing	1	C
26FC/-	D007749ND	Packing	1	C
26FC/-	D007751ND	Packing	1	C
26FC/-	D007753ND	Packing	1	C
26FC/-	D007755ND	Packing	1	C
26FC/-	D007809ND	Packing	1	C
26FC/-	D007811ND	Packing	1	C
26FC/-	D007813ND	Packing	1	C
26FC/-	D007817ND	Packing	1	C
26FC/-	D007819ND	Packing	1	C
26FC/-	D007821ND	Packing	1	C
26FC/-	D007823ND	Packing	1	C
26FC/-	D007825ND	Packing	1	C
26FC/-	D007827ND	Packing	1	C
26FC/-	D007829ND	Packing	1	C
26FC/-	D007831ND	Packing	1	C
26FC/-	DHS.160/N25	Hose joint	1	C
26FC/-	DHS.160/N35	Hose joint	2	C
		Tanks Bays No. 3 and 4, Starboard, Part F		
26FC/-	D007728ND	Packing	1	C
26FC/-	D007730ND	Packing	1	C
26FC/-	D007732ND	Packing	1	C
26FC/-	D007734ND	PACKing	1	C
26FC/-	D007736ND	Packing	1	C
26FC/-	D007738ND	Packing	1	C
26FC/-	D007740ND	Packing	1	C
26FC/-	D007742ND	Packing	1	C
26FC/-	D007744ND	Packing	1	C
26FC/-	D007746ND	Packing	1	C
26FC/-	D007748ND	Packing	1	C
26FC/-	D007750ND	Packing	1	C
26FC/-	D007752ND	Packing	1	C
26FC/-	D007754ND	Packing	1	C
26FC/-	D007756ND	Packing	1	C
26FC/-	D007770ND	Packing	1	C
26FC/-	D007774ND	Packing	1	C
26FC/-	D007782ND	Packing	1	C
26FC/-	D007784ND	PAcking	1	C
26FC/-	D007788ND	Packing	1	C
26FC/-	D007810ND	Packing	1	C
26FC/-	D007812ND	Packing	1	C
26FC/-	D007820ND	Packing	1	C
26FC/-	D007822ND	Packing	1	C
26FC/-	D007824ND	Packing	1	C
26FC/-	D007830ND	Packing	1	C
26FC/-	DHS.160/N25	Hose joint	1	C
26FC/-	DHS.160/N35	Hose joint	1	C

The undermentioned items are required to embody this modification and are to be supplied under Unit arrangements:-

34D/246	White spirit -	White spirit	As Reqd	C
33C/1216	Solvent naphtha c	Solvent naphtha coal tar (spec. BS479)	As Reqd	C
33C/1283		Adhesive Bostik No.1775	As Reqd	C

(2) Special tools and Test Equipment

There are no special tools or test equipment required for the embodiment of this modification.

/Page 3 .....

6. SPARES AFFECTED

There are no spares affected by this modification.

7. CHANGE OF STORES, REFERENCE, PART AND ASSEMBLY NUMBERS

There is no change in Stores Reference, Part and Assembly Numbers.

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations (assuming that the individual fuel tanks have been removed), and is common to both port and starboard mainplanes:-

(1) Refer to Sheet 1 and 2 of the drawing; offer up, in turn, each individual packing piece as required for the specific tank bay in question, and inspect to ensure that each piece fits snugly against the ribs and spares, and tightly against the stringers on the top skin. If necessary, to obtain this fit, the packings may be cut and trimmed by hand.

(2) When the best possible fits have been obtained, clean the faying surfaces of the packing pieces and aircraft structure with white spirit and naphtha 50/50 mixture. Now apply a liberal coating of the Kerosene resisting Bostik cement, Specification 1775, to the cleansed surfaces, and then firmly press each piece of packing into its correct position. Re-assembly of the wing tanks should be delayed for a period of about 15 minutes to ensure that the Bostik cement has completely dried.

NOTE: On the removal of tank 2, the existing rubber hose leading to tank 3 should be removed and replaced with a new length, Part No. DHS.160/N25. In the case when tanks 3 and 4 are removed, with or without tank 2, a new length of hose, as above, should still be introduced, and also two new lengths, Part No. DHS.160/N35, in place of the two existing hose joints at the balance connections between tanks 3 and 4.

9. TESTING AFTER EMBODIMENT

There are no special tests after embodiment of this modification.

10. RECORDING ACTION

Record in the Form 700 and 4801 as Mod/Vamp/3045 satisfied.

11. DISPOSAL OF REDUNDANT PARTS

There are no parts rendered redundant by the embodiment of this modification.

12. EFFECT ON WEIGHT AND C. OF G.

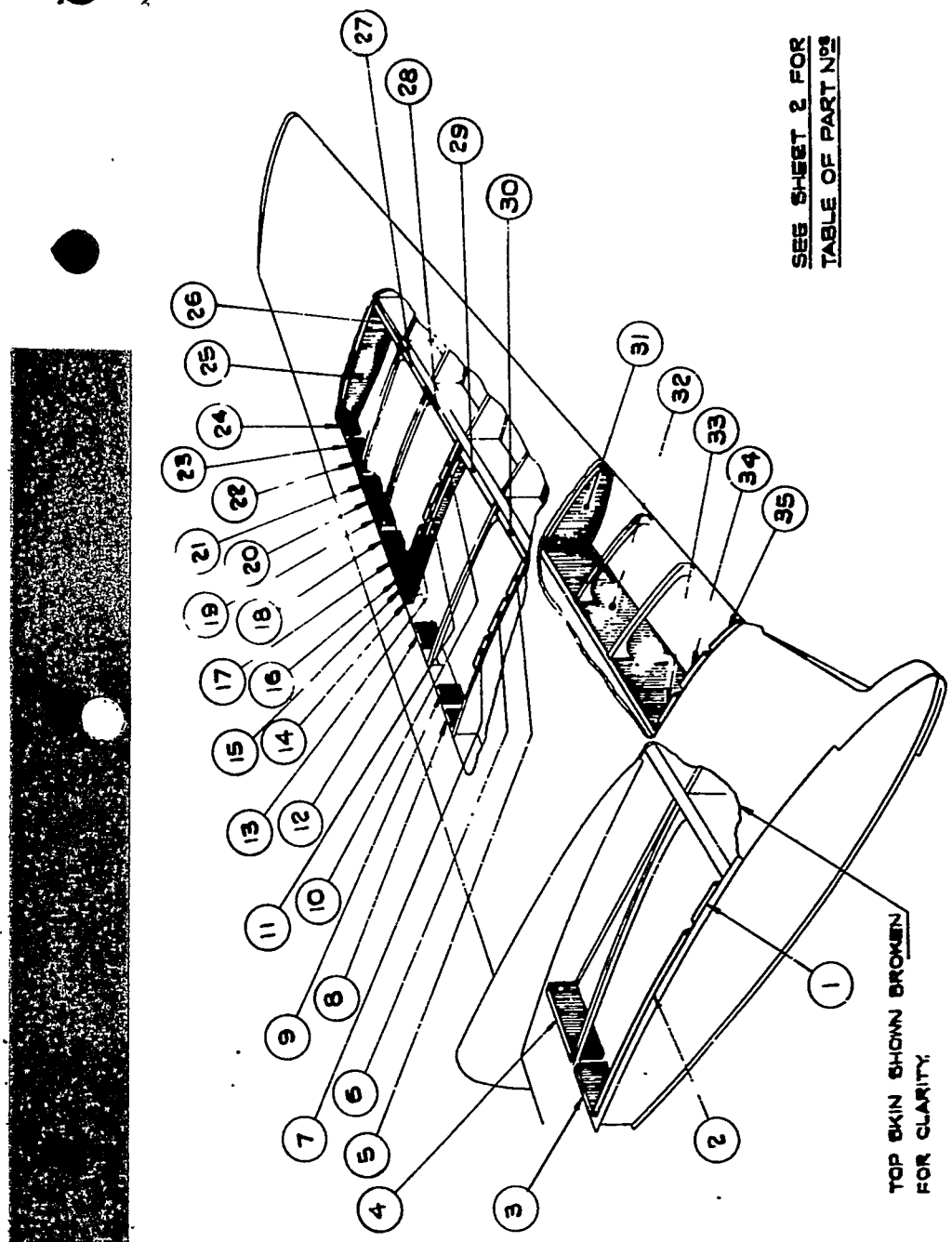
Negligible.

Source: A.P. 4099G Vol.2, Part 1
Leaflet No. H.10

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:
One copy to essential recipients
plus the following:-

S.E.S.O.	(1)
O.C. Equipment Depot	(2)
W.O. A.R.S.	(2)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)



ASSEMBLY OF PACKING IN TANK BAYS

RESTRICTED

DRG. Nº A.P.4099G /H.10/52
SHEET 1

LP25939 12/52 300 C&P Gp. 959 (4)

TANK BAY Nº 1		
Nº	PART Nº PORT.	PART Nº ST'BD.
1	D007725 ND.	D007726 ND.
2	D007723 ND.	D007724 ND.
3	D007721 ND.	D007722 ND.
4	D007719 ND.	D007720 ND.
TANK BAYS Nos. 3 AND 4.		
5	D007755 ND.	D007756 ND.
6	D007753 ND.	D007754 ND.
7	D007751 ND.	D007752 ND.
8	D007727 ND.	D007728 ND.
9	D007729 ND.	D007730 ND.
10	D007829 ND.	D007830 ND.
11	D007827 ND.	D007784 ND.
12	D007731 ND.	D007732 ND.
13	D007825 ND.	D007782 ND.
14	D007811 ND.	D007812 ND.
15	D007823 ND.	D007824 ND.
16	D007733 ND.	D007734 ND.
17	D007735 ND.	D007736 ND.
18	D007737 ND.	D007738 ND.
19	D007739 ND.	D007740 ND.
20	D007741 ND.	D007742 ND.
21	D007743 ND.	D007744 ND.
22	D007745 ND.	D007746 ND.
23	D007747 ND.	D007748 ND.
24	D007749 ND.	D007750 ND.
25	D007831 ND.	D007788 ND.
26	D007821 ND.	D007822 ND.
27	D007817 ND.	D007774 ND.
28	D007819 ND.	D007820 ND.
29	D007813 ND.	D007770 ND.
30	D007809 ND.	D007810 ND.
TANK BAY Nº 2.		
31	D007815 ND.	D007772 ND.
32	D007757 ND.	D007758 ND.
33	D007759 ND.	D007760 ND.
34	D007805 ND.	D007762 ND.
35	D007807 ND.	D007764 ND.

LIST OF PARTS REFERRED TO ON SHT. 1 OF THE DRG.

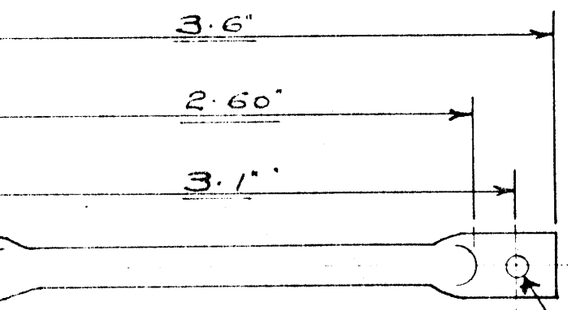
RESTRICTED

DRG. Nº A.P.4099 G /H.10/ 52
SHEET 2

LP25909 12 52 300 C & P Gp.959 (4)

REMOVE EXISTING BRACKET WITH BOLTS & NUTS

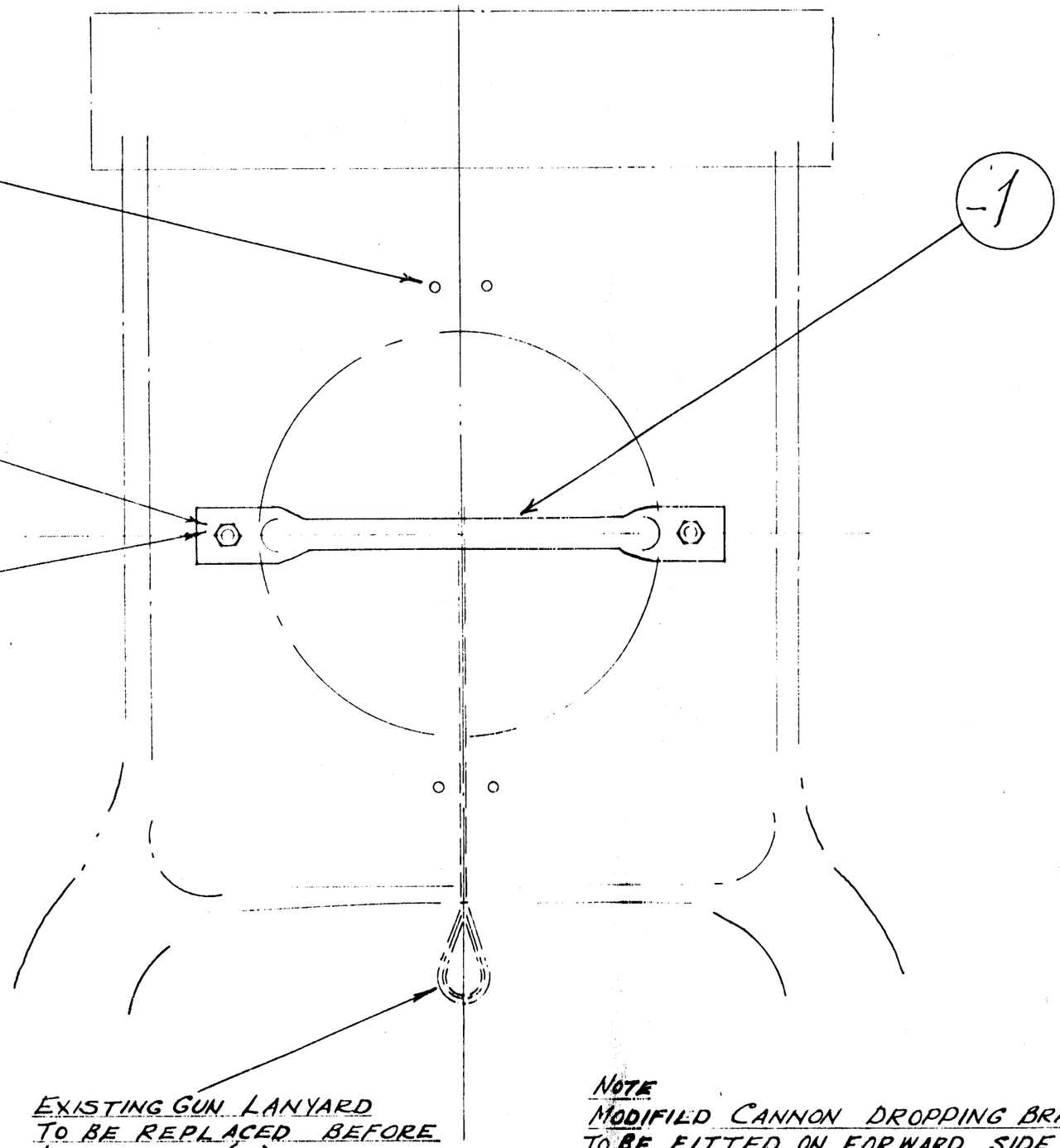
DRILL 2 HOLES MORSE N° 27(.144") THROUGH CANNON STIRRUP FROM (-1) IN POSITION.



A 25 -3-B BOLT 2 REQ

BP/1 NUT 2 REQ

5P 13 B WASHER 2 REQ



	WASHER			2
	NUT			2
	BOLT			2
	CANNON DROP B RKT.	1"O/D STL TUBE x 18 SWG	T35	1
	DESCRIPTION	MATERIAL	SPEC	N° REQ

NOTE
MODIFIED CANNON DROPPING BRACKET TO BE FITTED ON FORWARD SIDE OF CANNON STIRRUP. APPLICABLE TO OUTBOARD STIRRUPS PART N°s 006 19 A/ND & 006 20/ND

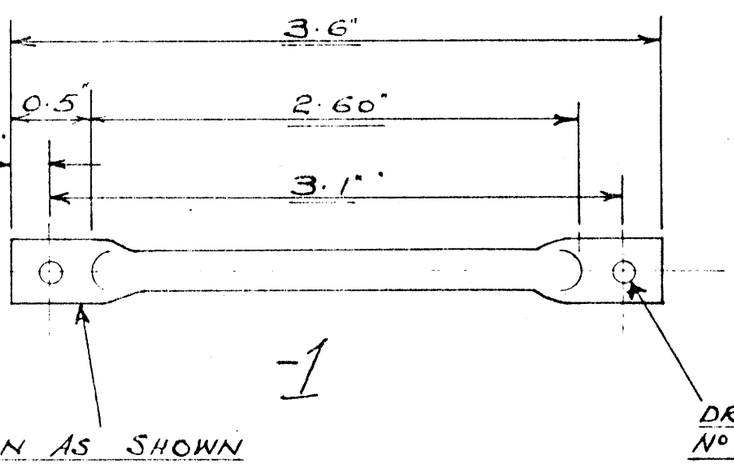
CANNON DROPPING BRACKET

AD4650 VAMPIRE.

AV-13.

REMOVE EXISTING BRACKET WITH BOLTS & NUTS

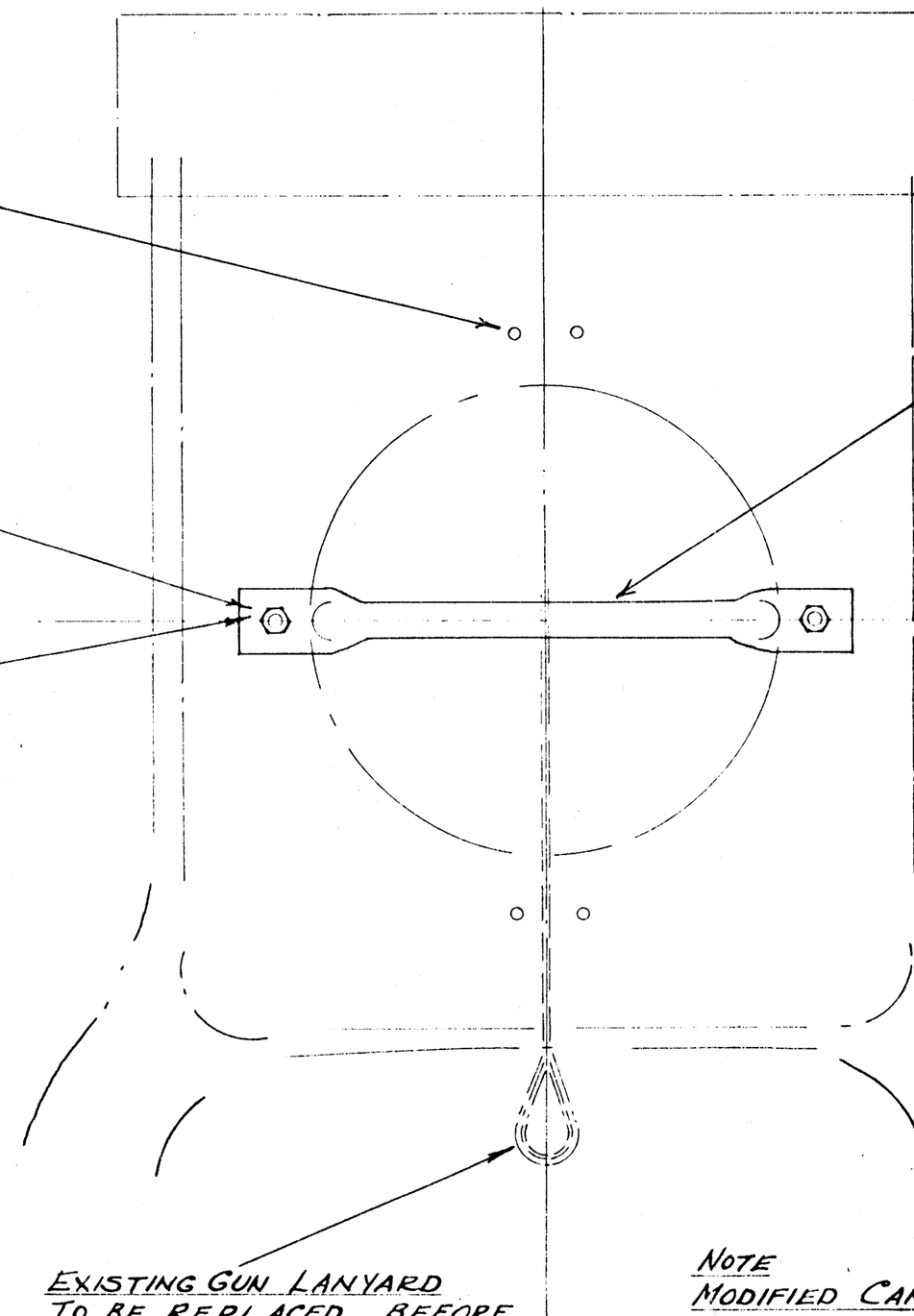
DRILL 2 HOLES MORSE N° 27(.144") THROUGH CANNON STIRRUP FROM (-1) IN POSITION.



A 25 -3-B — BOLT 2 REQ

BP/1 — NUT 2 REQ

SP 13 B — WASHER 2 REQ



EXISTING GUN LANYARD TO BE REPLACED BEFORE ATTACHING (-1)

NOTE
MODIFIED CA
TO BE FITTED
CANNON STIR
OUTBOARD S
006 19A/ND

ASH N°	PART N°	DESCRIPTION	MATERIAL	SPEC	N° REQ
	SP - 13 B	WASHER			2
	BP/1	NUT			2
	A25 - 3 - B	BOLT			2
1		CANNON DROP B RKT.	¼" O/D STL TUBE x 18 SWG	T35	1

MODIFIED CANNON DROPPING BRACKET AD4650 VAMPIRE.

Air Headquarters,
Royal Rhodesian Air Force.

18th March, 1958

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B46 (Issue 1)

Vampire T. Mk. 11 Aircraft - Fuel System - To Introduce Locating Spigots and Additional Sealing at Fuselage Fuel Tank Filler Neck

(Mod. No. Vampire/3431)

(Class B/2)

1. INTRODUCTION

It has been found that the seal at the main fuel tank filler neck has been breaking down, resulting in fuel overflowing into the tank bay during refuelling operations. To overcome this fault, this modification introduces locating spigots and additional sealing at the fuel filler neck.

(1) This modification renders unnecessary the work called for by S.I. No. Vampire 51, 51A. (R.R.A.F. Tech. Order Vol. 3 - 2 - E23 Issue 3).

(2) This modification is essentially connected with Mod. No. Vampire/3249 (To Introduce Improved Sealing at Fuselage Fuel Tank Filler Neck); if that work is not already embodied it must be effected concurrently.

2. EMBODIMENT

This modification is to be embodied by:-

Squadrons - At the first opportunity (not later than 3 months after receipt of parts)

Maintenance Unit - Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 5 man hours, the main tank not having to be removed; or 30 man hours if the main tank has to be removed.

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099J/H.24/57 is incorporated in this leaflet.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Kit which consists of the following items supplied by O.C. Equipment Depot under Ref. No. 26FC/103431:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/11928	12PT.1807	Nut, special	8	C
26FC/-	15PT.7	Spigot, main fuel tank	1	-
26FC/-	15PT.8	Spigot, main fuel tank	1	-

(b) The following materials are also required, and are to be provided under Unit arrangements:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/6890	12PT.1429	Ring, sealing	1	C
30A/3055		Wire, locking, nickel alloy, 22 s.w.g.	As reqd.	C
31A/-		Plywood, birch, to required thickness	As reqd.	C
32C/637		Rubber sheet, synthetic, 1/16 in. thick	As reqd.	C
9429196.		Primer, etch base	As reqd.	C

/Page 2 .....

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
9429195		Primer, etch accelerator	As Reqd.	C
33B/1027		Lacquer, plyceal, Spec. D.T.D.900/4285	As Reqd.	C
33B/954		Finish, black cellulose, Spec. D.T.D.772	As reqd.	C
33C/973		Adhesive hardener, synthetic resin G.B.M.	As reqd.	C
33C/1117		Cement, Boscoprene 2413, parts 1 and 2	As reqd.	C
33C/1138		Compound, pressure cabin sealing, Bostik 1790	As reqd.	C
33C/1188		Adhesive, synthetic resin, type B.70	As reqd.	C

(2) Special Tools and Test Equipment

No special tools or test equipment are 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:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/-	P00.3279A/1	G.A. of main fuel tank		
26FC/6889	P00.3937A/ND	G.A. of main fuel tank (Spares)		

NOTE: The method for modifying each of the above spares is detailed in para 8, operations (2) and (3) and on the drawing.

Parts required for each spare:-

26FC/11928	12PT.1807	Nut, special	8	C
26FC/-	15PT.7	Spigot, main fuel tank	1	-
26FC/-	15PT.8	Spigot, main fuel tank	1	-

7. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Reference, Part and Assembly Numbers as follows:-

Ref. No.	Old Part/Assy.No.	Nomenclature	New Part/Assy.No.	Ref. No.
26FC/-	P00.3279A/1	G.A. of main fuel tank	15PT.9A	26FC/-
26FC/6889	P00.3937A/ND	G.A. of main fuel tank (spares)	15PT.11A/ND	26FC/-

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Locate the main fuselage fuel tank filler orifice on the upper port side of the fuselage aft of the canopy, and check the following points:-

(a) That the rubber sealing ring, introduced by Mod. No. Vampire/3249 is correctly in position and has not exuded into the filler neck orifice, and is compressed against the locating block in the fuselage shell aperture at all points, making a satisfactory sealed joint.

(b) That the filler neck of the fuel tank is concentric with the fuselage shell orifice.

(c) That the fuselage shell orifice is no less than 5.250 in. dia. at the bottom so as to allow for the fitment of the new spigots.

NOTE: If any of these checks reveal an unsatisfactory state, the fuel system is to be drained, the main fuel tank removed in accordance with A.P. 4099J, Vol. 1, Sect. 4, Chap. 2, and the deficiencies corrected as follows:-

/Page 3.....

(i) Remove the rubber sealing ring, Part No. 12PT.1429, and fit an annular ring of ply (Ref. No. 31A/-) of the required thickness to make up the discrepancy and so ensure compression of the sealing ring on reassembly. Glue the ply ring to the base of the filler locating block with synthetic resin adhesive and synthetic resin hardener (Ref. Nos. 33C/1188 and 33C/973). Replace the rubber sealing ring and secure it in position with Boscoprene cement 2413, Parts 1 and 2, Spec. D.T.D.900/4130 (Ref. No. 33C/1117), ensuring that it lies central about the filler locating block, but distort it slightly in order to clear the earthing socket.

(ii) To maintain filler neck concentricity, the tank bearer blocks at the top of bulkhead No. 3, and on the fire-proof bulkhead, may be adjusted by adding to, or relieving the rubber packings. When adding, use paraffin-resistant rubber (Ref. No. 32C/637) and secure it with Boscoprene cement, Parts 1 and 2, applied to the bearing surfaces.

(iii) The filler neck orifice in the fuselage shell may be slightly relieved in order to achieve a snug fit of the locating spigots, and if relieved, the bared surfaces must be treated with Plyceal lacquer (Ref. No. 33B/1027).

(iv) Reinstall the main fuel tank in the aircraft, again following the procedure detailed in A.P. 4099J, Vol. 1, Sect. 4, Chap. 2, and check that a satisfactory seal exists at the filler neck orifice.

(2) The sealed joint having been found in order, or corrected, remove the redundant stiffnuts and special cup washers, Part No. P.98383, from the flange of the filler neck. After filling the aperture between the flange and the rudder seal with a liberal layer of Bostik 1790 (Ref. No. 33C/1138), secure the two newlocating spigots, Part Nos. 15.PT.7, and 15.PT.8, to their respective positions on the flange using eight new special nuts, Part No. 12.PT.1807, as shown on the drawing . It is important to ensure that the cut outs in the spigots are positioned over the overflow drain holes and that the drain holes are free from any restrictions.

(3) Wire lock each of the special nuts to one another in succession with 22 s.w.g. nickel-alloy locking wire (Ref. No. 30A/3055). Repair any damage to the finish at the wooden aperture with primer etch base, primer etch accelerator and black cellulose finish, Spec. D.T.D.772 (Ref. Nos. 9429196 & 9429195 and 33B/1062 or 954) respectively.

9. TESTING AFTER EMBODIMENT

When this modification has been embodied and inspected, the following tests are to be carried out:-

If the main fuel tank has been removed, refuel and carry out a fuel flow and pressure test in accordance with the current authorised 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 disposed of as scrap in accordance with current R.R.A.F. Equipment Regulations:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26BY/8138	P.98383	Washer, special cup	8	C

/Page 4 ....

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of + 1.10 lb., and a change of moment of - 1.0 lb. ft.

Source: A.P. 4099J, Vol. 2, Part 1,
Leaflet H.24

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipients plus the following:-

S.E.S.O.	(1)
O.C. Equipment Depot	(2)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)
W.O. A.R.S.	(2)

Air Headquarters,
Royal Rhodesian Air Force.
21st March, 1958

R.R.A.F. Technical Order
Vol. 3, Sect. 4, Sub Sect. B45 (Issue 1)

Vampire T Mk. 11 Aircraft - Cockpit - To Eliminate Gaps in False Floor

(Mod No. Vampire/3405)

(Class B/2 to aircraft embodying 3167 Part B).

1. INTRODUCTION

Foreign matter, found under the pilot's and 2 nd pilot's floor has created a flying hazard. To overcome this defect, this modification seals off the apertures in the false floor.

(1) This modification does not cancel, supersede, or render unnecessaary any work called for by approved modification, Command Modifications, S.T.Is., S.Is., or S.R.I.Ms.

(2) This modification is applicable only if Mod. No. Vampire/3167, Part B (To introduce provision for Fully Automatic, Mk. 3 Ejection Seats. Part A: FixedParts, Part B: Other Associated Parts) is already embodied.

2. EMBODIMENT

This modification is to be embodied by:-

Squadrons - At the first opportunity (not later than 3 months after receipt of parts).

Maintenance Unit - Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 13 man hours (2 to strip; 8 to embody; 3 to re-assemble).

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099J/J.23/56, Sheets 1 - 6, is incorporated in this leaflet.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Kit, which consists of the following items will be demanded from O.C. Equipment Depot under Stores Ref. 26FC/103405:-

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/11964	15F.2627A	Dust bag	1	C
26FC/-	15F.2629ND	Clamping strip	1	-
26FC/-	15F.2631	Fairlead	1	-
26FC/11965	15F.2633	Shield, L.H.	1	C
26FC/11966	15F.2634	Shield, R.H.	1	C
26FC/11967	15F.1643A	Dust bag	1	C
26FC/-	15F.2801	Screen	1	-
26FC/-	15F.2803A	End plate	1	-
26FC/-	15F.2805ND	Clamping strip	1	-
26FC/-	15F.3217	Guard	1	-
26FC/-	15F.3287ND	Clamping strip	1	-
26FC/-	15Z.1897ND	Patch plate	1	-
26FC/-	15Z.1921ND	Flange	1	-
26FC/-	15Z.2219ND	Angle bracket	1	-
26FC/-	J.278	Angle section, 10 in. length	1	-
26FC/-	J.622	Rubber strip, 3 in. length	1	-

/Page 2 .....

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
28D/12528	A.25/1B	Bolt, hex. head, 4 B.A.	5	C
28D/12511	A.25/2B	Bolt, Hex. head, 4 B.A.	4	C
28D/12622	A.25/3B	Bolt, hex. head, 4 B.A.	1	C
28M/10327	AGS.2002/B1	Nut, stiff, thin, 4 B.A.	2	C
28M/12153	AGS.2007/B1	Nut, anchor, 4 B.A.	9	C
28M/13307	AGS.2018/B1	Nut, anchor, single, 4 B.A.	1	C
28D/8337	AS.1248/1B	Bolt, mrm./hd. 4 B.A.	2	C
28Q/7015	AS.2227/203	Rivet, sp./hd. 1/16 in. dia.	6	C
28Q/6664	AS.2227/304	Rivet, sp./hd. 3/32 in. dia.	12	C
28Q/6638	AS.2227/404	Rivet, sp./hd. $\frac{1}{8}$ in. dia.	9	C
28Q/6639	AS.2227/405	Rivet, sp./hd. $\frac{1}{8}$ in. dia.	6	C
28Q/6640	AS.2229/404	Rivet, 90 deg. csk./hd. $\frac{1}{8}$ in. dia.	1	C
28Q/6679	AS.2229/405	Rivet, 90 deg. csk./hd. $\frac{1}{8}$ in. dia.	6	C
28Q/6870	AS.2229/406	Rivet, 90 deg. csk./hd. $\frac{1}{8}$ in. dia.	1	C
28Q/10566	AS.2230/303	Rivet, 120 deg. csk./hd. 3/32 in. dia.	12	C
28Q/10432	AS.2230/304	Rivet, 120 deg. csk./hd. 3/32 in. dia.	23	C
28Q/10694	AS.2230/305	Rivet, 120 deg. csk./hd. 3/32 in. dia.	2	C
28Q/10412	AS.2230/404	Rivet, 120 deg. csk./hd. $\frac{1}{8}$ in. dia.	2	C
28W/12346	SP.10/B	Washer, thin, 4 B.A.	2	C
28W/12305	SP.13/B	Washer, 4 B.A.		

(b) The following materials are required, and are to be provided under Unit arrangement:-

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
32B/793	-	Tape, self adhesive, water proof fabric, 2 in. Spec. CS2191C	As reqd	C
33B/9429106	-	Primer, etch base	As reqd	C
33B/9429195	-	Primer, etch accelerator	As reqd	C
33B/9428837	-	Finish, synthetic, matt, night, D.T.D.314	As reqd	C
33C/1173	-	Cement, rubber resin, Spec. C.S.2558	As reqd	C
33C/1264	-	Compound, pigmented varnish jointing, D.T.D. 369A	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:-

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/6115	15F.655A	False floor panel assembly (front L.H.)	-	-

The method for modifying the above spare is detailed in para 8 operations (1), (2) and (11) and Sheets 1 and 2 of the drawing.

Parts Required:

26FC/-	15Z.2219ND	Bracket, angle	1	-
26FC/-	J.278	Angle section, 10 in. length	1	-
		Attaching parts for 15Z.2219ND bracket and J.278 angle:		
28Q/6638	AS.2227/404	Rivet, sp./hd. $\frac{1}{8}$ in. dia.	4	C
28Q/6639	AS.2227/405	Rivet, sp./hd. $\frac{1}{8}$ india.	6	C

/Page 3.....

Spare affected:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/11269	15F.675A/1	False floor panel assembly (front R.H.)	-	-

The method for modifying the above spare is detailed in para 8, operations (1), (3) and (11) Sheet 1 and 3 of the drawing.

Parts required:

26FC/-	15F.2627A	Bag, dust	1	C
26FC/-	15F.2629ND	Strip, clamping	1	-
26FC/11964	15F.3287ND	Strip, clamping	1	-
	Attaching parts for 15F.2627A bag, 15F.2629ND and 15F.3287ND strips:			
28Q/6664	AS.2227/304	Rivet, sp./hd. 3/32 in. dia.	7	C
28Q/6640	AS.2229/404	Rivet, 90 deg. csk./hd. $\frac{1}{8}$ in. dia.	1	C

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Stores Reference, Part and Assembly Numbers as follows:-

Old Stores Ref.	Old Part/Assy No.	Nomenclature	New Part/Assy No.	New Stores Ref.
26FC/6115	15F.655A	False floor panel assy. (front L.H.)	15F.655A/1	26FC/-
26FC/11269	15F.675A/1	False floor panel assy. (front R.H.)	15F.675A/2	26FC/-
26FC/-	15F.1587A/2	False floor panel assy. (rear L.H.)	15F.1587A/3	26FC/-
26FC/-	15F.1589A/3	False floor panel assy. (rear centre)	15F.1589A/4	26FC/-
26FC/-	15F.1591A/4	False floor panel assy. (rear R.H.)	15F.1591A/5	26FC/-
26FC/-	15F.2733A	False floor panel assy. (centre R.H.)	15F.2733A/1	26FC/-

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Remove both the seats from the cockpit in accordance with current authorised procedure, Release the dust covers around the foot of each control column. Refer to Sheet 1 of the drawing and remove each panel of the false floor as required.

(2) Refer to Sheet 2 of the drawing showing detail 'A'. Ascertain the size of the existing cut-out and cut two pieces of section, Part No. J.278, to those sizes. Drill them to match the angle bracket, Part No. 15Z.2219ND, with a No. 30 (0.1285 in. dia.) drill as shown. Couple the two section together with the angle bracket and four snaphead $\frac{1}{8}$ in. dia. rivets, Part No. AS.2227/404. Offer up the assembly to the floor panel, obtain the rivet pitches as shown, and drill the holes with a No. 30 drill. Coat the mating faces with pigmented varnish jointing compound (Stores Ref. 33C/1264) and secure with six snaphead $\frac{1}{8}$ in. dia. rivets, Part No. AS.2227/405.

(3) Detail 'B' on Sheet 3 of the drawing, must be referred to. Drill out the rivet indicated in the end of the stiffener, countersink the top face of the panel 90 deg. to 0.22 in. dia., and refill the rivet hole with a 90 deg. countersunk head $\frac{1}{8}$ in. dia. rivet, Part No. AS. 2229/404. Offer up the clamping strips, Part Nos. 15F.2629ND and 15F.3287ND, as shown and drill the necessary No. 41 (0.096 in. dia.) holes in the panel. Offer up the dust bag, Part No. 15F.2627A, together with the clamping strips, sandwiching it to the panel and secure them with seven snaphead 3/32 in. dia. rivets, Part No. AS.2227/304.

/Page 4 .....

NOTE: In all cases, ensure that the clamping strips have no sharp edge in contact with the dust bags fitted.

(4) Refer to Sheet 2 of the drawing to detail 'C'. Offer up the fairlead, Part No. 15F.2631, to the appropriate panel and shape it with a file to suit the pipe run down the side of the fuselage. Mark the bolt hole positions on to the panel and drill the holes with a No. 26 (0.147 in. dia.) drill. Coat the mating faces of the fairlead and panel with pigmented varnish jointing compound and secure it in place with two hex. head 4 B.A. bolts, thin stiffnuts and washers, Part Nos. A.25/2B, AGS.2002/B1 and SP.13/B respectively.

(5) Sheet 4 of the drawing shows detail 'D' which is the assembly to be installed in the aft starboard corner of the false floor. Remove the rubber strips from the redundant rectangular cut-out. Offer up a patch plate, Part No. 15Z.1987ND, as shown and mark the rivet hole positions, drilling them with a No. 30 drill. Countersink the lower face of the false floor at the inboard aft hole and the upper face at the adjacent hole as indicated on the drawing, 120 deg. to 0.25 in. dia. Remove all burrs. Coat the mating faces with pigmented varnish jointing compound and secure with five snaphead and two 120 deg. countersunk head $\frac{1}{8}$ in. dia. rivets, Part No. AS.2227/404 and AS.2230/404, repectively. Trim the panel to a 1.0 in. radius cut-out as shown, cutting into the stiffener where necessary. Drill a $\frac{1}{4}$ in. dia. hole in the patch plate using the existing hole in the panel as a guide, as shown. Remove all burrs.

(6) Offer up a flange, Part No. 15Z.1921ND, and mark on to the patch plate, the five rivet hole positions, drilling them with a No. 41 drill and countersinking the lower face of the panel 120 deg. to 0.19 in. dia. Coat the mating faces of the flange and patch plate with pigmented varnish jointing compound and secure with five 120 deg. csk. head 3/32 in. dia. rivets, Part No. AS.2230/304. Offer up the dust bag, Part No. 15F.2643, and clamping strip, Part No. 15F.2805ND, to the flange, drill the necessary No. 51 (0.067 in. dia.) rivet holes and secure them together with six snaphead 1/16 in. dia. rivets, Part No. AS.2227/203. Position a rubber strip, Part No. J.622, to the inner face of the flange and cut its width to suit the flange. Secure with rubber resin cement, Spec. C.S.2558 (Stores Ref. 330/1173). Sheet 4 of the drawing will clarify this.

(7) Reference to Sheet 5 of the drawing shows the attachments to be made to the rear centre panel. Mark on to the panel the No. 41 rivet holes for the guard, Part No. 15F.3217, to be mounted around the 2nd pilot's throttle control box. Position and mark out the No. 41 holes for the port and starboard shields, Part Nos. 15F.2633 and 15F.2634 which cover the brake cables, ensuring the forward faces of the shields are flush with the edge of the panel. Drill the holes, countersinking those for the shields 120 deg. to 0.19 in. dia. Coat the mating faces of the guard and shields with pigmented varnish jointing compound and secure the guard with five snaphead and the shields with twelve 120 deg. countersunk head 3/32 in. dia. rivets, Part No. AS.2227/304 and AS.2230/303, respectively.

(8) Position the two 4 B.A. anchor nuts, Part No. AGS.2007/B1, to the dimension given on the drawing and align them with the screen, Part No. 15F.2801, which must be position as shown in the drawing at section 'LL'. Drill the four No. 41 rivet holes and countersink them on the forward face 120 deg. to 0.19 in. dia. Offer up the anchor nuts and secure them with four 120 deg. countersunk head 3/32 in. dia. rivets, Part No. AS.2230/304. Attach the screen to the panel, using two mushroom head 4 B.A. bolts, Part No. AS.1248/1B.

(9) Locate the ejector seat floor beam, its aft face at the port side of the cockpit and refer to Sheet 6 of the drawing. Remove the seven existing snaphead rivets where shown. Countersink the rivet holes 90 deg. to 0.22 in. dia. and refill the holes with seven 90 deg. countersunk head $\frac{1}{8}$ in. dia. rivets, Part Nos. AS.2229/405 (six off); AS.2229/406 (one off). Offer up the end plate, Part No. 15F.2803A, as shown, ensuring the cables, control rod and pulley have adequate clearance.

/Page5.....

(10) Mark out the positions for the eight anchor nuts, Part Nos. AGS. 2207/B1 (seven off); AGS.2018/B1 (one off) and drill the holes with a No. 26drill. Position the anchor nuts shown and drill the No. 41 rivet holes, countersinking them 120 deg. to 0.19 in. dia. Then secure the nuts with sixteen 120 deg. countersunk head 3/32 in. dia. rivets Part Nos. AS.2230/304 (fourteen off); AS.2230/305 (two off). Coat the mating faces with pigmented varnish jointing compound and attach the plate to the false floor panel and seat beam with eight hex. head 4 B.A. bolts and three washers, Part Nos. A.25/1B (five off); A.25/2B (two off); A.25/3B (one off) and SP.10/B (two off) and SP.13/B (one off).

(11) Replace all sections of the false floor, sealing all other apertures in the false floor diaphragm, between the false floor and the fuselage and the false floor support diaphragm and fuselage, with self-adhesive waterproof fabric tape, Spec. C.S.2191C (Stores Ref. 32B/793). Care must be taken that the control cables are in no way restricted. Touch in any parts where necessary with etch primer base and accelerator (Stores Refs. 33B/9429196 and 33B/9429195) and matt night synthetic finish, Spec. D.T.D. 314 (Stores Ref. 33B/9428837). Replace the seats and re-secure the dust covers around each control column.

9. TESTING AFTER EMBODIMENT

There are no special tests required after the embodiment of this modification.

10. RECORDING ACTION

Record on Aircraft Form 700 and 4801.

11. DISPOSAL OF REDUNDANT PARTS

There are no parts rendered redundant by the embodiment of this modification.

12. EFFECT ON WEIGHT AND C. OF G.

This modification has no effect on weight or C. of G.

Source: A.P. 4099J, Vol. 2, Part 1, Leaflet J.23

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipients plus the following:-

S.E.S.O.	(1)
O.C. Equipment Depot	(1)
W.O. A.R.S.	(2)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)

Air Headquarters,
Royal Rhodesian Air Force.

21st March, 1958

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B44 (Issue 1)

Vampire T. Mk.11 Aircraft - Fuselage - To Introduce redesigned Battery Clamps.

(Mod. No. Vampire/3528)

(Class B/3 on replacement of clamp, superseding and cancelling Mod. 3406).

1. INTRODUCTION

This modification introduces a redesigned clamp plate with a greater bearing area, thus spreading the load and reducing the possibility of distortion.

(1) This modification cancels, supersedes and renders unnecessary the work called for by Mod. No. Vampire/3406.

(2) This modification is not essentially connected with any other approved modification.

2. EMBODIMENT

This modification is to be embodied ~~on replacement of clamps~~ By. SQDNS: AT FIRST OPPORTUNITY BUT NOT LATER THAN NEXT PRIMARY & SERVICING OR. CRSE BEFORE ISSUE OF AIRCRAFT. ALSO

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 1 man hour.

4. DRAWINGS REQUIRED

No drawings are required for the embodiment of this modification.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The modification kit, which consists of the following items supplied by the Equipment Depot under Ref. No. 26FC/103528:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/12455	15N.2971	Locking plate	4	C

(b) The following materials are also required and are to be provided under Unit arrangements:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
30A/3055		Wire locking, nickel alloy, D.T.D. 189, 22 s.w.g.	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

No spares are affected by this modification.

7. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

There are no changes of reference, Part or Assembly Numbers as a result of this modification.

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) On replacement of the main aircraft battery clamp locking plates

/Page 2 .....

(Ref. No. 5J/3011), fit the new locking plates, Part No. 15N.2971.

(2) After retightening the wing nuts, relock with 22 s.w.g. nickel alloy locking wire, Spec. D.T.D. 189 (Ref. No. 30A/3055).

9. TESTING AFTER EMBODIMENT

No special tests are required after the embodiment of this modification.

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 as scrap.

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
5J/3011	-	Plate, locking, type 3	4	C

12. EFFECT ON WEIGHT AND C. OF G.

This modification has no effect on weight or C. of G.

Source: A.P. 4099J, Vol. 2, Part 1, Leaflet J.25

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipients plus the following:-

S.E.S.O.	(1)
O.C. Equipment Depot	(2)
Station Specialist Officer	(1)
W.O. Electrical Section	(2)
W.O. A.R.S.	(2)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)

Air Headquarters,
Royal Rhodesian Air Force.

10th March, 1958.

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B43 (Issue 1)
Vol. 7, Sect. 2, Sub Sect. B19 (Issue 1)

Vampire T. Mk. 11 Aircraft - Electrical - To Introduce Two Inverters, Type 100A (Stores Ref. 5UB/4938) and Control Panels (Stores Ref. 5UC/4939) in place of One Inverter Type 100B (Stores Ref. 5UB/4935)

(Mod. No. Vampire/3325)

(Class B/2 C.W.P.)

1. INTRODUCTION

With the present single inverter installation, failure of the inverter renders the artificial horizon and G.M.4 compass unserviceable. To obviate this, this modification introduces twin inverters of an improved type with an electrical automatic changeover circuit.

(1) This modification supersedes the work called for by Mod. No. Vampire/3328.

(2) This modification is applicable only if Mod. No. Vampire/3167 Part B: (to Introduce Fully Automatic, MK.3 Ejection Seats, Part A: Fixed Parts, Part B: Removable Parts) is already embodied.

2. EMBODIMENT

This modification is to be embodied by:-

Squadrons - At the first opportunity (not later than next Minor Servicing.

Maintenance Unit - Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 85 man hours, not including drying time.

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099J/F.19/56, Sheets 1-19, is incorporated in this leaflet.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Kit consists of the following items and is to be demanded from O.C. Equipment Depot under Stores Ref. 26FC/103325:-

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	12-20N.1099A	Cable assembly	1	-
26FC/-	13-N.399	Cover plate	1	-
26FC/-	15-F.2683	Blanking plate	1	-
26FC/-	15-F.3237	Mounting plate	1	-
26FC/-	15-N.1629A	Earth cable	1	-
26FC/-	15-N.1803A	Mounting bracket	1	-
26FC/-	15-M.1853A	Cable assembly	1	-
26FC/-	15-N.1855A	Cable assembly	1	-
26FC/-	15-N.1857A	Cable assembly	1	-
26FC/-	15-N.1881A	Cable assembly	1	-
26FC/-	15-N.1883A	Cable assembly	1	-
26FC/-	15-N.1915ND	Packing washer	2	-
26FC/-	15-N.1931	Label	1	-
26FC/-	15-N.1945A	Earth cable assembly	1	-
26FC/-	15-N.1949A	Cable loom	1	-
26FC/-	15-N.1955A	Cable assembly	1	-
26FC/-	15-N.2551A	Inverter relay panel	1	-

/Page 2 .....

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	15-N.2815A/ND	Box 'K' - less torque switch	1	-
26FC/-	15-Z.1627ND	Adaptor plate	2	-
26FC/-	15-22N.129A	Support channel	1	-
26FC/-	15-22N.131A	Support channel	1	-
26BY/3174	D.H.S.3/5	Bonding terminal	2	C
26BY/6964	D.H.S.103/Mk.2	Ferrules, ply, 2 B.A.	7	C
26FC/-	D.H.S.110/4	Label, coded 'C1'	1	-
26FC/-	D.H.S.110/6	Label, coded 'C3'	1	-
26FC/-	D.H.S.181/4	P.V.C. tubing, length 12 ft.9 in.	1	-
28D/12531	A.25/3C	Bolt, hex. head, 2 B.A. x 0.75 in.	2	C
28S/2869	A.32/B20	Screw, rd/hd. 4 B.A. x $\frac{5}{8}$ in.	2	C
28S/3511	A.44/A8	Screw, brass, rd/hd. 6 B.A. x $\frac{1}{4}$ in.	4	C
28S/15678	A.44/A14	Screw, brass, rd/hd. 6 B.A. x 7/16 in.	9	C
28S/15677	A.55/B5	Screw, grub, 4 B.A. x 5/16 in.	2	
28M/10273	AGS.2001/A4	Nut, stiff, brass, 6 B.A.	9	
28M/10287	AGS.2001/B1	Nut, stiff, 4 B.A.	4	
28M/10274	AGS.2001/B4	Nut, stiff, brass, 4 B.A.	2	
28M/10290	AGS.2001/E1	Nut, stiff, $\frac{1}{4}$ in. B.S.F.	4	
28L/11069	AGS.2035/C	Lockwashers, shakeproof, 2 B.A.	7	
28D/11937	AS.1246/1B	Bolt, rd/hd. 4 B.A. X 0.45 in.	2	
28D/11564	AS.1246/1C	Bolt, rd/hd. 2 B.A. x 0.5 in.	7	
28D/12183	AS.1246/5E	Bolt, rd/hd. $\frac{1}{4}$ in. B.S.F. x 0.95"	4	
28Q/6663	AS.2227/303	Rivet, sp/hd. 3/32 in. dia. x 3/16 in.	8	
28Q/6799	AS.2227/505	Rivet, sp/hd. 5/32 in. dia. x 5/16 in.	8	
28Q/6832	AS.2229/203	Rivet, 90 deg. csk/hd. 1/16 in. dia. x 3/16 in.	4	
28Q/6675	AS.2229/304	Rivet, 90 deg. csk/hd. 3/32 in. dia. x $\frac{1}{4}$ in.	4	
26FC/-	AS.2620	Label, terminal block	1	
26FC/-	AS.2761	Label, fuse block	1	
28E/15679	AS.3181/32B	Clip, 'P' plain, 4 B.A.	2	
28E/14200	AS.3181/6C	Clip 'P' plain, 2 B.A. x $\frac{3}{8}$ in.dia.	2	
28W/12253	SP.13/e	Washer, $\frac{1}{4}$ in. B.S.F.	4	
28W/12306	SP.15/B	Washer, 4 B.A.	2	
28W/12496	SP.15/E	Washer, $\frac{1}{4}$ in. B.S.F.	4	
28W/14033	SP.22/A	Washer, brass, 6 B.A.	9	

NOTE: Items to be assembled by the Maintenance Unit to complete th Kit.

5CW/5061	-	Switch, button	1	
5CW/5105	EAP.2312	Switch, torque, type 'B1'	1	
5CY/2561	-	Circuit breaker, type 'A3'	1	A
5CY/4520	-	Caps, protecting	2	C
5CZ/881	-	Fuse, type 'S' 10 amp.	2	C
5CZ/5071	-	Indicator, electro-magnetic, type 'B.1.A'	1	B
5CZ/5074	-	Indicator, electro-magnetic type 'B2'	1	B
5H/2	-	Block, connector, 3-way, 19 amp	1	C
5H/8	-	Cover, block connector, 3-way	1	C
5H/24	-	Ferrule, crimp type; No. 2	19	C
5H/26	-	Ferrule, crimp type, No. 6	2	C
5H/31	-	Ferrule, crimp type, No. 9	2	C
5H/40	-	Adaptor, lug, 2-way 19 amp	1	C
5H/89	-	Bus-bar, 8-way	1	C
5H/124	-	Sockets, single tier, 19-amp	1	C
5H/125	-	Sockets, double tier, 19-amp	2	C
5K/24	-	Sleeve, type '1' circular	1	C
5K/107065	-	Sleeve, binding, 1.5 mm.	56	C
5K/107066	-	Sleeve, binding, 3.0 mm.	10	C
5K/107205	-	Sleeve, marking, type 'B', 2 mm coded 'A'	4	C

/Page 3 .....

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
5K/107218	-	Sleeve, marking, type 'B' 2 mm. coded 'B'	2	C
5K/107231	-	Sleeve, marking, type 'B' 2 mm. coded 'C'	40	C
5K/107244	-	Sleeve, marking, type 'B' 2 mm. coded 'D'	2	C
5K/107257	-	Sleeve, marking, type 'B' 2 mm. coded 'E'	4	C
5K/107270	-	Sleeve, marking, type 'B' 2 mm. coded 'F'	2	C
5K/107283	-	Sleeve, marking, type 'B' 2 mm. coded 'G'	38	C
5K/107309	-	Sleeve, marking, type 'B' 2 mm. coded 'I'	8	C
5K/107387	-	Sleeve, marking, type 'B' 2 mm. coded 'O'	2	C
5K/107400	-	Sleeve, marking, type 'B' 2 mm. coded 'P'	2	C
5K/107465	-	Sleeve, marking, type 'B' 2 mm. coded 'U'	2	C
5K/107543	-	Sleeve, marking, type 'B' 2 mm. coded '+'	16	C
5K/109116	-	Sleeve, marking, type 'B' 2 mm. coded '2'	24	C
5K/109117	-	Sleeve, marking, type 'B' 2 mm. coded '3'	4	C
5K/109118	-	Sleeve, marking, type 'B' 2 mm. coded '5'	6	C
5K/109119	-	Sleeve, marking, type 'B' 2 mm. coded '6'	4	C
5K/109120	-	Sleeve, marking, type 'B' 2 mm. coded '7'	2	C
5K/109121	-	Sleeve, marking, type 'B' 2 mm. coded '8'	4	C
5K/109122	-	Sleeve, marking, type 'B' 2 mm. coded '9'	2	C
5K/107207	-	Sleeve, marking, type 'B' 3 mm. coded 'A'	10	C
5K/107285	-	Sleeve, marking, type 'B' 3 mm. coded 'G'	10	C
5K/107545	-	Sleeve, marking, type 'B' 3 mm. coded '+'	10	C
5K/109123	-	Sleeve, marking, type 'B' 3 mm. coded '2'	10	C
5UB/4938	-	Inverters, type '100A'	2	A
5UC/4939	-	Panels, control, type '12'	2	A
5X/330	-	Ferrule, type 'V.C.'	1	C
5X/1383	-	Ferrule, type 'V.A.'	1	C
5X/3146	-	Sleeve, cable, 7 amp. wire to 19 amp. pin	6	C
5X/3148	-	Sleeve, cable, 4 amp. wire to 7 amp. pin	16	C
5X/3149	-	Thimbles, socket, 7 amp	12	C
5X/3150	-	Thimbles, socket, 19 amp	4	C
5X/3237	-	Insert socket, 7 amp	10	C
5X/3238	-	Pin, plug, 7 amp	14	C
5X/3241	-	Insert socket, 19 amp	4	C
5X/3242	-	Pin, plug, 19 amp	4	C
5X/6014	-	Socket, type 'A', 1 x 19 amp	2	B
5X/6503	-	Terminal, lug, copper, No.3	1	C
10H/19457	-	Plug/Socket, type '23'	1	B
10H/Z.560080	-	Plug, 6-way	1	C
10H/S.560260	-	Socket, 6-way	1	C

/Page 4 .....

(b) The following materials are also required, and are to be provided under Unit arrangements:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
5E/3038	-	Cable, electric, unipren 6 amp. spec. B.S. E.21	As reqd.	C
5E/3040	-	Cable, electric, unipren 21 amp. spec. B.S.E. E.21	As reqd.	C
5E/3042	-	Cable, electric, unipren 24 amp. spec. B.S. E.21	As reqd.	C
5E/3044	-	Cable, electric, unipren 50 amp. spec. B.S. E.21	As reqd.	C
5F/2279	-	Strapping, helvyn, 5/16 in. wide.	As reqd.	
5F/2280	-	Studs, helvyn	As reqd.	
5H/25	-	Ferrule, crimp type, No.4	3	
5H/27	-	Ferrule, crimp type, No.7	2	
5H/31	-	Ferrule, crimp type, No.9	2	
5K/200	-	Copper, strip, tinned, $\frac{1}{4}$ in. x 26 s.w.g.	As reqd.	
5K/107069	-	Sleeve binding 10 mm.	1	
10H/Z.970055	-	End, covers small	1	
28D/11555	AS.1246/3E	Bolt, roundhead, $\frac{1}{4}$ in. B.S.F. x 0.75 in.	4	
28D/12511	A.25/2B	Bolt, hexagon head, 4 B.A. x 0.6 in.	8	
28E/14074	AS.3181/16B	Clip, 'P', plain 4 B.A.	4	
28E/14310	AS.3181/20B	Clip, 'P', plain, 4 B.A.	1	
28M/10287	AGS.2001/B1	Nut, stiff, 4 B.A.	8	
28Q/-	AS.160/506	Rivet, aluminimm, 90 deg. csk/hd. 5/32 in. dia.	2	
28W/12306	SP.15/B	Washer, 4 B.A.	8	
29D/2136	-	Brads, brass, $\frac{3}{8}$ in. long	As reqd.	
30B/1601	-	Solder, electricians, resin cored, spec. B.S.441	As reqd.	
30E/1728	-	Aluminium alloy sheet, 16 s.w.g. Spec. B.S.L.72, 1.4 in. x 1.4in.	1	
32A/94	-	Cord, stringing braided, spec. 4F-35, Sect. 2	As reqd.	
32C/605	-	Tubing, Polyvinal black, 15 mm. i/d x 18 mm. o/d. length 3 ft. 0 in.	1	
33B/1021	-	Primer, etch base	As reqd.	
33B/1023	-	Primer, etch, accelerator to Spec. D.T.D. 868	As reqd.	C
33B/1027	-	Lacquer, plyceal, spec. D.T.D. 900/4285	As reqd.	C
33B/692	-	Finish, cellulose, night, spec. D.T.D.751-4	As reqd.	C
33B/1007	-	Colour, identification, synthetic, Spec. D.TD.827	As reqd.	C
33B/501	-	Finish, synthetic, matt, grey-green, Spec. D.T.D.314	As reqd.	C
33C/10	-	Beeswax, spec. C.S.2177(1)	As reqd.	C
33C/31	-	Paper, glass, No. 1	As reqd.	C
33C/973	-	Adhesive, synthetic resin, hardener G.B.M.	As reqd.	C
33C/1138	-	Compound, cabin sealing, Bostik 1790	As reqd.	C
33C/1139	-	Compound, cabin sealing, Bostik primer 1751	As reqd.	C
33C/1188	-	Adhesive, synthetic resin, type B70, Spec.B.S.1204	As reqd.	C
33C/1264	-	Compound, pigmented varnish jointing, spec. D.T.D.369A	As reqd.	C

/Page 5 .....

(2) Special tools and Test Equipment

There are no special tools or test equipment required for the embodiment of this modification.

6. SPARES AFFECTED

There are no spares affected by this modification.

7. CHANGE OF STORES REFERENCES, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Stores Reference, Part and Assembly Numbers, as follows:-

Old Stores Ref.	Old Part/Assy.No.	Nomenclature	New Part/Assy.No.	New Stores Ref.
26FC/-	15F-1645A/4	Instrument panel detail	15F-1645A/5	26FC/-
26FC/-	15F-1925A/5	Assy. of instrument panel with piping	15F-1925/6	26FC/-
26FC/-	15F-2027A/5	Assy. of instruments to panel	15F-2027A/6	26FC/-
26FC/-	15F-2411	Label	15F-1943	26FC/-
26FC/-	15F-2537ND	Instrument panel bare	15F-3235ND	26FC/-
26FC/-	15FS/179A/6	No. 1 Bulkhead	15FS-179A/7	26FC/-
26FC/-	15N-761A	Radio and pacitor supply cable	15N/-2313A	26FC/-
26FC/-	15N-771A	Supply junction box (J.B.1) - complete	15N-2309A	26FC/-
26FC/-	15N-773A	Identification of fuse and terminal blocks	15N-2317A	26FC/-
26FC/-	15N-809A	Cable loom C8	15N-2099A	26FC/-
26FC/-	15N-911A	Assy, plug bracket shell	15N-2873A	26FC/-
26FC/-	15N-915A	Plug bracket assy. complete	15N-2875A	26FC/-
26FC/-	15N-965A/6	Instrument panel - Installation of electrics	15N-965A/7	26FC/-
26FC/-	15N-977A	Junction box 3 - complete	15N-2839A	26FC/-
26FC/-	15N-1073A/1	Assy. of junction box 3 shell	15N-2851A	26FC/-
26FC/-	15N-1075A/1	Sides and front plate junction box 3	15N-2853A	26FC/-
26FC/-	15N-1091A/2	Junction box 3 and equipment	15N-2849A	26FC/-
26FC/-	15N-1097A	Front and sides bracket assy. plug bracket.	15N-2871A	26FC/-
26FC/-	15N-1099ND	Plate - plug bracket	15N-2675ND	26FC/-
26FC/-	15N-1101A/2	Junction box 1 shell with fittings	15N-2315A	26FC/-
26FC/-	15N-1103A/1	Pressure plate - junction box 3	15N-2093A	26FC/-
26FC/-	15N-1377ND	Plate - junction box 3	15N-2657ND	26FC/-
26FC/-	15N-1443A	Cable assy. junction box 3	15N-2845	26FC/-
26FC/-	15N-1467A/2	Instrument panel cable loom assembly	15N-1467A/3	26FC/-
26FC/-	15N-1473A/ND	Cable sub-assy.	15N-2901A/ND	26FC/-
26FC/-	15N-1475A/ND	Cable sub-assy.	15N-2903A/ND	26FC/-
26FC/-	15N-1477A/ND	Cable sub-assy.	15N-2905A/ND	26FC/-
26FC/-	15N-1525A	Cable assy. - C16	15N-1525A/1	26FC/-
26FC/-	15N-1527A	Cable assy.-C16A	15N-1527A/1	26FC/-
26FC/-	15N-1619A/ND	Cover	15N-2321A/ND	26FC/-
26FC/-	15N-1627A	Cable assy. - C2A	15N-2523A	26FC/-
26FC/-	15N-1645A/ND	Cover assy.	15N-2323A/ND	26FC/-
26FC/-	15N-1651A/ND	Cover assy.	15N-2319A/ND	26FC/-
26FC/-	15N-1745A	Cable loom - C1	15N-2095A	26FC/-
26FC/-	15N-1747A	Cable loom - C3	15N-2097A	26FC/-
Aircraft Embodying Mod. No. Vampire/3332 (All T. 11 Aircraft)				
26FC/-	15N-735A	Cable assy. C16	15N-2511A	26FC/-
26FC/-	15N-1063A	Cable assy. C16A	15N-2513A	26FC/-

/Page 6 .....

8. SEQUENCE OF OPERATIONS:

The following is the sequence of operations:-

(Refer to Sheets 1 - 19 of the Drawing).

(1) Raise the nose cap and disconnect and remove the aircraft batteries, and the No. 1 and No. 2 V.H.F. transmitter-receivers.

(2) Remove the starboard detachable nose fairing and blast tubes, and the instrument inverter access panel from aft of the nose wheel housing.

(3) Remove from the cockpit and carefully stow in a safe place:-

Ejector seats and guide rails.
I.F.F. receiver.
Starboard G.G.S.
Instrument panel complete.
Starboard G.G.S. retraction unit.
Starboard False Floor.
Plug bracket on the aft face of bulkhead No. 1.

NOTE: All components and attachment items are to be removed in accordance with current authorised procedure and retained for subsequent reassembly.

(4) Disconnect and remove from the starboard side of bulkhead No. 1 the redundant four-way bulkhead connector (Stores Ref. 5X/6008), and the two attaching cable assemblies, Part Nos. 15-N.835A and 15-N.459 which terminate at junction box No. 3 socket 'C17', and the instrume inverter aft of the nose wheel housing, respectively.

(5) Disconnect and remove the redundant Instrument inverter assembl comprising a type 100B inverter (Stores Ref. 5UB/4935), and two supp channels, Part Nos. 13-N.349A and 13-N.353A. Also disconnect and re the redundant socket (Stores Ref. 5X/6004), and the two attaching cables which terminate at plug socket 'C2A' pin 'K', andthe ear bolt on the starboard nose wheel side beam, respectively. Remove an retain the cable fairlead and attachment items, and also the attachment items securing the support channels to the fuselage structure.

(6) Refer to fig. 1 on sheet 18 of the drawing, and manufacture the plate, Part No. 15N.2979ND, as detailed using 16 s.w.g. aluminium-alloy sheet, Spec. B.S.L.72 (Stores Ref. 30B/1728). Refer to fig. 1 on sheet 1 of the drawing and enlarge the existing bulkhead connecto hole to the new dimensions as detailed, and where the new cut-out li breaks into any existing holes the badly shaped edges are to be blen out. Deburr the hole removing any sharp edges.

Temporarily position centrally over the hole on the aft face of the bulkhead, the newly manufactured plate, Part No. 15N.2979ND, and drill four No. 33 (0.1130 in. dia.) rivet attachment holes in the bulkhead to mate with the predrilled holes in the plate, countersinking the forward face of the bulkhead and the aft face of the plate 90 deg. x 0.16 in. dia. Remove the plate and deburr the holes. Coat the mating surfaces of the plate and bulkhead with bostik 1751 sealing compound (Stores Ref. 33C/1139) and rivet the plate in position using four 3/32 in. dia. 90 deg. countersunk-head rivets, Part No. AS.2229/304, the rivets having first been dipped in bostik 1751 sealing compound. Ensure the rivets are flush on both faces and then brushcoat with bostik 1751 sealing compound all joints and rivet heads, extending the coat of sealant to approximately one inch either side of the joint.

(7) Refer to fig. 1 of sheet 1 of the drawing and insert, from the aft face of the bulkhead, the new bulkhead connector (Stores Ref. 10H/19457). Ensure that the locating pins are correctly engaged and then tighten and secure the connector in position.

/Page 7 .....

(8 (8) Refer to Sheet 2 of the drawing and remove the top and bottom inboard fixing bolts of the V.H.F. relay panel. Offer up and secure to these positions two plain 'P' clips and packing washers, Part Nos. AS.3181/6C and 15-N.1915ND respectively, replacing the existing bolts with two new bolts, Part No. A.25/3C, dipped in Bostik primer 1751 sealing compound. Assemble the packing washers between the 'P' clips and relay panel flange.

(9) Still referring to Sheet 2 of the drawing, remove the existing four top inboard bolts, nuts and washers securing each inboard stiffener to the forward face of bulkhead No. 1, immediately below the nose cap hinge plates. Retain the existing nuts and washers for reassembly.

(10) Offer up the inverter mounting bracket assembly, Part No. 15-N.1803A, and temporarily secure on the forward face of bulkhead No. 1 over the eight holes, from which the bolts were removed in the previous operation. Ensure that adequate landing exists between the bolt holes and the bracket flanges, as shown on Sheet 2 of the drawing, then using a No. 26 (0.147 in. dia.) drill, and utilising the bolt holes as guides, drill eight holes in the bracket to suit. Using a No. 21 (0.159 in. dia.) drill, andutilising the eight holes pre-drilled in the bracket top and bottom flanges as guides, drill eight holes in the bulkhead to suit. Remove the bracket and thoroughly deburr all holes drilled during this operation.

NOTE: On aircraft where it is found that there are no existing bolt holes for the bracket flanges to pick up on, due to the stiffeners being attached to the bulkhead by means of spot welding, drill four No. 26 holes through each bracket flange and through the bulkhead equal distance between the spot welds. On these aircraft it will also necessitate the use of eight new 4 B.A. stiffnuts and washers, Part No. AGS. 2001/B1 and SP.15/B respectively, in addition to the 4 B.A. bolts listed in operation (11).

(11) Coat the mating faces of the bracket assembly and bulkhead No. 1 with Bostik primer 1751 sealing compound, ensuring that all holes drilled in the previous operation are completely covered, then offer up the bracket and secure to the forward face of the bulkhead, using eight new bolts, Part No. A.25/2B, and the nuts and washers retained in operation (9), and eight 5/32 in. dia. snaphead rivets, Part No. AS.2227/505. Liberally coat the bolts and rivets with Bostik primer 1751 sealing compound prior to fitment. Working on the aft face of the bulkhead apply a coat of Bostik primer 1751 sealing compound over the around the nuts, bolts, washers and rivets fitted previously in this operation. Allow to dry for approximately one hour, then apply a fillet of Bostik 1790 sealing compound (Stores Ref. 33C/1138) around the nuts, bolts, washers and rivets. Allow to dry for at least 24 hours then apply a further coat of Bostik primer 1751 sealing compound.

(12) Remove the metal cover from the base of the new control panel, type 12 (Stores Ref. 5UC/4939), retain it with its attachment, then locate, remove and retain the new earth terminal tag secured in position within the panel. Pass the appropriate end of the earth cable assembly, Part No. 15-N.1945A, through the side of the control panel to the earth position, previously referred to, after first removing from the panel the coupling nut and blank which are no longer required. Firmly close the earth terminal over the cable end and apply resincored solder (Stores Ref. 30B/1601). Slide the sleeve and marker over the soldered joint and secure the earth cable assembly in its correct position within the control panel. Replace and secure the metal cover plate, previously removed, using the retained attachment items.

(13) Refer to Sheet 2 of the drawing and assemble the control panel, type 12 to the inverter type 100A (Stores Ref. 5UB/4938), using the attachment items supplied with the inverter. Secure the complete unit to the bracket assembly mounted on the forward face of bulkhead No. 1, using four $\frac{1}{4}$ in. B.S.F. bolts, and washers, Part Nos. AS.1246/3E

/Page 8 .....

and SP.15/E respectively. Coat the mating surfaces of the bracket and the control panel feet with pigmented varnish jointing compound (Stores Ref. 33C/1264) prior to fitment.

(14) Route the earth cable from the control panel down bulkhead No. 1 and forward to connect to the existing earth terminal block on the Starboard side of the nose floor, as shown on Sheet 2 of the drawing.

(15) Connect the new cable assembly, Part No. 15-N.1955A, between the inverter and control panel.

(16) Adopt a procedure similar to that detailed in operation (12), and connect to the new control panel (Stores Ref. 5UC/4939) an earth cable, Part No. 15-N.1629A. Replace the blank over the cable entry with a cut ferrule (Stores Ref. 5K/24) and secure the cable to the ferrule with a few turns of beeswax treated braided stringing cord (Stores Refs. 33C/10 and 32A/94 respectively).

(17) Refer to fig. 2 of sheet 1 of the drawing and assemble the control panel type 12 to the inverter, type 100A (Stores Ref. 5UB/4938) using the attachment items supplied with the inverter. Secure the support channels, Part Nos. 15-22N.131A (port); 15-22N.129A (starboard), to the control panel, using four $\frac{1}{4}$ in. B.S.F. bolts, stiffnuts and washers, Part Nos, AS.1246/5E, AGS.2001/E1 and SP.13/E respectively, having first coated the mating surfaces with pigmented varnish jointing compound. Connect the new cable assemble, Part No. 12-20N.1099A, between the inverter and control panel, and secure the complete unit to the support brackets from which the redundant unit was removed in operation (5), using the retained attachment items.

(18) Route and connect the earth cable to the earth bolt on the nose wheel side beam, as shown on fig. 2 on Sheet 1 of the drawing. On final connection of the earth cable, brush coat the earth bolt and surrounding area, approximately one inch, with synthetic bright blue identification colour, Spec. D.T.D.826 (Stores Ref. 33B/1076 or 1007).

(19) Refer to fig. 2 on Sheet 18 of the drawing and enlarge the existing hole in the Starboard side of the nose flooring to the new dimensions as detailed, the outboard straight side and corner radii remaining unaltered. Repair the finish to the hole using primer etch base and accelerator and grey-green matt synthetic finish (Stores Refs. 33B/1021 and 1023 and 33B/1105 or 501 respectively). The enlargement of the hole will necessitate the temporary removal of the four 135 amp, unipren cables and the reconnection of same upon completion of the hole. Connect to the forward face of the bulkhead connector, fitted in operation (7), the new cable assembly, Part No. 15-N.1857A, then route and connect the plugs attached to the other end of the cable assembly to their respective control panels, as shown on Sheets 1 and 2 of the drawing. The end routed to the No. 1 control panel is to follow the same cable run as the redundant cables removed in operation (4) and (5), using the existing clips along the starboard nose wheel side beam.

(20) Refer to fig. 2 on Sheet 3 of the drawing, and dismantle the plug socket 'C2A' on the forward face of bulkhead No. 1, Crimp to pin 'K', using a new socket pin and thimble (Stores Refs. 5X/3237 and 5X/3149 respectively), an 8 ft. 9 in. length of unipren 12 amp. electric cable, spec. B.S. E.21 (Stores Ref. 5E/3040), protected with a 8ft. 7 in. length of P.V.C. tubing, Part No. D.H.S.181/4. Code the cable ends 'GC7' using type 'B', 2 mm. marking sleeves assembled on two rubber binding sleeves (Stores Ref. 5K/107065). Route the cable to the No. 1 control panel, following the same cable run as used by the cable in the previous operation. Connect to the cable end a new socket and cable sleeve (Stores Refs. 5X/6014 and 5X/3146 respectively), and a cut ferrule (Stores Ref. No. 5X/1383), which is to be utilised from the redundant earth cable socket removed in operation (5). Secure the cable to the cut ferrule with a few turns of beeswax treated braided

/Page 9.....

stringing cord and then connect the socket to the No. 1 Control panel.

(21) Working on the dismantled socket, crimp to pin 'L', using the existing socket pin and a new thimble (Stores Ref. 5X/3149), a 4 ft. 4 in. length of unipren 12 amp, cable protected with a 4ft. 2 in. length of P.V.C. tubing, Part No. D.H.S. 181/4. Code the cable ends 'GC8' using type 'B' 2 mm. marking sleeves assembled on two rubber binding sleeves (Stores Ref. 5K/107065). Route the cable to the No.2 control panel, following the cable run as shown on Sheet 2 of the drawing. Connect to the cable end a new socket, cable sleeve and cut ferrule (Stores Refs. 5X/6014, 5X/3146 and 5X/1383 respectively). Secure the cable to the cut ferrule with a few turns of beeswax-treated braided stringing cord and then connect the socket to the No. 2 control panel.

(22) Refer to Sheets 1 and 2 of the drawing and loom and secure all cables forward of bulkhead No. 1 and along the starboard nose wheel side beam at regular intervals with a 5/16 in. wide strapping and studs (Stores Refs. 5F/2279 and 5F/2280 respectively). Check tighten all plugs, sockets and 'P' clips introduced or disturbed by this modification.

(23) Working on the plug bracket, Part No. 15-N.915, removed in operation (3), and referring to fig. 1 and Sheet 3 of the drawing, cut away the flange from the two lightning holes located second from the top. Open out the holes to 1.5 in. dia. and position two adaptor plates, Part No. 15-Z.1627ND, centrally over the outside of each hole, with the squared section of the holes to the top. Drill eight No. 41 (0.0960 in. dia.) holes in the plug bracket to mate with four holes pre-drilled in each of the plates. Remove the plates and deburr the holes. Coat the mating surfaces of the plug bracket and adaptor plates with pigmented varnish jointing compound and then rivet the plates in position, using eight 3/32 in. dia. snaphead rivets, Part No. AS.2227/303.

(24) Refer to fig. 1 on Sheet 3 of the drawing, and link together the new plug and socket (Stores Refs. 10H/Z.560080 and 10H/Z.560260 respectively), with six 4½ in. lengths (approximately) of unipren 6 amp electric cable, spec. B.S. E.21 (Stores Ref. 5E/3038). The link cables are to be connected 'A-A', 'B-B', 'C-C', 'D-D', 'E-E', 'F-F', respectively, and coded at each end, using type 'B' 2 mm. marking sleeves assembled on twelve rubber binding sleeves (Stores Ref. 5K/107065). Strip back the insulation from each end of the cables 0.13 in., and solder them to their respective pins, using resin cored electricians' solder. Slide the rubber sleeves over the soldered joint and then assemble the plug and socket to the plug bracket, the flat surface being at the top as shown on the drawing. Secure the cables as shown, with strapping and studs.

(25) Replace and reconnect the plug bracket to the aft face of bulkhead No. 1, using the attachment items retained in operation (3), having first dipped the bolts in, and coated the mating surfaces with, Bostik primer 1751 sealing compound.

(26) Disconnect and remove from the starboard cockpit wall the redundant torque switch junction box, comprising the following items: relay type 'S3', relay type 'Q' and torque switch (Stores Refs. 5CW/3944, 5CW/4102 and 5CW/5105 respectively), and torque switch junction box and lid assembly, Part Nos. 15-N.1547A and 15-N.1557A respectively.

NOTE: The torque switch and the attaching solder tags are to be retained for assembly to the new box 'K', Part No. 15-N.2815A/ND, in operation (36).

(27) To maintain cockpit pressurisation, blank off the redundant torque switch junction box ferrules with two 4 B.A. x 5/16 in. long grub screws, Part No. A.55/B5, liberally coated with Bostik primer 1751 sealing compound. Allow the compound to dry andthen apply a further coat of sealing compound to the screw head and surrounding area.

/Page 10 .....

(28) Refer to fig. 1 and fig. 2 on Sheet 4 of the drawing and mark off the positions on the starboard cockpit wall for the inverter relay panel and box 'K' ferrules. Using a standard 0.75 in. 'Fosner' or 'Wilpat' bit, counterbore to a depth of 0.43 in. at each of these positions.

NOTE: Remove from the starboard fuselage wall the now redundant 3.5 in. x 1.5 in. x $\frac{1}{4}$ in. thick ply packing. Part No. 15FS.1259ND, preventing fitment of the inverter relay panel ply ferrules. Clean the area of the fuselage wall from where the ply packing has been removed, using glass paper No. 1 (Stores Ref. 33C/31).

(29) Offer up the seven new 2 B.A. ferrules, Part No. D.H.S.103/Mk. 2 trimming them as necessary so that they seat flush on the fuselage wall. Remove the finish from the cockpit wall where the ferrules mate, using glass paper No. 1 (Stores Ref. 33C/31).

(30) Apply a liberal film of synthetic resin adhesive, type B.70 (Stores Ref. 33C/1188), to the inside of the ferrule locating holes in the fuselage wall and also to the surrounding mating surfaces. Apply a coat of synthetic resin adhesive, hardener G.B.M. (Stores Ref. 33C/973) to the mating surface of the ply ferrules and fit the ferrules to the holes, pinning them in position with $\frac{3}{8}$ in. brass brads (Stores Ref. 29D/2136).

NOTE: It is recommended that, at a normal temperature of 60 deg. F. a minimum drying period of four hours be allowed for synthetic resin adhesive, but it should be noted that, with the application of radiant heat at a temperature of 70 deg. F. this period could be reduced to a minimum of three hours.

Failure to observe these minimum times quoted will result in "Crazing" of the Cement and a consequent loss in adhesive strength.

(31) Allow the synthetic resin to dry, then apply a brush coat of plyceal lacquer, spec. D.T.D.900/4285 (Stores Ref. 33B/1027), to the new ferrules and their surrounding area. Allow at least 48 hours for the plyceal lacquer to dry, then repair the finish to the cockpit wall, using primer etch base and accelerator and night cellulose finish (Stores Refs. 33B/1021 and 33B/1023 and 33B/1051 or 692 respectively).

(32) Refer to Sheet 4 of the drawing and attach two bonding terminals, Part No. D.H.S.3/5, to two lengths of tinned copper bonding strip (Stores Ref. 5K/200), using resin cored electricians' solder. Each strip of bonding is to be of sufficient length to reach the main bonding run from the inverter relay panel and the box 'K' ferrules shown.

(33) Temporarily secure the bonding terminals to the ferrules, as shown, and route the bonding strip vertically and horizontally to the respective main bonding runs, pinning it in position at regular intervals with $\frac{3}{8}$ in. brass brads, finally attach it to the main bonding run with resin cored electricians' solder. The bonding strip near the ferrules is to be slightly joggled to allow for fitment of the inverter relay panel and box 'K'.

(34) Apply a brush coat of an equal mixture of Bostik 1790 and Bostik primer 1751 sealing compound over and around the new bonding strip installed during the previous operation, and allow to dry.

(35) Remove and retain the oxygen pipe clip and attachment items as shown on fig. 2 on Sheet 4 of the drawing. Offer up and secure in position the inverter relay panel, Part No. 15-N.2551A, using three 2 B.A. bolts and shakeproof washers, Part Nos. AS.1246/1C and AGS.2035/C respectively. Remount the oxygen pipe clip on the panel, using the original attachment items. Secure the bonding terminal in position, as shown, having first removed the finish from the mating surface of the

/Page 11 .....

panel to ensure a good electrical contact. Coat the bolt, terminal and surrounding area of the panel from where the finish was removed with synthetic bright blue identification colour.

(36) Remove the cover from the new box 'K', Part No. 15-N.2815A/ND, and secure in position the torque switch (Stores Ref. 5CW/5105), retained in operation (26), using the four 4 B.A. bolts, spacers and s stiffnuts supplied with the box. Refer to Sheet 5 of the drawing and connect the torque switch electrically in accordance with the wiring diagram, using the retained solder type tags and electricians' resin cored solder. Replace the cover.

(37) Refer to fig. 1 on Sheet 4 of the drawing and offer up and secure in position box 'K', using four 2 B.A. bolts and shakeproof washers, Part Nos. AS.1246/1C and AGS.2035/C respectively. Secure the bonding terminal in position, as shown, having first removed the finish from the mating surface of the box to ensure a good electrical contact. Coat the bolt, terminal and surrounding area of the box from where the finish was removed with synthetic bright blue identification colour. Next blank off plug 'K5' on box 'K' using a small end cover (Storef Ref. 10H/Z.970055).

(38) Remove, from the cockpit, junction box No. 3 complete with the attaching cables, retaining all cable clips and their attaching items for subsequent reassembly.

(39) Working on junction box No. 3, refer to Sheet 6 of the drawing and remove from the box all the cables listed under "CABLES DELETED". Replace the damage pins 'W' and 'X' in plug 'C3' with two new socket inserts (Stores Ref. 5X/3237).

(40) Refer to Sheet 7 of the drawing, mark off the attachment points of the new three-way terminal block (Stores Ref. 5H/2), and drill two No. 26 (0.1470 in. dia.) holes: Deburr the holes and clean dron the box any swarf or filings, then secure the terminal block in position, as shown, using two 4 B.A. screws and stiffnuts, Part Nos. A.32/B20 and AGS.2001/B1 respectively. Attach to the centre section of the terminal block one single tier socket (Stores Ref. 5H/124) and to the two remaining sections two double tier sockets (Stores Ref. 5H/125). Code the new terminal block cover (Stores Ref. 5H/8) as shown on the drawing.

(41) Refer to Sheet 6 of the drawing, and reroute the two appropriate cables listed under "CABLES REROUTED", to the new three-way terminal block. Connect them to their respective sockets with one new ferrule (Stores Ref. 5H/24), and one new ferrule (Stores Ref. 5H/25).

(42) Referring to Sheet 6 of the drawing, manufacture the cableslisted under "CABLES ADDED", using unipren 6 amp. 12 amp. and 24 amp. electric cable, spec. B.S. E21 (Stores Ref. 5E/3038, 5E/3040 and 5E/3042 respectively). Code the cable ends of the unipren 6 amp. and 12 amp. cable using 2 mm. type 'B' marking sleeves assembled on ten 1.5 mm. rubber binding sleeves (Stores Ref. 5K/107065), and the unipren 24 amp. cable with 3 mm. type 'B' marking sleeves assembled on two 3 mm. rubber binding sleeves (Stores Ref. 5K/107066).

(43) Connect the cable ends to their respective points of termination, as detailed, using four ferrules (Stores Ref. 5H/24); two 7 amp. socket pins and thimbles (Stores Refs. 5X/3237 and 5X/3149); two 19 amp. socket inserts and thimbles (Stores Refs. 5X/3241 and 5X/3150); two 7 amp. and one 19 amp. plug pins (Stores Refs. 5X/3238 and 5X/3242); four 4 amp. cable to 7 amp. pin cable sleeves (Stores Ref. 5X/3148); one 7 amp cable to 19 amp. pin cable sleeve (Stores Ref. 5X/3146), and one ferrule (Stores Ref. 5H/25).

(44) Remove the label coded 'C1-C3-C4' from the aft end of junction box No. 3 pressure plate and reintroduce the labels, coded 'C1' and

/Page 12 .....

'C3'; Part Nos. D.H.S.110/4 and D.H.S.110/6 respectively. Countersink the four existing holes, previously used for these labels, on the rear face of the plate 90 deg. x 0.11 in. dia. and then rivet the labels in position, using four 1/16 in. dia. 90 deg. countersunk-head rivets, Part No. AS.2229/203.

(45) Remove the label, coded 'C18', from the aft end of junction box No. 3 pressure plate.

(46) Working inside junction box No. 3 and referring to Sheet 7 of the drawing, replace the label of the five-way terminal block shown, with a new blank label, Part No. AS.2620, coded as shown with marking ink.

(47) Refer to Sheet 7 of the drawing and connect the new cable loom 'C17', Part No. 15-N.19494, to the junction box, routing it into the panel through the hole left vacant by the redundant socket 'C17', removed in operation (39). Connect the appropriate cables of the new loom to the terminal blocks and blank off all vacant socket entries, using six ferrules (Stores Ref. 5H/24). Connect the remaining cables to their respective points of termination, using seven 7 amp. and one 19 amp plug pins (Stores Refs. 5X/3238 and 5X/3242 respectively); two 4 amp cable to 7 amp pin cable sleeves (Stores Ref. 5X/3148) and one 7 amp cable to 19 amp pin cable sleeve (Stores Ref. 5X/3146).

(48) Working on junction box No. 1, refer to Sheet 8 of the drawing and remove from the box all cables listed under "CABLES DELETED". Replace the damaged pins 'W' and 'X' in plug 'C3' with two new plug pins (Stores Ref. 5X/3238).

NOTE: Disconnect the cables from plug 'C18' pins 'A' and 'B' but do not remove the plug (Stores Ref. 5X/6179), from the box.

(49) Disconnect and carefully remove the redundant cable assembly, Part No. 15N-759A, routed from junction box No. 1 to the terminal blocks on the starboard cockpit wall, retaining the cable end binding sleeves and marking sleeves for use on the new cable assembly, Part No. 15N-2311A. Do not remove the cut ferrule (Stores Ref. 5X/1375) from the base plate of the junction box. Next, disconnect the cable assembly, Part No. 15N-761A, from inside junction box No. 1 and carefully withdraw the cable ends through the cut-ferrule (Stores Ref. 5X/1893), on the base of the junction box. Reroute this cable assembly back into junction box No. 1 via the cut-ferrule (Stores Ref. 5X/1375), left vacant by the removal of the redundant cable assembly, Part No. 15N-759A, and remake the connections in the same manner as before. Refer to fig. 3 on Sheet 18 of the drawing and manufacture the new cable assembly, Part No. 15N-2311A as detailed, using unipren 6 amp., 24 amp. and 50 amp. electric cables, spec. B.S. E.21 (Stores Ref. 5E/3038, 5E/3042 and 5E/3044 respectively). Enclose the cables in a 3 ft. 0 in. length of 15 mm. polyvinal black tubing (Stores Ref. 32C/605), the terminal block end of the tubing being sealed with a rubber binding sleeve (Stores Ref. 5K/107069). Code the cable ends as detailed, using the retained binding sleeves and marking sleeves and also eight 2 mm. type 'B' marking sleeves, coded 'GC22', assembled on two rubber binding sleeves (Stores Ref. 5K/2576), and then crimp to the appropriate cable ends four ferrules (Stores Ref. 5H/24), two ferrules (Stores Ref. 5H/27) and two ferrules (Stores Ref. 5H/31). This cable assembly becomes, Part No. 15N-2311A and is to be numbered accordingly. Route the a appropriate end of the new cable assembly into junction box No. 1 via the cut-ferrule (Stores Ref. 5X/1893), previously used for cable assembly Part No. 15N-761A, and connect the cable ends to their respective terminals as coded, and as shown on the wiring diagram on sheet 15 of the drawing. Route and connect the other end of the cable assembly to the terminal blocks on the starboard cockpit wall, following the cable run as previously used by the redundant cable assembly. Connect the cable ends to their respective terminals as coded, the cable coded 'GC22' being connected to the vacant terminal of the two-way terminal block with a new single-tier socket (Stores Ref. 5H/124), and the

/Page 13 .....

terminal block cover being identified 'GC22'. Finally secure the cable assemblies to their respective cut-ferrules on junction box No. 1, using beeswax treated braided stringing cord. Refer to sheet 8 of the drawing and reroute the cables listed under 'cables rerouted'.

(50) Refer to Sheet 8 of the drawing, and manufacture the cables listed under "CABLES ADDED", using unipren 6 amp. and 24 amp. electric cable. Code the cable ends using 2 mm. or 3 mm. type 'B' marking sleeves, as applicable, assembled on eight 1.5 mm. and four 3 mm. rubber binding sleeves (Stores Refs. 5K/107065 and 5K/107066 respectively). Connect the cable ends to their respective points of termination, as detailed, using three ferrules (Stores Ref. 5H/24); one ferrule (Stores Ref. 5H/26); two ferrules (Stores Ref. 5H/31); three 7 amp plug pins (Stores Ref. 5X/3238); two 19 amp plug pins (Stores Ref. 5X/3242); four 4 amp cable to 7 amp pin cable sleeves (Stores Ref. 5X/3148); one 7 amp cable to 19 amp in cable sleeve (Stores Ref. 5X/3146) and one ferrule (Stores Ref. 5H/25).

(51) Remove the two 2-way commoning links (Stores Ref. 5H/83), linking fuses 23-24 and 29-30.

(52) Link together fuses 23-30- inclusive, using a new 8-way commoning link (Stores Ref. 5H/89).

(53) Replace the label of the fuse block with a new label, Part No. AS.2761, coded as shown on Sheet 8 of the drawing, using marking ink. Fuse the block as detailed on the new label, using the existing fuses and two new 10 amp. fuses (Stores Ref. 5CZ/881).

(54) Refer to fig. 4 on Sheet 3 of the drawing and dismantle the plug socket 'C16' on the forward face of bulkhead No. 2. Crimp to pin 'C' using a new thimble and cable sleeve (Stores Refs. 5X/3149 and 5X/3148 respectively), a 1 ft. 7 in. length (approximately) of unipren 6 amp electric cable, coding each end 'GC22' with 2 mm type 'B' marking sleeves assembled on two rubber binding sleeves (Stores Ref. 5K/107065). Reassemble the socket. Refer to Sheet 9 of the drawing and route the cable, as shown, connecting it to the vacant terminal block socket 'GC22' with a new ferrule (Stores Ref. 5H/24).

(55) Replace and reconnect the modified junction box No. 3 to the aircraft, securing the attaching cable looms in position with the cable clips and attachment items retained in operation (39). Refer to Sheet 10 of the drawing and reconnect the plug sockets to the box, rerouting the cables as shown, and connecting cable loom 'C17' to the inverter relay panel.

(56) Offer up and connect to sockets 1, 2, 3 and 4 on box 'K', four newcable assemblies, Part Nos. 15-N.1855A, 15-N.1881A, 15-N.1883A and 15-N.1853A respectively. Route and connect these cables to their appropriate components as shown on Sheets 9 and 10 of the drawing. Replace the existing two-way adaptor lug in the main earth terminal block, located adjacent to box 'K', with a new 2-way x 19 amp adaptor lug (Stores Ref. 5H/40), and then replace the existing 37 amp. ferrule, attached to the earth cable from junction box No. 3, with a new ferrule (Stores Ref. 5H/26), to suit the new adaptor.

(57) Working on the starboard cockpit wall below the false floor decking, replace the three clips securing the G.G.S. cables to the fuselage wall with two 'P' clips, Part No. AS.3181/32B and one 'P' clip, Part No. AS.3181/20B, the larger clips being positioned forward. Replace the two clips securing the cable run in position below 'Box K' and the two clips which pick-up on the oxygen pipe clip bolts on the cockpit floor, with four new 'P' clips, Part No. AS.3181/16B, utilising the existing attachment items.

/Page 14 .....

(58) Refer to fig. 3 on Sheet 3 of the drawing and dismantle the plug socket 'C16A' on the aft face of the bulkhead No. 2. Crimp to pin 'C', using a new thimble and cable sleeve (Stores Refs. 5X/3149 and 5X/3148 respectively) a 3 ft. 0 in. length (approximately) of unipren 6 amp electric cable, coding each end 'GC22' with 2 mm. type 'B' marking sleeves assembled on two rubber binding sleeves (Stores Ref. 5K/107065). Reassemble the socket. Route and connect the new cable to terminal No. 5 on the voltage regulator and cut-out, following the existing cable run across bulkhead No. 2.

(59) Refer to Sheets 9 and 10 of the drawing and loom and secure all cables distrubed by this modification in the cockpit and ammunition bay, securing them asnecessary with 5/16 in. wide strapping and studs. Check tighten all plugs, sockets, cable clips and 'P' clips.

(60) Working on the instrument panel removed in operation (3), refer to Sheet 11 of the drawing, and mark off and cut-out from the port side of the instrument panel the new fuel pressure low warning light locating hole, as detailed. Assemble to the cut-out the existing warning lamp and label at present positioned below the engine starter master switch.

NOTES: (1) When drilling the instrument panel the penetration of the drill must be limited and care taken to avoid damage to cables or pipes behind the panel.

(2) Where the "fuel pressure low" label, Part No. 15F.1949, has an uppermost locating slot only, refer to fig. 4 on sheet 18 of the drawing and cut a new slot of the same dimensions diametrically opposite the existing one, as detailed.

(61) Refer to Sheet 11 of the drawing and disconnect, remove and retain the flight instrument circuit breaker (Stores Ref. 5CY/2561), from the starboard side of the instrument panel. Blank off the redundant circuit breaker aperture with a cover plate, Part No. 13-N.399, secured in position with two 4 B.A. bolts and stiffnuts, Part Nos. AS.1246/1B and AGS.2001/B1 respectively.

(62) Remove and dispose of the coupling bar, Part No. 15-F.2043A, linking the starter master and flight instrument switches, refer to fig. 2 on Sheet 12 of the drawing and file the lower edge of the coupling bar bracket to the new dimension, as detailed.

(63) Refer to fig. 2 on Sheet 12 of the drawing and enlarge the redundan fuel pressure low warning lamp cut-out to the new dimensions, as detailed. Secure in position the new mounting plate, Part No. 15-F.3237 using four 6 B.A. brass screws, washers and stiffnuts, Part Nos. A.44/A1 SP.22/A and AGS.2001/A4 respectively. Assemble to the mounting plate a magnetic indicator (Stores Ref. 5CZ/5071 or 5CZ5074), and a reset button switch (Stores Ref. 5CW/5061), securing them in position with the attachment items supplied with the components.

(64) Refer to Sheet 11 and fig. 1 on Sheet 12 of the drawing and mark off, cut-out and drill the holes detailed for the No. 1 and No. 2 inverter circuit breakers and label. Deburr the holes. Offer up and secure in position the label, Part No. 15-N.1931, using two 6 B.A. brass screws, washers and stiffnuts, Part Nos. A.44/A14, SP.22/A and AGS.2001/A4 respectively.

(65) Offer up and attach to the No. 2 position a new circuit breaker (Stores Ref. 5CY/2561), using two 4 B.A. brass stiffnuts and washers, Part No. AGS.2001/B4 and SP15/B respectively. Attach to the No. 1 position the circuit breaker (Stores Ref. 5CY/2561), retained in operation (62), using the existing attachment items. Assemble to the two circuit breakers, two protecting caps (Stores Ref. 5CY/4520) using four 6 B.A. brass screws, Part No. A44/A8.

/Page 15 .....

(66) Disconnect and remove the redundant "Horizon-G4 Fail" warning lamp and filament (Stores Refs. 5CX/1069 and 5L/X.951273 respectively) and label, Part No. 15-F.2235. Refer to Sheet 11 of the drawing and position the blanking plate, Part No. 15-F.2683, as shown then drill three No. 32 (0.1160 in. dia.) holes through the blanking plate and instrument panel to mate with the existing holes in the blanking plate. Secure the plate in position, using three 6 B.A. brass screws, washers and stiffnuts, Part Nos. A.44/A14, SP.22/A and AGS.2001/A4, respectively.

NOTE: Blanking plate, Part No. 15F-2683, is to be relieved locally to permit the removal of the artificial horizon securing screw.

(67) Refer to Sheet 11 of the drawing and disconnect and remove the redundant fuse block (Stores Ref. 5X/3271), blanking off the redundant holes with two 5/32 in. dia. 90 deg. countersunk-head aluminium rivets, Part No. AS.160/506.

(68) Repair the finish to the front face of the instrument panel by applying a brush coat of night cellulose finish, Spec. D.T.D.751-4, to all screws, nuts and washers introduced by this modification.

(69) Refer to Sheet 13 of the drawing and disconnect and remove all cables listed under "CABLES DELETED FROM PANEL".

NOTE: All cables shown thus * are instroduced by Mod. No. Vampire/3328 and will be non-existent on aircraft not embodying that modification.

(70) Route and connect to their respective components, following the existing cable runs, the cables listed under "CABLES ADDED TO PANEL", using 6 amp and 24 amp unipren electric cable. Code the cable ends with 2 mm. and 3 mm. type 'B' marking sleeves, as applicable, assembled on two 1.5 mm. and two 3 mm. rubber binding sleeves (Stores Refs. 5K/107065 and 5K/107066 respectively). Connect the cable end terminating at earth point 'D' with a terminal lug (Stores Ref. 5X/6503) crimped to the cable.

(71) Refer to sheet 13 of the drawing and replace the cable connected to plug socket 'C5', pin 'S' with a 4 ft. 8 in. length (approximately) of unipren 6 amp electric cable, using a new 7 amp. socket pin, cable sleeve and thimble (Stores Refs. 5X/3237, 5X/3148 and 5X/3149 respectively). Code the cable ends 'PA2' with 2 mm. type 'B' marking sleeves assembled on two binding sleeves (Stores Ref. 5K/107065) and then route and connect to the repositioned fuel pressure low warning lamp.

(72) Connect to plug socket 'C6' pin 'Q' a 2 ft. 6 in. length (approx) of unipren 6 amp cable, using a thimble and cable sleeve (Stores Refs. 5X/3149 and 5X/3148 respectively). Code the cable ends 'GC10' with 2 mm. type 'B' marking sleeves assembled on two rubber binding sleeves (Stores Ref. 5K/107065)½ Connect this cable to the flight instrument switch, following the same cable run as used by the cable coded 'GC3+' from pin 'V'.

(73) Refer to Sheet 13 of the drawing and delete from sub-assembly 'C22', which connects the junction box No. 3, the cables as listed, also replace the existing cut ferrule (Stores Ref. No. 5X/320), with a new cut ferrule (Stores Ref, No. 5X/330). Refer to the drawing and connect to sub-assembly 'C22' the new cables as detailed, using 6 amp, 12 amp and 24 amp unipren electric cable as required. Code the cable ends, as detailed, using 2 mm. and 3 mm. type 'B' marking sleeves as applicable, assembled on ten 1.5 mm. and two 3 mm. rubber binding sleeves (Stores Refs. 5K/107065 and 5K/107066 respectively). Route and connect the cables to their respective components, following the existing cable runs, using four 7 amp socket pins and thimbles (Stores Refs. 5X/3237 and 5X/3149); two 19 amp socket pins and thimbles (Stores Refs. 5X/3241 and 5X/3150); two 4 amp cable to 7 amp pin cable sleeves

/Page 16 .....

(Stores Ref. 5X/3148) and one 7 amp cable to 19 amp pin cable sleeve (Stores Ref. 5X/3146).

(74) Connect to the G.G.S. retraction circuit breaker the cable coded 'GA2+', disconnected from the flight instrument circuit breaker in operation 61.

(75) Connect to the magnetic indicator the earth cable previously used for the fuel pressure low warning lamp.

(76) Loom and tidy all instrument panel cables, securing them at regular intervals with 5/16 in. wide strapping and studs.

(77) Replace and reconnect in the cockpit:-

Starboard false floor
Starboard G.G.S. retraction unit
Modified instrument panel
Starboard G.G.S.
I.F.F. Receiver
Ejector seats and guide rails.

(78) Replace the starboard detachable nose fairing and blast tubes, and the instrument inverter access panel, using the existing attachment items.

(79) Replace and reconnect the No. 1 and No. 2 V.H.F. transmitter-receiver and the aircraft batteries. Lower and secure the nose cap.

9. TESTING AFTER EMBODIMENT

When this modification has been embodied and inspected, the following tests are to be carried out:-

(1) Refer to Sheets 15, 16 and 17 of the drawing and carry out a continuity check of the cables introduced by this modification.

(2) Carry out a functional check on the twin inverter installation in accordance with the procedure detailed as follows:-

(a) With electrical ground supply connected, check that the "Ground/Flight" switch is in the 'Ground' position; flight instrument switch is "off"; test switch on inverter relay pahel is "off"; inverter No. 1 and No. 2 circuit breakers are "set" and that the magnetic indicator shows "white".

(b) Flight instrument switch "on", check that only No. 2 inverter, on forward face of bulkhead No1 1 runs and magnetic indicator still shows "white". Trip the No. 2 inverter circuit breaker and check that the inverter stops; Flight instrument switch "off" and reset the circuit breakers.

(c) Locate the two 3-way terminal blocks in the port wheelwell and link together terminals 'U+' and 'U2', check that only the No. 2 inverter runs and magnetic indicator still shows "white". Remove the "shorting link".

(d) With the test switch on the inverter relay panel "on", check that only the No. 1 inverter, under cockpit floor, runs and magnetic indicator now shows "black". Trip the No. 1 inverter circuit breaker and check that the inverter stops. Test switch "off" and reset the circuit breaker.

(e) Temporarily link together Fuse No. 27 (GC5+) in junction box No. 1 and terminal No. 5 on the voltage regulator, using a length of unipren 6 amp. cable, check that only the No. 1 inverter runs and that the magnetic indicator shows "black". Flight instrument

/Page 17 .....

switch "on" and check that the No. 1 inverter continues to run.

(f) Remove the cover from Box 'K'. With No. 1 inverter still running and using a suitable means of insulation (WARNING 115 VOLTS), disconnect from terminal 1 of the ten-way terminal block the cable coded 'GC+AC' which terminates at terminal 1 of the torque switch. Check that the No. 1 inverter stops and No. 2 starts, also that the magnetic indicator changes to "white".

(g) With the No. 2 inverter still running, reconnect the cable coded 'GC+AC' and then operate the reset button. Check that No. 2 inverter stops and No. 1 starts, also that the indicator changes to "black".

(h) Return the flight instrument switch to the "off" position and remove the temporary link cable fitted in sub-para (2) (e).

(3) Carry out a functional check of all the electrical, radio and radar equipment distrubed by the embodiment of this modification in accordance with current authorised procedure.

(4) Carry out a functional check of all the instruments on the main instrument panel in accordance with current authorised procedure.

(5) Carry out a cabin pressurisation test in accordance with the procedure detailed in A.P. 4099J, Vol. 1, Section 3, Chapter 8.

10. RECORDING ACTION

Record on Aircraft Forms 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 in accordance with current R.R.A.F. Equipment Regulations.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
5CW/3944	-	Switch, magnetic relay type 'S3'	1	A
5CW/4102	-	Switch, magnetic relay type 'Waymouth 1M-1B'	1	A
5CW/1065	-	Lamp, warning, type 'A' red	1	A
5H/83	-	Bus-bar, 2 way	2	C
5L/X.951273	-	Filament, 28v. 3.5w.	1	B
5UB/4935	-	Inverter, type '100B'	1	A
5X/3271	-	Block, fuse	1	A
26DV/1321	13-N.349A	Support channel	1	C
26DV/1320	13-N.353A	Support channel	1	C
26FC/10463	15-F.2043	Coupling bar	1	C
25FC/-	15-F.2235	Label	1	-
26FC/-	15-FS.1259ND	Ply packing	1	-
26FC/-	15-N.459A	Cable assembly	1	-
26FC/-	15-N.759A	Cable assembly	1	-
26FC/-	15-N.835A	Cable assembly	1	-
26FC/-	15-N.1547A	Torque switch junction box	1	-
26FC/-	15-N.1557A	Lid assembly	1	-
5X/320		Ferrule type 'VC'	1	C
5X/6004		Socket, type 'A', 2 x 7 amp	1	B
5X/6008		Plug, bulkhead, type 'A'	1	B

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of + 21.28 lb., anda change of moment of - 176.0 lb. ft. NOTE: This effects A.D.5345 which will be modified accordingly.

Source: A.P. 4099J, Vol. 2, Pt. 1, Leaflet No. F.19

(B.H. GIBBONS)
Wing Commander
S.T.S.O. A.H.Q. R.R.A.F.

ibution:

opy to essential recipients
the following:-

A.R.S.	(2)
No. 1 Squadron	(2)
No. 2 "	(2)
Electrical Section	(2)
Equipment Depot	(2)
.O.	(1)

NOTE: In order to conserve costs in reproduction of drawings Electrical tradesmen and others involved are to be given access to Squadron copies.

RESTRICTED

Drg. No. A.P.4099J/F.19/56
Sheet 1

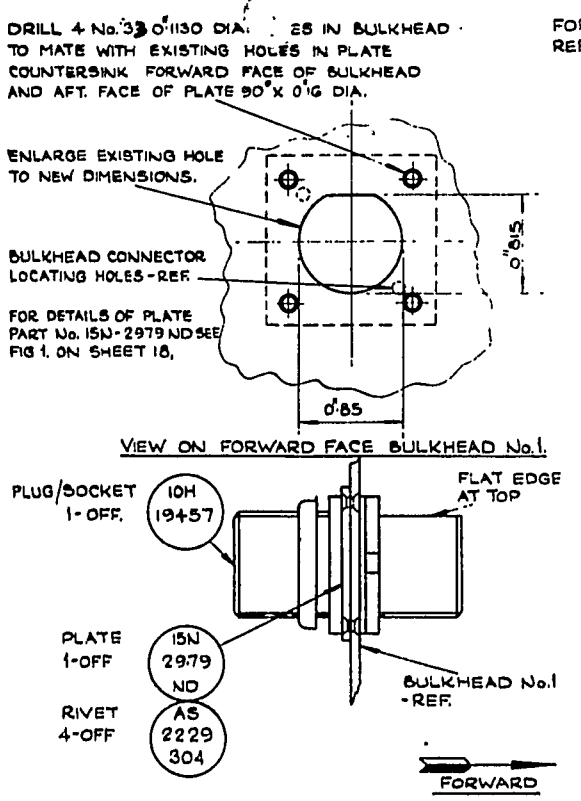


FIG.1.
INSTALLATION OF PLUG, SOCKET ON BULKHEAD 1.

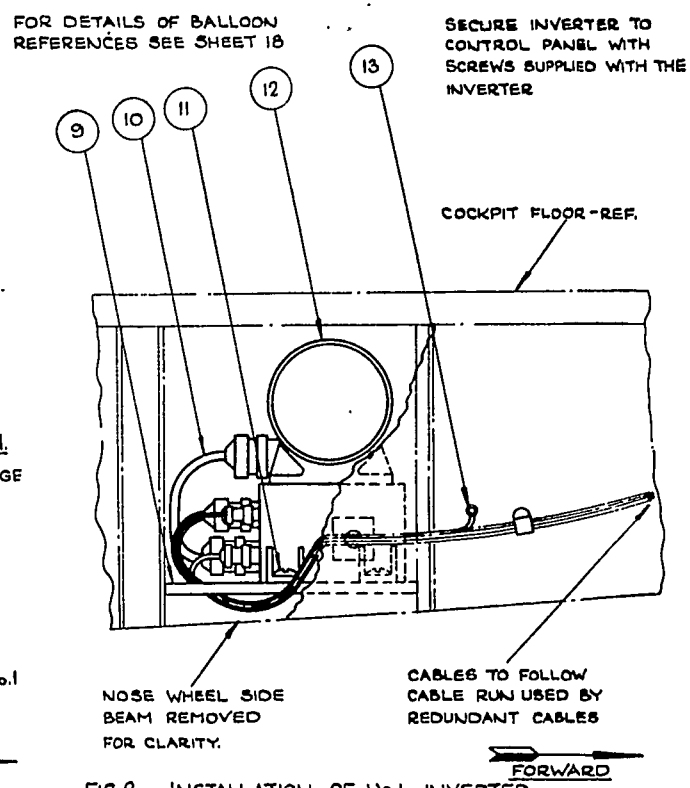
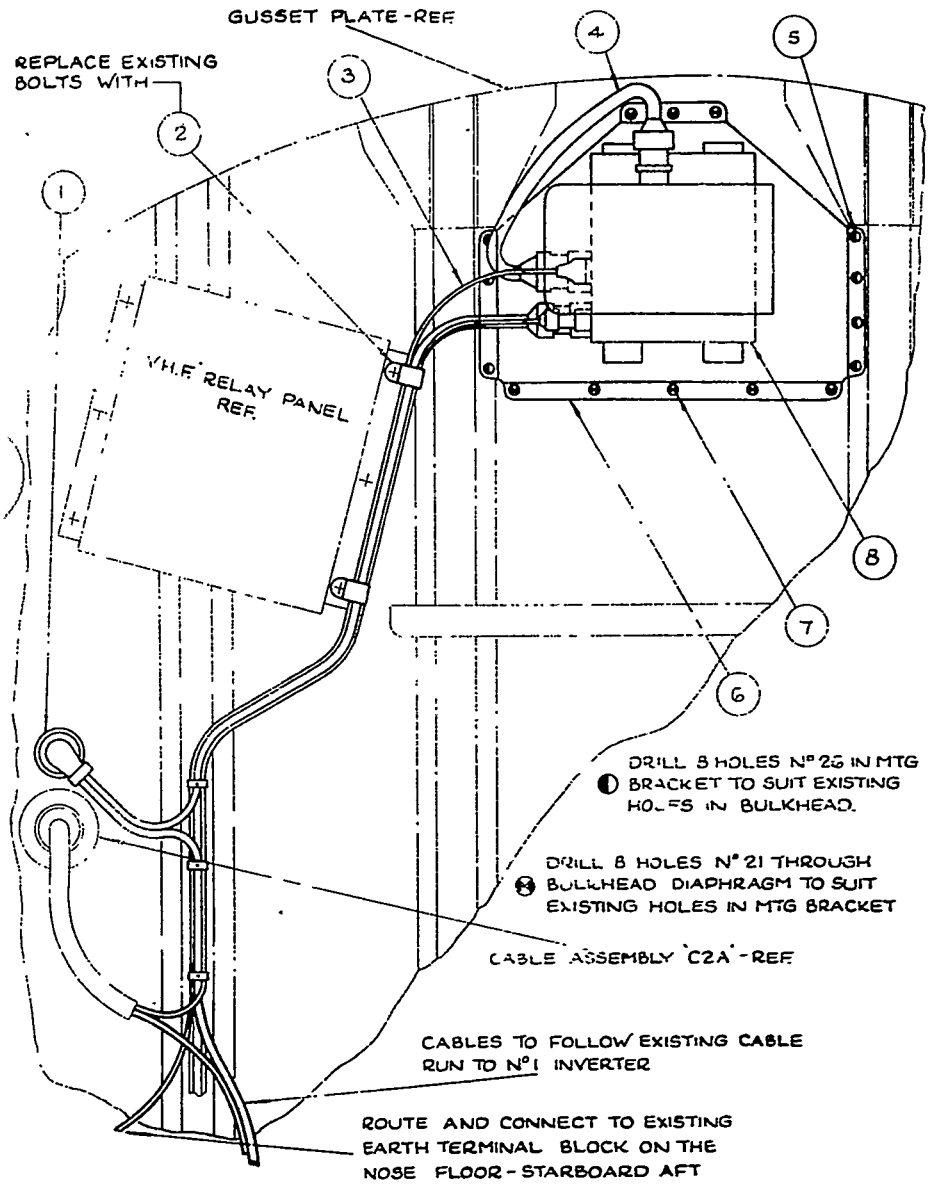


FIG 2. INSTALLATION OF No.1. INVERTER
(VIEW LOOKING FROM STARBOARD)



ASSEMBLY OF N° 2 INVERTER AND WIRING TO FORWARD FACE OF BULKHEAD N° 1

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 2

RESTRICTED

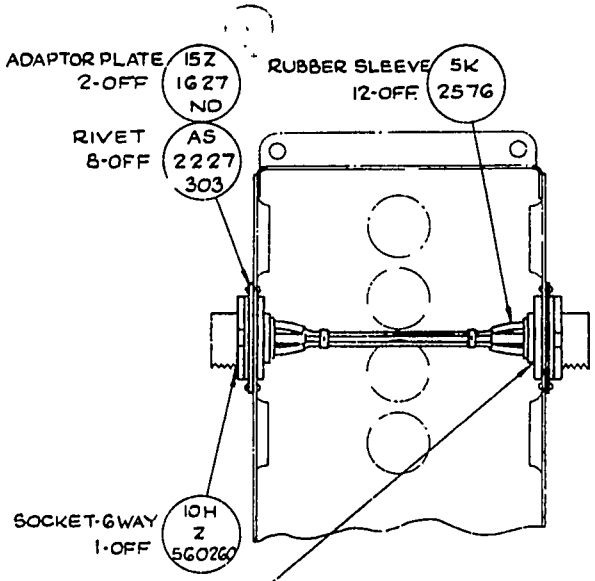
LP31694 12/56 1000 C & P Gp.959 (4)

RESTRICTED

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 3

LP31694 12/56 1000 C & P Gp. 959 (4)



PLUG AND SOCKET PINS INTERCONNECTED 'A A' 'B-B' RESPECTIVELY WITH UNIPREN 6AMP CABLE

SECURE CABLES WITH STRAPPING AS SHOWN

CUT AWAY FLANGE OF SECOND LIGHTNING HOLE FROM TOP AND OPEN OUT HOLE TO 1.5 IN DIA

FIT ADAPTOR PLATE CENTRALLY OVER HOLE DRILL 4 Nº 41 HOLES TO SUIT ADAPTOR PLATE AND RIVET PLATE IN POSITION

ASSEMBLE PLUG AND SOCKET WITH FLAT FACE TO THE TOP

FIG 1. PLUG BRACKET - VIEW FROM REAR

1. REPLACE EXISTING CABLE FROM PIN 'K' TO Nº 1. INVERTER WITH A NEW 12AMP. UNIPREN CABLE CODED 'GC7' LENGTH 8'9"

5X 3237	SOCKET PIN 1-OFF
5X 3149	THIMBLE 1-OFF

2. ADD UNIPREN 12AMP CABLE TO PIN 'L' CODE 'GC8' LENGTH 4'4" AND ROUTE TO Nº 2. INVERTER

5X 3149	THIMBLE 1-OFF
5X 6014	SOCKET 2-OFF

3 PROTECT BOTH CABLES WITH 4 MM. PVC. THROUGHOUT - LENGTHS 8'7" AND 4'2" RESPECTIVELY AND FIT SOCKETS AND ACCESSORIES

5X 1383	CUT FERRULE 1-OFF
5X 3146	CABLE SLEEVE 2-OFF
DHS 181 4	P.V.C. TUBING LENGTH 12'9"

NOTE EXISTING SOCKET (5X/6004) AND EARTH CABLE ATTACHED TO Nº1 INVERTER IS NOW REDUNDANT EXISTING FERRULE (5X/1383) IS NOW TO BE USED ON NEW CABLES

FIG 2 ALTERATIONS TO CABLE ASSY 'C2A'

ADD UNIPREN 6AMP CABLE CODED 'GC22' TO PIN 'C' LENGTH 3'0" APPROX ROUTE & CONNECT TO VOLT. REG. TERM 5.

5X 3149	THIMBLE 1-OFF
5X 3148	CABLE SLEEVE 1-OFF

FIG. 3. ALTERATIONS TO CABLE ASSY. 'C1GA'

ADD UNIPREN 6AMP CABLE CODED 'GC22' TO PIN 'C' LENGTH 1'7" APPROX. ROUTE AND CONNECT TO TB 'GC22'

5X 3149	THIMBLE 1-OFF	5X 3148	SLEEVE 1-OFF	5H 24	FERRULE 1-OFF

FIG. 4. ALTERATIONS TO CABLE ASSY 'C1G'

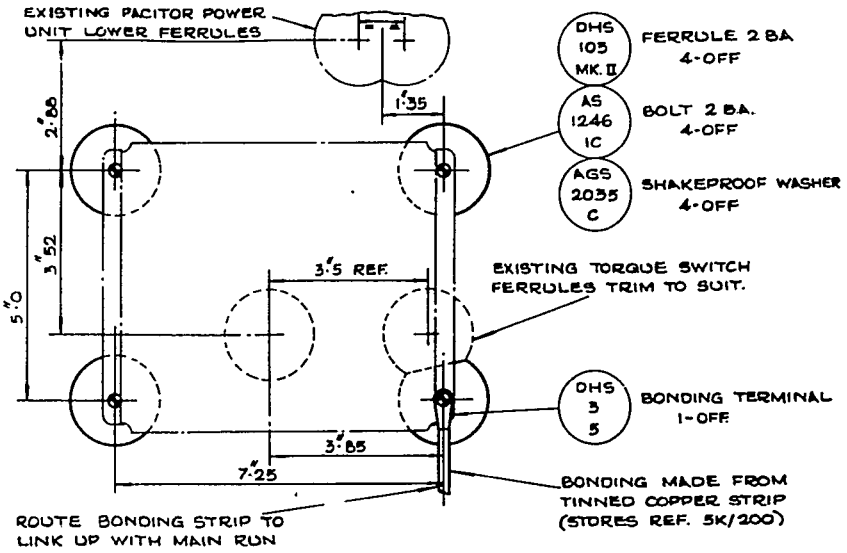


FIG. 1 INSTALLATION OF FERRULES FOR BOX 'K'

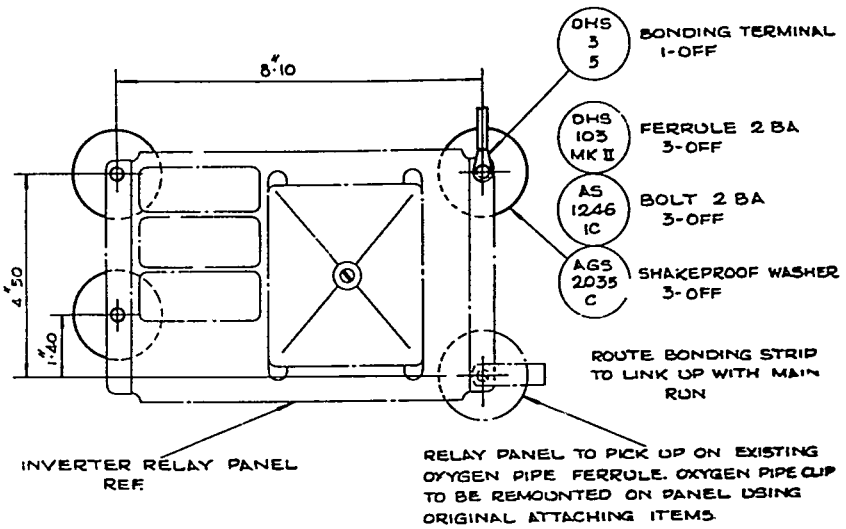


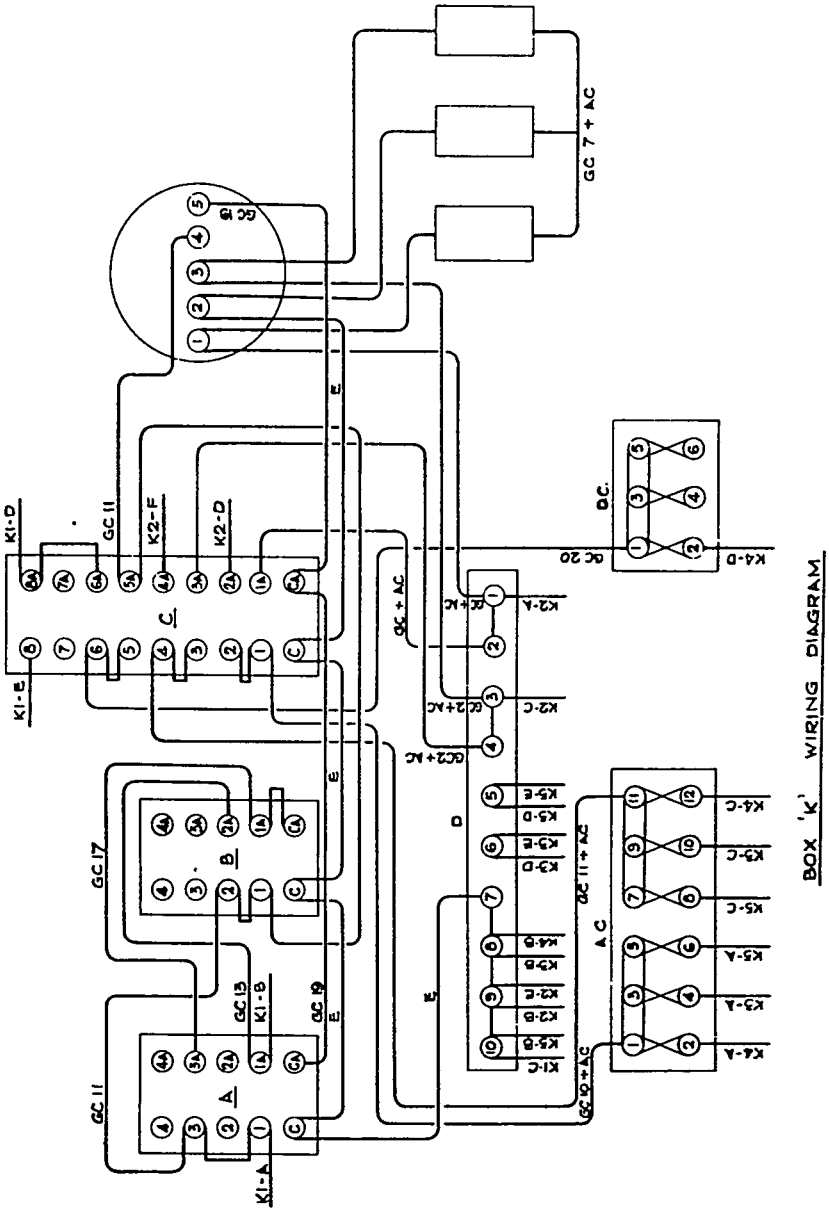
FIG 2 INSTALLATION OF FERRULES FOR INVERTER RELAY PANEL

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 4

RESTRICTED

LP31694 12/56 1000 C & P Gp. 959 (4)



DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 5

RESTRICTED

LP31694 12/56 1000 C & P Gp.959 (4)

CABLES DELETED

CODE	FROM	TO	REMARKS
GC13+	PLUG C2 PIN K	TORQUE SWITCH SOCKET C4	EXISTING ONLY ON AIRCRAFT INCORPORATING MOD. No. 3328
GC6+AC	" C22 " L		
GC4+AC	" C22 " M		
GC+	" C22 " 1		
GC10+	" C22 " 2		
GC3+	" C3 " W	TORQUE SWITCH SOCKET C3	
GC12+	" C3 " X		
GC11+	" C3 " Y		
E	" C3 " Z		
GC+AC	" C17 " A	5 WAY T.B.	REMOVE CABLES AND ATTACHING SOCKET.
GC2+AC	" C17 " C		
E	" C17 " B	EARTH TERM.	
GC+AC	" C18 " A	5 WAY. T.B.	
GC2+AC	" C18 " B		
GC+AC	" C22 " C	5 WAY. T.B.	
GC2+AC	" C22 " D		

CABLES REROUTED

CODE	DISCONNECT FROM	REROUTE AND CONNECT TO	REMARKS.
U2	PLUG C5. PIN A	NEW 3 WAY T.B.	
GC3+	" C6 " V		REROUTE ONLY WHEN 3328 INCORPORATED
GC3+	" C2 " K		REROUTE WHEN 3328 IS NOT INCORPORATED.

CABLES ADDED

CODE	FROM	TO	CABLE SIZE
GC3+	PLUG C6 PIN V	NEW 3 WAY T B	UNIPREN 6 AMP
U2	" C5 " A		
GC21	" C3 " 1		UNIPREN 12. AMP.
GC5+	" C3 " Y	5 WAY T B.	UNIPREN 6. AMP
GC6+	" C3 " Z		
GA2+	" C3 " 2	PLUG C22 PIN 1	UNIPREN 24 AMP.

REPLACE DAMAGED PINS 'W' AND 'X' IN PLUG 'C 3' WITH:-

- 5X 3237 — SOCKET PIN-7AMP 2-OFF.
- 5H 24 — FERRULE 1-OFF.
- 5H 25 — FERRULE 1-OFF.
- 5H 24 — FERRULE 4-OFF.
- 5H 25 — FERRULE 1-OFF.
- 5X 3241 — SOCKET PIN-19AMP 2-OFF.
- 5X 3237 — SOCKET PIN-7AMP. 2-OFF.
- 5X 3242 — PLUG PIN-19 AMP 1-OFF.
- 5X 3238 — PLUG PIN-7AMP. 2-OFF.
- 5X 3146 — CABLE SLEEVE 1-OFF.
- 5X 3148 — CABLE SLEEVE 4-OFF.
- 5X 3149 — THIMBLE 2-OFF.
- 5X 3150 — THIMBLE 2-OFF.

REMOVE FROM AFT END OF JUNCTION BOX LABEL IDENTIFIED 'C 18'.

- LABEL 'C1' 1-OFF. — D.H.S 110 4
- LABEL 'C3' 1-OFF. — DHS 110 6
- RIVET 4-OFF. — AS 2229 203

ON AIRCRAFT WITH MOD 3328 INCORPORATED REMOVE LABEL 'C1-C3-C4' FROM AFT END OF PRESSURE PLATE AND RE-INTRODUCE LABELS 'C1' AND 'C 3'. PICK UP ON HOLES PREVIOUSLY USED FOR THESE LABELS PRIOR TO THE EMBODIMENT OF 3328.

COUNTERSINK REAR FACE OF PLATE 90° X 0·1 DIA.

FOR INSTALLATION OF NEW 3 WAY T.B AND CABLE LOOM 'C17' - SEE SHEET. 7.

ALTERATIONS TO JUNCTION BOX 3.

DRG. No. A.P. 4099 J , F. 19 ' 56

SHEET 6

RESTRICTED

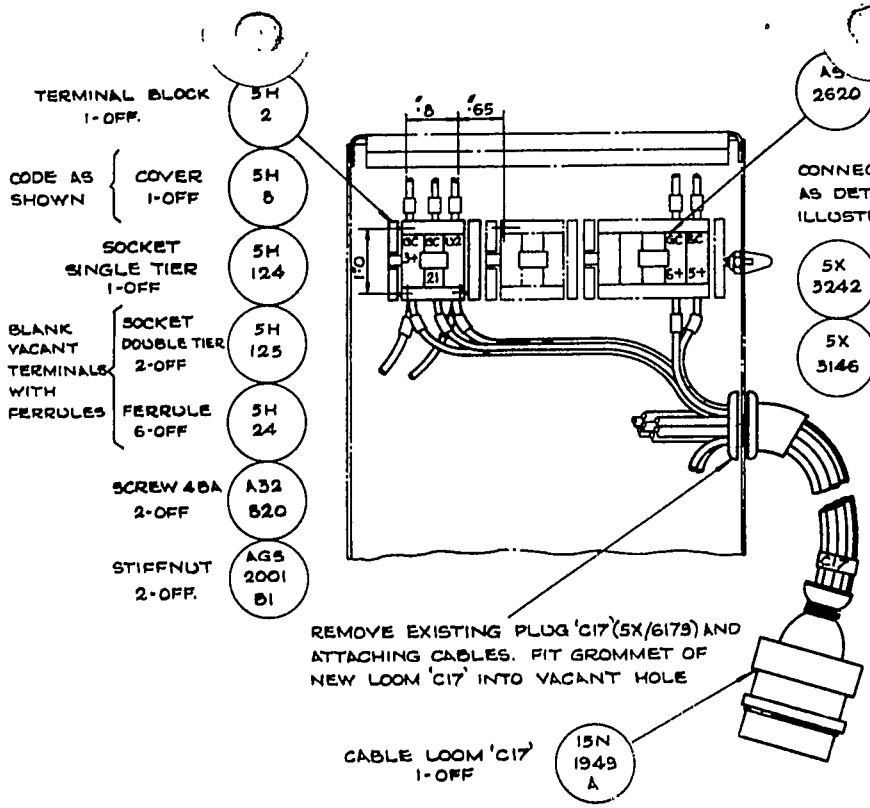
LP31694 12 56 1000 C & P Gp. 959 (4)

RESTRICTED

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 7

LP31694 12/56 1000 C & P Gp. 959 (4)



C17		
PIN	CODE	DESTINATION
A	U2	TERM. U2-3 WAY TB
B	GC5+	TERM. GC5+3 WAY TB
C	E	EARTH TERMINAL
D	GC 10	PLUG C6 PIN Q
E	GC 21	TERM GC21-3 WAY TB
F	GC6+	TERM GC6+-5 WAY TB
G	GC2+	PLUG C22 PIN M
H	GC 8	PLUG C2 PIN L
d	GC+	PLUG C22 PIN L
K	GC5+	TERM GC5+-5 WAY TB
L.	GC 18	PLUG C22 PIN D
M	GC 7	PLUG C2 PIN K
1	GC 9	PLUG C22 PIN C
2	GC 25	PLUG C22 PIN 2

INSTALLATION OF 'C17' CABLE ASSY AND ADDITIONAL TERMINAL BLOCK IN d. B No 3.

CABLES DELETED

CODE	FROM	TO	REMARKS
GC+AC	PLUG C18 PIN A	FUSE 26	DISCONNECT CABLES FROM PLUG - LEAVE PLUG IN POSITION.
GC2+AC	PLUG C18 PIN B	FUSE 27	
GC 11+	PLUG C3 PIN Y	FUSE 30	
GC 12+	PLUG C3 PIN X	FUSE 25	
'E'	PLUG C3 PIN Z	EARTH TERM 3.	
GC 3+	PLUG C3 PIN W	S.B.A.C. 5 WAY T.B.	
GC 3+	PLUG C1 PIN V		
GC 3+	FUSE 22		
GC 3+	FUSE 25		
GA 2+	FUSE 6	FUSE 24	
GA 2+	FUSE 30	FUSE 31	
GA 2+	FUSE 19	37AMP. T.B.	
GC 4+	FUSE 22	G4F COMPASS CORRECTOR CONTROL BOX. WHITE SOCKET	PART OF CABLE ASSY. 15N 761A.
GC3+AC	FUSE 26		
C5+AC	FUSE 27		
'E'	EARTH TERM 4		

REPLACE DAMAGED PINS 'W' AND 'X' IN PLUG 'C3' WITH:-

5X 3238 — PLUG PINS 7AMP. 2-OFF

CABLES REROUTED

CODE	DISCONNECT FROM	REROUTE AND CONNECT TO	REMARKS
GA 12	FUSE 28	FUSE 19	
GA 3+	FUSE 28	FUSE 19	
GA 5+	FUSE 19	FUSE 28	

CABLES ADDED

CODE	FROM	TO	CABLE SIZE
GC 5+	PLUG C3 PIN Y	FUSE 27	UNIPREN 6 AMP
GC 6+	PLUG C3 PIN Z	FUSE 26	
GC 21	PLUG C3 PIN 1	FUSE 22	
GA 2+	PLUG C3 PIN 2	37AMP T.B.	UNIPREN 24 AMP
GC 3+	PLUG C1 PIN V	FUSE 25	UNIPREN 6 AMP
GC 22	FUSE 22	SUPPLY T.B.	
GA 2+	FUSE 26	37 AMP. T.B.	UNIPREN 24-AMP.

5H 24 — FERRULE 6-OFF

5H 26 — FERRULE 1-OFF

5H 31 — FERRULE 2-OFF

5X 3238 — PLUG PIN-7AMP. 3-OFF

5X 3242 — PLUG PIN-19AMP. 2-OFF

5X 3146 — SLEEVE 1-OFF

5X 3148 — SLEEVE 4-OFF.

REMOVE TWO WAY LINKS (5H/83) LINKING FUSES 23-24 AND 29-30

LINK TOGETHER FUSES 23-30 INCLUSIVE WITH:-

5H 89 — LINK - COMMONING - 8WAY 1-OFF.

19 5ac	20 5ac	21 5ac	22 5ac	23 25ac	24 25ac	25 10ac	26 10ac	27 5ac	28 5ac	29	30
GEN'R WARN'G	GGS RETR'N	GGS RETR'N	INVERTER RELAY	TURN'G SLIP 1	TURN'G SLIP 2	N°2 INVERTER CONTROL	FRONT N°1 INVERTER CONTROL	INVERTER IND'R	RECTS		

AS 2761 — LABEL 1-OFF

CODE AS SHOWN

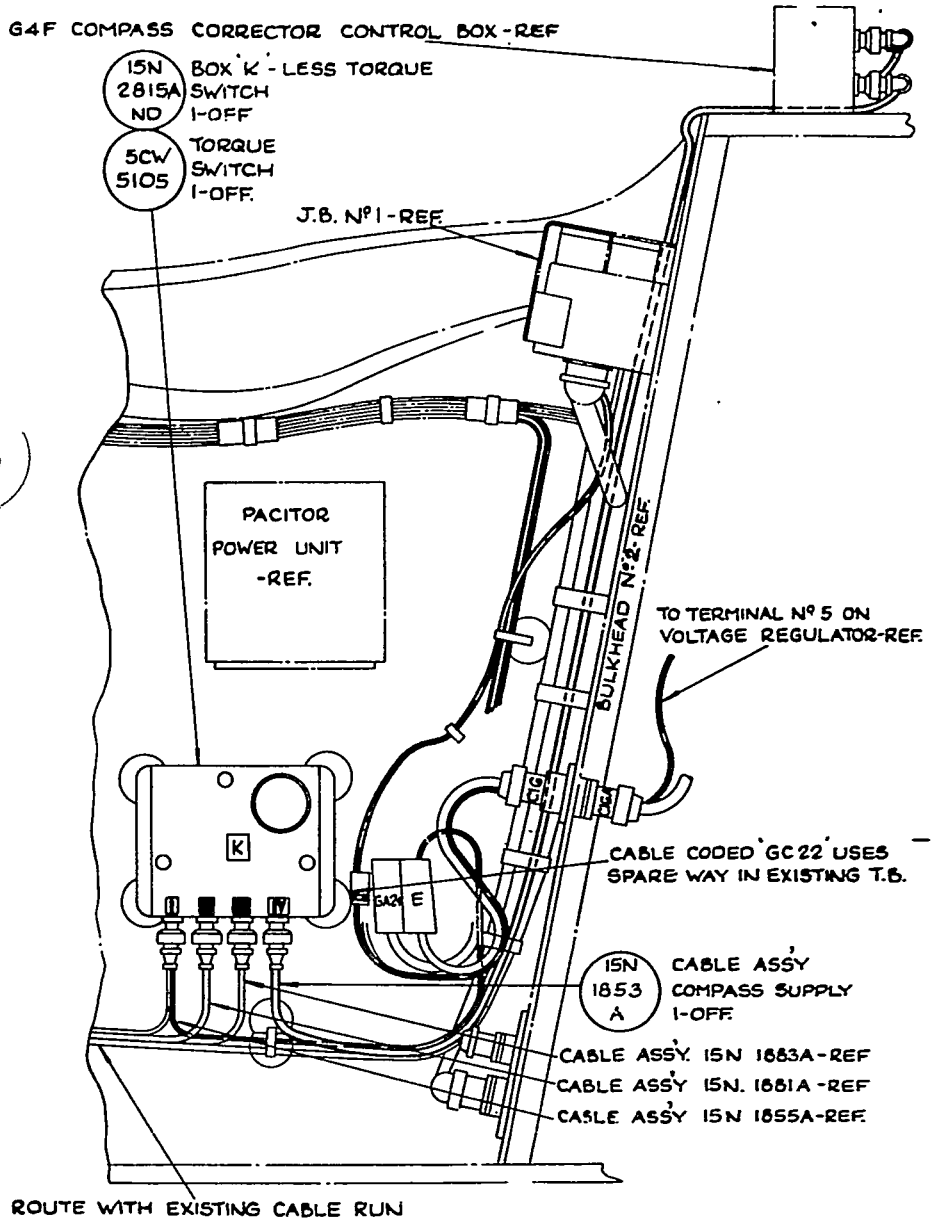
ALTERATIONS TO JUNCTION BOX N° 1.

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 8

RESTRICTED

LP31694 12/56 1000 C & P Gp. 959 (4)



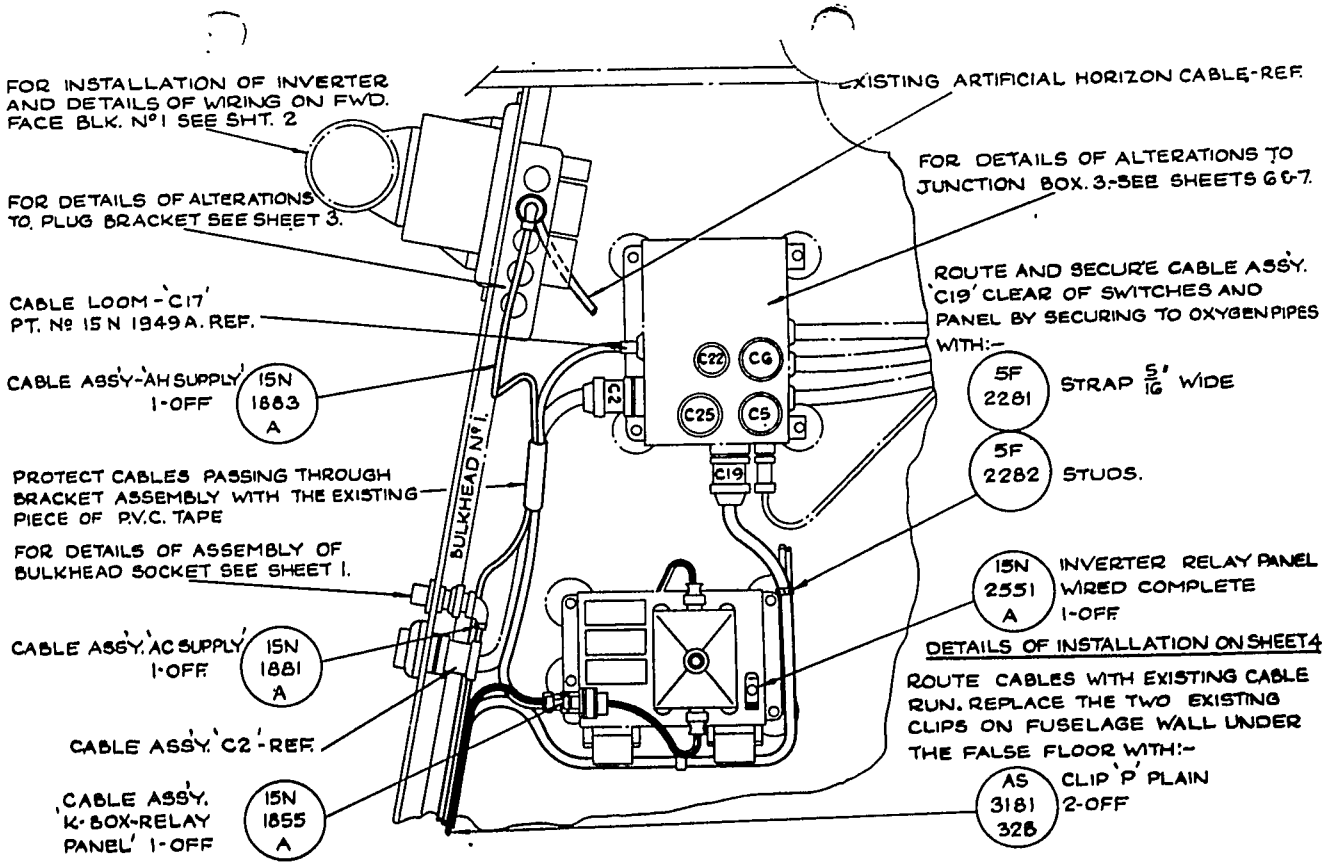
VIEW ON STARBOARD COCKPIT WALL - AFT.

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 9

RESTRICTED

LP31694 12/56 1000 C & P Gp.959 (4)



VIEW ON FORWARD STARBOARD COCKPIT WALL.

RESTRICTED

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 10

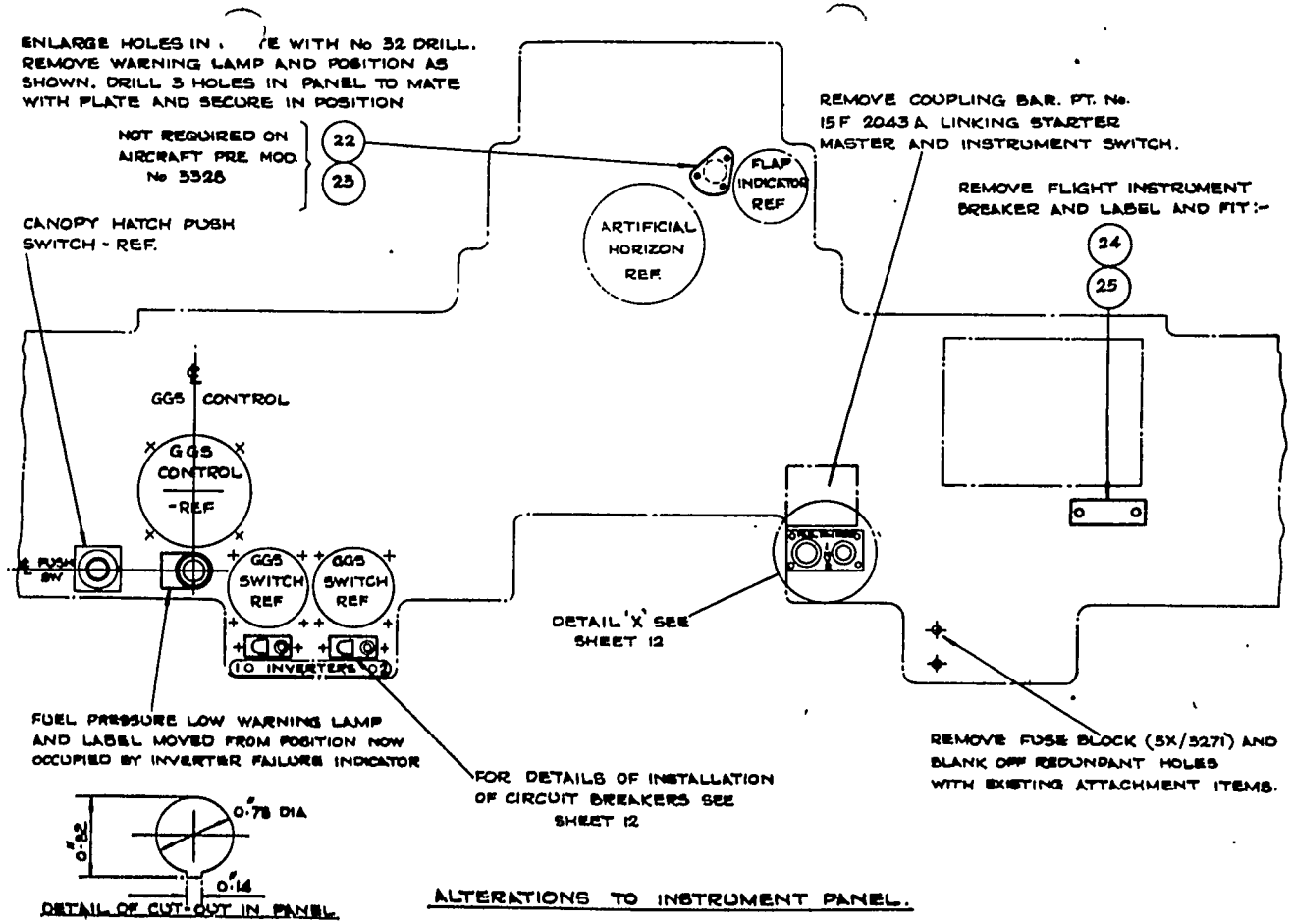
LP31694 12/56 1000 C&P Gp. 959 (4)

RESTRICTED

DRG. No. A.P. 4039 J / F. 19 / 56

SHEET 11

LP31694 12/56 1000 C & P Gp. 959 (4)



ALTERATIONS TO INSTRUMENT PANEL.

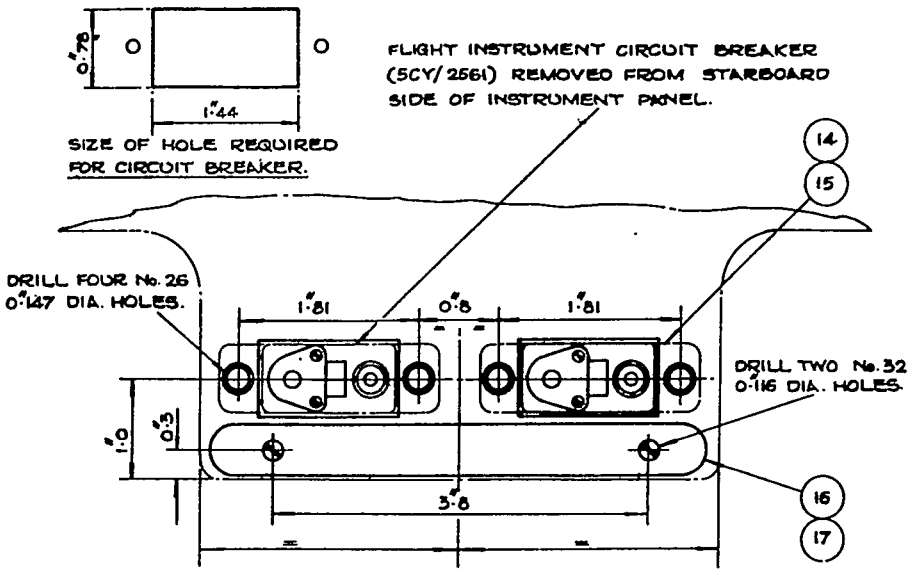
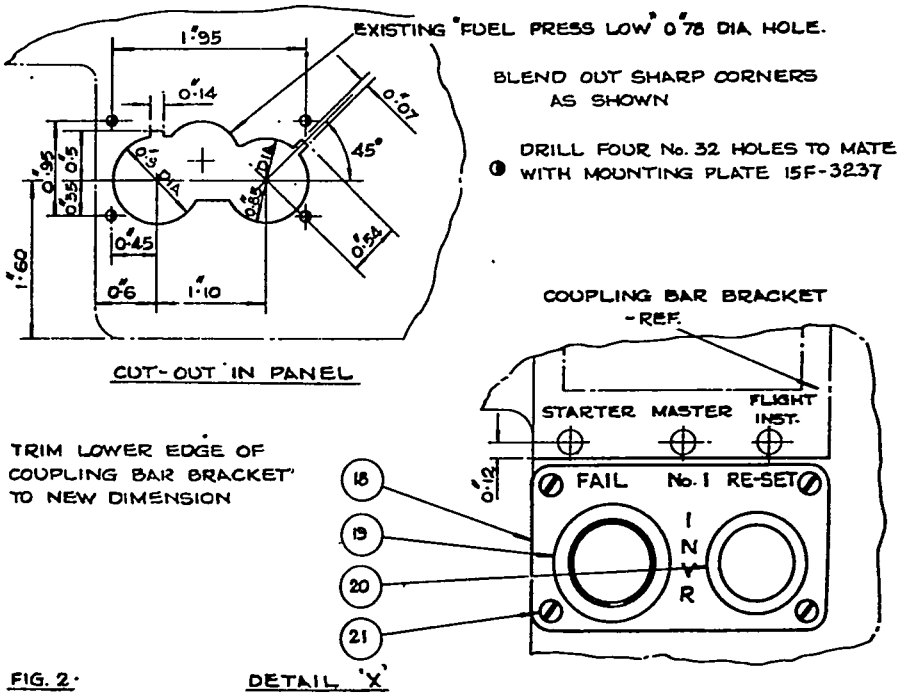


FIG. 1. INSTALLATION OF CIRCUIT BREAKERS ON INSTRUMENT PANEL.



CUT-OUT IN PANEL

TRIM LOWER EDGE OF COUPLING BAR BRACKET TO NEW DIMENSION

FIG. 2. DETAIL 'X'

RESTRICTED

DRG. No. A.P. 4099 J / F. 19 / 56
SHEET 12

LP31694 12/56 1000 C & P Gp.959 (4)

RESTRICTED

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 13

LP31694 12/56 1000 C & P Gp-959 (4)

CABLES DELETED FROM PANEL			
CODE	FROM	TO	
E	POWER FAIL WARN LT	EARTH POINT 'B'	*
GC4+AC GC6+AC	COUPLER BRACKET	FUSE BLOCK	
E			
GA 2+	FLIGHT INST C B	G G S RETRACT^N C.B.	
GC+	FLIGHT INST C B	FLIGHT INST S/W	
E	COUPLER BRKT ASSY	EARTH POINT 'A'	
E	EARTH LINKS A C CABLES (2 OFF)		

CABLES ADDED TO PANEL			UNIPREN
GA 2+	STARTER C B	INVERTER No 2 C B	24 AMP
E	FUEL PRESS WARN LT NEW POSITION	EARTH POINT 'D'	6 AMP

ALTERATIONS TO SUB-ASSY 'C5'
LENGTHEN CABLE CODED 'PA 2' FROM PIN 'B' OF SOCKET TO REACH NEW POSITION OF FUEL PRESSURE WARNING LIGHT. APPROX LENGTH 4'8" - CABLE UNIPREN 6 AMP

ALTERATIONS TO SUB-ASSY 'C6'
ADD UNIPREN 6 AMP CABLE - LENGTH APPROX 2'6" - CODED GC 10 TO PIN 'G' ROUTE WITH EXISTING CABLE CODED GC 3+ (PIN V) TO FLIGHT INST SWITCH

CABLES DELETED SUB-ASSY C22 AT JUNCTION BOX 3			
CODE	FROM	TO	UNIPREN
GC+AC	PIN 'C'	FUSE BLOCK	
GC2+AC	PIN 'D'		
* GC6+AC	PIN 'L'		
* GC4+AC	PIN 'M'		
* GC+	PIN 1	FLIGHT INST SW	
* GC10+	PIN 2	POWER FAIL WARN LT	

CABLES ADDED SUB-ASSY C22 AT JUNCTION BOX 3			
GC5	PIN 'C'	RESET BUTTON	6
GC18	PIN 'D'	MAGNETIC INDICATOR	6
GC+	PIN 'L'	INVERTER No 1 C B	12
GC2+	PIN 'M'	INVERTER No 2 C B	12
GA2+	PIN 1	INVERTER No 1 C B	24
GC25	PIN 2	RESET BUTTON	12

CABLES REROUTED ON PANEL	
A	DISCONNECT CABLE CODED GA 2+ AT FLIGHT INST CIRCUIT BREAKER AND RECONNECT TO G G S RETRACTION C.B.
B	EARTH CABLE TO FUEL PRESSURE WARNING LIGHT (OLD POSITION) IS NOW TO BE CONNECTED TO MAGNETIC INDICATOR

ADDITIONAL ALTERATIONS TO AIRCRAFT NOT INCORPORATING MOD No. 3328	
A	REPLACE EXISTING CUT FERRULE ON SUB-ASSY 'C22' WITH NEW FERRULE (5X/330)
B	CABLE DENOTED * ARE NOT EXISTING

5X 6503	TERMINAL - LUG 1-OFF
5X 3241	SOCKET PIN - 18 AMP 2-OFF
5X 3150	THIMBLE 2-OFF
5X 3237	SOCKET PIN - 7 AMP 5-OFF
5X 3149	THIMBLE 6-OFF
5X 3148	SLEEVE 4-OFF
5X 3146	SLEEVE 1-OFF
5X 330	CUT FERRULE 1-OFF

ALTERATIONS TO ELECTRICAL WIRING ON INSTRUMENT PANEL

SHEET 2.			
KEY	PART Nº	NOMENCLATURE	Q'TY.
1	15N 1857A.	CABLE ASSY.	1
2	15N 1915 ND.	PACKING WASHER	2
	A25/3C	BOLT 2BA. X 0·75	2
	AS 3181/6C	PLAIN 'P' CLIP	2
3	15N 1945A	EARTH CABLE	1
4	15N 1955A	CABLE ASSY.	1
5	A25/3B	BOLT 4 BA. X 0·70	8
6	15N 1803A	MOUNTING BRACKET	1
7	AS 2227/505	RIVET SNAPHEAD 5/32" DIA.	8
8	5UC/4939	CONTROL PANEL TYPE 12	1
	5UB/4938	INVERTER TYPE 100A.	1
	A25/3E	BOLT 1/4" B.S.F. X 0·80"	4
	SP 15/E	WASHER.	4
SHEET 1.			
9	15 22N 129A.	SUPPORT CHANNEL STBD.	1
	15 22N 131A	SUPPORT CHANNEL PORT	1
10	12 20N 1099A	CABLE ASSY.	1
11	AS 124G/5E	BOLT 1/4" B.S.F. X 0·95"	4
	AGS 2001/E1	NUT STIFF	4
	SP 13/E	WASHER	4
12	5UC/4939	CONTROL PANEL TYPE 12	1
	5UB/4938	INVERTER TYPE 100A	1
13	15N 1624A	EARTH CABLE	1
	5K/24	CUT FERRULE	1
SHEET 12			
14	5CY/25G1	CIRCUIT BREAKER 15 AMP.	1
	AGS 2001/B4	NUT STIFF BRASS 4BA.	2
	SP 22/B	WASHER	2
15	5CY/4520	COVER MOULDED	2
	A44/A8	SCREW BRASS GBA X 1/4"	4
16	15N 1931	LABEL	1
17	A44/A14	SCREW BRASS 6BA. X 7/16"	2
	AG6 2001/A4	NUT STIFF BRASS 6 BA.	2
	SP 22/A	WASHER BRASS	2
18	15 E 3237	MOUNTING PLATE	1
19	5CZ/5071 OR 5CZ/5074	MAGNETIC INDICATOR MAGNETIC INDICATOR	1
20	5CW/5001	BUTTON SWITCH	1
21	A44/A14	SCREW BRASS 6BA. X 1/2"	4
	AGS 2001/A4	NUT STIFF BRASS 6 BA.	4
	SP 22/A.	WASHER BRASS	4
SHEET 11			
22	15F 2683	BLANKING PLATE	1
23	A44/A14	SCREW BRASS 6BA X 7/16"	3
	AGS 2001/A4	NUT STIFF BRASS 6BA.	3
	SP 22/A	WASHER BRASS	3
24	15N 399	COVER PLATE	1
25	AS 124G/1B	BOLT 4 BA. X 0·45	2
	AGS 2001/B1	NUT STIFF 4 BA.	2

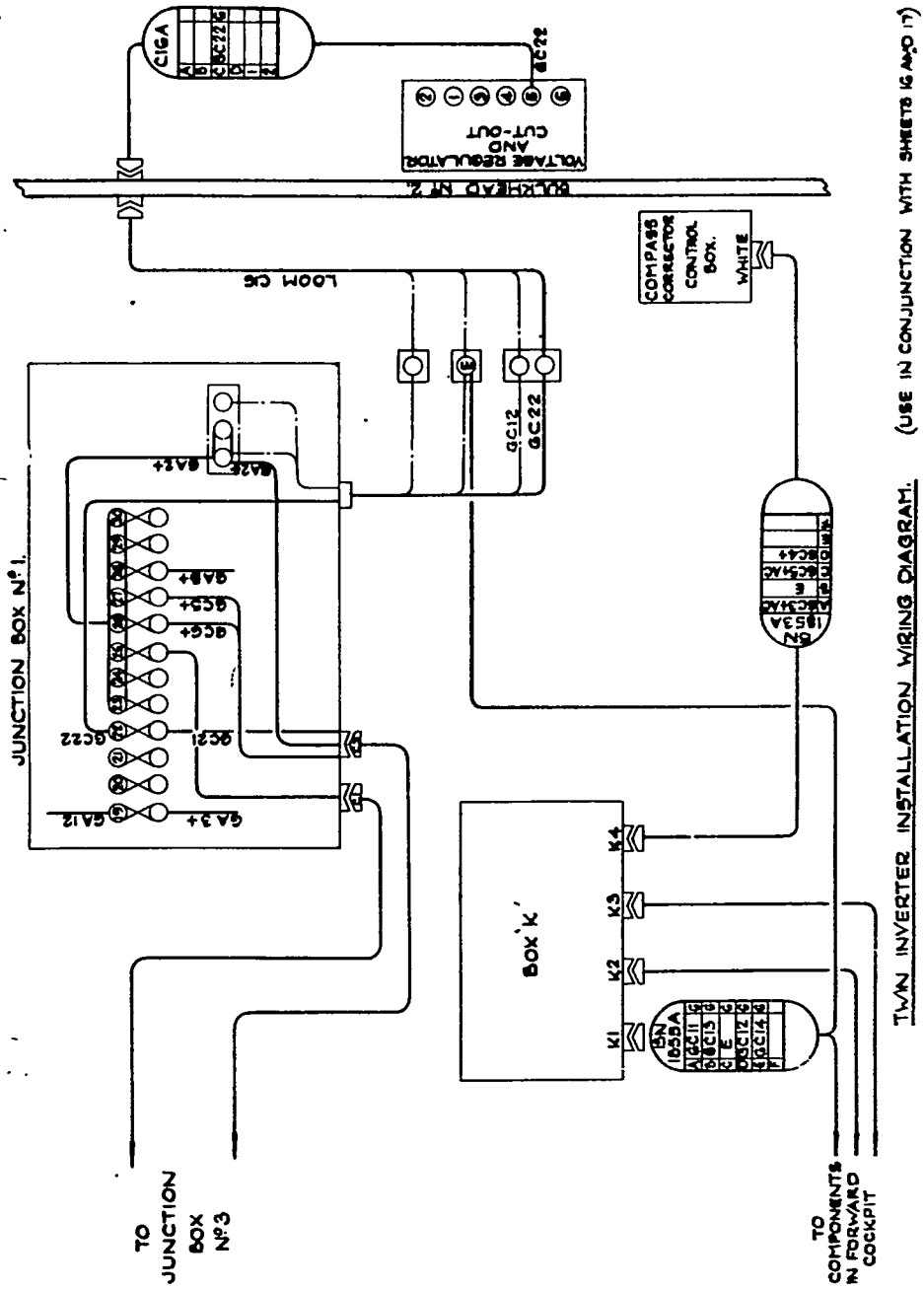
DETAILS OF BALLOON REFERENCES.

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 14

RESTRICTED

LP31694 12/56 1000 C & P Gp. 959 (4)



DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 15

RESTRICTED

LP31694 12/56 1000 C & P Gp. 959 (4)

RESTRICTED

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 16

LP31694 12/56 1000 C & P Gp.959 (4)

TWIN INVERTER INSTALLATION WIRING DIAGRAM (USE IN CONJUNCTION WITH SHEETS 15 AND 16)

RESTRICTED

DRG. No. A.P. 4099 J / F. 19 / 56

SHEET 17

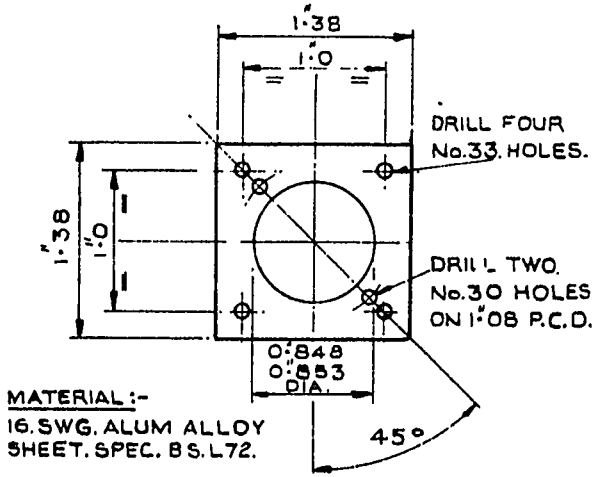
LP31694 12/56 1000 C & P Gp. 959 (4)

RESTRICTED

LP31694 12·56 1003 C & P Gp. 959 (4)

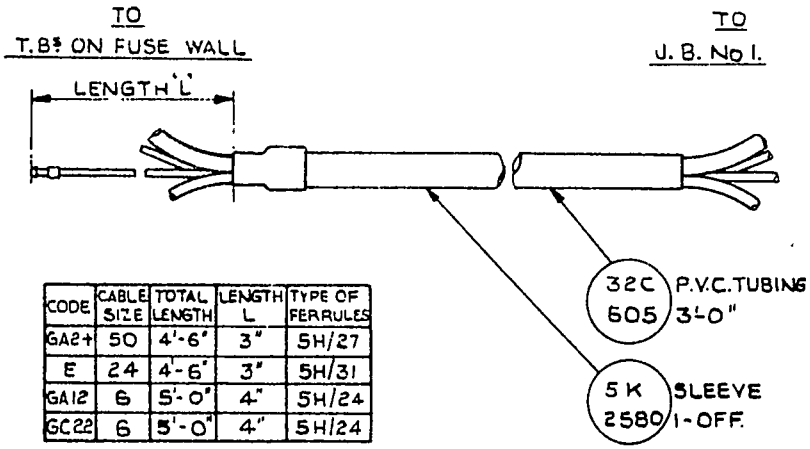
DRG. No. A.P. 4099 J. F. 19 / 56

SHEET 18



MATERIAL :-
16. SWG. ALUM ALLOY
SHEET. SPEC. B.S. L72.

FIG1. PLATE - PART No. 15N.2979.ND.



CODE	CABLE SIZE	TOTAL LENGTH	LENGTH L	TYPE OF FERRULES
GA2+	50	4'-6"	3"	5H/27
E	24	4'-6"	3"	5H/31
GA12	6	5'-0"	4"	5H/24
GC22	6	5'-0"	4"	5H/24

FIG.3 CABLE ASSEMBLY- PART No. 15N.2311A.

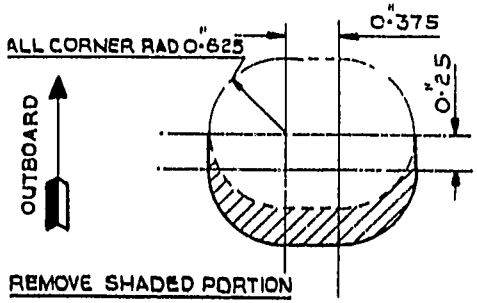


FIG.2. ENLARGEMENT OF HOLE IN NOSE FLOOR

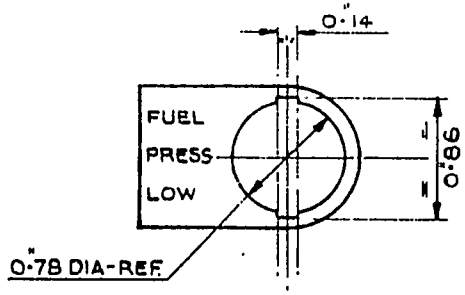
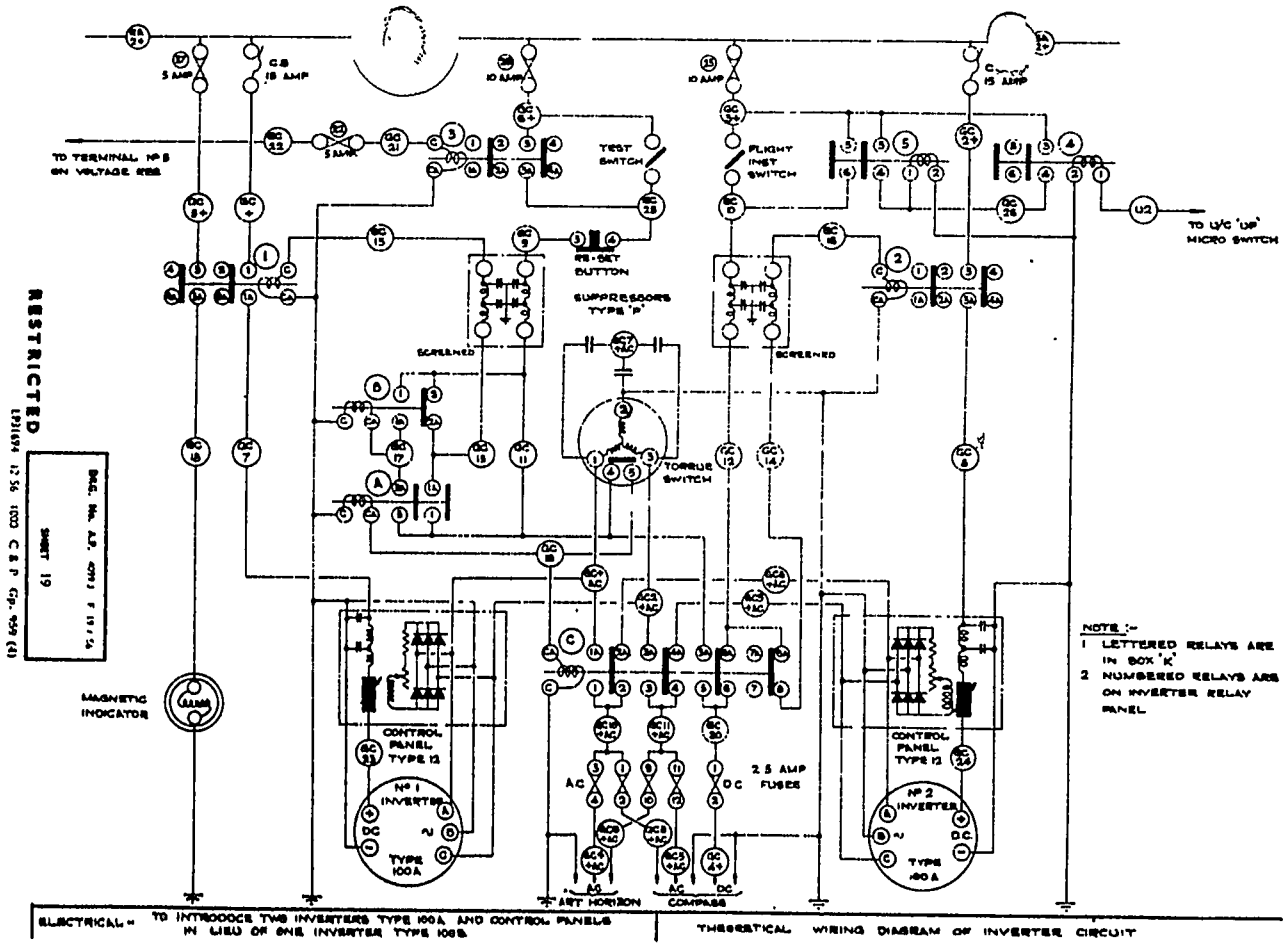


FIG 4 "FUEL PRESSURE LOW" LABEL.


RESTRICTED
TO TERMINAL No 8 ON VOLTAGE REG
5 AMP
C.B 15 AMP
10 AMP
TEST SWITCH
FLIGHT INST SWITCH
TO U/C 'UP' MICRO SWITCH
RE-SET BUTTON
SUPPRESSORS TYPE 'P'
SCREENED
TORQUE SWITCH
MAGNETIC INDICATOR
CONTROL PANEL TYPE 12
No 1 INVERTER TYPE 100A
No 2 INVERTER TYPE 100A
2.5 AMP FUSES
AC
DC
ART HORIZON
COMPASS
NOTE :-
1 LETTERED RELAYS ARE IN BOX 'K'
2 NUMBERED RELAYS ARE ON INVERTER RELAY PANEL
ELECTRICAL - TO INTRODUCE TWO INVERTERS TYPE 100A AND CONTROL PANELS IN LIEU OF ONE INVERTER TYPE 108B
THEORETICAL WIRING DIAGRAM OF INVERTER CIRCUIT

Air Headquarters,
Royal Rhodesian Air Force.
5th March, 1958

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B42 (Issue 1)

Vampire T Mk. 11 Aircraft - Engine Installation - To Introduce Reinforcing Channel in Lower Cowl Rail

(Mod No. Vampire/3531)

(Class B/2 concurrently with Mod.3502. Embodied on all T.11 aircraft) FB9

1. INTRODUCTION

Cracking of the lower cowl rail can occur on aircraft embodying Mod. No. Vampire/3502, which introduces a cut out in the cowl rail to accommodate the rear bearing oil feed pipes. This modification introduces a stiffener to this cut away area to obviate the possibility of future cracking.

(1) This modification does not cancel, supersede, or render unnecessary any work called for by approved modifications, Command modifications, S.T.Is., S.Is. or S.R.IMs.

(2) This modification essentially connected with Mod. No. Vampire/3502 (Engine Installation - To Introduce Cut Out in Lower Cowl Rail to Accommodate Oil Feed Pipes); if that work is not already embodied it must be effected concurrently.

2. EMBODIMENT

This modification is to be embodied by:-

Squadrons - At the first opportunity (not later than 1 month after receipt of parts).

Maintenance Unit - Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 3 man hours ($\frac{1}{2}$ to strip; 2 to embody $\frac{1}{2}$ to re-assemble).

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099J/P.15/56 is incorporated in this leaflet.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Kit, which consists of the following items will be demanded from O.C. Equipment Depot under Stores Ref. 26FC/103531.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	L00.4041	Stiffener	1	-
28Q/10652	AS.2228/405	Rivet, $\frac{1}{8}$ in.dia. mrm./hd.	16	C
28Q/6640	AS.2229/404	Rivet, $\frac{1}{8}$ in.dia. 90 deg. csk./hd.	19	C

(b) The following materials are also required, and are to be provided under Unit arrangements:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
28Q/10412	AS.2230/404	Rivet, $\frac{1}{8}$ in.dia. 120 deg. csk./head	As reqd.	C
33C/1264	-	Compound pigmented varnish jointing	As reqd.	C
33C/1327	-	Adhesive bostik 1410	As reqd.	C

/Page 2.....

(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:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/11867	L00.1060A/2	Cowl ring assembly, lower		

The method for modifying the above spare is detailed in para. 8, operations (2) and (3) and on the drawing.

Parts required:

26FC/-	L00.4041	Stiffener	1	-
		Attaching parts for L00.4041 stiffener:		
28Q/10652	AS.2228/405	Rivet, $\frac{1}{8}$ in.dia. mush head	16	C
28Q/6640	AS.2229/404	Rivet, $\frac{1}{8}$ in.dia. 90 deg. csk./head	19	C
28Q/10412	AS.2230/404	Rivet, $\frac{1}{8}$ in.dia. 120 deg. csk./head	As reqd.	C

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLE NUMBERS

The embodiment of this modification changes Stores Ref., Part and Assembly Nos., as follows:-

Old			New	
Stores Ref.	Pt./Assy.No.	Nomenclature	Pt./Assy.No.	Stores Re
26FC/11867	L00.1060A/2	Support ring assy.	L00.1060A/3	26FC/1245

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Remove the lower front and lower middle engine cowlings, and locate the lower cowling support ring, Part No. L00.1060A/2. Release the pipes secured to this ring, retaining their attaching items for re-assembly, then release and remove the support ring assembly complete, for subsequent modification, retaining also, its attaching items.

(2) Working on the support ring, release its attached cowl tape in the vicinity of the cut out by carefully drilling out its existing $\frac{1}{8}$ in. dia. rivets. Position the new stiffener, Part No. L00.4041, centrally over the cut out in the support ring, and using the existing holes in the stiffener as guides and a No. 30 (0.1285 in. dia.) drill, drill first through the bottom of the support ring, countersinking these holes on the lower surface at 90 deg. x 0.22 in., then through the sides of support ring. Temporarily secure the stiffener in position with $\frac{1}{8}$ in. dia. locating pins. Working from the bottom and using the three existing tape attachment holes as guides (as shown on the drawing) and a No. 30 drill, extend these holes through the stiffener. Use the existing 17/32 in. dia. hole in the support ring as a guide and drill through the stiffener. Finally blend the existing rivet hole in the support ring flange, to form an even contour in the stiffener. Remove the stiffener and thoroughly deburr all holes in both the sitffener and the support ring.

(3) Referring to the drawing, coat the mating surfaces of the stiffener and the support ring with compound, pigmented varnish jointing (Stores Ref. 33C/1264) and offer the stiffener up to its intended position. Secure it first through the base of the support ring with nineteen

/Page 3 .....

⅛ in. dia. 90 deg. countersunk-head rivets, Part No. AS.2229/404, then through the flange holes with sixteen ⅛ in. dia. mush-head rivets, Part No. AS.2228/405. Finally, after coating the mating surface of the cowl tape with bostik 1410 (Stores Ref. 33/1327) and positioning it in its original position, secure it to the cowl ring and through the stiffener with 120 deg. countersunk-head rivets, Part No. AS.2230/404.

(4) Re-assemble the support ring to the aircraft using the attaching items retained in operation (1). Refit the pipes which were removed from the ring, using the retained clips and attaching items. Refit and secure the lower front and lower middle engine cowlings.

9. TESTING AFTER EMBODIMENT

There are no special test required after the embodiment of this modification.

10. RECORDING ACTION

Record on Aircraft Form 700 and 4801.

11. DISPOSAL OF REDUNDANT PARTS

There are no parts rendered redundant by the embodiment of this modification.

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of + 0.10 lbs., and no change of moment.

Source: A.P. 4099J, Vol. 2, Part 1,
Leaflet No. P.15

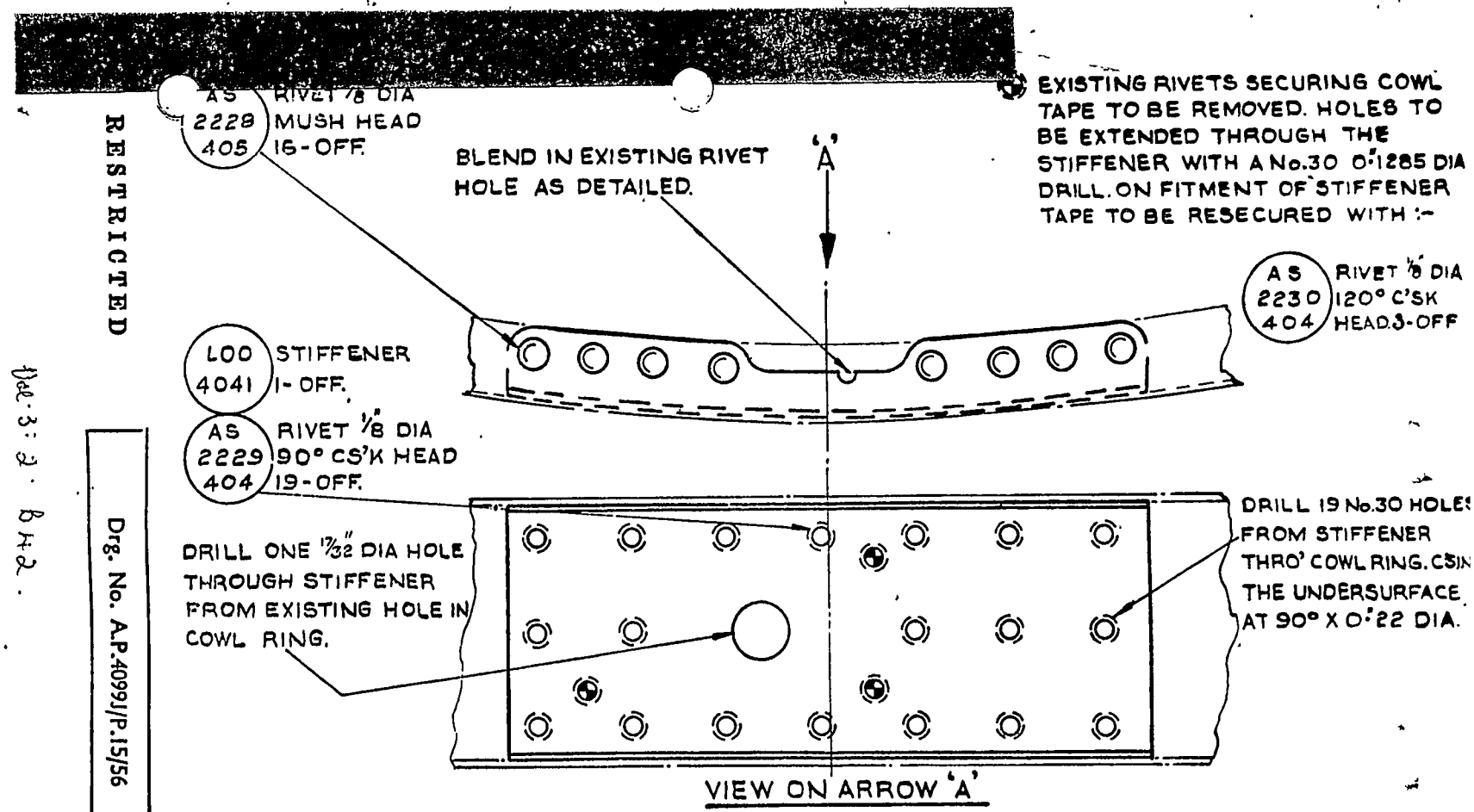
(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipients plus the following:-

W.O. A.R.S.	(2)
W.O. Stressed Skin Section	(2)
O.C. Equipment Depot	(1)
S.E.S.O.	(1)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)

RESTRICTED



DETAIL OF ATTACHMENT OF STIFFENER TO LOWER COWL RING.

Drg. No. A.P.4099J/P.15/56

Vol. 3: 2. B.42.

Air Headquarters,
Royal Rhodesian Air Force.
26th February, 1958

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B41 (Issue 1)

Vampire T. Mk. 11 Aircraft - Canopy - Improved Canopy Jettison Mechanism to allow Lower Jettison Speeds Introduction

(Mod No. Vampire 3321)

(Class B/2)

1. INTRODUCTION

This modification introduces improvements to the canopy hatch jettison mechanism to facilitate a more efficient jettison of the hatch when operating the mechanism at low speeds.

This modification is to be embodied concurrently with Mod. No. Vampire/3151 (Redesigned Canopy to give Improved Escape Facilities - Introduction) if that modification is not already embodied.

2. EMBODIMENT

This modification is to be embodied by:-

Squadrons - At the first opportunity (not later than one month after receipt of parts).

Maintenance Unit - Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 14 man hours (5 to strip; 2 to embody; 7 to re-assemble).

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099J/J.10/55, Sheets 1 & 2, is incorporated in this Order.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The undermentioned items will be demanded from O.C. Equipment Depot as a set. The set is to be issued as a Modification Kit (Stores Ref. 26FC/103321).

Ref No.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	15.FC.3349A	Jettison shaft assembly	1	-
26FC/-	15.FC.3365ND	Bearer channel	1	-
26FC/10400	15.FC.3369	Rubber pad	2	C
26FC/10413	15.FC.3385	Locking plate	1	C
26FC/10435	15.FC.3395	Spring	1	C
26FC/10436	15.FC.3397	Eye end	1	C
26FC/10437	15.FC.3399A	Fork end assembly	1	C
26FC/10434	15.FC.3405	Spring	2	C
26FC/10433	15.FC.3407	Jack roller spindle	1	C
26FC/-	15.FC.3447ND	Special bolt	1	-
26FC/-	15.FC.3465ND	Locating pin	1	-
28Q/6667	AS.2227/406	Rivet, snap head x $\frac{1}{8}$ in. dia.	3	C
28L/753	A16Y/CT	Nut, thin, 2 B.A.	2	C
28D/12538	A25/15C	Bolt, 2 B.A. x 1.95 in.	2	C
28D/13036	A25/20G	Bolt, 5/16 in. B.S.F. x 2.55 in.	1	C
*28D/13060	A25/29G	Bolt, 5/16 in. B.S.F. x 3.45 in.	1	C
k28D/13193	A25/42G	Bolt, 5/16 in. B.S.F. x 4.75 in.	1	C
28P/12462	SP9/C8	Pin, split, 1/16 in. dia.	6	C
28W/12252	SP13/C	Washer, 0.391 in. dia.	4	C
28W/12324	SP15/G	Washer, 0.610 in. dia.	2	C

/Page 2 .....

Note: * Fabricated hatch only.
Note: k Cast hatch only.

(b) The following materials are also required, and are to be provided under Unit arrangements:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
30A/2296	-	Wire, locking, nickel alloy 20 s.w.g.	As reqd.	C
33B/205	-	Finish, night synthetic	As reqd.	C
33C/1139	-	Compound pressure cabin sealing Bostick, primer 1751	As reqd.	C
33C/1173	-	Cement rubber resin	As reqd.	C

(2) Special Tools and Test Equipment

No special tools or test equipment are 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:-

Stores Ref.	Part No.	Nomenclature	Qty	Class of Stor
26FC/-	15.FC.3379A/ND	Canopy Hatch Assembly (Cast version)		
Parts Required:-				
26FC/10400	15.FC.3369	Rubber pad	2	C
26FC/10413	15.FC.3385	Locking plate	1	C
		Attaching parts for 15FC.3385 locking plate		
28D/13036	A.25/20G	Bolt, 5/16 in. B.S.F. x 2.5 in.	1	C
28D/13193	A.25/42G	Bolt, 5/16 in. B.S.F. x 4.75 in.	1	C
28P/12462	SP.9/C8	Pin, split, 1/16 in. dia.	2	C
28W/12324	SP.15/G	Washer, 0.610 in. dia.	2	C
and				
26FC/10435	15.FC.3395	Spring	1	C
26FC/10436	15.FC.3397	Eye end	1	C
		Attaching parts for 15.FC.3397 eye end		
28P/12462	SP.9/C8	Pin, split, 1/16 in. dia.	1	C
and				
26FC/10437	15.FC.3399A	Fork end assembly	1	C
26FC/-	15.FC.3447ND	Special bolt	1	-
26FC/-	15.FC.2959A/ND	Rear Canopy and Mechanism Assembly (Cast version)		
Parts Required				
26FC/-	15.FC.3349A	Jettison shaft assembly	1	-
28L/753	A.16Y/CT	Nut, thin, 2 B.A.	2	C
28D/12538	A.25/15C	Bolt, 2 B.A. x 1.95 in.	2	C
28W/12252	SP.13/C	Washer, 0.391 in. dia.	4	C
26FC/10422	15.FC.3383A/ND	Canopy Hatch Assembly (Fabricated Version) (Pre mod. No. Vampire 3167)		
26FC/10423	15.FC.3377A/ND	Canopy Hatch Assembly (Fabricated Version) (Post Mod. No. Vampire 3167).		
Parts Required				
26FC/10400	15.FC.3369	Rubber pad	2	C
26FC/10413	15.FC.3385	Locking plate	1	C
		Attaching parts for 15.FC.3385 locking plate		
28D/13036	A.25/20G	Bolt, 5/16 in. B.S.F. x 2.55 in.	1	C
28D/13060	A.25/29G	Bolt, 5/16 in. B.S.F. x 3.45 in.	1	C
28P/12462	SP.9/C8	Pin, split, 1/16 in. dia.	2	C
28W/12324	SP.15/G	Washer, 0.610 in. dia.	2	C
and				
26FC/10435	15.FC.3395	Spring	1	C
26FC/10436	15FC.3397	Eye end	1	C

/Page 3 .....

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
		Attaching parts for 15.FC.3397 eye end		
28P/12462 and	SP.9/C8	Pin, split, 1/16 in. dia.	1	C
26FC/10437	15.FC.3399A	Fork end assembly	1	C
26FC/-	15.FC.3447ND	Special bolt	1	-
26FC/10354	15.FC.3375A/ND	Rear Canopy and Mechanism Assembly (Fabricated version)		
Parts required				
26FC/-	15.FC.3349A	Jettison shaft assembly	1	-
28L/753	A.16Y/CT	Nut, thin, 2 B.A.	2	C
28D/12538	A.25/15C	Bolt, 2 B.A. x 1.95 in.	2	C
28W/12252	SP.13/C	Washer, 0.391 in. dia.	4	C
26FC/-	15.FC.3471A/ND	Canopy Hatch Damper and Knob Assembly (Pre Mod. No. Vampire 3282)		
26FC/-	15.FC.2336A/4	Canopy Hatch Damper Assembly (Post Mod. No. Vampire 3282)		
Parts Required				
25FC/-	15FC.3465ND	Locating pin	1	-
26FC/-	15.FC.2289A	Hydraulic jack assembly		
26FC/10434	15.FC.3405	Spring	2	C
26FC/10433	15.FC.3407	Jack roller spindle	1	C
		Attaching parts for 15FC.3407 jack roller spindle		
28P/12462	SP.9/C8	Pin, split, 1/16 in. dia.	1	C
26FC/-	15.FC.2183	Jettison Release Lever		
Parts Required:-				
26FC/-	15.FC.3365ND	Bearer channel	1	-
		Attaching parts for 15.FC.3365ND bearer channel		
28Q/6667	AS.2227/406	Rivet, snap head x $\frac{1}{8}$ in. dia.	3	C

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Stores, Ref., Part and Assembly Nos. as follows:-

OLD			NEW	
Stores Ref.	Pt/Assy.No.	Nomenclature	Pt/Assy.No.	Stores Ref.
26FC/-	15.FC.1823	Canopy rear arch casting	15.FC.3409	26FC/-
26FC/-	15.FC.2183	Jettison release lever	15.FC.3404	26FC/-
26FC/-	15.FC.2289A	Hydraulic jack assy.	15.FC.2289A/1	26FC/-
26FC/-	15.FC.2336A/4	Canopy hatch damper assy. (Post Mod No. Vampire/3282)	15.FC.2336A/5	26FC/10420
26FC/10156	15.FC.2735A	Strut latch bracket	15.FC.3467A	26FC/10438
26FC/-	15.FC.2811	Jettison operating lever	15.FC.3411	26FC/-
26FC/-	15.FC.2883A/ND	Strut latch assy.	15.FC.3469A/ND	26FC/-
26FC/-	15.FC.2959A/ND	Rear canopy and mechanism assy. (cast version)	15.FC.3423A/ND	26FC/-
26FC/10354	15.FC.3375A/ND	Rear canopy and mechanism assy. (Fabricated version)	15FC.3473A/ND	26FC/10439
26FC/10423	15FC.3377A/ND	Canopy hatch assy. (Fabricated version) (Post Mod. No. Vampire/3167)	15FC.3429A/ND	26FC/10424
26FC/-	15.FC.3379A/ND	Canopy hatch assy. (Cast version)	15FC.3419A/ND	26FC/-
26FC/10422	15.FC.3383A/ND	Canopy hatch assy. (Fabricated version) (Pre Mod. No. Vamp/3167)	15.FC.3427A/ND	26FC/-
26FC/-	15.FC.3471A/ND	Canopy hatch damper and knob assy. (Pre Mod. No. Vampire/3282)	15.FC.3473A/ND	26FC/-

/Page 4 .....

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-
(Refer to Sheets 1 and 2 of the drawing)

(1) Remove the canopy hatch as detailed in A.P. 4099J, Vol. 1, Para 22.

(2) Remove the redundant jack roller spindle, Part No. 15.FC.2193 (ref. only) from the jettison jack, dispose of the spindle but retain the side and centre rollers, the two washers and the slotted nut for re-assembly.

(3) Remove the split pin, washer and H.T.S. pin securing the jettison lever, Part No. 15.FC.2183 (ref. only) to the jettison jack and tie rod remove the release lever from the airoraft and retain it with the attachment items for re-assembly.

(4) Remove the jettison tie rod from the jettison shaft assembly, aft of the canopy rear arch, and retain it with its attachment items for

(Reference ...)

A.L.249 retain four of the six stiffnuts, bolts and washers, with two of the laminated shims, securing the Jettison shaft at the outer attachment positions, and dispose of remaining items.

(6) Fill the two redundant holes through the canopy rear arch, which held the redundant jettison shaft centre attachment bolts, with two bolts, Part No. A25/15C, two nuts, Part No. A167/CT and two washers Part No. SP13/C, coating the bolts with Bostik primer 1751 (Stores Ref. 33C/1139) and fitting the heads of the bolts in recess provided in the rear arch. The rear arch now becomes, Part No. 15FC.3409 (Reference only).

A.L.249

NOTE: Cut the heads of bolts protruding through the nuts back to 0.05 in, and then lock the nuts by peening the bolts ends, whilst holding rivetting dolly against the head of the bolts.

... using the original attachment items, retained in operation (4), and a new split pin, Part No. SP.9/C8.

(8) Refer to Sheet 1 of the drawing and modify the jettison release lever as shown. Re-secure the lever to the jettison jack and tie rod, using the attachment items, retained in operation (3), and a new split pin Part No. SP.9/C8. The jettison release lever now becomes, Part No. 15.FC.3403 (ref. only).

(9) Still referring to Sheet 1 of the drawing offer up and secure the new jack roller spindle, Part No. 15.FC.3407, attaching the springs, Part No. 15.FC.3405, as shown, using the existing attachment items, retained in operation (2), and a new split pin, Part No. SP.9/C8. The hydraulic jack assembly now become, Part No. 15.FC.2289A/1 (ref. only).

(10) Remove and dispose of the two rubber pads, Part No. 15.FC.2177 (ref. only) fitted to the undersurface of the hinge jettison levers and clean away all trace of Bostik, Secure the new rubber pads, Part No. 15.FC.3369, in position, using cement rubber resin (Stores Ref. 33C/1173).

(11) Refer to A.P. 4099J, Vol. 1, Sect. 3, Chap. 1, fig. 6, and release the spring shown connecting the external handle control to the hatch centre beam. Remove and dispose of the compression spring unit but retain the attachment items for re-assembly.

(12) Locate and remove the bolt securing the pivot fork assembly at the aft end of the hatch centre beam, dispose of the bolt but retain the remaining items. Fit a new bolt, Part No. A.25/29G (fabricated hatch) A.25/42G (cast hatch) in this position, using the existing attach ment items, placing a washer, Part No. SP.15/G, under the head of the

/5....

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(Refer to Sheets 1 and 2 of the drawing)

(1) Remove the canopy hatch as detailed in A.P. 4099J, Vol. 1, Para 22.

(2) Remove the redundant jack roller spindle, Part No. 15.FC.2193 (ref. only) from the jettison jack, dispose of the spindle but retain the side and centre rollers, the two washers and the slotted nut for re-assembly.

(3) Remove the split pin, washer and H.T.S. pin securing the jettison lever, Part No. 15.FC.2183 (ref. only) to the jettison jack and tie rod remove the release lever from the aircraft and retain it with the attachment items for re-assembly.

(4) Remove the jettison tie rod from the jettison shaft assembly, aft of the canopy rear arch, and retain it with its attachment items for

(Reference [illegible])

retain four of the six stiffnuts, bolts and washers, with two of the laminated shims, securing the Jettison shaft at the outer attachment positions, and dispose of remaining items.

A.L. 249

NOTE: Should any difficulty be experienced in gaining access to the jettison shaft upper attachment bolts, the shaft may be cut and the assembly removed from aircraft piecemeal.

Part No. SP.13/C, coating the bolts with Bostik Primer 1751 (Stores Ref. 33C/1139) and fitting the heads of the bolts in the recess provide in the rear arch. The rear arch now becomes, Part No. 15.FC.3409 (ref. only).

(7) Offer up and secure the new jettison shaft assembly, Part No. 15. FC.3349A, to the aft face of the canopy rear arch, using the original attachment items, retained in operation (5). Re-secure the jettison ti rod to the jettison shaft, using the original attachment items, retaine in operation (4), and a new split pin, Part No. SP.9/C8.

(8) Refer to Sheet 1 of the drawing and modify the jettison release lever as shown. Re-secure the lever to the jettison jack and tie rod, using the attachment items, retained in operation (3), and a new split pin Part No. SP.9/C8. The jettison release lever now becomes, Part No. 15.FC.3403 (ref. only).

(9) Still referring to Sheet 1 of the drawing offer up and secure the new jack roller spindle, Part No. 15.FC.3407, attaching the springs, Part No. 15.FC.3405, as shown, using the existing attachment items, retained in operation (2), and a new split pin, Part No. SP.9/C8. The hydraulic jack assembly now become, Part No. 15.FC.2289A/1 (ref. only).

(10) Remove and dispose of the two rubber pads, Part No. 15.FC.2177 (ref. only) fitted to the undersurface of the hinge jettison levers and clean away all trace of Bostik, Secure the new rubber pads, Part No. 15.FC.3369, in position, using cement rubber resin (Stores Ref. 33C/1173).

(11) Refer to A.P. 4099J, Vol. 1, Sect. 3, Chap. 1, fig. 6, and release the spring shown connecting the external handle control to the hatch centre beam. Remove and dispose of the compression spring unit but retain the attachment items for re-assembly.

(12) Locate and remove the bolt securing the pivot fork assembly at the aft end of the hatch centre beam, dispose of the bolt but retain the remaining items. Fit a new bolt, Part No. A.25/29G (fabricated hatch) A.25/42G (cast hatch) in this position, using the existing attach ment items, placing a washer, Part No. SP.15/G, under the head of the /5....

bolt and the slotted hole end of the new locking plate, Part No. 15.FC.3385, under the existing washer and nut. Tighten the nut and fit a new split pin, Part No. SP.9/C8. The tab end of the locking plate is to face aft.

(13) Remove the bolt securing the jettison operating lever to the strut release eyelet, dispose of the bolt and retain the remaining attachment items. Modify the jettison lever as detailed on Sheet 2 of the drawing. Re-secure the lever in its original position using the existing attachment items, a new bolt, Part No. A.25/20G, a new washer, Part No. SP.15/G, which is to be fitted under the head of the bolt, and attaching the non-slotted hole end of the locking plate under the existing washer and nut, Tighten the nut and fit a new split pin, Part No.SP.9/C8.

(14) Fit the spring, Part No. 15.FC.3395, over the eye end, Part No. 15.FC.3397, slide the fork end assembly, Part No. 15.FC.3399A, into the eye end and fit this unit into the position occupied by the redundant compression spring unit, removed in operation (11), using the existing attachment items and a new split pin, Part No. SP.9/C8. Re-attach the spring, connecting the external handle control to the hatch centre beam, released in operation (11 , using the existing attachment items.

(15) Locate the special bolt, Part No. 15.FC.2549ND (ref. only) which operates the hatch seal valve, fitted at the aft end of the hatch centre beam. Break the locking wire, remove it from its mounting lug and dispose of it, retaining the two nuts for re-assembly. Elongate the hole to 0.1 in. from the outer end of the mounting lug, secure the new special bolt, Part No. 15.FC.3447ND, in position, check that the hatch seal valve is depressed to a minimum of 0.08 in. when the external handle control is locked, then wire lock the nuts with 20 s.w.g. nickle alloy locking wire (Stores Ref. 30A/2296).

(16) Locate the latch assembly at the top of the hatch damper piston rod and carefully remove and dispose of the strut eyelet locating pin. Open out the hole, left after removing the redundant pin, using a No. 31 (0.120 in. dia.) drill, clear away any swarf and fit the new locating pin, Part No. 15.FC.3465ND. The latch assembly now becomes, Part No. 15.FC.3469A/ND (Ref. only).

(17) Replace the hatch and carry out the tests listed in paragraph 9.

9. TESTING AFTER EMBODIMENT

When this modification has been embodied and inspected, the following tests are to be carried out:-

Carry out cabin pressurisation and hatch jettison functional tests in accordance with current authorised procedure.

10. RECORDING ACTION

Record on Aircraft Form 700 and 4801.

11. DISPOSAL OF REDUNDANT PARTS

The undermention parts rendered redundant by the embodiment of this modification are to be disposed of in accordance with current authorised procedure.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	15.FC.2031A	Outer case assembly	1	-
26FC/-	15.FC.2033	Inner case	1	-
26FC/8824	15.FC.2035	Compression spring	1	C
26FC/8870	15.FC.2177	Rubber pad	2	C
26FC/-	15.FC.2185A	Jettison shaft assembly	1	-
26FC/8908	15.FC.2193	Jack roller spindle	1	C
26FC/-	15.FC.2287ND	Laminated shim	28	-
26FC/-	15.FC.2549ND	Special bolt	1	-
26FC/-	15.FC.2725ND	Locating pin	1	-

/Page 6 .....

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of - 1.0 lb., and a change of moment of + 0.30 lb. ft.

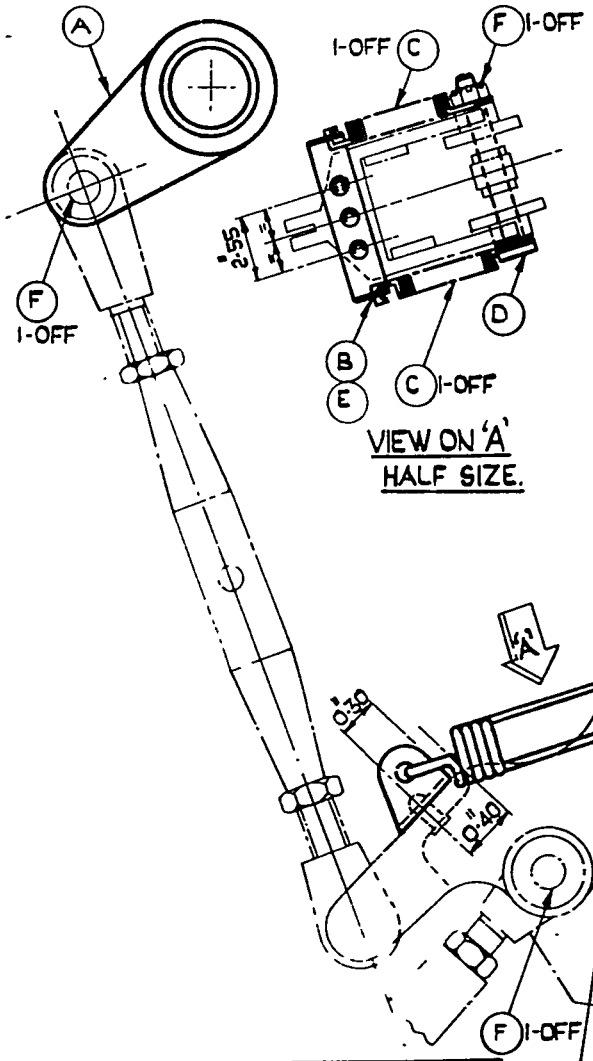
Source: A.P. 4099J, Vol. 2, Part 1,
Leaflet No. J.10.

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipients
plus the following:-

W.O. Instrument Section	(2)
W.O. A.R.S.	(2)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)
O.C. Equipment Depot	(2)
S.E.S.O.	(1)



KEY	PART Nº	NOMENCLATURE	Nº
A	15.FC.3349A	JETTISON SHAFT ASSY	1
B	15FC.3365ND	BEARER CHANNEL	1
C	15.FC.3405	TENSION SPRING	2
D	15.FC.3407	JACK ROLLAR SPINDLE	1
E	AS 2227/406	RIVET SNAP HD 1/8IN.DIA.	3
F	SP9/C8	SPLIT PIN	3

REAR HATCH RELEASE MECHANISM

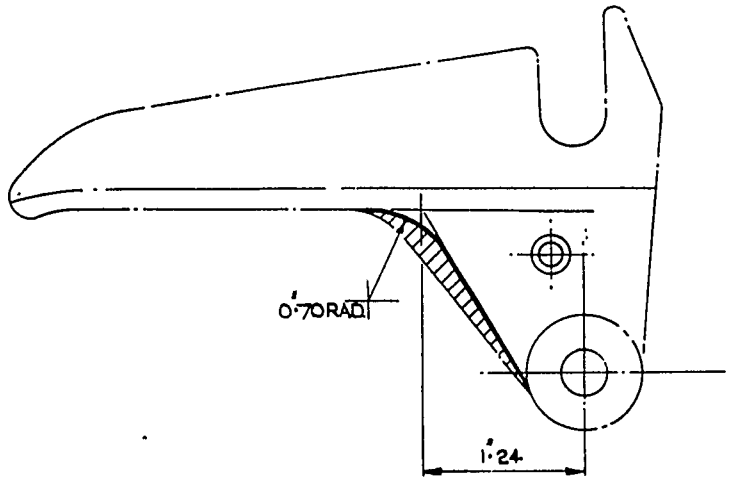
RESTRICTED

DRG. Nº A.P. 4099 J / J. 10 / 55
SHEET 1

LP29344 1/55 875 C&P Gp.959 (4)

TO MODIFY LEVER FILE AWAY THE SHADED PORTION, REPAIR THE FINISH USING FINISH, NIGHT SYNTHETIC (STORES REF. 33B/205) AND RE PART Nº 15 FC 3411.

IT IS MOST IMPORTANT THAT EXTREME ACCURACY OF CONTOUR IS MAINTAINED WHEN MODIFYING THIS CASTING. TO FACILITATE THIS, THE USE OF A TEMPLATE IS SUGGESTED.



DETAILS OF MODIFICATION TO JETTISON OPERATING LEVER.

RESTRICTED

DRG. Nº A.P. 4099 J / L. 10 / 55
SHEET 2

LP2934 155 875 C&P Gp.959 (4)

Air Headquarters,
Royal Rhodesian Air Force.

25th February, 1958

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B40 (Issue 1)

Vampire T. Mk. 11 Aircraft - Canopy - To Introduce Method of Retaining Hatch Damper Strut when Hatch is Jettisoned

(Mod No. Vampire/3438)

(Class C/3, applicable to aircraft embodying Mod.3167)

1. INTRODUCTION :

This modification introduces a method of preventing the damper strut from falling forward when the canopy hatch is jettisoned and so fouling the seat harness and oxygen tubes.

(1) This modification does not cancel, supersede or render unnecessary any work called for by approved modifications, Command Modifications, S..T.Is., S.Is. or S.R.I.Ms.

(2) This modification is applicable only if Mod. No. Vampire/3167 (Fuselage - To introduce provision for fully automatic Mk. 3B Ejection Seats) is already embodied.

2. EMBODIMENT

This modification is to be embodied by:-

Squadrons: At the first opportunity and not later than 6 months after receipt of parts.

Maintenance Unit: Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 2 man hours.

4. DRAWINGS REQUIRED

No drawings are required for the embodiment of this modification.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Kit, which consists of the following items, is to be demanded from O.C. Equipment Depot, under Ref. No. 26FC/103438:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/-	15FC.3537A	Cord assy., rubber	1	-
26FC/11994	15FC.3539	Pin, retaining	1	C
26FC/-	15FC.3541A	Clip assy.	1	-
26FC/-	15FC.3617ND	Bolt, special	2	-
28P/12462	SP.9/C8	Pin, split, 1/16in. dia.	1	C

(b) The following materials are ~~also~~ required and are to be provided under Unit arrangements:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
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.

/Page 2.....

6. SPARES AFFECTED

The following list shows the spares affected by this modification and the parts required to modify them:-

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/11499	15FC.2336A/6	Canopy hatch damper	-	-
26FC/-	15FC.3523A/ND	Damper and knob assy.	-	-

The method of modifying these spares is detailed in para. 8, operations (2) and (3).

Parts Required:

26FC/-	15FC.3541A	Clip assy.	1	-
		Attaching parts for 15FC.3541A, clip		
26FC/-	15FC.3617ND	Bolt, special	2	-

6. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Reference, Part and Assembly Numbers as follows:-

Ref.No.	Old Part/Assy No.	Nomenclature	New Part/Assy No.	Ref.No.
*26FC/-	15FC.3523A/ND	Damper and knob assy.	15FC.3619A/ND	26FC/-
!26FC/11499	15FC.2336A/6	Canopy hatch damper	15FC.2336A/7	26FC/1199

* Applicable to aircraft not embodying Mod. No. Vampire/3282
! Applicable to aircraft embodying Mod. No. Vampire/3282.

NOTE: All T.11 aircraft have Mod. Vampire/3282 embodied.

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Remove the canopy hatch and ejection seats in accordance with A.P. 4099J, Vol. 1, Sect. 3, Chap. 1.

(2) Locate the hatch damper strut, Part No. 15FC.2336A/6. Remove the two now redundant 2 B.A. bolts, Part No. 15FC.2733ND, securing the release handle spring housing to the damper strut, at the same time keeping the release handle spring housing in position.

(3) Place the new clip, Part No. 15FC.3541A, around the square portion at the top of the damper strut, having coated the mating surfaces with pigmented varnish jointing compound (Ref. No. 33C/1264), then keeping the tag with the rubber cord attachment hole to the ~~starboard~~ port side of the damper strut, align the two attachment holes with the two spring housing attachment holes in the damper strut and bolt the new clip in position on the damper strut, using the existing spring washers and two new special bolts, Part No. 15FC.3617ND. The modified hatch damper strut now become Part No. 15FC.2336A/7.

A.L.352 & 0.

(4) Remove the split pin from the retaining pin that secures the canopy jettison jack support bracket to the jack tie rod then withdraw this now redundant pin, Part No. 15FC.2309 and replace it by a new retaining pin, Part No. 15FC.3539, ensuring that the head of the new pin is to the ~~starboard~~ port side of the aircraft. Secure with a new split pin, Part No. SP.9/C8.

A.L.352 & 0.

(5) Hook one end of the new rubber cord assembly, Part No. 15FC.3537A, through the hole on the tag at the rear of the new clip and hook the other end of the cord assembly around the groove in the head of the new retaining pin. Close the eye ends of the wire ferrules to look the rubber cord in position.

/Page 3 .....

(6) Replace the ejection seats and the canopy hatch in accordance with A.P. 4099J, Vol. 1, Sect. 3, Chap. 1.

9. TESTING AFTER EMBODIMENT

No special tests are required after the embodiment of this modification.

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 disposed of as scrap in accordance with current R.R.A.F. Equipment Regulations.

Ref. No.	Part No.	Nomenclature	Qty	Class of Equipment
26FC/8910	15FC.2309	Pin, retaining	1	C
26FC/-	15FC.2733ND	Bolt, special	2	-

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of + 0.18 lb with no change of moment.

Source: A.P. 4099J, Vol.2, Part 1
Leaflet No. J.26

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipeints plus the following:-

W.O. Armament Section	(2)
W.O. A.R.S.	(1)
R.A.C. Equipment Depot	(2)
S.E.S.O.	(1)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)

Air Headquarters,
Royal Rhodesian Air Force.

27th November, 1957.

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B39 (Issue 1)

Vampire T. Mk 11 Aircraft - Canopy - To introduce Improved External Canopy Release Markings

(Mod No. Vampire/3519)

(Class B/2)

INTRODUCTION.

To avoid confusion and to facilitate rescue operations by personnel unfamiliar with the method of canopy release, this modification clarifies the canopy opening instructions on each side of the fuselage and introduces markings from the instructions to the canopy release handle.

(1) This modification does not cancel, supersede, or render unnecessary any work called for by approved modifications, S.T.Is., S.Is.

(2) This modification is not essentially connected with any other approved modifications.

EMBODIMENT

This modification is to be embodied by:-

(a) Squadrons - At the first opportunity and not later than 1 month after receipt of this Order.

(b) Maintenance Unit - Before issue of aircraft.

APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 3 man hours.

DRAWINGS REQUIRED

Drawing No. A.P. 4099J/J.24/57 is attached to this Technical Order.

PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials
The following materials are required, and are to be provided by O.C. Equipment Depot.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
33B/912	-	Colour Identification, Cellulose, Red, Spec.DTD 772	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

There are no spares affected by this modification.

7. CHANGE OF REFERENCE, PART, OR ASSEMBLY NUMBERS

There are no changes of Reference, Part or Assembly Numbers as a result of this modification.

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Locate on both the port and starboard sides of the fuselage, forward of the ammunition tank access doors, the notices regarding the opening and closing of the canopy. To the end of the instruction relating to the opening of the canopy add the words "AND LIFT", in the same size

lettering as the existing wording, using colour identification, cellulose, red, Spec. D.T.D. 772, (Ref. No. 33B/912). The instruction for opening the canopy shoud now read: "TO OPEN, PRESS BUTTON, TURN HANDLE CLOCKWISE AND LIFT".

(2) Refer to the drawing and mark out and paint the rectangle around the canopy release handle in a $\frac{1}{8}$ in. thick line, using colour identification cellulose, red, Spec. D.T.D. 772, as shown. From the instructions on the fuselage sides paint a $\frac{1}{8}$ in. thick line along the forward frame of the after section of the canopy, up to corners of the rectangle around the release handle, along these lines at intervals of approximately 2.5 in. paint arrow heads pointing in the upward direction towards the release handle, again using the colour identification, cellulose, red, Spec. D.T.D.772.

9. TESTING AFTER EMBODIMENT

There are special tests required after the embodiment of this modification.

10. RECORDING ACTION

Record on A ircraft Form 700

11. DISPOSAL OF REDUNDANT PARTS

There are no parts rendered redundant by the embodiment of this modification.

12. EFFECT ON WEIGHT AND C. OF G.

This modification has no effect on weight or C. of G.

Source: A.P. 4099J, Vol. 2, Leaflet J24.

(H.J. PRINGLE)
Squadron Leader
A/S.T.S.O.
A.H.Q. R.A.F.

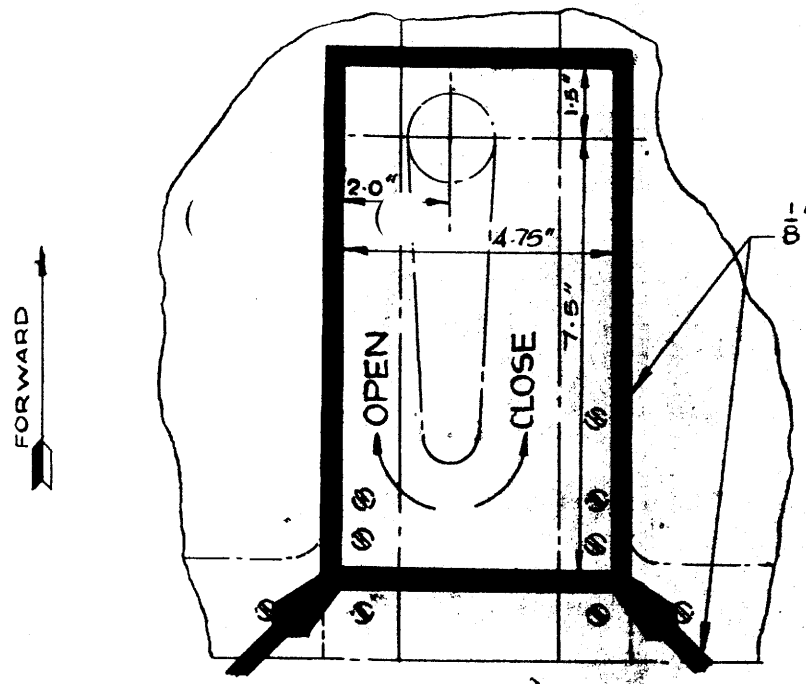
Distribution:

One copy to essential recipients plus the following:-

S.E.S.O.	(1)
O.C. Equipment Depot	(1)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)
W.O. A.R.S.	(1)

TRACING OF LEAFLET DRG.No. A.P. 4099J/J.24/57.

ISSUE	DATE	AMENDMENT	AM'D BY	CH'KD BY
A	21/11/57			



$\frac{1}{8}$" WIDE

PAINT THIS RECTANGLE USING COLOUR, IDENTIFICATION, CELLULOSE RED. SPEC. D.T.D. 772. (STORES REF. 33B/912)

D.O. R.R.A.F. N.S.	VIEW OF RECTANGLE PAINTED AROUND THE CANOPY HATCH RELEASE HANDLE. MOD/VAMP/3519.	DRAWN		DRG No	A.V.52
		TRACED	A.F. YOUNG		
		CHECKED	C.J.C.	No. OF SHTS. 1	SHEET NO 1

Air Headquarters,
Royal Rhodesian Air Force.

9th October, 1957

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B38 (Issue 1)
Vol. 7, Sect. 2, Sub Sect. B18 (Issue 1)

Vampire T. Mk. 11 Aircraft - Electrical - To Introduce Fire Warning Push Button (Stores Ref. 5CW/5763) and Test Push Button (Stores Ref. 5CW/5057) in place of Fire Warning Push Button Switch (Stores Ref. 5C/4514)

(Mod. No. Vampire/3488)

(Class B/2 N.C.P.)

1. INTRODUCTION

This modification replaces the existing dual purpose fire warning push button switch, which has proved unsatisfactory in service, by a new single purpose fire warning push button switch which will only operate as a "PUSH TO FIRE". The testing operation will be carried out by a separate push button switch which is also introduced by this modification.

(1) This modification supersedes the work called for by Mod. No. Vampire/3471.

(2) This modification is applicable only if Mod. No. Vampire/3167B (To introduce provision for fully automatic Mk. 3 Ejection Seats - Other associated parts) is already embodied. Note: Mod. 3167 is embodied on all T.11 Aircraft.

EMBODIMENT

This modification is to be embodied on all R.R.A.F. T.11 aircraft.

Squadrons - At the next Intermediate Servicing or not later than 3 months after receipt of this Order, whichever is the earlier.

Maintenance Unit - Before issue of aircraft.

APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 7 man hours.

DRAWINGS REQUIRED

Drawing No. A.P. 4099J/F.18/56, Sheets 1 and 2, is required and is being issued on the basis of one drawing per two copies of Technical Order.

PARTS AND SPECIAL TOOLS REQUIRED.

(1) Parts and Materials

The following parts and materials are required, and are to be provided under Unit arrangements:-

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store
5CW/5057	-	Fire test push buttonswitch	1	A
5CW/5763	-	Fire warning push button switch	1	A
5E/3038	-	Cable, electric, Unipren 6	3ft	C
+ 5K/2893	SP.40/A6	Grommet, rubber	1	C
5K/107205	-	Sleeve, marking, Type B, yellow, coded 'A'	4	C
5K/107270	-	Sleeve, marking, Type B, yellow, coded 'F'	4	C
5K/107543	-	Sleeve, marking, Type B, yellow, coded '4'	2	C
5K/109116	-	Sleeve, marking, Type B, yellow, coded '2'	2	C

/2 .....

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
5Y/109117	-	Sleeve, marking, Type B, yellow, coded '3'	2	C
2[illegible]/10273	AGS.2001/A4	Nut, stiff, brass, 6 B.A.	2	C
2[illegible]/4900	AS.155/303	Rivet, aluminium, sp/hd., 3/32 in. dia.	2	C
2[illegible]/6663	AS.2227/303	Rivet, alum.alloy, sp/hd., 3/32 in.dia.	4	C
2[illegible]/2408	A.44/112	Screw, rd/hd., 6 B.A.	2	C
30[illegible]/1732	-	Alum.alloy sheet, 20 s.w.g. Spec. B.S.L.72, 2 in. x 4 in.	1	C
33[illegible]/1021	-	Primer, etch base	As Reqd.	C
33[illegible]/1023	-	Primer, etch accelerator	As Reqd.	C
33[illegible]/1040 (Home) or 33[illegible]/816 (Overseas)	-	Colour, Ident., cellulose red, D.T.D.751-54	As Reqd.	C
33[illegible]/1051 (Home) or 33[illegible]/692 (Overseas)	-	Finish, cellulose, night D.T.D. 751-54	As Reqd.	C
330/1264	-	Compound, pigmented varnish, jointing	As Reqd.	C

+ Only required on aircraft not embodying Mod. No. Vampire/3471.
! Only required on aircraft having Mod. No. Vampire/3471 embodied.

NOTE: According to Form 4601 recordings, RAF 128, 129, 130 and 131 have Mod. 3471 embodied.

(2) Special Tools and Test Equipment

There are no special tools or test equipment required for the embodiment of this modification.

6. SPARES AFFECTED

There are no spares affect by this modification.

7. Change of Stores Reference, Part and Assembly Numbers

There are no changes of Stores Reference, Part or Assembly Numbers as a result of this modification.

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Refer to Sheet 1 of the drawing. As detailed, make up the new mounting bracket, Part No. 15.N.2775A/ND, from 20 s.w.g. aluminium-alloy sheet, Spec.B.S.L.72 (Stores Ref. 30[illegible]/1732).

Note: Operation (2) is only applicable if Mod. No. Vampire/3471 is already embodied.

(2) Disconnect the aircraft batteries. Locate the anti-glare shroud, on the upper central instrument panel, and disconnect and remove the now redundant fire warning lamp (Stores Ref. 5CX/4370) together with its redundant filament (Stores Ref. 5LX/951273) and wiring. Remove the lamp's now redundant mounting bracket, Part No. 15.N.26174/ND, by drilling and punching out its two attachment rivets; blank off the two redundant rivet attachment holes with two snaphead aluminium rivets, Part No. AS.155/303.

(3) Refer to Sheet 2 of the drawing. Using the newly-made mounting bracket as a template, drill its four rivet-attachment holes through the starboard side of the anti-glare shroud, using a No. 41 drill (0.096 in. dia.). Deburr the holes and, having coated each mating surface with pigmented varnish jointing compound (Stores Ref. 330/1264), rivet the new mounting bracket to the under-surface of the shroud, using four 3/32 in. dia. snaphead rivets, Part No. AS.2227/303.

/3 .....

Note: Operation (4) is only applicable if Mod. No. Vampire/3471 is not already embodied.

(4) Mark out the position for the grommet hole on the top surface of the shroud and drill it with a 5/16 in. dia. drill. Deburr the hole and fit the grommet, Part No. SP.40/A6.

(5) Assemble the new push test switch (Stores Ref. 5CW/5057) to its mounting bracket with two 6BA screws and stiffnuts, Part Nos. A.44/A12 and AN5.2001/A4 respectively, then carefully lower the whole instrument panel to its servicing position.

(6) The aircraft batteries having been isolated, disconnect and remove the now redundant fire warning push button switch (Stores Ref. 5C/4514) and replace it by the new fire warning switch (Stores Ref. 5CW/5763), using the existing attachment items. Connect it up, electrically, in the same manner as the redundant item.

(7) From Unipren 5 electric cable (Stores Ref. 5E/3038), make up two suitable separate lengths of cable to connect between the new test switch and the new push button switch. Strip the insulation back 0.5 in. from each end of the cables, then code one cable "FA2+" and the other "FA3", using fourteen 2 mm. yellow marking sleeves. Connect the cable coded "FA2+" from terminal 1 of the test push switch to terminal 3 of the fire push button, and connect the cable coded "FA3" from terminal 2 of the test push switch to terminal 6 of the fire push button. Route the two cables through the new grommet in the anti-glare shroud as illustrated on Sheet 2 of the drawing.

(8) Secure the instrument panel in the flight position and reconnect the aircraft batteries.

TESTING AFTER EMBODIMENT

When this modification has been embodied and inspected, carry out an electrical functional test of the fire warning and the fire test circuits in accordance with current authorised procedure.

RECORDING ACTION

Record on Aircraft Forms 700 and 4301

DISPOSAL OF REDUNDANT ITEMS

(1) The undermentioned parts, rendered redundant by the embodiment of this modification, are to be returned to O.C. Equipment Depot who will report arising to S.E.S.O. A.M.Q.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
5CW/4514	-	Switch, push, fire warning	1	A
+ 5CX/4370	-	Lamp, warning, red	1	A
+ 5T/9511/73	-	Lamp, filament, 28 V., 3.5W	1	B

(2) The undermentioned part, rendered redundant by the embodiment of this modification, is to be disposed of as scrap in accordance with current R.A.F. Equipment Regulations.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
+ 26FC/-	15T.2617A/ND	Bracket	1	-

+ These items are rendered redundant on post Mod. No. Vampire/3471 aircraft only.

/4 .....

Vol. 3 - 2 - B38
Vol. 7 - 2 - B18

12. EFFECT ON WEIGHT AND C. OF G.

This modification has no effect on weight or C. of G.

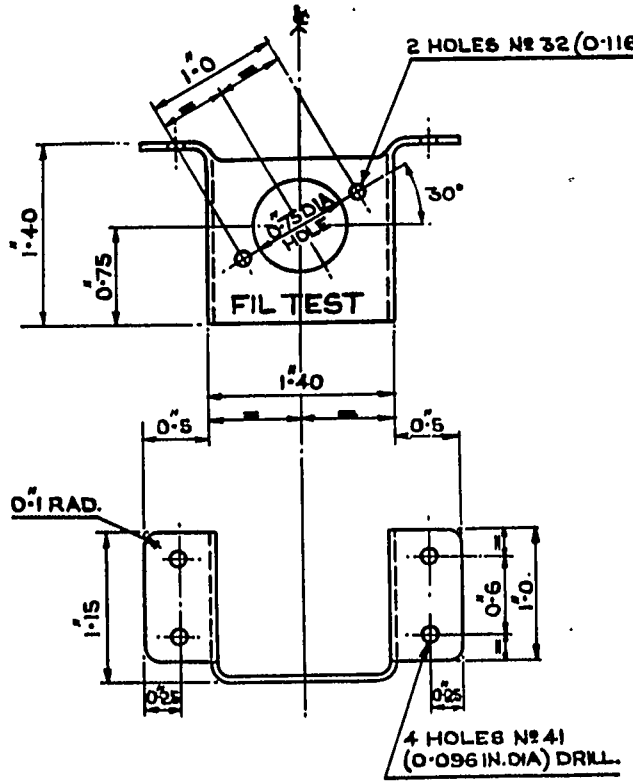
Source: A.P. 4099J/f.18

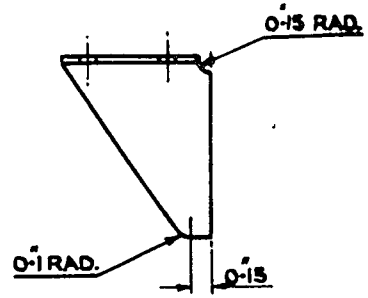
(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A. H.Q. R.R.A.F.

Distribution:

Two copies to essential recipients plus the following:-

	Qty Order	Qty Drawings
Specialist Officer	(2)	(1)
W.O. A.E.S.	(1)	(1)
W.O. Electrical Section	(4)	(2)
W.O. No. 1 Squadron	(2)	(1)
W.O. No. 2 Squadron	(2)	(1)
O.C. Equipment Depot	(2)	(1)
S.E.S.O.	(2)	(1)





LETTERING IN 3/16 IN. HIGH RED CELLULOSE FINISH SPEC. D.T.D. 751-4 (STORES REF. 33B/1040)

MAKE BRACKET FROM 20 S.W.G. ALUM. ALLOY SPEC. B.S.L. 72 (STORES REF. 30B/1732) AND FINISH WITH PRIMER, ETCH, BASE AND ACCELERATOR (STORES REFS. 33B/1021 AND 1023) AND FINISH, CELLULOSE, NIGHT, SPEC. D.T.D. 751-4 (STORES REF. 33B/1051). STAMP PART No.

ALL BEND RAD. 2T.

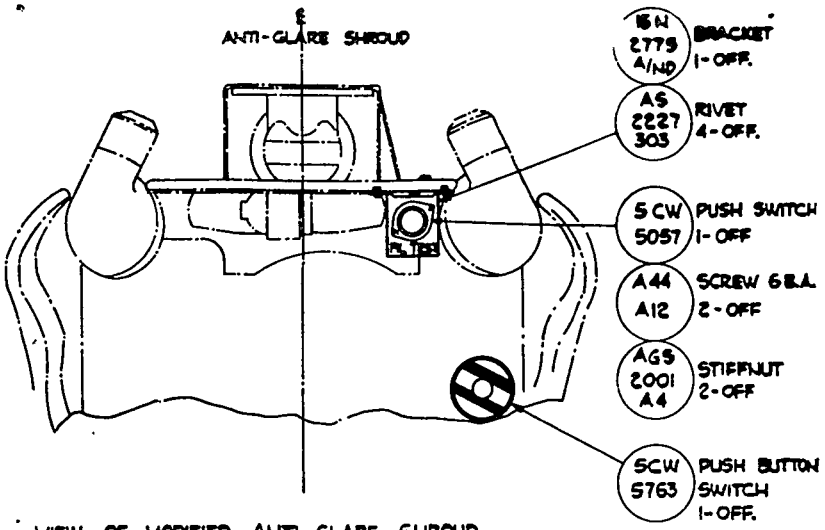
DETAIL OF BRACKET 15 N 2775A/ND.

RESTRICTED

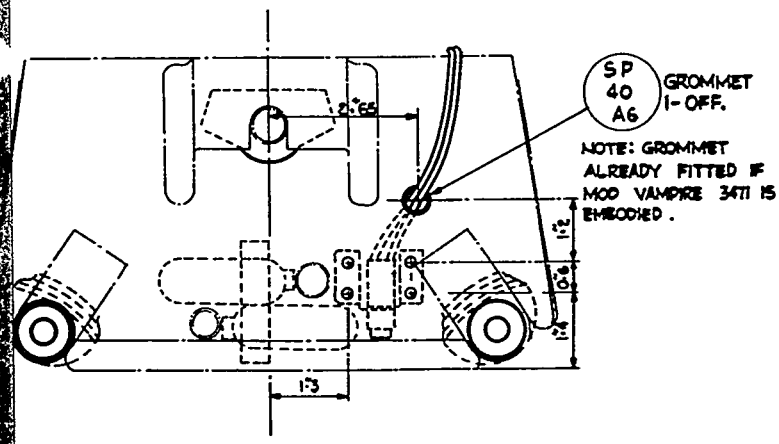
DRG. No. A.P. 4099 J/F. 18/56
SHEET 1

LP30983 4/56 1000 C&P Gp. 959 (4)

MOD. VAMPIRE. 3483



VIEW OF MODIFIED ANTI-GLARE SHROUD



PLAN VIEW OF MODIFIED ANTI-GLARE SHROUD

ESTRICTED

DRG. Nº A.P. 4099 J / F. 18 / 56
SHEET 2

LP30983 4/56 1000 C&P Gp. 959 (4)

MOD. VAMPIRE. 3488

Air Headquarters,
Royal Rhodesian Air Force,
4th October, 1957.

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B37 (Issue 1)

Vampire T. Mk. 11 Aircraft - Misc. Equipment - To Re-introduce Manually Operated Fire Extinguisher (Stores Ref. 27N/70)

(Mod. No. Vampire/3414)

(Class C/3)

1. INTRODUCTION

It is necessary that a fire extinguisher should be fitted in the cockpit to cover unforeseen emergencies. To meet this requirement, this modification introduces a manually operated extinguisher mounted within easy reach of the air crew.

(1) This modification does not cancel, supersede or render unnecessary any work called for by approved modification, Command modifications, S.T.Is, S.Is.

(2) This modification is essentially connected with Mod. No. Vampire/3167 Part B (to introduce provision for fully automatic Mk. 3 ejection seats - Part A fixed parts, Part B other associate parts); if that work is not already embodied it must be done concurrently.

NOTE: Mod. Vampire/3167 is embodied all RRAF T.11 aircraft.

2. EMBODIMENT

This modification is required on RRAF 116 to 123 inclusive and is to be embodied by:-

Squadrons - At the first opportunity (not later than six months after receipt of this Order)

M.U. - Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 5 man hours ($\frac{1}{4}$ to strip; $4\frac{1}{2}$ to embody; $\frac{1}{4}$ to re-assemble).

4. DRAWINGS REQUIRED

Drawing No. A.P. 4099J/M.12/55, Sheets 1 & 2 is attached to this Order.

5. PARTS AND SPECIAL TOOLS REQUIRED.

(1) Parts and Materials

(a) The Modification Kit consists of the following items:-

(i) Items to be supplied by the Contractor:

STORES REF.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	15-F.2677ND	Block, wood	1	-
26FC/-	15-Z.1699	Bracket	1	-
28S/2494	AGS.251/56	Woodscrew, No. 8 csk/hd.	5	C
28S/2651	AGS253/54	Woodscrew, No. 8 round/ head	4	C
28S/2665	AGS.253/56	Woodscrew, No. 8 round head	3	C

(ii) Items to be assembled by the Maintenance Unit to complete the kit:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
27N/70	-	Fire extinguisher, Graviner	1	A
27N/106	-	Bracket, extinguisher	1	B

/2 .....

The complete Kit is to be demanded from Equipment Depot under Stores Ref. 26FC/10344.

(b) The following materials are also required, and are to be provided under Unit arrangements:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
30B/997	-	Wire, copper, 24 s.w.g.	As reqd.	C
33B/205 (Overseas)	-	Finish, synthetic, night	As reqd.	C
33B/1108 (Home	-			
33B/912 (Overseas)	-	Colour, ident, high	As reqd.	C
33B/1058 (Home	-	speed red		

(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:-

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/6117	15-F.703A	False Floor Panel - centre R.H.		
Parts Required:-				
26FC/-	15-F.2677MD	Block, wood	1	-
		Attaching parts for 15-F.2677MD Block		
28S/2651	AGS.253/54	Woodscrew, No. 8 rd.head	4	C
28S/2665	AGS.253/56	Woodscrew, No. 8 rd.head	3	C
and 27N/106		Bracket, extinguisher	1	B
		Attaching parts for 27N/106, Mounting		
28S/2494	AGS.251/56	Woodscrew, No.8 csk/head	5	C
and 27N/70		Fire Extinguisher, Grayiner	1	A

Spares will be modified by the Stock Holding Unit before issue to Unit.

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Stores Reference, Part and Assembly Nos., as follows:-

Old			New	
Stores Ref.	Pt/Assy.No.	Nomenclature	Pt/Assy.No.	Stores Ref.
26FC/6117	15-F.703A	False Floor Panel centre R.H.	15-F.2733A	26FC/11763

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(Refer to sheets 1 and 2 of the drawing.)

(1) Refer to sheet 1 of the drawing and locate the centre and front right-hand false floor panels. Release these panels and remove them from the aircraft.

(2) Refer to sheet 2 of the drawing and locate the existing bracket, Part No. 15-F.831A, which is to be removed by withdrawing the attachment items from the ferrules. In place of this bracket, fit the new bracket, Part No. 15-Z1699, and secure to the ferrules using the retained attachment items. Reference to sheet 1 of the drawing will indicate how this bracket is below the join of the two false floor panels.

1/3 .....

(3) Due to the new position of the false floor attachment anchor nut fitted to the bracket, the forwardmost attachment hole in the false floor will still be utilised but the rear one is now redundant and in place of it a new hole is to be accurately measured to align with the new anchor nut position. Drill this hole in the floor using a No. 11 (0.191 in. dia.) drill. De-burr the hole.

(4) Still referring to sheet 1 of the drawing, place the new wood block, Part No. 15-F.2677ND, on the upper surface of the false floor panel 0.10 in. inboard of the edge of the screw head just positioned and 0.10 in. forward of the rear fastener head, and also with its inboard rear corner 1.40 in. inboard of the centre of the rear fastener. Holding the block securely in position, mark round its perimeter using a hard pencil sharpened to a fine point. Remove the block.

(5) Mark out the screw positions as follows: The first two holes are to be 3.60 in. from the forward end pencil line and 1.0 in. apart, being equally spaced from the two side pencil lines. Mark off the next point 2.20 in. from the first and the next point 0.80 in. outboard. The next point is to be 2.0 in. along and 0.50 in. outboard. Mark off the next point 2.0 in. along and the same distance from the inboard pencil line as the previous points. The last point is to be 0.50 in. forward of the existing rivet at the end of the stiffener. There should now be seven points marked out for screws. Drill these holes using a No. 14 (0.182 in. dia.) drill. De-burr the holes.

(6) Reposition the wood block within the pencil border and clamp securely in position. Secure by means of four No. 8 round head woodscrews, Part No. AGS.253/54, inserted from underneath the forwardmost holes and three No. 8 round head woodscrews, Part No. AGS.253/56, inserted from underneath the aftermost holes. Apply finish, synthetic night (Stores Ref. 33B/205 or 1108). Allow to dry.

(7) Refer to Sheet 2 of the drawing and offer up the new extinguisher mounting (Stores Ref. 27N/106) over the wood block with the "cup" end forward. Secure by means of five No. 8 countersunk head woodscrews, Part No. AGS.251/56.

(8) Insert the new Graviner fire extinguisher (Stores Ref. 27N/70) into the mounting and lock in position using a single strand of 24 swg copper wire (Stores Ref. 30B/997).

(9) Replace the false floor panels into the aircraft and secure by means of the original attachment items.

(10) Using red identification high speed colour (Stores Ref. 33B/912 or 1058) imprint an outline approximately half full size, of the fire extinguisher on the outside of the Starboard cockpit wall, indicating the position of the article inside. The impression is to be only an outline and not filled in.

9. TESTING AFTER EMBODIMENT

There are no special tests required after the embodiment of this modification.

10. RECORDING ACTION

Record on Aircraft Forms 700 and 4801.

11. DISPOSAL OF REDUNDANT PARTS

The undermentioned parts rendered redundant by the embodiment of this modification are to be disposed of as scrap in accordance with current R.R.A.F. Equipment Regulations.

Stores Ref.	Part No.	Nomenclature	Qty
26FC/-	15-F.831A	Bracket	1

/4 .....

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of +3.1 lb., and a change of moment of -18.0 lb. ft.

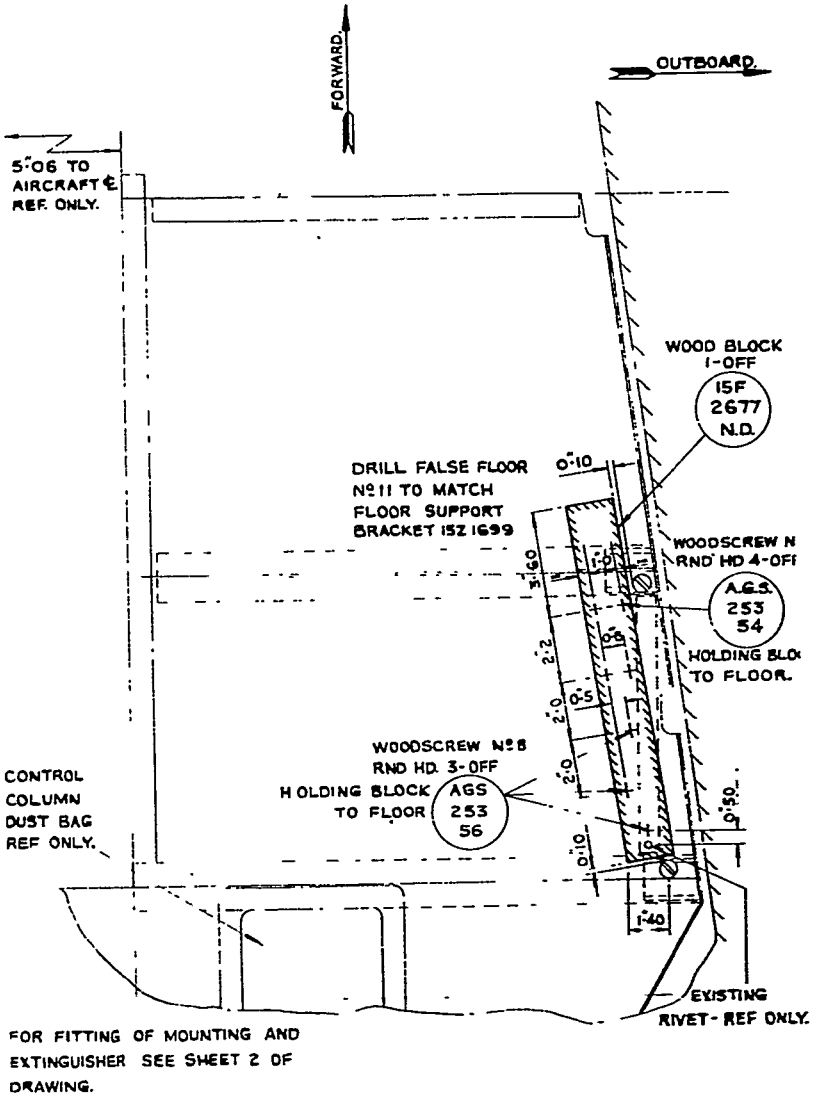
Source: A.P. 4099J/M.12

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipients plus the following:-

S.E.S.O.	(1)
O.C. Equipment Depot	(1)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)
W.O. A.R.S.	(2)

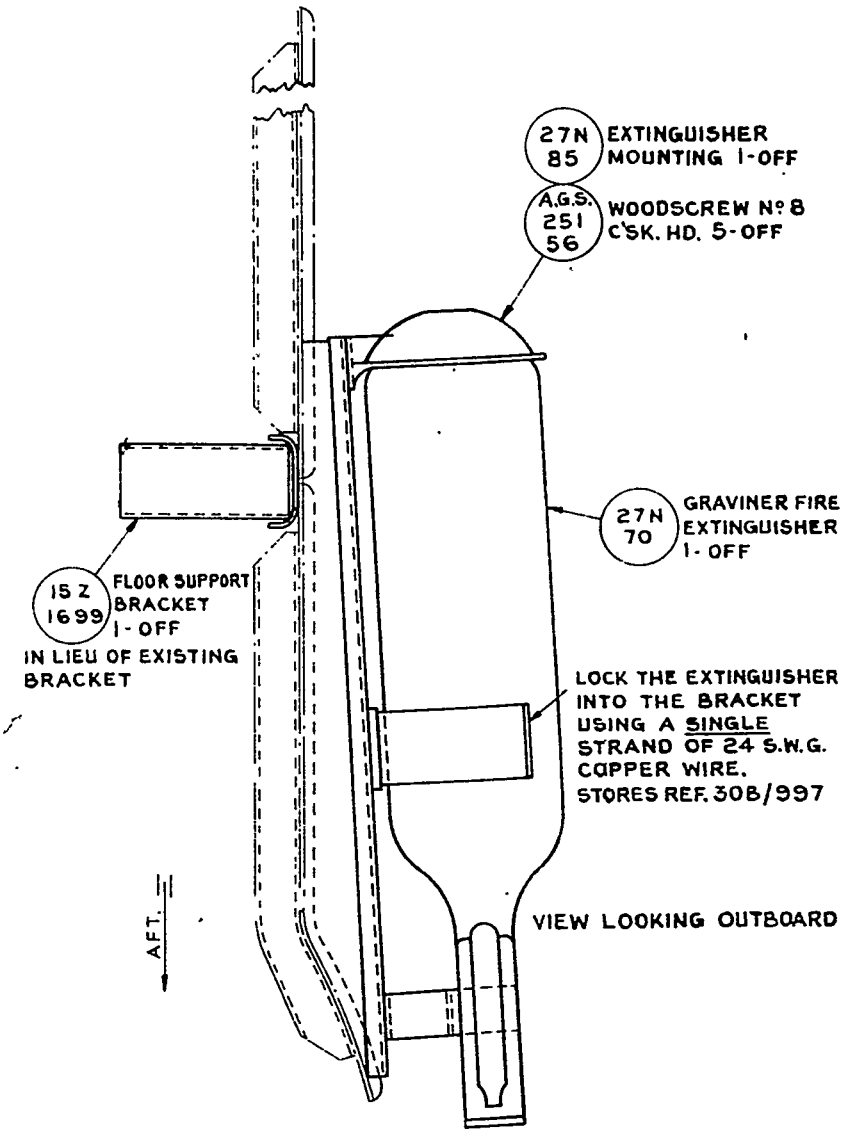


FITTING OF WOOD BLOCK TO FALSE FLOOR PANEL - PLAN VIEW.

RESTRICTED

DRG. No. A.P. 4099 J /4.12 /5 5
SHEET 1

MOD. VAMP. 3414



ASSY. OF EXTINGUISHER TO WOOD BLOCK ON FALSE FLOOR

DRG. No. A.P. 4099 J / M.12 /5 5
SHEET 2

RESTRICTED

MOD. VAMP. 3414

B36

Air Headquarters,
Royal Rhodesian Air Force.
7th October, 1957

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B36 (Issue 1)

Vampire FB Mk. 9 and T Mk. 11 Aircraft - Main Undercarriage - To Introduce Improved Undercarriage Door Lock Control

(Mod. No. Vampire/3437)

(Class B/2)

IMPORTANT NOTE: STI/~~VAMP~~/166 ~~(Vol. 3 - 2 - D64)~~ is ~~to be~~ satisfied ~~con-~~ by ~~currently with~~ embodiment of this modification.

INTRODUCTION

This modification introduces an improved undercarriage door lock control to abviate mal-adjustment and prevent the seizure and breaking of the Teleflex control. At the same time improved adjustments and ground servicing are also incorporated.

(1) This modification supersedes the work called for by Mod. No. Vampire/3336, (Main undercarriage - to introduce modified Teleflex clamp block and connector locking slates) and STI/VAMP/94.

(2) This modification is not essentially connected with any other approved modification.

EMBODIMENT

This modification which requires embodiment on all R.R.A.F. Vampires is to be embodied by:-

Squadrons - At the first opportunity (not later than 2 months after receipt of this Order)

Maintenance Unit - Before issue of aircraft.

APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 25 man hours (4 to strip; 15 to embody; 6 to re-assemble).

DRAWINGS REQUIRED

Drawing No. A.P. 4099G/D.4/57, Sheets 1 - 4, is attached to this Order.

PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Kit, consists of the following items under Ref. No. 26FC/103437:

Ref. No.	Part No.	Nomenclature	Qty	Class of Store
26FC/-	15-U.13	Barrel forward	2	-
26FC/-	15.U.15	Barrel aft	2	-
26FC/-	15-Z.1805ND	Plate adaptor	4	-
27K/1368	E.43281	Control unit Teleflex	1	C
27K/1369	E.43282	Control unit Teleflex	1	C
27K/1370	E.43321	Control unit Teleflex	1	C
27K/1371	E.43322	Control unit Teleflex	1	C
28D/12533	A.25/5C	Bolt 2 B.A. hex/hd.	2	C
28D/12566	A.25/6C	Bolt 2 B.A. hex/hd.	2	C
28D/12514	A.25/7C	Bolt 2 B.A. hex/hd.	2	C
28N/10287	AGS.2001/B1	Nut stiff 4 B.A.	32	C
28N/10288	AGS.2001/C1	Nut stiff 2 B.A.	14	C
28D/11255	AS.1246/2C	Bolt 2 B.A. rd./hd.	36	C
28D/8300	AS.1242/1B	Bolt 4 B.A.	32	C
28D/11210	AS.1246/3C	Bolt 2 B.A. rd./hd.	4	C
28Q/7556	AS.2227/604	Rivet 3/16 in. dia.	4	C

/2 ....

Ref. No.	Part No.	Nomenclature	Qty	Class of Store
28D/14053	AS.3100/66	Clip 'P'	4	C
28P/12462	SP.9/C8	Pin split 1/16 in. dia.	4	C
30?/12305	MP.15/B	Washer 4 B.A.	32	C
30?/12306	MP.15/C	Washer 2 B.A.	14	C

Note: Due to a revision of embodiment methods the undermentioned bolts (included in the original mod. kit) now become redundant and are to be returned to and taken on charge by Equipment Depot:-

28D/6514	AS.1242/10C	Bolt, steel, csk. 90deg. 2 B.A. x 1.4"	8	C

(b) The following materials are also required, and are to be provided under Unit arrangements:

Ref. No.	Part No.	Nomenclature	Qty	Class of Store
+ 28D/6509	AS.1242/14C	Bolt, steel, csk. 90 deg. 2 B.A. x 1.8"	8	C
+ 28Q/6826	AS.450/210	Rivet, steel, csk. 90 deg., 1/16 in.dia. x $\frac{5}{8}$" (cut to suit)	4	C
+ 28P/12462	SP.9/C8	Pin, split, 1/16 in. dia. x 1"	4	C
30?/3055	-	Wire, locking, nickel alloy, 22 s.w.g.	As reqd.	C
30?/462	-	Brass foil hard, 0.005 in. thick	As reqd.	C
33B/534	-	Stopper, oil base	As reqd.	C
33B/1021	-	Primer etch base	As reqd.	C
33B/1023	-	Primer etch accelerator	As reqd.	C
33B/1060 (Home) 33B/865 (Overseas)	-	Finish high gloss aluminium D.T.D. 772	As reqd.	C
33B/1074 (Home) 33B/985 (Overseas)	-	Finish high gloss yellow D.T.D. 772	As reqd.	C
33C/1464	-	Compound pigmented varnish jointing	As reqd.	C
34B/100513	-	Grease XG.-275, Spec. D.T.D. 325A	As reqd.	C
28Q/6640	AS2229/404	Rivet 90° csk/hd. 1/8 in. dia.	" "	C

Note: + Owing to the non and/or limited availability of above + items in the R.A.F., the following alternatives are authorised for use:-

28D/6517	AS.1242/15C	Bolt, steel, csk. 90 deg. 2 B.A. x 1.9"	8	C
28P/12726	SP.9/C12	Pin, split, 1/16 in. dia. x 1.5" (cut to suit)	4	C
28Q/HIV	-	Rivet, steel, csk. 90 deg. 1/16 in. dia. x 1 in. (cut to suit)	4	C

(c) 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:

Ref. No.	Part No.	Nomenclature	Qty	Class of Store
26EC/11985	D00.6715A/11	Wing complete port	(For FB 9)	
26EC/11981	15-W193A/7	Wing complete port	(For T.11)	

The method for modifying the above spare is detailed in Para. 8, operations (1) to (26) and Sheets 1 to 4 of the drawing.

Parts required for each spare:

26EC/-	15-U.13	Barrel forward	1	-
26EC/-	15-U.15	Barrel aft	1	-

/3 .....

Attaching parts for 15-U.13 barrel forward, 15-U.15 barrel aft.

Ref. No.	Part No.	Nomenclature	Qty	Class of Store
28D/11255	AS.1246/20	Bolt 2 B.A. rd./hd.	18	C
28D/11210	AS.1246/30	Bolt 2 B.A. rd./hd.	2	C
and				
2[illegible]/-	15-Z.1805 D	Plate adaptor	2	-

Attaching parts for 15-Z.1805ND plate adaptors

2[illegible]/10287	AGS.2001/31	Nut 4 B.A.	16	C
2[illegible]/0300	AS.1242/12	Bolt 4 B.A. countersunk	16	C
28[illegible]/12306	SP.15/B	Washer 4 B.A.	16	C
and				
27[illegible]/1570	E.43321	Control unit Teleflex aft	1	C

Attaching parts for E.43321, Control Unit Teleflex aft

28D/12514	A.25/70	Bolt 2 B.A. hex./hd.	1	C
28D/0509	AS.1242/140	Bolt 2 B.A. csk./hd.	2	C
28E/14053	AS.3100/60	Clip 'P'	1	C
28[illegible]/10286	AGS.2001/C1	Nut 2 B.A.	3	C
28[illegible]/12296	SP.15/C	Washer 2 B.A.	3	C
and				
27[illegible]/1571	E.43322	Control unit Teleflex forward	1	C

Attaching parts for E.43322 Control Unit Teleflex forward.

28D/12566	A.25/60	Bolt 2 B.A. hex./hd.	1	C
28D/0509	AS.1242/140	Bolt, 2 B.A. csk./hd.	2	C
28E/14053	AS.3100/60	Clip 'P'	1	C
28[illegible]/10286	AGS.2001/C1	Nut 2 B.A.	3	C
28[illegible]/12296	SP.15/C	Washer 2 B.A.	3	C
and				
28D/12533	A.25/50	Bolt 2 B.A. hex./hd.	1	C
28Q/6626	AS.460/210	Rivet, 1/16 in. dia. 90 deg. csk./hd. (cut to suit)	2	C
28[illegible]/7006	AS.2227/604	Rivet 3/16 in. dia.	2	C
28[illegible]/10288	AGS.2001/C1	Nut 2 B.A.	1	C
28P/12[illegible]62	SP.5/C0	Pin split 1/16 in. dia.	4	C
28[illegible]/12296	SP.15/C	Washer 2 B. A.	1	C
28Q/6640	AS 2229/404	Rivet 90° csk/hd. 1/8 in. dia.	As req.	C

Spare affected:

26[illegible]/11904	15-[illegible].761[illegible]/6	Wing complete stbd.	(For FB.9)
26[illegible]/11902	15-[illegible].1951/7	Wing complete stbd.	(For T.11)

The method for modifying the above spare is detailed in Para 8, operations (1) to (26) and Sheets 1 to 4 of the drawing.

Parts required for each spare:

26[illegible]/-	15-U.13	Barrel forward	1	-
26[illegible]/-	15-U.15	Barrel aft	1	-

Attaching parts for 15-U.13 barrel forward, and 15-U.15 barrel aft.

28D/11255	AS.1246/20	Bolt 2 B.A. rd./hd.	18	C
28[illegible]/11210	AS.1246/30	Bolt 2 B.A. red./hd.	2	C
and				
2[illegible]/-	15-Z.1805ND	Plate adaptor	2	-

Attaching parts for 15-Z.1805ND Plate Adaptors:-

28[illegible]/10287	AGS.2001/31	Nut 4 B.A.	16	C
28[illegible]/0300	AS.1242/12	Bolt 4 B.A. countersunk	16	C
28[illegible]/12306	SP.15/B	Washer 4 B.A.	16	C
and				
27[illegible]/1570	E.43321	Control unit, Teleflex aft	1	C

Attaching parts for E.43321, Control Unit, Teleflex aft:-

/4 .....

Ref. No.	Part No.	Nomenclature	Qty	Class of Store
26[illegible]/11[illegible]	A.25/6C	Bolt 2 B.A. hex./hd.	1	C
26[illegible]/6509	AS.1242/14C	Bolt 2 B.A. csk./hd.	2	C
26[illegible]/14053	AS.3130/6C	Clip 'P'	1	C
26[illegible]/10260	AGS.2001/C1	Nut 2 B.A.	3	C
26[illegible]/12296	SP.15/C	Washer 2 B.A.	3	C
and				
27[illegible]/1369	E.43282	Control unit Teleflex forward	1	C

Attaching parts for E.43282 Control unit, Teleflex forward:

26D/12566	A.25/6C	Bolt 2 B.A. hex./hd.	1	C
26[illegible]/6507	AS.1242/14C	Bolt 2 B.A. csk./hd.	2	C
26E/14053	AS.3130/6C	Clip 'P'	1	C
26[illegible]/10260	AGS.2001/C1	Nut 2 B.A.	3	C
26[illegible]/12296	SP.15/C	Washer 2 B.A.	3	C
and				
26[illegible]/12533	A.25/5C	Bolt 2 B.A. hex/hd.	1	C
26Q/6826	AS.460/210	Rivet 1/16 in. dia. 90 deg. csk./hd. (cut to suit)	2	C
26[illegible]/7556	AS.2227/604	Rivet 3/16 in. dia.	2	C
26[illegible]/10268	AGS.2001/C1	Nut 2 B.A.	1	C
26[illegible]/12462	SP.9/C8	Pin split 1/16 in. dia.	4	C
26[illegible]/12296	SP.15/C	Washer 2 B.A.	1	C
28Q/6640	AS 2229/404	Rivet 90° csk/hd. 1/8 in dia	As reqd.	C

Spares affected:

26[illegible]/11884	G00.1094A/3	Radius rod assembly port
26[illegible]/11885	G00.1095A/3	Radius rod assembly stbd.
26[illegible]/11892	G00.1987A	Latch plate assembly port
26[illegible]/11893	G00.1988A	Latch plate assembly stbd.

The method for modifying any of the above spares is detailed in para 8 of section (b).

There are no parts required for the modification of the above spares.

Spares are to be modified by the Stock Holding Unit before issue to Units.

7. CHANGES OF REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Reference, Part and Assembly Nos. as follows:-

Old Ref. No.	Old Pt./Assy.No.	Nomenclature	New Pt./Assy. No.	New Ref. No.
26FC/-	D00.1807AD	Plate reinforcing	15-U.29ND	26FC/-
26[illegible]/-	D00.3731A/2	Rib wing centre No.3 Port	D00.3731A/3	26FC/-
26[illegible]/-	D00.3732A/2	Rib wing centre No.3 stbd.	D00.3732A/3	26FC/-
26[illegible]/11884	G00.1094A/3	Rod radius assembly port	G00.1094A/4	26FC/-
26[illegible]/11885	G00.1095A/3	Rod radius assembly stbd.	G00.1095A/4	26FC/-
26[illegible]/11892	G00.1987A	Plate latch assembly port	G00.1987A/1	26FC/-
26[illegible]/11893	G00.1988A	Plate latch assembly stbd.	G00.1988A/1	26FC/-
26[illegible]/-	G00.1991A/ND	Jack and radius rod assy. port	G00.2001A/ND	26FC/-
26[illegible]/-	G00.1992A/ND	" " " stbd.	G00.2002A/ND	26FC/-
		For FB 9 Aircraft		
26[illegible]/-	G00.1101A/3	Retracting mechanism main U/C port	G00.1101A/4	26FC/-
26[illegible]/-	G00.1102A/3	Retracting mechanism main U/C stbd.	G00.1102A/4	26FC/-
26[illegible]/-	D00.6527A/12	C.L. of Mainplane port	D00.6527A/13	26FC/-

/5 .....

Ref No.	Pt./Assy.No.	Nomenclature	Pt./Assy.No.	Ref. No.
26FC/11985	D00.6715A/11	Mainplane complete (Spares) port	D00.6715A/12	26FC/-
26FC/-	D00.7539A/7	G.A. of Mainplane stbd.	D00.7539A/8	26FC/-
26FC/11984	D00.7611A/6	Mainplane complete (Spares) Stbd.	D00.7611A/7	26FC/-
		For T. Mk 11 Aircraft		
26FC/-	G00.1787A/3	Retracting mechanism main U/C port	G00.1787A/4	26FC/-
26FC/-	G00.1788A/3	Retracting mechanism main U/C stbd.	G00.1788A/4	26FC/-
26FC/-	15-W.189A/8	G.A. of Mainplane port	15-W.189A/9	26FC/-
26FC/-	15-W.191A/8	G.A. of Mainplane stbd.	15-W.191A/9	26FC/-
26FC/11981	15-W.193A/7	Mainplane complete (Spares) port	15-W.193A/8	26FC/-
26FC/11982	15-W.195A/7	Mainplane complete (Spares) stbd.	15-W.195A/8	26FC/-

SEQUENCE OF OPERATIONS.

The following is the sequence of operations and is applicable to both port and starboard mainplanes.

(1) Trestle the aircraft until the wheels are clear of the ground. Operate the hydraulic pressure release valve until the pressure in the accumulator is exhausted. Release the pneumatic pressure by applying the brakes and operating the rudder pedals until the reservoir is exhausted. Disconnect the hose connections to the brakes and fit blanks to the hose and adaptor ends to prevent the ingress of foreign matter. Release the clips retaining the electric cable to the micro-switch on the port undercarriage torque link and, slackening the attachment items, remove the undercarriage leg fairing. Retain all the parts and attaching items for re-fitment.

(2) Remove the forward and aft inboard wheelwell wall handhole covers and retain all the items. Remove the small square handhole cover from the top skin of the mainplane above the undercarriage radius rod attachment and retain the cover and attaching items. Disconnect the undercarriage door from its operating linkage by removing the pivot pins. Retain all items for re-fitment. Remove the split pins and bottom attachments of the radius rod and undercarriage jack, without altering the adjustments and retain all items less the split pins.

(3) Working through the handholes in the forward and aft wheelwell walls, slacken the attachments of the now redundant Teleflex clamp and packing Part Nos. G00.1949 and G00.103 respectively, which secure the undercarriage door lock control cable to the bottom skin of the mainplane. From the inboard side of the wheelwell, slacken the attachments of the redundant Teleflex clamps and locking plates, Part Nos. G00.1951 and G00.1953 respectively. The packing, Part No. G00.1783 fitted under the forward clamp assembly is also redundant, together with all of the attaching items.

(4) Slacken and retain the 2 B.A. and 4 B.A. locking and clamping bolts securing the Teleflex conduit at the latch plate wrapped box and remove the lock control complete from the mainplane. The controls comprising four conduits, Part Nos. G00.92, G00.96, G00.98 and G00.100 (port); G00.93, G00.97, G00.99 and G00.101 (stbd.), Teleflex inner cables, Part No. G00.94ND and Part No. G00.95ND, two slide tubes, Part No. C.1871 two plungers, Part No. G00.429, two connectors, Part No. B.29140 and two lock springs, Part No. DS.47/2 are redundant.

(5) From the forward and aft wheelwell walls, remove the undercarriage door lock barrels, Part Nos. G00.427A (forward), G00.428A (aft). These barrels and attachment items are redundant. Working through the handholes in

/6 .....

(5) the forward and aft wheelwell walls, very carefully remove the rivets securing the redundant Teleflex clamp mounting brackets, Part No. G00.433A from the bottom skin of the mainplane, by chipping off the heads and punching out the shanks and remove the mounting brackets from the aircraft.

(6) On the inboard side of the wheelwell wall and referring to Sheet 2 of the drawing, carefully mark out and file away the shaded portion of the reinforced hole, as shown. Remove all burrs and file marks, and polish the filed area.

(7) Referring to Sheet 2 of the drawing, fill in the two redudant holes which were previously used for attaching the forward Teleflex clamp to the inboard wheelwell wall, with two 3/16 in. dia. rivets, Part No. AS.2227/604. Fill in the aft redundant hole which was previously used for attaching the rear Teleflex clamp to the wheelwell wall, with one new 2 B.A. bolt, washer and nut, Part Nos. A.25/5C, SP.15/C and AGS.2001/C1 respectively. This is also shown on Sheet 2 of the drawing. The remaining forward attachment hole of the rear Teleflex clamp is to be used for attaching a new cable clip, as detailed in a later operation.

(8) From the new port forward Teleflex lock control unit, Part No. E.43322, remove the bottom half of the anchor block, Part No. A.42276. Position this half block on a new adaptor plate, Part No. 15-Z1805ND, to the dimensions shown on Sheet 3 of the drawing. From the two pre-drilled holes in the Teleflex block and using a No. 11 (0.1910 in. dia.) drill, drill the two attachment holes in the adaptor plate and countersink these holes 90 deg. to 0.32 in. dia. in the opposite side of the adaptor plate to the Teleflex block. Separate the block and plate, and deburr the holes in the adaptor plate. Countersink the block attachment holes 90 deg. to 0.030 in. deep, in the bottom of the Teleflex block.

(9) Referring to Sheet 3 of the drawing, carefully mark off and drill the two No. 26 (0.147 in. dia.) holes in the adaptor plate, and deburr the holes. Repeat the work detailed in this operation and operation (8), on the new aft port lock Teleflex control unit, Part No. E.43321, and adaptor plate, and the new forward and aft starboard lock Teleflex control units, Part Nos. E.43282 and E.43281, respectively, and adaptor plates.

(10) Referring to Sheet 4 of the drawing, temporarily assemble the new forward and aft plunger barrels, Part Nos. 15-U.13, forward; 15-U.15, aft, in place of the redundant barrels, and slave bolt into position. It may be found necessary to carefully file the hole in the forward and aft wheelwell walls to accommodate the new barrels. The rear wheelwell wall is also to be filed as shown in the inset on Sheet 4 of the drawing to give a clearance of 0.15 in. between the barrel and the wall at the inboard end of the barrel, and the plate which carries the barrel anchor nuts is also to be filed back parallel to the lock plunger. This filing is essential to prevent the plunger fouling the plate. Temporarily slave bolt the two halves of each Teleflex clamp block to the holes already drilled in the adaptor plate, and secure a suitable mandrel in the large hole in the Teleflex anchor block, so that the mandrel protrudes from the centre of the block, outboard for a distance of 10.50 in. This dimension is important.

Note: Any straight length of bar or tube, $\frac{1}{2}$ in. dia. and approximately twelve inches long may be used, with suitable packing on the top of the mandrel to prevent there being any slack at the clamp block hole.

(11) The forward adaptor plate, complete with the block and mandrel clamped as detailed in operation (10), is to be placed inside the mainplane in the position of the redundant Teleflex clamp bracket, and the outboard end of the mandrel inserted into the plunger barrel, until the end of the mandrel is flush with the outboard end of the plunger barrel. It may be found necessary to trim the aft adaptor plate to prevent the plate fouling an existing stringer on the bottom skin of the mainplane. This location of the mandrel and block will ensure correct alignment of the Teleflex anchor block and barrel, and also that the block is the correct distance inboard from the barrel. To obtain good vertical alignment of the block and mandrel, it may be necessary to insert several thicknesses of 0.005 in. thick, brass, foil (Ref. No. 30B/462) between the mainplane skin and the adaptor plate, or where the block is too high it is to be removed and replaced on the adaptor plate, after

(11) filing the bottom of the block until good alignment is achieved. Repeat this operation on the aft control.

(12) Holding the adaptor plate, and foil if fitted, secure on the bottom skin of the mainplane, and using the No. 26 drill, open up the six Inboard rivet holes of the redundant Teleflex clamp bracket attachment in the undersurface of the mainplane and continue right through into the adaptor plate. Using the same drill, and with the adaptor plate and foil still in the same position drill the two outboard holes in the mainplane bottom skin, from the holes in the adaptor plate, which were drilled during operation (9). Countersink these eight holes 90 deg. to 0.27 in. dia. in the underside of the mainplane bottom skin. Remove the adaptor plate, Teleflex block and mandrel from the mainplane, and deburr all holes. Remove the mandrel and block from the adaptor plate, and remove the plunger barrels from the wheelwell wall. Care should be taken to note the thickness and location of any foil packing which was fitted between the adaptor plate and the wing skin for fitment between the block and the adaptor plate as detailed in operation (15). Separate the mandrel and Teleflex block and refit the Teleflex block at its original position on the control. Where it is found that two holes which have been drilled in the adaptor plate from the existing holes in the mainplane skin have insufficient landing, these holes are to be trimmed out of the plate, and the holes in the mainplane skin flushed off with two $\frac{1}{8}$ in. dia. snaphead rivets, Part No. AS.2229/404. These rivets are indicated on Sheet 3 of the drawing. Replace the adaptor plate in the mainplane, and after aligning the holes, and using the No. 26 drill, drill two new bolt holes in the adaptor plate and wing skin, and countersink these holes 90 deg. to 0.27 in. dia. in the outside of the wing. Remove the plate and deburr the holes. Repeat this operation on the aft door lock control.

Note: The two outboard holes in the mainplane bottom skin which previously secured the redundant Teleflex clamp bracket, are to be left blank in the mainplane skin.

With the Teleflex controls removed from the mainplane, withdraw the Teleflex inner cables from the flexible outer covers by pulling on the plungers. The inner cables are to be shortened to the following dimensions, by cutting the inboard end of the cable. The port and starboard forward inner cables for control units, Part Nos. E.43282 and E.43322 are to be shortened to an overall length from the outboard end of the plunger to be inboard end of the cable of 34.40 in. The port and starboard rear inner cables for control units, Part Nos. E.43281 and E.43321 are to be shortened to an overall length from the out board end of the lock punger to the inboard end of the cable of 38.50 in. When the inner cables have been shortened to the correct length the ends of the cables are to be ground of filed to a smooth radius, and no small ends of wire are to be left protruding.

Very carefully remove the 1/16 in. dia. countersunk, steel locking rivet securing the lock plunger of each cable, to the inner screwed rod on the outboard end of the Teleflex inner cable, without enlarging the hole in the rod or plunger. This rivet will be found 0.125 in. inboard from the outboard end of the lock plunger. Holding the inner screwed rod at the Teleflex cable (not the inner cable itself) unscrew the lock plunger from the screwed rod, and clean off any burrs from the thread. Make sure that the lock plunger will freely screw onto the screwed rod to its original position. Again remove the lock plunger from the screwed rod.

(15.) Trim each piece of foil which was fitted between the adaptor plate and mainplane skin during operation (11) to the shape of the bottom of the Teleflex block, and using the No. 11 drill, drill the two holes in the foil. Apply pigmented varnish jointing compound (Ref. No. 330/1264) to the faying surfaces of each adaptor plate, foil, and Teleflex block and secure together with two new countersunk 2 B.A. bolts, washers and nuts, Part Nos. AS.124-2/14C, SP. 15/C and AGS.2001/C1 respectively, to each block. Where excess packing has been fitted or the block has been filed to obtain good alignment, the bolt length must be altered to suit.

(16) With the lock plunger still removed from each control, replace the Teleflex inner cable into its respective outer flexible cover, push the screwed rod on the end of the inner cable inside the rigid conduit portion of the control and gently withdraw the inner cable from the inboard end of the flexible outer cover to a distance of about eighteen inches.

/8.....

Note: These inner cables must not be pulled out to the fullest extent otherwise the rigid screwed rod will foul on the bent end of the outer cover, causing damage to the inner cable at the swaged connection when the inner cable is screwed into the wrapped box during a later operation. Feed each complete control (less the lock plunger) into the mainplane through the handhole in the wheelwell wall and, along the route of the redundant control, through the rib to the wrapped box.

(17) Raise the radius rod of the undercarriage to its "undercarriage retracted position" and screw the forward and aft Teleflex inner cables (left hand thread) into the wrapped box by hand. It is most important that this is achieved quite freely, and under no circumstances may any force or tool be used. Lower the radius rod slightly and screw the Teleflex inner cable in sufficiently to give 0.10 in. projection on the inboard side of the box when sprung into the locking hole.

Note; The cable must not be wound in.

(18) Lubricate the Teleflex inner cables with grease, XG-275 (Ref. No. 34B/100513) and slide each outer flexible cover inboard along the inner cable to the wrapped box. After entering and aligning the end of the outer cover in a downward direction, secure to the wrapped box with the existing 4 B.A. lock bolt. This bolt hole must be cleaned with a No. 27 (0.1440 in dia.) drill, after the outer casing is in position. Finally secure the outer casings with the existing 2 B.A. clamp bolt.

(19) Screw the respective lock plungers onto their inner screwed rods in their original positions, and lock with a new 1/16 in. dia. steel countersunk rivet, Part No. AS.460/209. Care must be taken that the rivet head or tail does not protrude above the outside diameter of the lock plunger, or in any way prevent the free sliding of the plunger and barrel.

(20) Apply pigmented varnish jointing compound to the faying surfaces of each adaptor plate, and mainplane bottom skin, and secure into position as shown on Sheet 3 of the drawing with eight new countersunk bolts, washers and nuts, Part Nos. AS.1242/1B, SP.15/B and AGS.2001/B1 respectively.

(21) Apply pigmented varnish jointing compound to the faying surfaces of each forward and aft new lock barrel and adjacent wheelwell wall, and, sliding the barrels over the lock plungers, secure the barrels into position with eighteen new bolts, Part No. AS.1246/2C and two new bolts, Part No. AS.1246/3C, as shown on Sheets 1 and 4 of the drawing.

(22) Remove one existing countersunk bolt from the inboard side of the wheelwell and secure the forward lock control cable at this point with one new 'P' clip, 2 B.A. bolt, washer and nut, Part Nos. AS.3180/6C, A.25/6C, SP.15/C and AGS.2001/C1 respectively, as shown on Sheet 2 of the drawing. Secure the rear lock cables to the existing hole in the inboard wheelwell wall, with one new 'P' clip, 2 B.A. bolt, washer and nut, Part Nos. AS.3180/6C, A.25/7C, SP.15/C and AGS.2001/C1 respectively, which is also shown on Sheet 2 of the drawing.

(23) Adjust the forward and aft door lock controls at the adjuster at the clamp block, so that when the undercarriage radius rod is in the fully retracted position, the plunger protrudes 0.35 in. from the outboard end of the barrel, as shown on Sheet 4 of the drawing. After adjustments have been carried out, the locknuts must be fully tightened, and locked with 22 s.w.g. nickel alloy locking wire (ref. 30A/3055).

(24) Operate the undercarriage radius rod by hand to ensure free travel of the Teleflex door lock cables. The load, applied to the lower attachment of the radius rod, to overcome the friction of the controls, should not exceed 10 lb. Re-connect the undercarriage radius rod and jack, using the existing items and two new split pins, Part No. SP.9/C8. Ensure that the undercarriage jack adjustment has not been altered during this modification.

(25) Reconnect the undercarriage door and secure using the existing items and two new split pins, Part No. SP.9/C8. Refit the undercarriage leg fairing and secure using the existing items and new 22 s.w.g. nickel alloy locking wire. Reconnect the clips of the micro-switch lead on the port undercarriage leg. Remove the blanks and reconnect the brake hose, re-locking with 22 s.w.g. nickel alloy wire. Re-charge the pneumatic and hydraulic systems in accordance with current procedure.

(26) Refit the forward and aft handhole covers in the wheelwell walls and the small square cover in the top skin of the mainplane, over the radius rod. Secure with the existing items.

(27) Repair the finish locally at the undersurface of the mainplane, with primer etch base and accelerator (Ref. No. 33B/1021 and 33B/1023) respectively. The two redundant holes in the mainplane skin are to be filled with stopper, oil base (Ref. No. 33B/534) and the area finished in Cellulose, yellow (Ref. No. 33B/1074 or 985). Apply primer etch base and accelerator to the filed area of the reinforced hole on the inboard side of the wheelwell wall, and finish in finish aluminium (Ref. No. 33B/1060 or 865).

(28) Lubricate the complete installation with Grease, XG-275 and on completion of tests, check that the undercarriage is locked down and lower the aircraft from the trestles.

ESTING AFTER EMBODIMENT

When this modification has been embodied carry out a full retraction est on the undercarriage.

ECORDING ACTION

Record on Aircraft Form 700 and 4801.

ISPOSAL OF REDUNDANT PARTS

The undermentioned parts rendered redundant by the embodiment of this odification are to be disposed of as scrap in accordance with current R.A.F. quipment Regulations.

ef. No.	Part No.	Nomenclature	Qty	Class of Store
6FC/-	G00.92	Conduit Teleflex No.2 R.H.	1	-
6FC/-	G00.93	Conduit Teleflex No. 2 L.H.	1	-
6FC/-	G00.94ND	Teleflex inner cable No. 2	2	-
6FC/-	G00.95ND	Teleflex inner cable No. 2	2	-
6FC/-	G00.96	Conduit Teleflex No. 2 R.H.	1	-
6FC/-	G00.97	Conduit Teleflex No. 2 L.H.	1	-
6FC/-	G00.98	Conduit Teleflex No. 2 R.H.	1	-
6FC/-	G00.99	Conduit Teleflex No. 2 L.H.	1	-
26FC/-	G00.100	Conduit Teleflex No. 2 R.H.	1	-
26FC/-	G00.101	Conduit Teleflex No. 2 L.H.	1	-
26FC/4477	G00.103	Packing	4	C
26FC/14	G00.427A	Barrel forward	2	C
26FC/15	G00.428A	Barrel aft	2	C
26FC/676	G00.429	Plunger	4	C
26FC/196	G00.433	Bracket	4	C
26FC/-	G00.1783	Packing	2	-
26FC/10451	G00.1949	Block clamp	4	C
26FC/10461	G00.1951	Clamp	8	C
26FC/10462	G00.1953	Plate connector locking	4	C
27K/568	B.29140	Connector Teleflex	4	C
27K/-	C.1871	Tube Teleflex slide	4	-
27K/504	DS.47/2	spring Teleflex locking	4	C

/10 .....

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of +0.31 lb., and a change of moment + 1.0 lb. ft.

Source: (FB 9) A.P. 4099G/D4 (Alteration 1)
(T.11) A.P. 4099J/D12

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipients plus the following:-

O.C. Equipment Depot	(1)
S.E.S.O.	(1)
W.O. Components Section	(1)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)
W.O. A.R.S. "	(2)

RESTRICTED

MOD. VAMP. 3437

DRG. No. A.P. 4099 G / D.4 / 57

SHEET 1

LP31889 2.57 625 C&P Gp. 959 (4)

MODIFICATION TO UNDERCARRIAGE DOOR LOCK CABLES.

RESTRICTED

MOD. VAMP 3437

LP31889 2/57 625 C&P Gp. 959(4)

DRG. NO A.R 4099 G/D.4/57

SHEET 2

VIEW ON ARROW 'A'

SEE SHEET 1 OF THE DRAWING

MODIFICATION TO UNDERCARRIAGE DOOR LOCK CABLES

RESTRICTED

DRG. No. A.P. 4099G/D.4/57

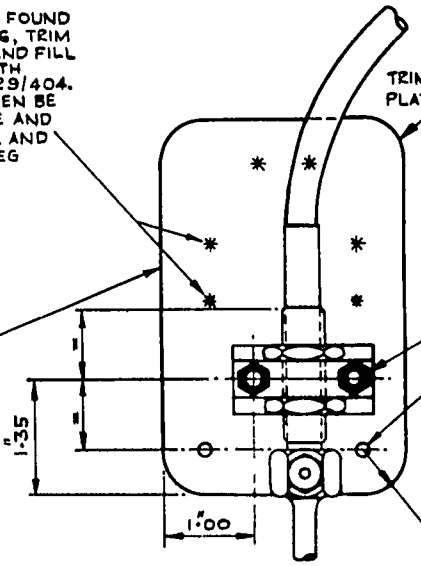
SHEET 3 DATED 23-5-57

MOD. VAMPIRE. 3437.

WHERE THESE TWO HOLES ARE FOUND TO HAVE INSUFFICIENT LANDING, TRIM THE HOLES OUT OF THE PLATE AND FILL THE HOLES IN THE WING SKIN WITH ⅛ IN DIA RIVETS PART No. AS.2229/404. TWO NEW BOLT HOLES MUST THEN BE DRILLED IN THE ADAPTOR PLATE AND WING SKIN USING A No. 26 DRILL AND COUNTERSINK THE HOLES 90 DEG TO 0·27 IN. DIA IN THE OUTSIDE OF THE WING SKIN.

* EXISTING HOLES IN THE MAINPLANE BOTTOM SKIN DRILL THE NEW ADAPTOR FROM THESE SIX HOLES USING THE No 26 DRILL.

ADAPTOR PLATE 2-OFF	15Z. 1805 ND
BOLT 4 B.A. CSK HEAD 16-OFF.	AS 1242 16
NUT 4 B.A. 16-OFF	AGS 2001 B1
WASHER 4 B.A. 16-OFF	SP 15 B



QUANTITIES SHOWN ON THIS SHEET OF THE DRAWING ARE PER MAINPLANE.

TRIM THE AFT. PORT, AND STBD. ADAPTOR PLATES TO CLEAR THE EXISTING STRINGER.

AS 1242 14C	BOLT 2 B.A. 4-OFF.	DRILL TWO No. 11 (0·191 IN. DIA.) HOLES IN THE ADAPTOR PLATE, AND COUNTERSINK 90 DEG. TO 0·32 IN. DIA IN THE UNDERSIDE OF THE ADAPTOR PLATE, AND COUNTERSINK THE BOTTOM OF THE TELEFLEX BLOCK 90 DEG. TO 0·03 INS. DEEP.
AGS 2001 C1	NUT 2 B.A. 4-OFF.	
SP 15 C	WASHER 2 B.A. 4-OFF.	

DRILL TWO No. 26 (0·147 IN. DIA) HOLES IN THE ADAPTOR PLATE AND MAINPLANE SKIN AND COUNTERSINK 90 DEG. TO 0·27 IN. DIA. IN THE UNDERSIDE OF THE MAINPLANE SKIN.

0·50 RADIUS ALL CORNERS.

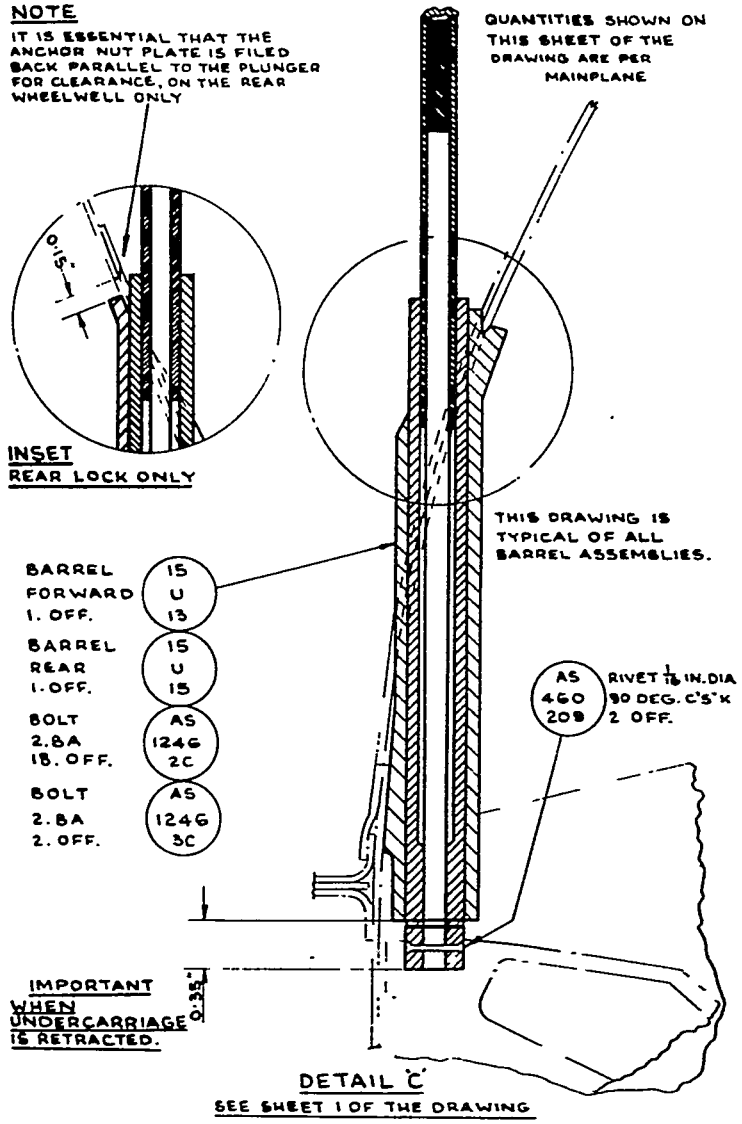
DETAIL 'B'

TYPICAL OF ALL ADAPTOR PLATE ASSEMBLIES

(SEE SHEET 1 OF THE DRAWING)

NOTE: FIT 0·005 IN. THICK BRASS FOIL (STORES REF 30B/462) BETWEEN THE ADAPTOR PLATE AND TELEFLEX BLOCK FOR CORRECT ALIGNMENT.

MODIFICATION TO UNDERCARRIAGE DOOR LOCK CABLES.



MODIFICATION TO UNDERCARRIAGE DOOR LOCKS.

DRG. No. A.P.	4099G/D.4/57
SHEET 4	DATED 23-5-57

RESTRICTED

MOD VAMPIRE 3437

Air Headquarters.
Royal Rhodesian Air Force.

5th September 1957.

R.R.A.F. Technical Order.

Vol.8, Sect.8, Sub-Section B11 (Issue 1)
Vol.3, Sect.2, Sub-Section B35 (Issue 1)

VAMPIRE F.B. MARK 9 AIRCRAFT.

REMOVAL OF I.F.F. AERIAL (REF.10BB/868)

(Modification/R.R.A.F./Radio/7)

1. Introduction

Recent occurrences of cracked insulators on I.F.F. Aerials have been reported to this Headquarters. As I.F.F. transmitters are not fitted to these aircraft, and nil requirement exists at present, this modification authorises the removal of all I.F.F. Aerials and the fitting of blanking plates to the aerial mounting apertures.

2. Embodiment

Embodiment is to be effected as soon as conveniently possible.

3. Time required for Embodiment

Not estimated.

4. Drawings required

Nil requirement

5. Parts required

The following material is required for the manufacture of blanking plates:-

Stores Reference.	Nomenclature.	Quantity.
30B/1448	Sheet, Ali-alloy, 14S.W.G. D.T.D. 610	Approx. 3¾" dia.
or alternatively 30B/1726	Sheet, Ali-alloy, 14S.W.G. B.S.L. 72	Approx. 3¾" dia.

6. Sequence of Operations

(1) Remove the outer ring of csk. headed screws securing the aerial mounting plate to the mainplane (retain screws for future use), disconnect the cable from the aerial and remove the aerial.

N.B. The aerial and its mounting plate is to be finally returned to and taken on charge by Equipment Depot. It is to be suitably labelled with the aircraft Serial No. from which removed and the label annotated " removed under authority of Mod/RRAF/Radio/7".

(2) THIS IS IMPORTANT:-
The aerial cable is to be securely cleated inside the mainplane in such a way that it does not constitutea foul with controls or other equipment therein.

(3) Using the aerial mounting plate (as removed in operation 1) as a template manufacture a blanking plate from 14 S.W.G. ali-alloy, apply finish to match mainplane and finally secure to mainplane with the csk. headed screws retained in operation 1.

7. Recording Action

(1) Record on Forms 700 and 4801 as Mod/RRAF/Radio/7.

(2) Retrospective recording action is required for aircraft which have already had unserviceable aerials removed and blanking plates fitted.

Source: RRAF/7504/2/Eng.

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
Air Headquarters. R.R.A.F.

Distribution :

Two copies per Essential Recipients plus following:-

Staff Signals Officer	(1)
S.E.S.O./A.H.Q.	(2)
O.C. Equipment Depot.	(2)
W.O. Radio Section.	(3)
W.O. A.R.S.	(1)
W.O. No.1 Squadron.	(3)
W.O. No.2 Squadron.	(3)
W.O. Components.	(2)

Air Headquarters,
Royal Rhodesian Air Force.

R.R.A.F. Technical Order
Vol. 3 Sect. 2 Sub-Sect. B.34 (Issue 1).

30th August, 1957:

VAMPIRE F.B. 9 AND T.11 AIRCRAFT.

Introduction of Solid Shims in lieu of Laminated Shims at engine mounting eyebolts

(MOD./VAMPIRE/3165)

(Class c/4 on removal of engine)

1. INTRODUCTION:

This modification is introduced as the result of reports that the laminated shims at the engine mounting have disintegrated, allowing the eyebolts to become loose. It provides for the fitting of solid shims, in lieu of the laminated shims, between the face of the fireproof bulkhead and head of the engine mounting eyebolts.

NOTES: (i) It is to be noted that all RRAF Vampire Mk. T.11 aircraft had this modification embodied at production.

(ii) Certain Mk. FB.9 aircraft may have had this modification satisfied under authority of S.I/Vampire/29, i.e. per para D (iii) of R.R.A.F. Tech. Order Vol. 3-2-E9, dated 5/4/54, calling for replacement by solid shims at next engine removal. Where this is the case, recording action for "Mod/Vamp/3165" is the only action now required.

EMBODIMENT:

Embodiment is to be effected at next engine removal without fail.

DRAWINGS REQUIRED:

Drawing No: ROOL.27, attached, is required for the local manufacture of solid shims when present stocks of items at para 4 are exhausted.

PARTS REQUIRED:

The following parts, of which there are limited stocks, are required:-

Ref:	P/No:	Nomenclature:	Qty:
26FC/8050	L.003699	Shim, under eyebolt	As reqd.
26FC/8051	L.003701	Shim, " "	" "
26FC/8052	L.003703	Shim, " "	" "

5. SEQUENCE OF OPERATIONS:

The sequence of operations is given in the Notes to Drawing ROOL.27. If stocks of items as per para 4 above are exhausted, then solid shims are to be manufactured to Part No: ROOL 24-25-26 as required.

6. TESTS AFTER EMBODIMENT:

There are no special tests required but particular attention should be paid to the clearance obtaining between jet pipe and fairing in terms of Note 6 and Sub. Note thereto on Drawing ROOL.27

2/.....

7. DISPOSAL OF REDUNDANT PARTS:

The following part is rendered redundant as a result of this modification and is to be disposed of as scrap in accordance with current procedure:-

Ref:	P/No:	Nomenclature:	Qty:
26FC/1974	L.00176	Shim, under eyebolt (Pre. Mod. 3165)	4

8. RECORDING ACTION:

(1) Record on Forms 700 and 4801 as "Mod/Vamp/3165".

(2) All aircraft fitted with solid shims under previous authority of S.I/Vampire/29, are to now have recording action taken on all relevant documents and returns as "Mod/VAMP/3165".

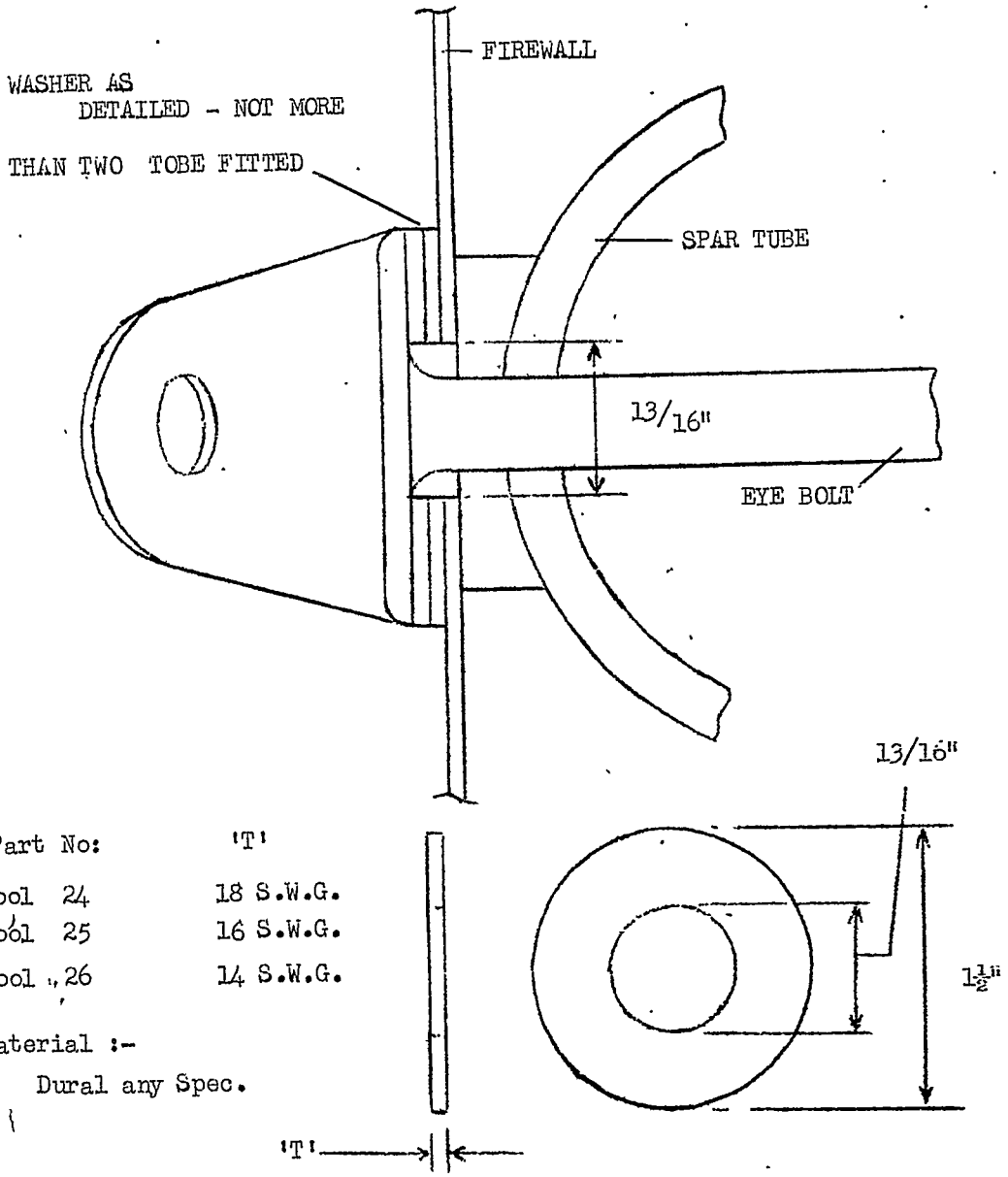
Sources:- S.I/Vampire/29.
AP.4099J, Vol.2, Pt.1, P.3)

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One per Essential Recipient plus following:-

W.O./ A.R.S.	(2)
O.C./G.E.S.	(1)
M.C.O. i/c G.E.S.	(2)
O.C.Equip. Depot	(2)
S.E.S.O/A.H.Q.	(1)
W.O. No: 1 Squad.	(2)
W.O. No:- 2 Squad.	(2)



Part No:	'T'
Tool 24	18 S.W.G.
Tool 25	16 S.W.G.
Tool 26	14 S.W.G.

Material :-
Dural any Spec.

NOTE:
When replacing shims the following procedure should be followed:-

1. Check with micrometer, the total thickness of original shims.
2. Open up hole for eye-bolt in firewall to 13/16".
3. Select suitable washers to give same thickness as original shims. If necessary, the thickest washer may be reduced in thickness to suit.
4. Install engine mounting, engine and jet pipe
5. Install jet pipe fairing.
6. Check clearance between jet pipe and fairing and ensure that this not less than .25 at any point. if this figure is not obtained the whole must be dismantled and the washers adjusted to suit.

NOTE: That the allowance of ".25 is a min. for new or reconditioned aircraft and will change during service due to a general settling of parts . no action need be taken unless actual chafing is imminent.

5. (2) (a) Inverter ceases to run.
(b) Warning light is "ON".

(3) Replace fuse No. 3 and the covers of the fuse box and the compass junction box. Check that:-

(a) Inverter does not restart.
(b) Warning light remains "ON".

(4) Operate the 'G4F Compass' switch to "OFF", thus returning the circuit to normal. Operate the 'G4F Compass' switch to "ON" and check that the inverter and warning light function as in test operation (1), thus completing the test cycle. Return the 'G4F Compass' switch to "OFF".

(5) Test the synchroniser for correct functioning in accordance with current authorised procedure.

6. The undermentioned items comprise the modification set (Stores Ref. 26FC/103322):-

Stores Ref.	Part No.	Nomenclature	No. off.
26KG/-	NOO 3713A	Cable Assembly, loom C6	1
"	NOO 3719A/1D	Cable Assembly, Earth	1
"	12-N 1641A	Compass Junction Box	1
"	12-2F 331	Label, "Horizon-G4 Power Failure"	1
"	AS2227/305	Rivets, Snaphead, 3/32 in.dia.	2
"	T.1A	Twinlay Marker, Coded "GC3"	2
5GX/1069	-	Lamp, Warning, Red	1
5LX/951273	-	Filament, 28V. 3.5W.	1
5X/3148	-	Sleeve Cable, 4 amp. wire to 7 amp. pin	2

The following items to be found on site:-

53/3038	-	Cable Unipren, 6 amp. Spec. B.S.E.21	As Reqd.
30B/572	-	Wire locking, 22 swg copper	As reqd.
32X/94	-	Cord, Stringing, Braided	As reqd.
33B/208	-	Primer, Universal Dark Grey	As reqd.
33B/692	-	Finish Cellulose Night D.T.D. 751-4	As reqd.
330/10	-	Beeswax	As reqd.
35B/929	-	Blue paint, protective, D.T.D. 260/B	As reqd.

7. The undermentioned items are rendered redundant and are to be returned to Equipment Depot:-

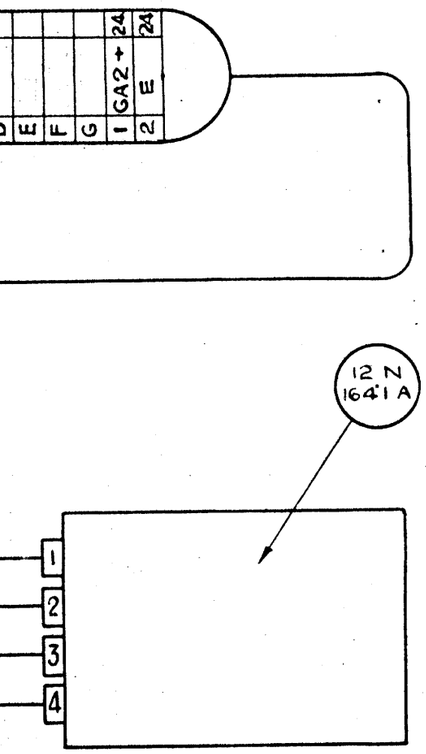
Stores Ref.	Part No.	Nomenclature	No. off
	NOO 2191A	Compass Junction Box	1
	NOO 2241A	Cable assembly	1

Source: Miniature Draft Leaflet

Distribution:
Two copies to Essentials plus

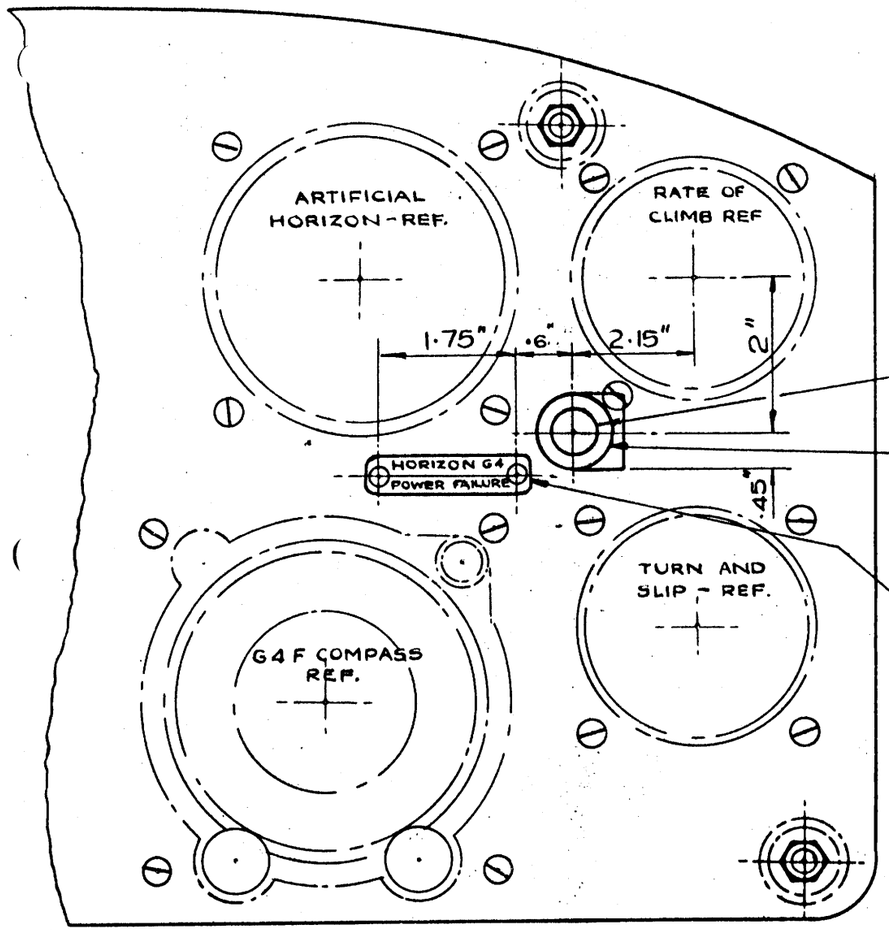
Specialist Officer	(2)
S.E.R.O.	(2)
O.C. Equipment Depot	(2)
W.O. No. 1 Squadron	(3)
W.O. No. 2 "	(3)
W.O. Electrical Section	(3)
W.O. Instrument Section	(2)
Air Staff	(2)

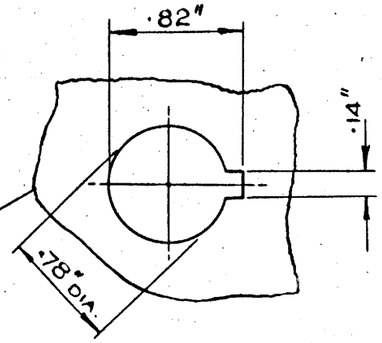
(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.



LIGHT.

12 N
164'1 A
COMPASS J.B.
1 OFF





DETAIL OF HOLE IN PANEL

5C 1069 — WARNING LAMP RED 1 OFF

5 LX 951273 — FILAMENT 1 OFF

12·2.F 331 — LABEL 1 OFF

AY 2227 305 — RIVET SNAPHEAD 3/32" DIA. × 5/16" 2 OFF.

DRILL PANEL - 2 HOLES No. 41 (·096" DIA) TO SUIT LABEL.

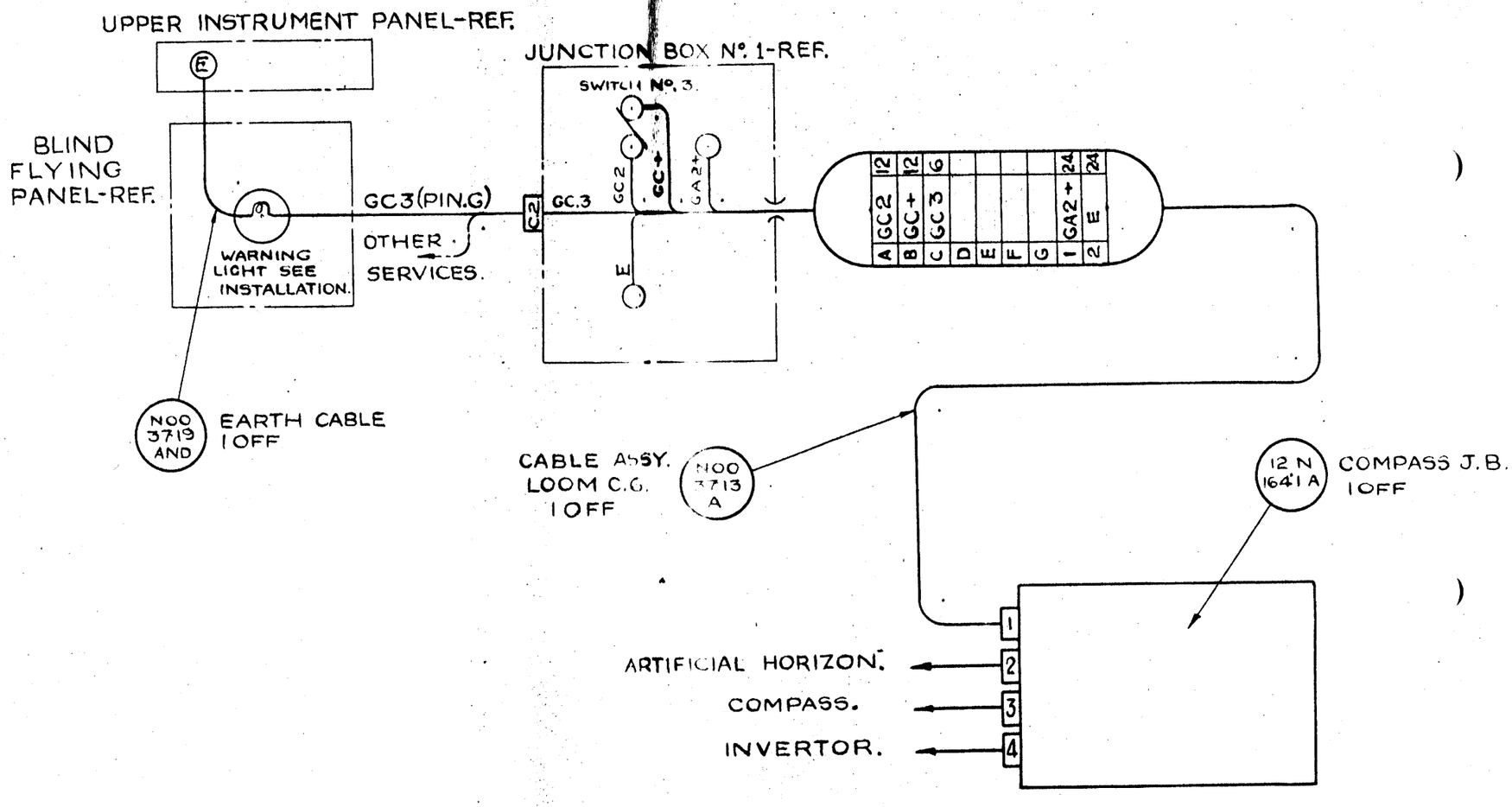
INSTALLATION OF POWER FAILURE WARNING LAMP ON BLIND FLYING PANEL.

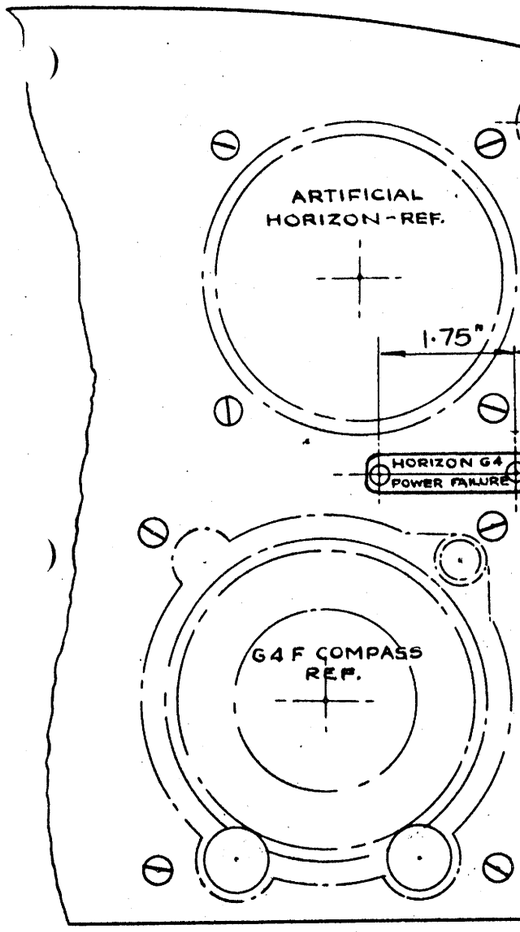
N-POWER FAILURE
YING INSTRUMENT PANEL—
. M.A.651. 2SHTS. MOD. Nº VAMPIRE

DIMENSIONS IN INCHES

TOLERANCES
± ·010"
EXCEPT AS STATED

DRN.	A.F.Y.	DRG. Nº	AV.48.
TRCD.	A.F.Y.		
CHD.	C.J.C. ww.		
Q.C.M.U.	N/A	RANK	Nº OF SHTS. 1 / SHEET Nº. 1
APPD			
DATE			





WIRING DIAGRAM FOR POWER FAILURE WARNING LIGHT.

INSTALLATION OF PO
ON BLIND FL

ISSUE	DATE	MODIFICATION	MOD BY	CH'KD BY
A	21/8/57			

DIMENSIONS IN INCHES

DATE 21ST AUG. '57

D. O. R.R.A.F N. S.	SCALE —	INSTRUMENT INSTALLATION-POWER FAILURE WARNING LIGHT FOR FLYING INSTRUMENT PANEL- INTRODUCTION-D.H.DRG.Nº. M.A.651. 2SHTS. MOD. Nº. VAMPIRE 3322

Air Headquarters,
Royal Rhodesian Air Force.
27th September, 1957.

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B33 (Issue 1)
Vol. 7, Sect. 2, Sub Sect. B17 (Issue 1)

Vampire FB 9 Aircraft

Electrical - Power Failure Warning Light for Flying Instrument Panel - Introduction

(Mod. No. Vampire 3322)

(Class E/2 to Aircraft embodying Mods. Vam. 668 & 897 i.e. all Vampire FB Aircraft)

1. INTRODUCTION

With the present system no warning is given should the G4F Compass indicator and artificial horizon cease functioning due to a power supply failure. To warn of such a failure this modification introduces a power failure warning light mounted on the blind flying panel, together with a new compass junction box, which incorporates the necessary torque switch, circuit breaker and relays, and revised wiring to operate it. The torque switch is also wired to cut out the inverter and so minimise damage.

This modification is applicable only if Mod. No. Vampire897 and Mod. No. Vampire 668 are already embodied.

2. EMBODIMENT

At next Minor Servicing.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 24 man hours.

4. SEQUENCE OF OPERATIONS

Refer to RRAF Drawing MV.48 (attached on the basis of 1 drawing per 2 copies of Order.)

(1) Disconnect the aircraft batteries, and release the cable looms from their respective plug connections at junction box No. 1. Now remove the screws, packing and shakeproof washers securing the box to the starboard cockpit wall, remove it from the aircraft and retain it, together with the attachment items, for re-assembly.

(2) Locate the redundant compass junction box, Part No. NOO 2191A (Ref. only), mounted on the upper forward face of bulkhead No. 2, and release the cable assemblies. Remove the screws, shakeproof washers and packing pieces securing the box to the bulkhead, remove it from the aircraft and retain the attaching items for re-assembly.

(3) Remove the blind flying panel from the aircraft by releasing the G4F plug, pressure and static pipe lines and the bonding connection, release the panel from its three anti-vibration mountings and retain for re-assembly.

(4) Mark out and cut the hole in the blind flying panel for the red warning lamp, as shown on the drawing. Now position the "Horizon - G4 Power Failure" label, Part No. 12-2F 331, as shown and using the holes in the label as guides, drill two holes in the panel to suit, using a No. 41 (0.0960 in. dia.) drill. Remove the label, deburr the holes and clear the panel of swarf.

(5) Secure the label to the panel using two 3/32 in. dia. snaphead rivets, Part No. As 2227/305, assemble the red warning lamp and filament (Stores Refs. 5GX/1069 and 5LX/951273 respectively) and secure to the panel as shown on the drawing.

/2 .....

(6) Release the coupling nut at the loom C2 socket assembly, and cut a suitable length of unipren 6 amp. cable (Stores Ref. 5E/3038) to connect from the socket assembly, pin G. to the warning lamp on the blind flying panel. Strip the cable, at both ends, 0.5 in. and identify with two tinlay markers, part No. T1A coded "GC3". Using the vacant pin G and one sleeve, (Stores Ref. 5X/3148) crimp the pin on, run the cable under the first length of P.V.C., re-assemble plug C2, route the new cable with the existing looms, whipping at intervals with bee swax coated stringing braided cord, (Stores Ref. 33C/10 and 32A/94 respectively), until the blind flying panel is reached, and leave it in readiness for connecting to the warning lamp.

Note: Sufficient cable is to be left to allow for the efficient work of the anti-vibration mountings, and for easy removal.

(7) Remove the lid of junction box No. 1 and disconnect and remove the c assembly, Part No. NOO 2241A (Ref. only). Offer up the new cable assembly, Part No. NOO.3713A, through the existing grommet and into box and connect up the cables coded "GA2+", "E" and "GC2" as before Remove the cable coded "GC+" from fuse No. 2 and switch 3, and connec the tail coded "GC+" from the new cable assembly to the same side of switch 3. Connect the tail coded "GC3" from the new cable assembly pin "G" of plug "C2" using one sleeve (Stores Ref. 5X/3148) Lash th new cables into the box with beeswax coated stringing braided cord, replace the lid.

(8) Offer up the junction box No. 1 to the starboard fuselage and, using its retained attaching items, resecure it into the cockpit and connec up all looms and sockets removed. Run the new loom C6 with existing cable runs to the compass J.B., lashing at intervals with beeswax coated stringing braided cord.

(9) Offer up the new compass J.B., part No. 12-N 1641A and using the reta attaching items, secure it in the position occupied by the redundant unit and reconnect the cable assemblies from the artificial horizon, compass and inverter, together with the C6 loom from J.B. No. 1

(10) Locate the earth terminal on the forward face of the upper instrument panel and connect to it the cable lug end of the new cable assembly, part No. NOO 37194/ND. Offer up the blind flying instrument panel an connect up the red warning lamp, fitted to the panel in operation (5) detailed in the drawing. Reconnect the G4F plug, pressure and static pipe lines, wirelocking with 22 s.w.g. copper wire (Stores Ref. 30B/5 and reconnect the bonding tag. Finally secure the panel to its anti-vibration mountings using the retained attaching items.

(11) Repair the finish of the instrument panel using, dark grey universal primer, (Stores Ref. 33B/208) and finish, night cellulose (Stores Ref. 33S/692). Re-paint broken down 'E' terminals and bonding connections using blue paintprotective, D.T.D.260/B.

(12) Reconnect the aircraft batteries.

5. When this modification has been embodied and inspected, the following tests are to be carried out.

(1) With the aircraft batteries connected, check that the power failure warning light is "ON". Start the inverter running by operating the contact breaker mounted on the compass J.B. with the G4F Compass switch "ON". Check that the power failure warning light goes "OFF" when the inverter reaches working speed.

(2) Remove the covers of the compass junction box and its fuse box. With the inverter running and using a suitable means of insulation (warning 115 volts), remove fuse No. 3 from the fuse box. Check that:-

Air Headquarters,
Royal Rhodesian Air Force.

18th March, 1958

R.R.A.F. Technical Order
Vol. 16, Amendments
Amendment No. 252

Cancelling:- Vol. 3, Sect. 2, Sub Sect. B32 (Issue 1)

Modification/R.R.A.F./Vampire/3

Action:

(1) Authority is hereby granted for the cancellation of Mod/RRAF/Vamp/3.

(2) The fabric cover of the G.C.A. Unit must be removed immediately, and may be cut to facilitate removal.

(3) The old covers will be returned to Equipment Depot and the vouchers certified as scrap and annotated for Form 464 action.

(4) Record in Form 700 and 4801 as (Mod/RRAF/Vamp/3 deleted A.L.252).

Source: Tech. Stats. A.H.Q.

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

One copy to essential recipients plus the following:-

S.E.S.O.	(1)
O.C. Equipment Depot	(1)
W.O. A.R.S.	(2)
W.O. No. 1 Squadron	(2)
W.O. No. 2 "	(2)

Air Headquarters,
Royal Rhodesian Air Force,

16th April, 1957

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B 30 (Issue 1)

Tapped Pins

Vampire T Mk 11 Aircraft

Flying Controls - To Introduce Flexible Plastic Cover for Mollart Joint on Aileron Drive at Base of Control Column

(Mod. No. Vampire/3449)

(Class B/2)

1. INTRODUCTION

Cases have been reported of seizure of the Mollart joint of the airleron drive due to the presence of grit and other foreign matter. This modification introduces a flexible plastic cover to protect the joint and at the same time retain adequate lubrication.

(1) This modification does not cancel, supersede or render unnecessary any work called for by approved modifications, Command modifications, S.T.I's, S.I's or S.R.I.Ms.

(2) This modification is not essentially connected with any other approved modification.

2. EMBODIMENT

This modification requires embodiment on all R.R.A.F. Type T 11 aircraft and is to be embodied by:-

Squadrons: At the first opportunity (not later than 1 month after receipt of this Order.)

M.U.: Before issue of aircraft.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 5 man hours.

4. DRAWINGS REQUIRED

There are no drawings required for the embodiment of this modification.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials.

(a) The Modification Kit consists of the following items:-

(i) Items to be supplied by the Contractor:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/11825	A.7517	Grease retaining cover	2	C
28P/12462	SP.9/C8	Pin, split	4	C

The complete kit is to be demanded from O.C. Equipt. Depot under "Stores Ref. 26FC/103449 - MOD/VAMP/3449."

(b) The following materials are also required, and are to be provided under Unit arrangements:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
+ 28P/12462	SP.9/C8	Pin, split	4	C
+ 28P/12465	SP.9/G12	Pin, split	4	C
30A/3055	-	Wire Locking, nickel alloy, 22 s.w.g. D.T.D. 189	As Reqd.	C
33C/1139	-	Compound, sealing, Bostik Primer 1751 D.T.D.900/4058	As Reqd.	C
Old Ref.34B/222 New Ref.34B/100512	-	Grease XG-275, D.T.D.825	As Reqd.	C

+ These items will be required only for aircraft without Mod. No. Vampire/3167B embodied.

N.B. Mod/Vamp/3167B is already embodied on all R.R.A.F. Type T 11 aircraft (i.e. fully automatic eject. seat.)

..... 2.

(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:-

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
26FC/6580	15-CF.13A	Aileron Drive Assembly (port)		
26FC/6581	15-CF.14A	Aileron Drive Assembly (stbd)		
26FC/-	15-CF.249A/ND	Assembly of Tube Housing and Sprocket (port)		
26FC/-	15.CF.251A/ND	Assembly of Tube Housing and Sprocket (stbd)		

The work involved in modifying this spare is detailed in Para 8, Operations (2), (4) and (5).

Parts required for each of the above spares:

26FC/11825	A.7517	Grease retaining cover	1

Spares will be modified by the Stock Holding Unit before issue to Units.

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Stores Ref., Part and Assembly Nos. as follows:-

	OLD		NEW	
Stores Ref.	Pt/Assy.No.	Nomenclature	Pt/Assy.No.	Stores R
26FC/6580	15-CF.13A	Aileron Drive assembly (port)	15-CF.13A/1	26FC/118
26FC/6581	15-CF.14A	Aileron drive assembly (Stbd)	15-CF.14A/1	26FC/118
26FC/-	15-CF.249A/ND	Assy. of tube housing and sprocket (port)	15-CF.461A/ND	26FC/-
26FC/-	15-CF.251A/ND	Assy. of tube housing and sprocket (stbd)	15-CF.463A/ND	26FC/-

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Remove both of the pilot's seats, in accordance with current authorised procedure. Remove both of the protecting gaiters from the base of each control column, also remove the rear plates of the false floor, retaining all attaching items for subsequent re-assembly.

Notes: The following operations apply to both Port and Starboard control columns and aileron drive assemblies.

(2) Release the tension on the aileron control cables in the cockpit. Locate, at the base of the control column, the housing, Part No. 15-CF.241, which secures the Mollart ball joint into position, remove the two split pins and remove and retain the nuts, bolts and washers securing this housing to the control column. From the sides of the housing remove the two locknuts and washers and then knock out the two tapered bolts, retaining all of these items for subsequent re-assembly.

(3) At the end of the aileron drive assembly locate the pedestal, Part No. 15-CF.111, which supports the assembly and remove and retain its two securing bolts. This will allow the aileron drive assembly to move sufficiently to allow the attachment housing to be removed from the ball joint.

..... 3.

4. Clean away any foreign matter and grit from the joint and repack it with grease XG-275, Spec. D.T.D.825 (Stores Ref. 34B/222 or 100512). Fit the new grease retaining cover, Part No. A.7517, over the ball joint with the small cut-out in the side of the cover facing forward, so as to give access to the rear attaching nut.

5. Refit the housing to the ball joint, securing it with the original attaching items. Refit the pedestal to the cockpit floor using its retained attaching items, first coating the bolts with a coat of Bostik, Primer, 1751 (Stores Ref. 33C/1139). Refit the housing on the ball joint to the flange on the base of the control column, using its original attaching items and two new split pins, Part No. SP.9/C8.

6. Reset the aileron controls, as detailed in A.P. 4099J, Vol. 1, Sect. 3, Chap. 4, making sure that all turnbuckles are in safety and relocking them where necessary using 22 s.w.g. nickel alloy locking wire (Stores Ref. 30A/3055).

7. Refit the false floors and replace the gaiters around the control column. Refit the pilots' seats in accordance with current authorised procedure, "with eight new split pins, Parts Nos. SP.9/C8, 4 off, and SP.9/G12, 4 off, these split pins are only needed for aircraft without Mod. No. Vampire 3167B embodied."

9. TESTING AFTER EMBODIMENT

When this modification has been embodied and inspected, the following tests are to be carried out:-

Check the ailerons for full and free range of movement, in accordance with current authorised procedure.

10. RECORDING ACTION

Record on Aircraft Forms 700 and 4801.

11. DISPOSAL OF REDUNDANT PARTS

There are no parts rendered redundant by the embodiment of this modification

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of + 0.06 lb., and no change of moment.

Source: A.P. 4099J, Vol. 2, Part 1
Leaflet D 9

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

O.C. M.U.	(1)
Tech. Control M.U.	(1)
A.R.S.	(3)
No. 1 Squadron	(4)
No. 2 "	(4)
O.C. Equip. Depot	(2)
S.E.S.O.	(1)
Tech. Stats.	(2)

Air Headquarters,
Royal Rhodesian Air Force.

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B 29 (Issue 1)

2nd April, 1957.

Vampire FB Mk. 9 and T Mk 11 Aircraft

Engine Installation - To introduce Cut-out in Lower Cowl Rail to Accommodate Oil Feed Pipes

(Mod No. Vampire/3502)
(Class B/2, N.C.P.)

1. INTRODUCTION

This modification introduces a cut-out in the lower cowling support ring to give clearance to the oil supply pipes from the metering pump to the engine rear bearing.

(1) This modification partially supersedes the work called for by S.T.I./Goblin/11A (Vol. 4-2-D3.)

(2) It may be found that certain cowl rails have already been cut away under authority of STI/Goblin/11A - if upon physical examination this/these cut-outs meet requirements of the drawing attached to this modification then it is only necessary to take recording action as "Mod/Vamp/3502" on all relevant documents and to re-number item as per para 8 (2).

(3) This modification is not essentially connected with any other approved modifications.

2. EMBODIMENT

This modification is to be embodied by:-

Squadrons: At the first opportunity and not later than next Primary Star Servicing.

M.U. Before issue of aircraft to Units.

Equip. Depot: Spares holdings to be modified before issue.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 3 man-hours ($\frac{1}{2}$ to strip, 2 to embody $\frac{1}{2}$ to re-assemble).

4. DRAWINGS REQUIRED

The necessary drawing is incorporated in this Order.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials
No parts or materials are required for the embodiment of this modification.

(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 spare is affected by this modification, and no parts are required to modify it:-

..... 2.

Stores Ref.	Part No.	Nomenclature
26FC/10207	L00.1060A/1	Lower cowl ring assembly.

The work involved in modifying this spare is detailed in Para 8, operation (2).

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Stores Reference, Part and assembly Numbers, as follows:

OLD			NEW	
Stores Ref.	Part/ASSy No.	Nomenclature	Part/Assy No.	Stores Ref.
26FC/10207	L00.1060A/1	Lower cowl ring assembly	L00.1060A/2	26FC/11867

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Remove the lower front and lower middle engine cowling panels and locate the lower cowling support ring, Part No. L00.1060A/1. Rele the pipes secured to this ring, retaining the clips and their secur items for subsequent re-assembly. Remove the lower cowling support ring assembly from the aircraft, retaining it for modification; re its attaching items for subsequent re-assembly.

(2) Refer to the drawing. From the centre-line on the inner face of th ring mark off a point 4.40 in. outboard to port and from this point mark out and cut the 0.25 in. deep cut-away, making the correct rad on all the corners, as shown in detail 'A' of the drawing. Re-numb this lower cowl ring assembly "L00.1060A/2."

(3) Refit the lower cowl ring to its correct position on the aircraft, using the retained attaching items. Refit the pipes which were rem from the ring, using the retained clips and attaching items. Refit and secure the lower front and lower middle engine cowlings.

9. TESTING AFTER EMBODIMENT

No special tests are required after the embodiment of this modification.

10. RECORDING ACTION

Record on Aircraft Forms 700 and 4801 as "Mod/Vamp/3502", and suita label any spares holdings so modified.

11. DISPOSAL OF REDUNDANT PARTS

There are no parts rendered redundant by the embodiment of this modification.

12. EFFECT ON WEIGHT AND C. OF G.

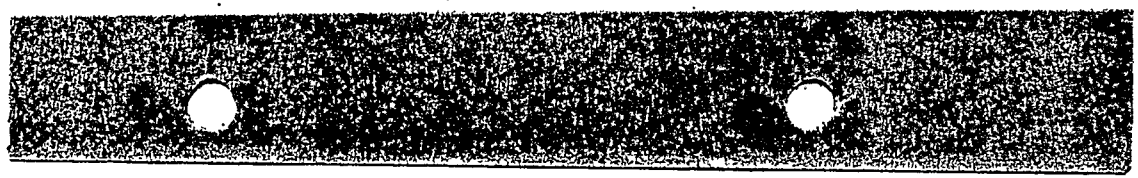
The embodiment of this modification has no effect on weight or C. of G.

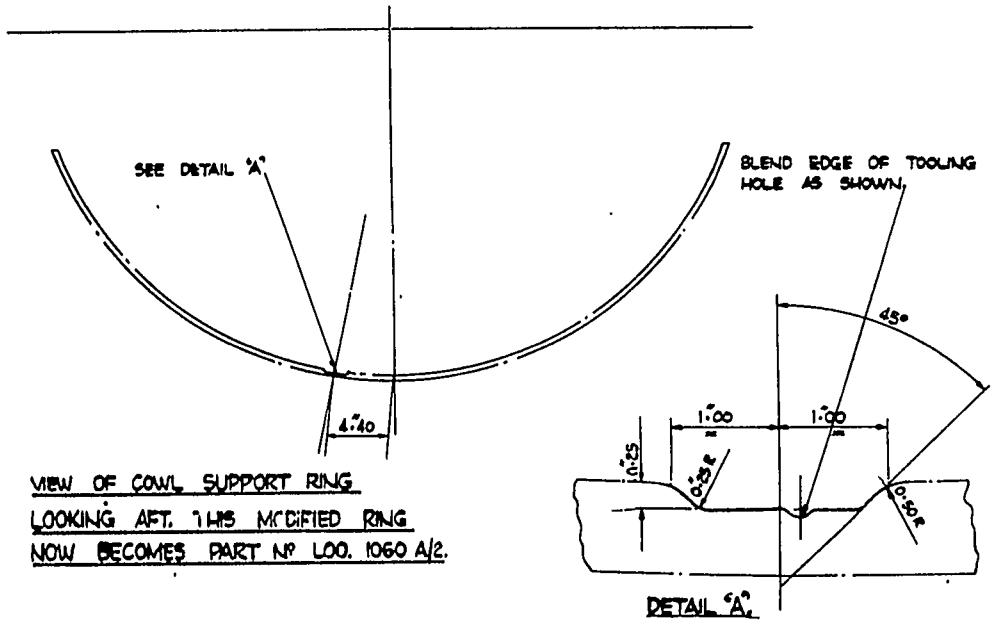
Source: FB 9 - A.P. 4099G, Vol. 2, P.13
T.11 - A.P. 4099J, Vol. 2, p.14

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

O.C. M.U.	(1)
Tech Control M.U.	(1)
A.R.S.	(2)
No. 1 Squadron	(3)
No. 2 "	(3)
O.C. Equipt. Depot	(2)
S.E.S.O.	(1)
Tech. Stats.	(2)





VIEW OF COWL SUPPORT RING
LOOKING AFT. THIS MODIFIED RING
NOW BECOMES PART Nº L00. 1060 A/2.

DETAIL 'A'.

RESTRICTED

Headquarters,
Royal Rhodesian Air Force,
New Sarum.

R.R.A.F. Technical Order.
Vol. 3, Sect. 2, Sub-Sect. B.28 (Issue 1)

1st. February, 1957.

VAMPIRE F.B. MK. 9 AIRCRAFT
SEALING GASKET AT NO. 4 TANK FILLER NECK

INTRODUCTION.

(MOD. NO. VAMPIRE/3247.)
(CLASS C/3)

1. This modification is introduced to prevent fuel leaking into the wings when the tanks are overfilled and fits a sealing ring between the filler cap mounting and the wing.

The work will take approximately 2 man-hours.

2. This modification requires embodiment on R.R.A.F. 100 and 102 and is to be embodied by:-

Squadrons: At first available opportunity and not later than next Minor (or equivalent) Servicing.

M.U. : Before issue of aircraft.

3. The following is the sequence of operations, applicable to both port and starboard mainplanes:-

(1) Unscrew No. 4 tank filler cap and remove the circlip to which the filler cap is held by means of a chain. Unscrew the four bolts, Part No. 1382/3E, securing the filler cap mounting to the inner surface of the wing.

(2) Clean off thoroughly the surfaces to which the sealing ring will adhere.

(3) Apply compound, gasket sealing, to both sides of the sealing ring, Part No. P.00. 3933, and then insert it between the filler cap mounting and inner surface of the wing, taking care to line up the holes in the sealing ring with the existing holes in the filler cap mounting and the wing.

(4) Attach the filler cap mounting to the wing with the original four bolts, if undamaged (any unserviceable bolts are to be replaced); insert the circlip into the groove inside the filler neck and screw down the filler cap.

4. The undermentioned items will be made up into kits by Equipt. Depot. and issued as a Modification Kit (Stores Ref. 26FC/103247). Demands for Modification Kits must quote the Stores reference number.

Stores Ref.	Part No.	Nomenclature.	No. off.	Class of Store
26FC/8205	P00.3933	Ring, sealing	2.	C.

5. The undermentioned item is also required, and is to be provided under Unit arrangements:-

Stores Re.	Nomenclature.	No. off.	Class of Store.
34B/523	Compound, jointing "Holdite"	As reqd.	C.

/2 .....

Source: A.P. 4099C, Vol. 2, H.16

(B.H. GIBBONS)
Wing Commander,
S.T.S.O.
HQ. R.R.A.F.

Distribution:

O.C.M.U.	(1)
Tech. Control M.U.	(1)
A.R.S.	(2)
No. 1 Squadron.	(3)
No. 2 Squadron.	(3)
O.C. Equipt, Depot.	(2)
Components Sect.	(2)
S.E.S.O./A. HQ.	(1)
Tech. Stats.	(2)

Headquarters,
Royal Rhodesian Air Force,
New Sarum.

1st. February, 1957.

R.R.A.F. Technical Order.
Vol. 3, Sect. 2, Sub-Sect. B.27 (Issue 1)

VAMPIRE F.B. MK. 9 AIRCRAFT FIREPROOFED RUBBER ELBOWS IN FUEL VENTING SYSTEM AT ENGINE BAY - INTRODUCTION.

(MOD. NO. VAMPIRE/3275.)
(CLASS B/2)

1. Prior to this modification, fire tests have proved that the existing rubber elbows are inadequate for requirement. This modification provides for the fitting of fireproofed elbows in place of the existing type: it supersedes S.I./Vampire/46.

The work will take approximately 1½ man-hours.

2. This modification requires embodiment on R.R.A.F. 100-101-102-103-105-106-107-108-109-113-114-115 and is to be embodied by:-

Squadrons: At the first opportunity and not later than the next Primary Star Servicing.
M.U. : Before issue of aircraft.

3. The following is the sequence of operations and is applicable to both port and starboard sides of the aircraft:-

(1) Remove the upper front cowling panel and locate the rubber elbow, Part No. P00. 108 (Ref. only), positioned on the fuel tank vent system, just inboard of rib No. 1 and 9 in. approximately aft of the fireproof bulkhead.

(2) Release the two Jubilee clips and remove the rubber elbow having, if necessary, slackened off the connection immediately forward on the vent pipe.

(3) Fit a new fireproof elbow, Part No. P00. 3965, in position with the longer arm forward and the shorter arm outboard and secure by means of the existing clips. Tighten the forward connection.

NOTE: It is essential that a minimum clearance of 0.3 in. is maintained between the elbow and the adjacent aileron control cable.

(4) Replace and secure the upper front cowling panel.

4. The undermentioned items will be made up into Kits by Equipt. Depot. and issued as a Modification Kit (Stores Ref. 26FC/103275)

Stores Ref.	Part No.	Nomenclature.	No. off.	Class of Store.
26FC/10186	P00. 3965	Elbow	2	C

5. The undermentioned parts are rendered redundant by this modification and are to be returned to Equipt. Depot. for disposal as scrap.

Stores Ref.	Part No.	Nomenclature.	No. off.	Class of Store.
26FC/2235	P00.108	Elbow	2	C

/2.....

Source: A.P. 4099G, Vol.2, H.19.

(B.H. GIBBONS)
Wing Commander,
S.T.S.O.
HQ. R.R.A.F.

DISTRIBUTION:

O.C.M.U.	(1)
Tech. Control M.U.	(1)
A.R.S.	(3)
No. 1 Squadron	(4)
No. 2 Squadron	(4)
O.C. Equipt. Depot.	(2)
S.E.S.O./A. HQ.	(1)
Tech. Stats.	(2)

Air Headquarters,
Royal Rhodesian Air Force,
New Sarum.

13th January, 1957.

R.R.A.F. Technical Order.
Vol. 3, Sect. 2, Sub-Sect. B26 (Issue 1)
(Info): Vol. 5, Sect. 3, No. 17(Issue 1)

MOD. NO. VAMPIRE 3370

VAMPIRE F.B. MK5, F.B. MK9, N.F. MK10, MK T11 AIRCRAFT.

HYDRAULICS - PIPE ROUTED BETWEEN CUT OUT VALVE AND THERMAL RELIEF VALVE IN D.T.D. 323 IN LIEU OF D.T.D. 310 - INTRODUCTION.

1. Introduction.

Cases have occured (in the R.A.F. and the R.R.A.F.) of the failure of the pipe between the hydraulic automatic cut out valve and the thermal relief valve, due to stresses in the metal caused by its complicated shape and difficulty of manufacture. This modification introduces a new pipe, which is made of a more suitable and stronger material, to give a greater reserve factor.

2. To be embodied as soon as possible and not later than next Intermediate Servicing.
N.B. R.R.A.F. 125 to 131 inclusive already have Mod. embodied.
The work will take approximately 5 man hours.

3. The following is the sequence of operations:-

1) Remove the gun bay doors and the outer port cannon as detailed in the A.P. 4099E, G, H, J, Vol. 1, Section 7.

2) Release the hydraulic pressure from the accumulator, and locate the existing 3/16" O.D. Pipe, part No.Q00223A/ND (Ref only) routed between the cut out valves and the thermal relief valve. Remove & dispose of this pipe replacing it with the new one, Part No. Q003759A/ND. Lock the new pipe connections with 22 S.W.G. nickel alloy locking wire (D.T.D. 189)(Stores Ref. 30A/3055.)

3) Replenish the hydraulic reservoir as necessary. Then operate the engine pumps, and check for leaks at the new pipe connections. Replace the cannon and gun bay doors as detailed in the A.P. 4099E, G, H, J, Vol. 1, Section 7.

4. The undermentioned part no. alterations become necessary on embodiment of this modification.

Stores Ref:	Old Part No.	Nomenclature.	New Part No.
		VAMPIRE F.B. MKS. 5 & 9 AIRCRAFT ONLY.	
26FC/4645	Q00222A	Valve, hydraulic cut out, under Cannon floor.	Q00222A/1
		VAMPIRE N.F. MK. 10 AND T. 11 AIRCRAFT ONLY.	
13-S-159A		Valve, hydraulic cut out, under canon floor.	13-S 159A/1

5. The undermentioned items comprise the modification set:-

Stores Ref:	Part No.	Nomenclature.	No. off.
(a)	Contractors supply items.		
	Q003759A/ND	Pipe assembly.	1.
(b)	Embodiment loan items.		
	NIL.		

/2.....

(c) Items to be found on site:

30A/3055	Wire locking, nickel alloy 24 S.W.G. (D.T.D. 189)	As required.
343/159	Hydraulic fluid, OM-15	As required.

6. The undermentioned item is rendered redundant and is to be returned to O.C. Equipment Depot. for disposal.

Stores Ref:	Part No.	Nomenclature.	No. off.
	Q00223A/ND	Pipe	1.

7. As the co-operation of Airframe and Armament Tradesmen is required, this order is issued into both relevant Tech. Order Volumes.

Source: Miniature Type, Vampire Draft Leaflet.

(B.H. GIBBONS)
Squadron Leader,
S.T.S.O.

DISTRIBUTION:

O.C.M.U.	(2)	O.C. Equipment Depot.	(3)
Tech. Control M.U.	(2)	S.E.S.O./A. HQ:	(2)
A.R.S.	(4)	S.A.O./A. HQ.	(2)
Armoury.	(3)	Tech. Stats.	(2)
No. 1 Squadron	(5)		
No. 2 Squadron	(5)		

R.R.A.F. Technical Order.
Vol. 3 Sect. 2 Sub Sect. B 25 (Issue 1) ✓
Vol. 7 Sect. 2 Sub Sect. B. 10(Issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
NEW SARUM.
12th November, 1956.

VAMPIRE F.B. Mk 9 AIRCRAFT - UNDERCARRIAGE POSITION INDICATOR, TYPE D (STORES REF 5CX/4204) IN PLACE OF INDICATOR (STORES REF. 5C/1009) - INTRODUCTION.

(Mod. No Vampire/962.)

(Class D/4)

1. This modification has been necessitated by the need for a smaller standard undercarriage position indicator unit than the current type C. (Stores Ref. 5C/1009), and makes provision for the introduction of the miniature undercarriage position indicator unit, type D (Stores Ref. 5CX/4204). The work will take approximately 2 man-hours per aircraft.

This modification is to be embodied on RRAF 112 as soon as possible - all other F.B. 9 aircraft have this Mod. already embodied."

The following is the sequence of operations:-

(Refer to Drg. No A.P. 4099G/K.3/52.) attached.

(1) Fit nine new lamps, filament (Stores Ref. 5L/X951273) into new miniature undercarriage position indicator, type D (Stores Ref. 5CX/4204) The method of fitting is as follows: Slacken off small knurled screw in centre of dial and withdraw the whole dial and lamp holder assembly from the case. Press new lamps bulb first into pockets in lamp holder assembly. The lamps may be 'pipped' with solder on the side of the lamp cap. Ensure that lamps do not jam during assembly. The 'pip' should be reduced, in extreme cases of jamming, with a fine file to permit easy assembly. Replace lamp holder assembly in the case and secure with the knurled screw.

(2) Locate undercarriage position indicator unit, type C (Stores Ref. 5C/1009) on L.H. instrument panel and unscrew the two attachment bolts. Gently slide indicator forward of instrument panel.

(3) Remove terminal cover of existing indicator and disconnect electrical wires from their respective terminals. Replace cover and remove instrument from the aircraft.

(4) Refer to the drawing, and remove terminal cover from new miniature undercarriage position indicator. Pass original wires through the weatherproof cable entry grommet, locate them in their correct positions, and replace terminal cover.

(5) Picking up existing holes and using two new countersunk bolts, Part No. AS.1242/2C, and two new stopnuts, Part No. A.G.S.2001/C1, fit new adapter plate (Stores Ref. 5CX/4205/ to instrument panel.

(6) Fit new indicator to adapter plate, and locate the instrument in its correct position with four new countersunk screws, Part No. A.G.S. 249/23. Paint screw heads and adapter plate matt black.

(7) Check new indicator for correct functioning.

4. The undermentioned part number alteration becomes necessary upon the embodiment of this modification:-

Stores Ref.	Old Part No.	Nomenclature	Stores Ref.	New Part No.
26FC/-	B.003185ND	Panel, Instrument, L.H.	26FC/-	B.003427.

..... 2.

5. The following parts are required and are to be demanded from Equipment Depot.

Stores Ref.	Part No.	Nomenclature	No. off	Class of Store
5CX/4204	-	Indicator, miniature, undercarriage position type D.	1	A
5CX/4205	-	Adapter plate, under-carriage position indicator unit, type D	1	C
5L/X951273	-	Lamp, filament, 24V 2.8W. MES	9	A
28S/2821	A.G.S.249/23	Screw, csk.(4 BA x 5/16")	4	C
28M/10288	A.G.S.2001/C1	Stopnut	2	C
28D/8307	A S. 1242/C3	Bolt, csk.	2	C
33B/443) or	-	Finish, synthetic, night	As. Reqd.	C
33B/692)	-	Finish, flat, black 'C'	" "	C (RRAF Alterna

6. The undermentioned parts are to be returned to O.C. Equipment Depot.

Stores Ref.	Nomenclature	No. off	Class of Store
5L/1928	Lamp, filament, type A	9	A
5C/1009	Indicator, undercarriage position, type C	1	A

7. Record on Forms 700 and 4801 as "MOD/VAMP/962" and file one copy of this order in each relevant Technial Volume.

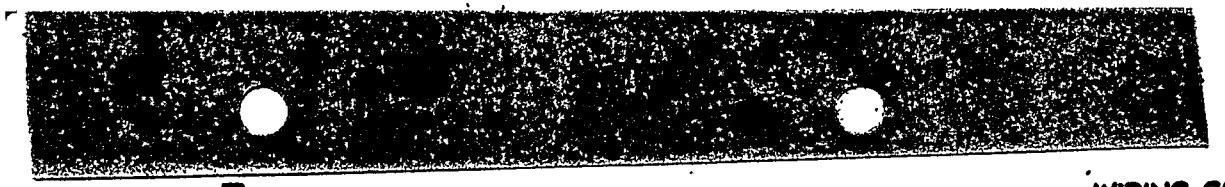
(B.H. GIBBONS)
Squadron Leader
S.T.S.O.

Source: A.M. Leaflet K.3

Distribution:-

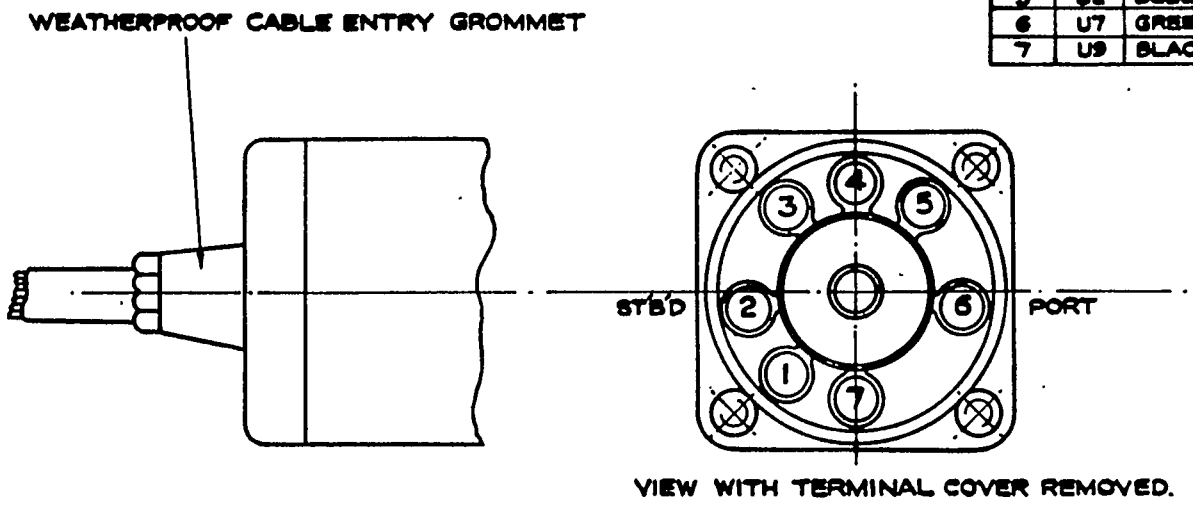
O.C. M.U.	(2)
Tech. Control M.U.	(2)
Specialist Officer M.U.	(2)
Electrical Section	(4)
L.R.S.	(3)
No. 1 Squadron	(3)
No. 2 "	(4)
Tech. Stats.	(2)
File	(2)
S.E.S.O.	(2)
O.C. Equip. Depot	(3)

RESTRICTED



WIRING CODE

1	E	EARTH
2	U3	WHITE
3	U4	YELLOW
4	U8	SLATE
5	U2	BLUE
6	U7	GREEN
7	U9	BLACK



VIEW WITH TERMINAL COVER REMOVED.

WIRING DIAGRAM FOR U/C POSITION INDICATOR.

DRG. Nº A.P.4099G/K.3/52

R.R.A.F. Technical Order.

Vol. 3 Sect. 2 Sub Sect. B 24 (Issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
NEW SARUM.

26th October, 1956.

VAMPIRE T. Mk 11 AIRCRAFT - FLYING CONTROLS - TO MODIFY RUDDER PEDAL STOPS AND INTRODUCE CLASS 1 LOCKING AT REAR PRIMARY STOPS

INTRODUCTION

MOD. NO. VAMPIRE/3354 CLASS B/3.

1. INTRODUCTION.

This modification introduces modified rudder secondary stops on the port pilot's left and right 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. It supersedes the work called for by S.T.I. No Vampire/122 and is applicable only if Mod No. Vampire/3215 (Dorsal Extension of Fin - Introduction) is already embodied.

EMBODIMENT.

This modification is to be embodied on RRAF 116 - 117 and 118, before or at the next minor or intermediate servicing.

APPROXIMATE TIME REQUIRED FOR EMBODIMENT.

The work will take approximately 4 man-hours.

DRAWINGS REQUIRED.

Drawing No A.P.4099J/D.6./55, is incorporated in this leaflet.

PARTS AND SPECIAL TOOLS REQUIRED.

(i) Parts and Materials

(a) The undermentioned items will be demanded from O.C. equip depot as a set under Stores Ref 26FC/103354. No additional items will be required.

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
26FC/-	15.CF.453	Stop bolt	2	-
26FC/-	15.CF.441	Stop block, for port outboard pedal	1	-
26FC/-	15.CF.443	Stop block, for port inboard pedal	1	-
26FC/-	A.16Y/GT/DHS.514/D	Locknut, 5/16" B.S.F. drilled for locking	10	-
28M/5316	A.16Y/CP	Nut plain, 2 B.A.	4	C
28D/12532	A.25/4C	Bolt, 2 B.A. high tensile	4	C
28L/11072	A.G.S.2035/G	Shakeproof washer 5/16" B.S. F.	2	C
28W/12252	SP.13/C	Washer, plain, thin, 2 B.A.	4	C

(b) The following materials are also required, and are to be provided under Unit arrangements:

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store
30A/3055	-	Nickel alloy locking wire (D.T.D.189), 22 S.W.G.	As. Reqd.	C
33C/1264	-	Compound, pigmented varnish jointing	As. Reqd.	C

(ii) 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:-

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
26FC/6006	15.CF.169A/ND	Tube and Pedal, assembly forward.		
Parts required:-				
28D/12532	15.CF.443	Stop block	1.	-
		Attaching parts for Part No 15.CF.443		
28D/12532	A.25/4C	Bolt 2 B.A.	2	C
28M/5316	A.16Y/CP	Nut, plain 2 B.A.	2	C
28W/12252	SP.13/C	Washer, plain, thin	2	C
26FC/6005	15.CF.171A/ND	Tube and Pedal, assembly aft		
Parts required:-				
26FC/-	15.CF.441	Stop block	1	-
		Attaching parts for Part No. 15.CF.441		
28D/12532	A.25/4C	Bolt, 2 B.A.	2	C
28M/5316	A.16Y/CP	Nut, plain, 2 B.A.	2	C
28W/12252	SP.13/C	Washer, plain, thin	2	C
26FC/-	15.FS.193	Stop, bracket		
Parts required:-				
26FC/-	15.CF.453	Stop, bolt	2	-
26FC/-	A.16Y/GT/DHS.514/D	Locknut, 5/16" B.S.F.	2	-
28L/11072	A.G.S.2035/G	Shakeproof washer, 5/16" B.S.F.	2	C
26FC/10384	15.T.5A/3	Fin Tail Boom, assy. complete for spares, starboard		
Parts required:-				
26FC/-	A.16Y/GT/DHS.514/D	Locknut, drilled for locking	4	-
26FC/10385	15.T.6A/3	Fin Tail Boom, assy. complete for spares, port		
Parts required:-				
26FC/-	A.16Y/GT/DHS.514/D	Locknut, drilled for locking	4	-

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS.

The embodiment of this modification changes Stores Ref., Part and assembly numbers as follows:-

	OLD.		NEW.	
Stores Ref.	Pt/Assy. No	Nomenclature	Pt/Assy. No.	Stores Ref
26FC/-	15.CF.397A/1	Assembly of rudder and elevator levers.	15.CF.397A/2	26FC/-
26FC/-	15.FS.193A	Stop bracket rudder pedals	15.FS.3473A	26FC/10407
26FC/10384	15.T.5A/3	Fin tail boom assy. complete for spares port.	15.T.5A/4	26FC/10407
26FC/10385	15.T.6A/3	Fin tail boom assy. complete for spares starboard.	15.T.6A/4	26FC/10408

8. SEQUENCE OF OPERATIONS.

The following is the sequence of operations:-
(Refer to the Drawing.)

(i) Refer to the drawing and locate in the cockpit the existing front rudder stops, the two stop blocks being on the inboard sides of the port pilot's left and right rudder pedals. The stop bolts are situated on the bracket, Part No. 15.FS.193A (ref.only) which runs diagonally across the rear port face of bulkhead No. 1. Remove

and dispose of the blocks, and replace with the new blocks, Part No 15.CF.441, for the outboard pedal and, Part No. 15.CF.443, for the inboard one, using pigmented varnish jointing compound (Stores Ref. 33C/1264) on faying surfaces. The stop blocks are fitted in the same position as were the redundant ones, picking up the existing holes in the rudder pedals, using new attachment bolts, nuts and washers, Part Nos. A.25/4C, A.16Y/CP and SP.13/C, respectively. Lock by peening the bolts over the nuts. Remove the old stop bolts and fit the new bolts, Part No. 15.CF.453, to the bulkhead bracket, adding to each one a new locknut and washer, Part Nos. A.16Y/GT/DHS.514/D and A.G.S.2035/G respectively. Temporarily screw the bolts well into the bracket so that they will not interfere with the full movement of the rudder.

(ii) NOTE: The Following Operation applies to both Port and Starboard Tail Booms.

Remove the rear fairing and retain together with attaching bolts. Locate the existing four locknuts on the rudder and elevator control stops, which are situated on the stern frame of the boom. Remove and dispose of the locknuts, replacing them with the ones, Part No. A.16Y/GT/DHS.514/D. Check the rudders and elevator for range of movement as detailed in the A.P.4099J, Vol. 1, Section 3, Chapter 4. and make any necessary adjustments to the stops. Tighten down the newly fitted locknuts, and using 22 s.w.g. nickel alloy locking wire (D.T.D.189) (Stores Ref. 30A/3055), lock the nuts as shown on the drawing.

(iii) With the rudders hard over, first to port and then to starboard, set the newly fitted secondary stops in the cockpit, so that there is a clearance of 0.200 in. between them and the stop blocks on the rudder pedals. Check the threads of the stop bolts for safety through the inspection holes in the bracket, and tighten down the locknuts. Using 22 s.w.g. nickel alloy locking wire, lock the bolts and the nuts to the bracket in the approved manner. The bracket, Part No. 15.FS.193A (Ref. only) now becomes, Part No. 15.FS.347B (Ref. only) and is to be re-numbered as such.

(iv) Carry out the current requirements for independent checks on the rudder and elevator controls, then refit the rear fairings using the retained attachment bolts.

9. TESTING AFTER EMBODIMENT.

There are no special tests required after the embodiment of this modification.

10. RECORDING ACTION.

Record on Aircraft Form 700 and 4801.

11. DISPOSAL OF REDUNDANT PARTS.

The undermentioned parts rendered redundant by the embodiment of the modification are to be returned to O.C. Equipment Depot for disposal as Salvage.

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
26FC/-	13.CF.297ND	Stop bolts.	2	-
26FC/5072	13.CF.303	Stop block	1	C
26FC/5073	13.CF.305	Stop block	1	C

12. EFFECT ON WEIGHT AND C. OF G. Nil.

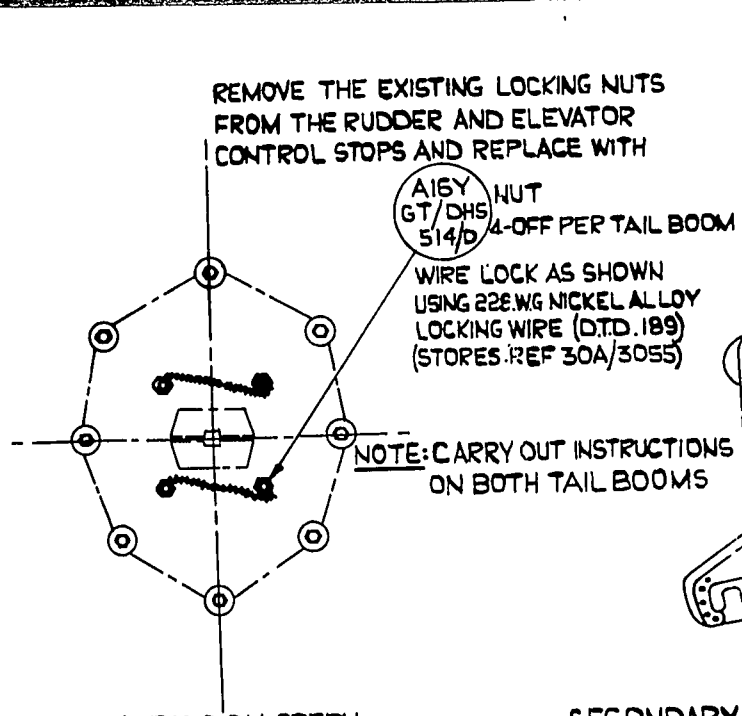
Scource:- AP 4099J. Vol.2 D6.

(B.H. GIBBONS)
Squadron Leader
S.T.S.O.

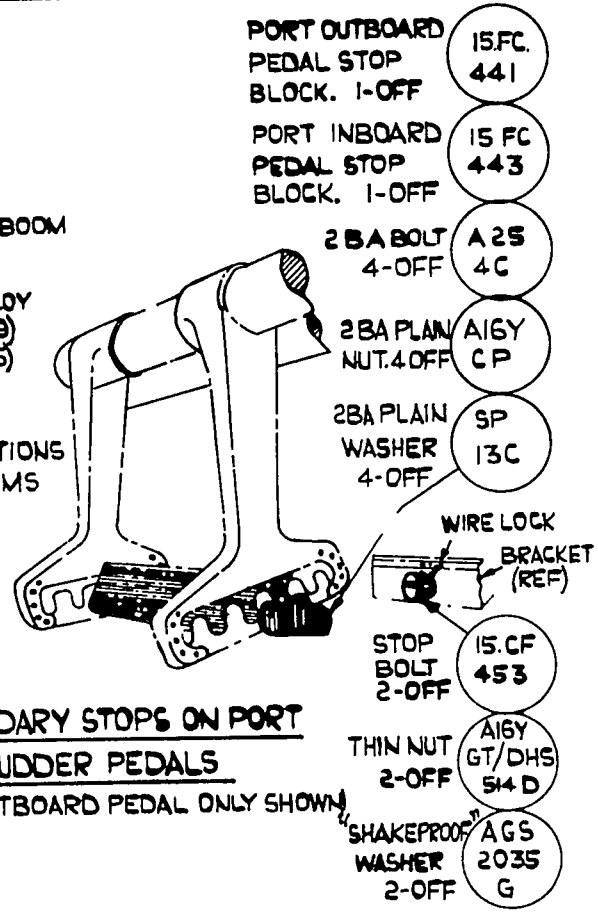
Distribution:-

O.C. M.U.	(1)	No. 2 Squadron	(3)		
M.U. Tech. Control	(1)	O.C. Equip. Depot	(1)	File	(1).
A.R.S.	(2)	S.E.S.O.	(1)		
No. 1 Squadron	(3)	Tech. Stats.	(1)		

RESTRICTED



PRIMARY STOPS ON STERN FRAME OF TAIL BOOMS



SECONDARY STOPS ON PORT RUDDER PEDALS
(OUTBOARD PEDAL ONLY SHOWN)

DRG. NO A.P. 4099 J/D.6/55

LP29628 2/55 875 C&P Gp.959(4)

R.R.A.F. Technical Order
Vol 3, Sect 2, Sub-sect B 23 (Issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
P.O. Box 8131, Causeway,
SOUTHERN RHODESIA.

26th, September 1956.

AND FB9 AL.653.

VAMPIRE T. MK. II AIRCRAFT - ELEVATOR - TO INTRODUCE SPECIAL HEADED BOLTS FOR MASS BALANCE WEIGHT ATTACHMENT.

MOD. NO. VAMPIRE 3472

CLASS B/2

1. INTRODUCTION

Difficulty has been experienced in the past in tightening the elevator Mass Balance Attachment bolts correctly. This Modification introduces new attachment bolts with an Allen Type Head and wirelocked together.

NOTE. It is to be noted that this modification may have been embodied on Vampire FB9 Aircraft under the authority of STI/Vampire/141, TSI Volume 3, Section 2, Sub-Section D35(Issue 2). In this case only retrospective recording action is required. AL 653 /141.

This

2. The

3. The

1) Unscrew the elevator mass balance attachment bolts, Part No. J00.180IND (Ref Only) and remove and retain the two Mass Balance Assemblies, Part No. 13-TE 25 (Ref Only). Dispose of all bolts, other than those bearing Pt. No. J00.180IND. AL.653. 26DV/6614

2) Clean the mating surfaces of the elevator and the mass balance assemblies, then apply a liberal coat of pigmented varnish jointing compound (Stores Ref. 330/1264).

3) Offer up the mass balance assemblies to the elevator and secure them with the new special bolts, Part No. 12-TE 785, locking them in pairs, using nickel alloy wire 22 S.W.G. (Stores Ref 30A/3055). Wipe away any surplus jointing.

4) Renew the finish locally, as necessary, with primer universal light grey (Stores Ref 33B/261) and finish aluminium (Silver) (Stores Ref 33B/865) (T. Mk. II Aircraft).

4. The undermentioned items comprise the modification set:-

Stores Ref.	Part No.	Nomenclature.	No. Off.
(a) Contractors Supply Items.			
26DV/6614	12-TE 785	Special Bolt	8
(b) Embodiment Loan Items.			
		NIL.	
(c) Items to be found on site.			
30A/3055		Wire Locking Nickel Alloy 22 S.W.G.	As Reqd.
33B/261		Primer Universal Grey	As Reqd.
33B/865		Finish Aluminium	As Reqd.
330/1264		Compound Pigmented Varnish Jointing	As Reqd.

2/.....

5. The under mentioned items are rendered redundant.

Stores Ref.	Part No.	Nomenclature.	No. Off.
(a) Returnable Stores.			
		NIL.	
(b) Non-Returnable Stores.			
26FC/6 20	J00.160LND	Special Bolt.	8

(B.H. GIBBONS) S/LDR.
S.T.S.O.

Source: A.F.4099 H Vol., 2.

Distribution:

OC/MU	(1)	OC, Equip. Depot	(1)
ARS	(2)	S.E.S.O.	(1)
MU Tech. Control	(1)	Tech Stats	(1)
No. 1 Sqdn.	(3)	File	(1)
No. 2 Sqdn.	(3)		

R.R.A.F. Technical Order
Vol 3, Sect 2, Sub-Sect B22 (Issue 1) ✓
Vol 6 " 5 " " B2 (Issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
P.O. Box 8131, Causeway,
SOUTHERN RHODESIA.

25th, September 1956.

Vampire FB. Mk 9 Aircraft - Introduction of Coarse Mesh Intake Guard on Introduction of Cabin Pressure Control Valve Mk.II (Ref 27KD/19 embodying Normalair Mods. 41 and 42.

(Mod. No. Vampire/3212).

(Class B/2)

1. Introduction.

Cabin over pressurization may result, should the pressure control valve be prevented from functioning correctly by small particles of foreign matter choking the close gauze mesh of the intake guard. This modification introduces a new intake guard of ¼ inch perforated grid plate which permits small particles to be discharged through the valve.

This Modification is essentially connected with Mod. No. Normalair/41 ("To introduce (a) Additional guard to orifice body (b) Filter and guard over shraedor outlet and differential pack vent") and Mod. No. Normalair/42 ("To reduce risk of over-pressurization") if that work is not already embodied it must be effected concurrently.

2. Embodiment.

This Modification is to be embodied on fitment of cabin pressure control valve embodying Mod. No. Normalair/41 and 42. & SI/VAMP 52 A.L. 183.

3. Approximate Time Required for Embodiment.

The work will take approximately 5 man hours (excluding drying time for the cabin sealant and time taken for pressure tests).

4. Drawings Required.

There are no drawings required for the embodiment of this modification.

5. Parts and Special Tools Required.

The under mentioned items are required to embody this modification and are to be supplied under Unit arrangements:-

Stores Ref.	Part No.	Nomenclature.	Qty	Class of Store.
26FC/4954	R002445	Ring Distance	1	C
26FC/10319	R002709A	Plate Assy grid intake guard.	1	C
28D/12538	A25/15C	Bott 2BA	5	C
30A/3055	-	Wire Nickel Alloy 225WG	As Reqd.	C
33C/1138	-	Compound Press Cabin Sealing Bostick 1790.	As Reqd.	C
33C/1139	-	Compound Press Cabin Sealing Bostick primer 1757	As Reqd.	C

* Note:- This part will only be required for aircraft without Mod. No. Vampire/671 already embodied.

2) Special Tools and Test Equipment.

There are no special tools and test equipment required for the embodiment of this modification.

2/.....

6. Spares Affected.
There are no spares affected by this modification.

7. Change of Stores Reference, Part and Assembly Numbers.
There are changes of Stores Ref., Part or Assembly Nos., as a result of this modification.

8. Sequence of Operations.
The following is the sequence of operations:-

1) Disconnect the aircraft batteries. Remove the detachable nose panel, remove the A.R.I.5131 (I.F.F.) receiver and open the instrument panel access door in the armour bulkhead No.1. Remove the cabin pressure control valve access panel and the eight 4 B.A. countersunk screws securing it to the starboard side of the nose. Retain all items for re-assembly.

2) Disconnect the electric cable assembly from the terminal block on the cabin pressure control valve. Remove the control valve and retain the gasket and the six 2 B.A. thin stiffnuts that secure the to the starboard front face of bulkhead No.1. Working through the instrument panel access door, remove the redundant intake guard filt plate assembly, Part No. R00. 24374 (ref only) and its five attachme bolts. Remove and retain the distance ring if fitted, and the rema valve attachment bolt.

3) Thoroughly clean off the old sealing compound from the bulkhead Brush a coat of Bostick primer 1751 pressure cabin sealing compound (Stores Ref. 330/1139) over the mating surface of the rear face of t bulkhead and the distance ring, ensuring that the bolt holes are completely covered with sealant. Secure the orignal distance ring and the intake guard grid plate assembly, Part No. R00. 2709A, to th bulkhead with five new 2 B.A. bolts, Part No. A25/150 and replace th valve attachment bolt retained in operation (2) in its original posi Coat all bolts with the Bostick primer 1751.

Note: On aircraft without Mod. No. Vampire/871 embodied, there will be no existing distance ring, and a new ring, Part No. R00.24 will be required. This ring fits between the bulkhead and t guard grid plate assembly.

4) Install the gasket and the new or modified cabin pressure contr valve embodying Mod. Nos. Normalair/41 and 42, and secure to the bol protruding through the bulkhead with six 2 B.A. thin stiffnuts retai in operation (2).

5) Apply a coat of Bostick primer 1751 around, and not less than 1 beyond the distance ring on the rear face of the bulkhead and allow minimum of one hour to dry. Fill the joint between the distance ri and the bulkhead with a fillet of Bostick fillet material 1790 (Stor Ref. 330/1138) applied by a pressure gun or an extrusion nozzle, and allow a minimum of twenty-four hours to dry. Finish with a further coat of Bostick 1751 all over the joint.

6) Close the instrument panel access door and wire lock wing nuts with 22 S.W.G. nickel alloy wire (Stores Ref. 30A/3055). Install the A.R.I. 5131 (I.F.F.) receiver and replace the detachable nose panel Secure the cabin pressure control valve access panel to the starboard side of the nose with the screws retained in operation (1).

9. Testing after Embodiment.
When this modification has been embodied the following tests are to be carried out:-

1) Test the cabin pressure system as for repaired aircraft, in accordance with the procedure detailed in A.P. 4099G, Vol 1, Section 4, Chapter 3.

2) Test the A.R.I. 5131 (I.F.F.) receiver for correct functioning.

3/.....

R.R.A.F. Technical Order
Vol 3, Sect 2, Sub-Sect B22 (Issue 1) ✓
Vol 6 " 5 " " B2 (Issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
P.O. Box 8131, Causeway,
SOUTHERN RHODESIA.

25th, September 1956.

Vampire FB. Mk 9 Aircraft - Introduction of Coarse Mesh Intake Guard on Introduction of Cabin Pressure Control Valve Mk.II (Ref 27ED/19 embodying Normalair Mods. 41 and 42.

(Mod. No. Vampire/3212).

(Class B/2)

1. Introduction.

Cabin over pressurization may result, should the pressure control valve be prevented from functioning correctly by small particles of foreign matter choking the close gauze mesh of the intake guard. This modification introduces a new intake guard of ¼ inch perforated grid plate which permits small particles to be discharged through the valve.

This Modification is essentially connected with Mod. No. Normalair/41 ("To introduce (a) Additional guard to orifice body (b) Filter and guard over shraedor outlet and differential pack vent") and Mod. No. Normalair/42 ("To reduce risk of over-pressurization") if that work is not already embodied it must be effected concurrently.

2. Embodiment.

This Modification is to be embodied on fitment of cabin pressure control valve embodying Mod. No. Normalair/41 and 42. ✓ SI/VAMP/52 A.L. 183.

3. Approximate Time Required for Embodiment.

The work will take approximately 5 man hours (excluding drying time for the cabin sealant and time taken for pressure tests).

4. Drawings Required.

There are no drawings required for the embodiment of this modification.

5. Parts and Special Tools Required.

The under mentioned items are required to embody this modification and are to be supplied under Unit arrangements:-

Stores Ref.	Part No.	Nomenclature.	Qty	Class of Store.
26FC/4954	R002445	Ring Distance	1	C
26FC/10319	R002709A	Plate Assy grid intake guard.	1	C
28D/12538	A25/150	Bott 2BA	5	C
30A/3055	-	Wire Nickel Alloy 225WG	As Reqd.	C
33C/1138	-	Compound Press Cabin Sealing Bostick 1790	As Reqd.	C
33C/1139	-	Compound Press Cabin Sealing Bostick primer 1757	As Reqd.	C

* Note:- This part will only be required for aircraft without Mod. No. Vampire/871 already embodied.

2) Special Tools and Test Equipment.

There are no special tools and test equipment required for the embodiment of this modification.

2/.....

6. Spares Affected.
There are no spares affected by this modification.

7. Change of Stores Reference, Part and Assembly Numbers.
There are changes of Stores Ref., Part or Assembly Nos., as a result of this modification.

8. Sequence of Operations.
The following is the sequence of operations:-

1) Disconnect the aircraft batteries. Remove the detachable nose panel, remove the A.R.I. 5131 (I.F.F.) receiver and open the instrument panel access door in the armour bulkhead No.1. Remove the cabin pressure control valve access panel and the eight 4 B.A. countersunk screws securing it to the starboard side of the nose. Retain all items for re-assembly.

2) Disconnect the electric cable assembly from the terminal block on the cabin pressure control valve. Remove the control valve and retain the gasket and the six 2 B.A. thin stiffnuts that secure the to the starboard front face of bulkhead No.1. Working through the instrument panel access door, remove the redundant intake guard filt plate assembly, Part No. R00. 2437A (ref only) and its five attachme bolts. Remove and retain the distance ring if fitted, and the rema valve attachment bolt.

3) Thoroughly clean off the old sealing compound from the bulkhead Brush a coat of Bostick primer 1751 pressure cabin sealing compound (Stores Ref. 330/1139) over the mating surface of the rear face of t bulkhead and the distance ring, ensuring that the bolt holes are completely covered with sealant. Secure the orignal distance ring and the intake guard grid plate assembly, Part No. R00. 2709A, to th bulkhead with five new 2 B.A. bolts, Part No. A25/15C and replace th valve attachment bolt retained in operation (2) in its original posi Coat all bolts with the Bostick primer 1751.

Note: On aircraft without Mod. No. Vampire/871 embodied, there will be no existing distance ring, and a new ring, Part No. R00.24 will be required. This ring fits between the bulkhead and t guard grid plate assembly.

4) Install the gasket and the new or modified cabin pressure contr valve embodying Mod. Nos. Normalair/41 and 42, and secure to the bol protruding through the bulkhead with six 2 B.A. thin stiffnuts retai in operation (2).

5) Apply a coat of Bostick primer 1751 around, and not less than 1 beyond the distance ring on the rear face of the bulkhead and allow minimum of one hour to dry. Fill the joint between the distance ri and the bulkhead with a fillet of Bostick fillet material 1790 (Stor Ref. 330/1138) applied by a pressure gun or an extrusion nozzle, and allow a minimum of twenty-four hours to dry. Finish with a further coat of Bostick 1751 all over the joint.

6) Close the instrument panel access door and wire lock wing nuts with 22 S.W.G. nickel alloy wire (Stores Ref. 30A/3055). Install the A.R.I. 5131 (I.F.F.) receiver and replace the detachable nose panel Secure the cabin pressure control valve access panel to the starboard side of the nose with the screws retained in operation (1).

9. Testing after Embodiment.
When this modification has been embodied the following tests are to be carried out:-

1) Test the cabin pressure system as for repaired aircraft, in accordance with the procedure detailed in A.P. 4099G, Vol 1, Section 4, Chapter 3.

2) Test the A.R.I. 5131 (I.F.F.) receiver for correct functioning.

3/.....

10. Recording Action.
Record on Form 700 and 4802 as Vamp/Mod/3212 satisfied.

11. Disposal of Redundant Parts.
1) The under mentioned part rendered redundant by the embodiment of this modification is to be returned to OC, Equipment Depot.

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store
26FC/4902	R00.2437A	Plate Assembly filter	1	C

12. Effect on Weight and C of G.
This modification causes no change in weight or moment.

(B.H. GIBBONS) SQDN. LDR.
S.T.S.O.

Distribution:

OC/MU	(1)	General Eng. Section	(2)
Tech. Office/MU	(1)	Components Section	(2)
Specialist Officer/MU	(1)	Safety Equip. Section	(2)
Officer i/c G.E.S./MU	(1)	OC, Equip. Depot	(1)
W.O. i/c E.R.S.	(2)	No. 1 Sqdn.	(3)
W.O. i/c A.R.S.	(2)	No. 2 Sqdn.	(3)
Electrical Section	(2)	No. 3 Sqdn.	(3)
Instrument Section	(2)	No. 4 Sqdn.	(3)
Radio Section	(2)	Armament Officer/A.E.O.	(1)
Armoury Section	(2)	Signals Officer/A.E.O.	(1)
Photographic Section.	(2)		

Air Headquarters,
Royal Rhodesian Air Force.

3rd June, 1957.

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub Sect. B 21 (Issue 2)
Vol. 6, Sect. 5, Sub Sect. B 1 (Issue 2)
Superseding and cancelling Issue 1, dated
24th September, 1956.

Vampire F.B. Mk. 9 and T Mk. 11 Aircraft - Instruments - To Introduce Fuel Gauge, Part No. GP.250/016 in place of Part No. GP.251/001 to Record the Fuel Contents in Terms of Mass Units and to Introduce Rectifier Type GP.644/032/2 in place of GP.642/001 or GP.642/003.

(Mod. No. Vampire/3314)
(Class C/3 (N.C.P.) on replacement)

INTRODUCTION

It has been found necessary, as an operational requirement, that fuel contents gauges shall be in terms of mass units instead of volumetric units. This modification introduces a new gauge and a new rectifier to meet this requirement. The rectifier is introduced to save man-hours on calibration, obviate scaling of an additional simulator unit and to comply with the interests of standardisation.

(1) This modification does not cancel, supersede or render unnecessary, any work called for by approved modifications, Command modifications, S.T.I.s, S.I.s, or S.R.I.M.s.

(2) This modification is not essentially connected with any other approved modification.

EMBODIMENT

SQUADRONS: NOT LATER THAN NEXT PRIMARY STAR SERVICING. AL 68/1
C.R.S.E: BEFORE ISSUE OF AIRCRAFT.

~~This modification is to be embodied on replacement of existing fuel gauges (GP./251/001) only, and not at any specified period.~~

APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 4 man-hours.

DRAWINGS REQUIRED

There are no drawings required for the embodiment of this modification.

PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials
The following parts are required, and are to be provided under Unit arrangements:

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
6A/4333	GP.250/016	Pacitor fuel contents gauge	1	A
6A/4991	GP.644/032/2	Pacitor rectifier unit	1	A

NOTE: Rectifier Unit Stores Ref. 6A/4332, Part No. GP.644/032, as originally supplied for this modification had an inherent design fault, resulting in inability to set zero through insufficient trimmer adjustment. Stocks of Rectifier 6A/4991 are due in within the next two months.

(2) Special Tools and Test Equipment
The following test equipment or suitable substitute, is required.

Stores Ref.	Nomenclature	Qty	Class of Store
6C/1240	Hydrometer Aviation Fuel Testing (0.675 to 0.850 Range)	1	B

..... 2.

6. SPARES AFFECTED

There are no spares affected by this modification.

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Stores Ref., Part and Assembly Nos., as follows:-

FB 9 AIRCRAFT

Old Stores Ref.	Old Pt/Assy. No.	Nomenclature	New Pt/Assy No.	New Stores Ref.
26FC/-	B00.2535A	Bottom instrument panel	B00.3711A	26FC/-

T 11 AIRCRAFT

+26FC/-	15-F 1011A/6	Main instrument panel assembly	15-F 1011A/7	26FC/-
+26FC/-	15-F 1015A/7	Assy. main instrument panel components	15-F 1015A/8	26FC/-
26FC/-	15-F 1273A/6	Main instrument panel assembly	15-F 1273A/7	26FC/-
!26FC/-	15-F 1925A/4	Assy. instrument panel with piping	15-F 1925A/5	26FC/-
!26FC/-	15-F 2027A/4	Assy. instrument to panel	15-F 2027A/5	26FC/-
!26FC/-	15-N 965A/5	Instrument panel, installation of electrics	15-N 965A/6	26FC/-

Note: +Pre-Vampire Mod./3167. !Post Vampire Mod."3617.

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Disconnect the aircraft batteries, remove the cannon bay doors and remove the starboard outer and inner guns in accordance with the relevant Air Publication.

(2) Working on the centre lower instrument panyl, (FB 9) or main instrument panel (T.11), disconnect and remove the redundant pacitor fuel contents gauge, Part No. GP.251/001, retaining its attaching items. Offer up to this position a new fuel contents gauge, Part No. GP. 250/016, securing in position with the existing attaching items and reconnect. Re-number the bottom instrument panel (FB 9) and main instrument panel (T.11) respectively, as detailed in para 7.

(3) Disconnect and remove the redundant rectifier unit, Part No. GP. 642/001 or GP.642/003, situated on the starboard underside of the cannon bay floor, retaining its attaching items. Offer up to this position the new rectifier unit, Part No. GP.644/032/2 securing in position with the existing attaching items and reconnect.

(4) Replace the starboard inner and outer guns in accordance with the relevant Air Publication, refit the cannon bay doors and reconnect the aircraft batteries.

9. TESTING AFTER EMBODIMENT

When this modification has been embodied and inspected, the following tests are to be carried out:-

(1) With fully drained fuel tanks, set up the aircraft at +5 deg. incidence and level laterally, switch on the equipment and allow to warm up for 15 minutes.

(2) Adjust "Empty" trimmer on rectifier so that the indicator pointer reads exactly zero contents.

26FC/-	15F-1367A/2	Assy. main instrument panel components	15F-1367A/3	26FC/-

..... 3.

9. (3) Put 290 gallons (± 1 per cent) of fuel into the aircraft - this will fill wing tanks with remainder in the fuselage tank.

(4) Measure the Specific Gravity of this fuel with an accurate Hydrometer (Accuracy of S.G. measurement ± 0.002).

(5) Multiply 290 gallons by 10 times the S.G. measured to obtain weight of fuel in aircraft and adjust the "Full" trimmer on the rectifier so that the indicator pointer reads exactly this figure.

(6) The fuel gauge is then aligned.

10. RECORDING ACTION

1. Record on Aircraft Form 700 and 4801.
2. File one copy of this Order in each relevant T.O. Volume under reference.

11. DISPOSAL OF REDUNANT PARTS

The undermentioned parts rendered redundant by the embodiment of this modification are to be returned to Equipment Depot - final disposal instructions will be given on receipt of information from the Depot that all aircraft have been modified.

Stores Ref.	Part No.	Nomenclature	Qty	Class of Store
6A/2823	CP.642/001-003	Pacitor rectifier unit	1	A
6A/2819	CP.251/001	Pacitor fuel contents gauge	1	A

12. EFFECT ON WEIGHT AND C. OF G.

This modification has no effect on weight or C. of G.

Sources: A.P. 4099G Vol 2, Pt. 1 Leaflet K.14 - FB 9
A.P. 4099J Vol 2, Pt. 1 Leaflet K.10 - T 11
A.M. Signal, Unclassified, T.3782/Air.Eng. dated 28th June, 1956

(B.H. GIBBONS)
Wing Commander
S.T.S.O.
A.H.Q. R.R.A.F.

Distribution:

O.C.M.U.	(2)
Tech. Control M.U.	(2)
Specialist Officer M.U.	(2)
A.R.S.	(3)
Instrument Sect.	(5)
No. 1 Squadron	(5)
No. 2 "	(5)
O.C. Equipt. Depot	(3)
S.E.S.O.	(2)
Tech. Stats.	(3)

R.R.A.F. Technical Order
Vol. 3, Sect. 2, Sub.Sect.B.20 (Issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
P.O. Box 8131, Causeway.
SOUTHERN RHODESIA.

29th. August, 1956.

Vampire FB. M. 9 Aircraft - Diameter of Hole for Brake Cable in Control Column increased from 7/16 in. to ½ in.

(Mod. No. Vampire/945.) (Class C/4.)

INTRODUCTION:

This modification enlarges the entry hole for the wheel brake cable in the control column, and thus eliminates the possibility of damage occurring to the cable, due to the difficulty encountered when inserting the nipple end. The work detailed in the sequence of operations is to be done only when it becomes necessary to fit a new brake cable under normal replacement procedure. The work will take approximately ½ man-hour per aircraft.

EMBODIMENT.

Subject to the availability of parts, this modification is to be embodied on replacement of the wheel brake cable.

SEQUENCE OF OPERATIONS.

The following is the sequence of operations :-

1. After removing damaged brake cable, open out existing 7/16 in. dia. entry hole in control column (spade grip mounting) extension piece to ½ in. dia.
2. Remove all sharp edges from the hole and then repair finish locally, using matt black (night) cellulose.
3. Fit replacement cable.

The following item is required for the embodiment of this modification and is to be provided under Unit arrangements :-

Stores Ref.	Nomenclature.	No. off	Class of Store.
33B/692	Cellulose, matt black (Night) and primer to Spec. D. T. D. 751-4	As reqd.	C

5. TESTING AFTER EMBODIMENT.

There are no special tests required after embodiment of this modification.

6. RECORDING ACTION.

Record on Form 700 and 4801.

7. DISPOSAL OF REDUNDANT PARTS:

There are no spares rendered redundant by embodiment of this modification.

/ 2 .....

8. EFFECT ON WEIGHT AND C. OF G.

This modification has no effect on weight or C of G.

(T. L. GIBBONS) SQN. LDR.
S. E. S. O.

SOURCE: 40/JG. Vol. 2, T.2.

Distribution:

C. C. H. U.	(1)
A. R. S.	(2)
L. U. Tech Control	(1)
No. 1 Sqdrn.	(3)
No. 2 Sqdrn.	(3)
C. C. Equipt. Depot.	(1)
S. E. S. C.	(1)
Tech Stats	(1)
File.	(1)

R.R.A.F. Techni...
Vol. 3, Sec... ...t.B.19.(Issue 1).

Air Headquarters,
Royal Rhodesian Air Force,
P.O. Box 8131, Causeway,
SOUTHERN RHODESIA.

13th August, 1956.

Vampire Mk.T.11 Aircraft - Cockpit - To Reposition Temperature and Drop Tank Jettison Controls and Introduce Larger Diameter Temperature Control Handwheel and Redesigned Drop Tank Jettison Control Lever.

Mod. No. Vampire 3362.

CLASS B/2 (CONCURRENTLY WITH MOD. NO. VAMPIRE 3282).

1. INTRODUCTION.

On the introduction of Ejection Seats, difficulty is experienced in operating the cockpit temperature and drop tank jettison controls due to the reduction in operating space. This modification repositions the operating units of both the affected controls, making them more readily accessible.

This modification is applicable only if Mod. No. Vampire 3167 Pt. B. is already embodied.

2. EMBODIMENT.

To be carried out on the following Mk.T.11 aircraft at the earliest opportunity, but not later than the next minor. RRAF 116, 117, 118, 119, 120, 121, 122 and 123.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT.

The work will take approximately 13 man-hours, not including drying time.

4. DRAWINGS REQUIRED.

Drawings, Sheets No. 1 - 5 are attached to this Technical Order.

5. PARTS AND SPECIAL TOOLS REQUIRED.

The undermentioned items comprise the modification set and are to be demanded from O.C. Equipment Depot under stores Ref. 26FC, 103362.

Stores Ref.	Part No.	Nomenclature	No. off.
	15-CE 1857ND	Temperature Control Handwheel	1
	15-CE 1877ND	Teleflex Conduit	1
	15-CE 1881ND	Teleflex Conduit	1
	15-CE 1895ND	Teleflex Cable	2
	15-CE 1897ND	Teleflex Conduit	1
	15-CE 1899ND	Teleflex Conduit	1
	15-CE 1901ND	Teleflex Cable	1
	15-CE 1903ND	Packing	1
	15-CE 1919A	Lever Assembly	1
	15-F 2609A	Bracket Assembly	1
	15-F 2637	Wing Tank Jettison Bracket	1
	15-FS 3533ND	Packing, Spruce	1
	B. 10140	Tab Washer	2
	B. 14056	Greaser Connector	1
	DHS 86/9	Clip	2
	DHS 103/MK.2.	Ferrule, 2 B.A.	6

/ 2 .....

Stores Ref.	Part No.	Nomenclature	No. off.
	DS. 47/2	Lock, Spring	2
	GD 1259/3	Dowty Seloc Washer	2
28D/12512	A25/1C	Bolt, 2B.A. x 0.55 IN.	8
28D/12629	A25/8C	Bolt, 2B.A. x 1.25 IN.	
28L/13124	A27/CT	Locknut, Thin, 2B.A.	
28M/12929	A27/CP	Nut, Plain, 2B.A.	
28S/6287	A32/B6	Screw, Roundhead, 4B.A. x 3/16 IN.	
28S/6964	A32/C6	Screw, Roundhead, 2B.A. x 3/16 IN.	
28S/14269	A32/C10	Screw, Roundhead, 2B.A. x 5/16 IN.	
28M/10327	AGS 2002/B1	Nut, Stiff, Thin, 4B.A.	
28L/11069	AGS 2035/C	Lockwasher, Shakeproof, 2B.A.	
28Q/1789	AS 460/304	Rivet, M.S. CSK. 90°, 3/32 IN. DIA.	
28D/8309	AS 1242/5C	Bolt, Csk. Head 90°, 4B.A. x 0.9 IN.	
28D/10471	AS 1248/11C	Bolt, Mushroom head, 2B.A. x 1.5 IN.	
28D/10472	AS 1248/12C	Bolt, Mushroom head, 2B.A. x 1.6 IN.	
28D/12266	AS 1248/13C	Bolt, Mushroom head, 2B.A. x 1.7 IN.	
28E/14051	AS 3180/4C	Clip 'P' 2 B.A.	2
	AS 3360/C9C	Bonding, Flexible	
28P/12462	SP9/C8	Pin, Split, 1/16 IN. DIA.	
28W/12346	SP10/B	Washer, Thin, 4B.A.	
28W/12252	SP13/C	Washer, 2B.A.	

(b) Embodiment Loan Items.

Nil.

(c) The following items are also required and are to be supplied un
Unit arrangements.

29D/2136	Brads, Brass	As reqd
31A/143	Spruce, Sitka	As reqd
33B/205	Finish, Night, Matt, Synthetic	As reqd
33B/510	Primer, Synthetic	As reqd
33C/31	Paper, Glass No. 1.	As reqd
33C/972	Adhesive, Synthetic Resin, Type B70	As reqd
33C/973	Hardener, G.B.M.	As reqd
	Plyceal	As reqd

6. SPARES AFFECTED.

The undermentioned part No. alterations become necessary on embodiment of this modification.

Old Part No.	Nomenclature.	New Part No.
15-C/ 725ND	Jettison Lever, Inner	15-CE 1915A/ND

7. The following is the sequence of operations, both seats having been removed :-

NOTE: Prior to commencing this modification refer to A.P. 4099J, Vol. 1, Sect. 3 and 4, Chap. 8 and 2 respectively, for details of the two control systems to be modified. Also, refer to A.P.1464D, Vol. 1, Part 2, Sect. 2, Chap. 3, which contains all the general information pertaining to the installation of teleflex controls.

1. Remove the drop tanks in accordance with current authorised procedure. Open up the port upper inspection door of the engine cowlings and remove the small access panel in the under surface of each mainplane just outboard of the air intakes.

/ 3 .....

2. Remove the teleflex control units of the cockpit temperature and drop tank jettison controls from their support casting in the centre of the aft cockpit floor. Dismantle the control units and remove from the aircraft the three, now redundant, teleflex conduits, Part Nos. 15-CE 1683ND (Ref. only) 15-CE 1685ND (Ref. only) and 15-CE 1687ND (Ref. only) situated between the greaser connector immediately aft of each control box and the first greaser connector beyond the clamp block on the top of the fuselage decking, alongside the hydraulic header tank. At the same time, the redundant conduit clamp block, Part No. 15-CE 591 (Ref. only) is to be removed from the centre shaft bracket on the front face of bulkhead No. 2.

3. Now remove the three redundant teleflex cables, Part Nos. 15-CE 573ND (Ref. only) 15-CE 574ND (Ref. only) and 15-CE 1689ND (Ref. only).

NOTE: The redundant teleflex cables of the tank jettison controls will have to be removed via the access holes in the under surface of the mainplanes after having been disconnected from their respective three cwt operating wire cable. Remove and retain the two teleflex fork end fittings attached to the one end of each of the redundant teleflex cables.

4. The centre support casting, Part No. 15-F 2263 (Ref. only) is now to be removed from the cockpit floor together with its stay tuebs, Part Nos. 15-F 2253A (Ref. only) and 15-F 2257A (Ref. only), stud plate, Part No. 15-F 1729A (Ref only) lower packing Part No. 15-F 2259 (Ref only) and all attachment items, less the eye bolt, Part No. 15-CE 1727 (Ref. only) which is to remain in the floor and act as a pressure seal.

5. Refer to sheet 4 of the drawing and, as illustrated, mark out the positions for the five new ferrules on the cockpit floor. The four ferrules forward of the redux plate are to be positioned by using the new wing tank jettison bracket, Part No. 15-F 2637, as a template, to the dimensions shown. Counterbore the ferrule positions to a depth of 0.43 in. using a 3/4 in. standard fosner or wilpat bit.

NOTE: Where it is found that the bodies of the new ferrules (3/4 in. dia.) will foul the bodies of existing ferrules, the affected redundant ferrules are to be removed and plugs made from sitka spruce (stores Ref. 31A/143)fitted in their place. Glue the plugs into position by using synthetic resin adhesive, type B70 (stores Ref. 33C/972) in the cockpit floor and hardener, G.B.M. (stores Ref. 33C/973) on the plug. Blank off remaining redundant ferrules with dowty seloc washers and screws, Part No. GD 1259/3 and A32/C10, respectively.

6. Trim the new ferrules, Part No. DHS 103/HK.2, as shown on sheet 4 of the drawing to enable them to seat flat on the cockpit floor. Remove the finish from the floor where the ferrules mate with glass paper No. 1 (stores Ref. 33C/31) then glue them into their respective positions using synthetic resin adhesive and hardener as for the spruce plugs. The ferrules are also to be pinned into position using 3/8 in. brass brads (stores Ref. 29D/2136).

/ 4 .....

NOTE: It is recommended that, at a normal temperature of 60° fahrenheit, a minimum drying period of four hours be allowed for synthetic resin adhesive; but it should be noted that, with the application of radiant heat at a temperature of 70° fahrenheit, this period could be accelerated to a minimum of three hours. Failure to observe these minimum times quoted will result in 'crazing' of the cement and a consequent loss in adhesive strength.

7. Refer now to Fig. 1, sheet 2 of the drawing and locate the three existing ferrules (in a triangular formation) on the port cockpit wall directly above the hydraulic control lay shaft. Clean the finish off the wall where the spruce packing, Part No. 15-FS 3533ND, and the additional ferrule, Part No. DHS 103/MK.2, are to be attached then, following the procedure detailed in operations 5 and 6), glue and brad the packing and ferrule into position on the cockpit wall using the new bracket assembly, Part No. 15-F 2609A, as a template.

8. The internal finish of the areas under modification, on the cockpit floor and on the port cockpit wall, is now to be renewed. Clean the areas with glass paper No. 1 and treat the surfaces with a brush coat of 'plyceal' which must be left to dry for 48 hours. Then, apply synthetic primer and night matt synthetic finish (stores Refs. 33B/510 and 33B/205 respectively).

9. Reference is now to be made to sheet 1, Fig. 2; sheet 2 and sheet 5 of the drawing and the new teleflex conduits, Part Nos. 15-CE 1877ND, 15-CE 1897ND and, 15-CE 1899ND, are to be routed as shown. The twin conduits are to be attached with clips and screws, Part Nos. DHS 86/9 and A32/C6, respectively and the single conduit to be attached with clips and screws, Part Nos. AS 3180/40 and A32/C6, respectively in the positions illustrated. Connect each conduit up to its respective gun at the existing greaser connectors on the top of the fuselage. As illustrated, an additional greaser connector, Part No. B.14056, connect the two new conduits of the temperature control 7 in. from the top of bulkhead No. 2.

NOTE: It is essential that the <u>minimum bend radius</u> at any point along the length of the conduits is not less than <u>five inches</u>.

10. Modify the inner jettison lever, Part No. 15-CE 725ND (Ref. only) as illustrated on Figs. 1 and 2, sheet 3 of the drawing, having removed the redundant control knob, Part No. 15-CE 467ND (Ref. only) and the redundant clamp bracket assembly, Part No. 15-CE 689 (Ref. only) which previously supported the conduits as they emerged from the control boxes. Use the new lever assembly, Part No. 15-CE 1919A, as a template to drill the uppermost attachment hole with a No. 27 (0.1440 in. dia.) drill. The inner jettison lever is now to be renumbered, Part No. 15-CE 1915A/ND (Ref. only).

11. Remove the new redundant temperature control handwheel, Part No. 15-CE 1653ND (Ref. only) from its driving shaft, retaining the attachment circlip and the centre adaptor, Part No. 15-CE 1759ND (Ref. only). Fit the retained adaptor to the new temperature control handwheel, Part No. 15-CE 1837ND, using new bolts and nuts, Part No. AS 1242/5C and A27/CT, respectively. Peen over the ends of the bolts to lock.

/ 5 .....

12. The three new teleflex cables are now to be carefully entered into, and threaded through their respective conduits. The two teleflex cables, Part No. 15-CE 1895ND, for the tank jettison and the cable Part No. 15-CE 1901ND, for the cockpit temperature. Screw on te retained fork end fittings to each of the teleflex cables in the mainplane using a new lock spring and a new tab washer, Part Nos. DS 47/2 and B.10140, in each. Now, connect up to each operating wire cable with the original shackle pin locked with a new split pin, Part No. SP9/C8.

13. The teleflex control boxes are now to be mounted on to each of their brackets. The jettison control boxes on to the bracket, Part No. 15-F 2637 (Ref. only) using the new bolts and nuts, Part Nos. AS 1248/11C, AS 1248/12C, AS 1248/13C and, A27/CP, respectively, in the positions shown on sheet 1 of the drawing and, the temperature control box on to the bracket, Part No. 15-F 2609A (Ref. only) using new bolts, nuts and washers, Part Nos. A25/8C, A27/CP and SP13/C, respectively. Peen over all bolt ends to lock.

14. Attach the temperature control bracket to its four ferrules on the port cockpit wall and the jettison control bracket to its four ferrules on the cockpit floor with, in each case, four bolts and washers, Part Nos. A25/1C, and, AGS 2035/C respectively, having threaded the teleflex cable into each box. Bond each bracket to the aircraft utilising the two new bonding flexibles, Part No. AS 3360/C9C, having spiralled the strips on a 1/4 in. dia. mandrel. Connect up the main runs of conduit to each of their greaser connectors on the stub conduit from each box.

15. The temperature and jettison controls are now to be rigged in accordance with the procedure detailed in the aforementioned sections of the A.P.'s 1464D and 4099J.

NOTE: Ensure that any locking disturbed during the rigging of the controls is correctly renewed.

16. Slide the new temperature control handwheel on to the splined shaft of its control box, the 'OFF' mark on the handwheel in line with the setting mark on the bracket with the control valves in the 'OFF' position. Lock the handwheel to its shaft with the original circlip.

17. The jettison control boxes are now to be finally assembled with a new split pin, Part No. SP9/C8, locking the centre pivot bolt. Fit the new lever assembly, Part No. 15-CE 1919A (Ref. only) over the modified jettison levers and attach with three bolts, nuts and washers, Part Nos. A32/B6, AGS 2002/B1 and SP10/B, respectively.

18. Close the port upper inspection door of the engine cowlings, replace the small access panle in the under surface of each mainplane and (if required) replace the drop tank in accordance with current authorised procedure.

8. TESTING AFTER EMBODIMENT.

When this modification has been embodied and inspected, the following tests are to be carried out.

Ground test the pressure cabin in accordance with the procedure detailed in A.P.4099J, Vol. 1, Sect. 3, Chap. 8.

/ 6 .....

9. RECORDING ACTION.

Record in Form 700 and 4801.

10. DISPOSAL OF REDUNDANT PARTS.

The undermentioned items are rendered redundant and are to be returned to OC Equipment Depot and classified as scrap.

Stores Ref.	Nomenclature.	No.
15-CE 467ND	Knob	1
15-CE 573ND	Teleflex Cable	1
15-CE 574ND	Teleflex Cable	1
15-CE 591	Clamp, Teleflex	1
15-CE 689A	Clamp Bracket Assembly	1
15-CE 1653ND	Handwheel	1
15-CE 1683ND	Teleflex Conduit	1
15-CE 1685ND	Teleflex Conduit	1
15-CE 1687ND	Teleflex Conduit	1
15-CE 1689ND	Teleflex Cable	1
15-F 1729A	Stud Plate Assembly	1
15-F 2253A	Stay Tube Assembly	1
15-F 2257A/1	Stay Tube Assembly	1
15-F 2259	Packing	1
15-F 2263	Support Casting	1

11. EFFECT ON WEIGHT AND C. OF G.

(B.M. GIBBONS) SQN. LDR.
S.T.S.O.

SOURCE:

A.F.4099T Vol. 2, Pt. 1.

Distribution:

O.C. M.U.	(1)
A.R.S.	(2)
M.U. Tech Control	(2)
No. 1 Sqdn.	(3)
No. 2 Sqdn.	(3)
S.E.S.O.	(1)
C.O. Equipment Depot	(1)
Tech Stats	(1)
File	(1)

BHP

COCKPIT - TO REPOSITION TEMPERATURE AND DROP TANK JETTISON CONTROLS AND INTRODUCE LARGER DIAMETER TEMPERATURE CONTROL HANDWHEEL AND REDESIGNED DROP TANK JETTISON CONTROL LEVER.

D.H. DRAWING Nº M.A.655
SHEET 3 OF 5 SHEETS
MOD Nº VAMPIRE 3362

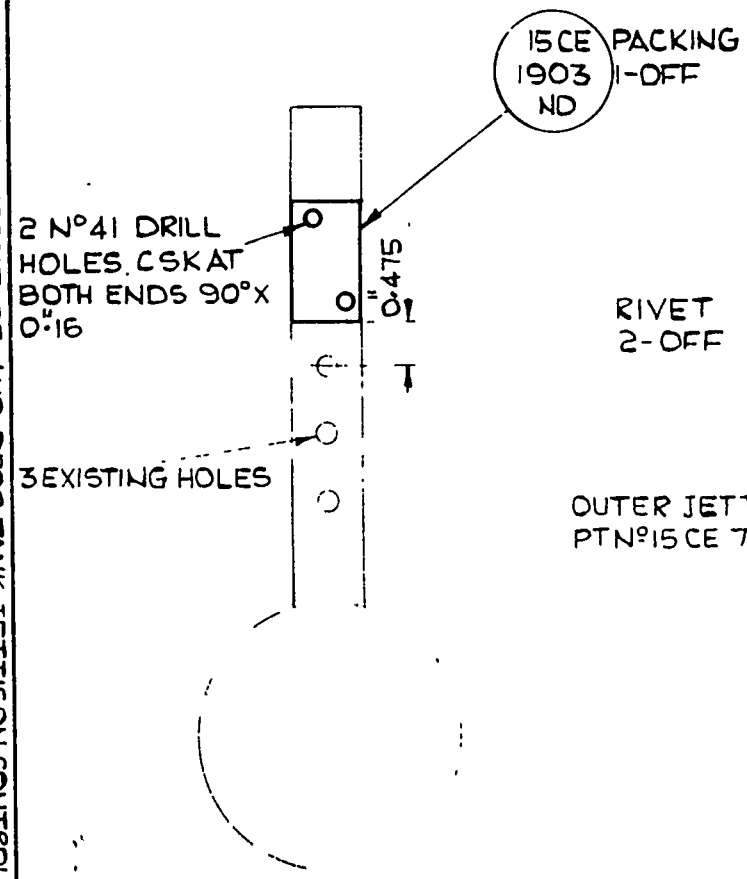


FIG 1
VIEW OF PACKING IN POSITION ON THE INNER JETTISON LEVER PT. Nº 15.CE 725ND (REF ONLY)

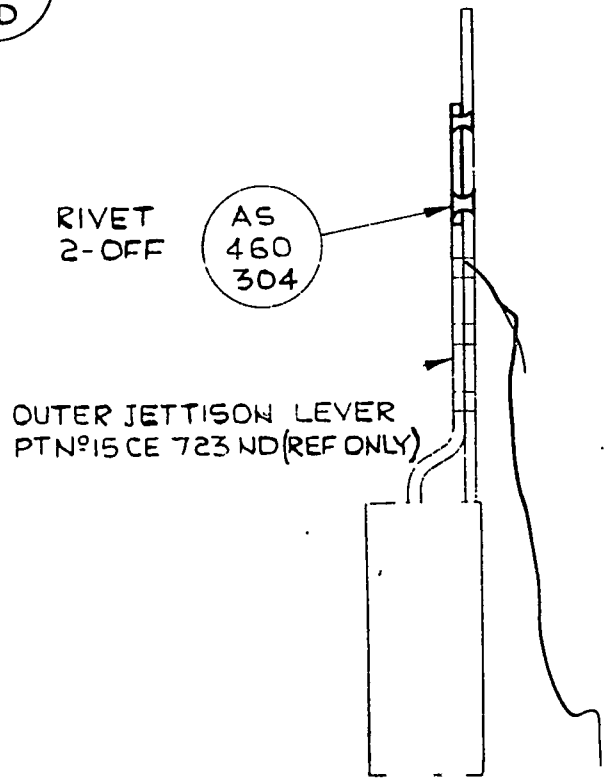


FIG 2
SECTIONAL VIEW OF BOTH JETTISON LEVERS WITH PACKING RIVETTED IN POSITION

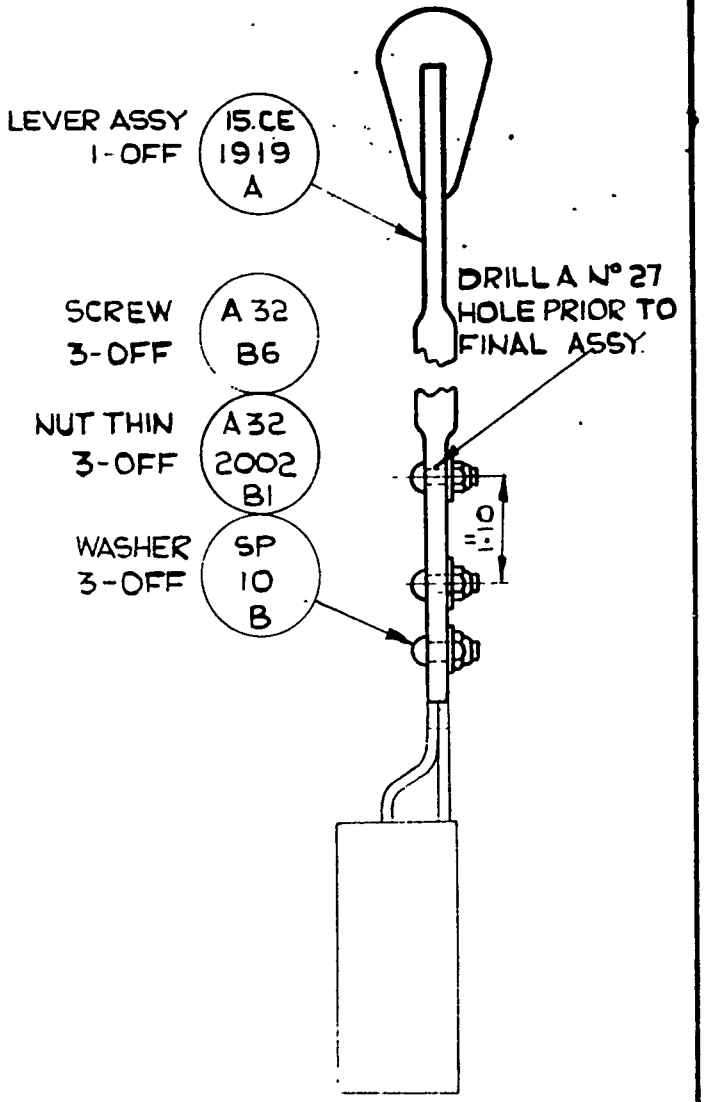
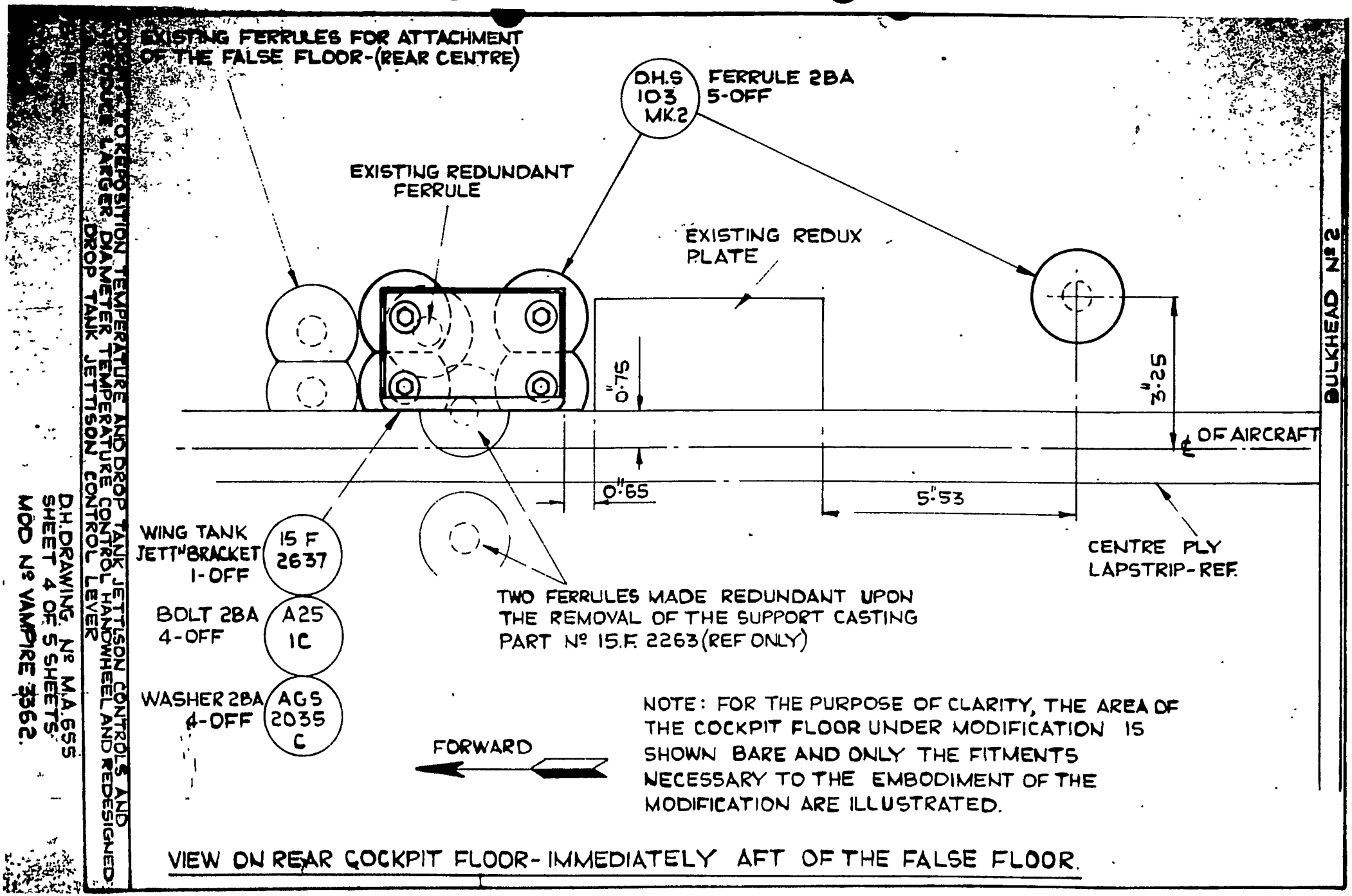
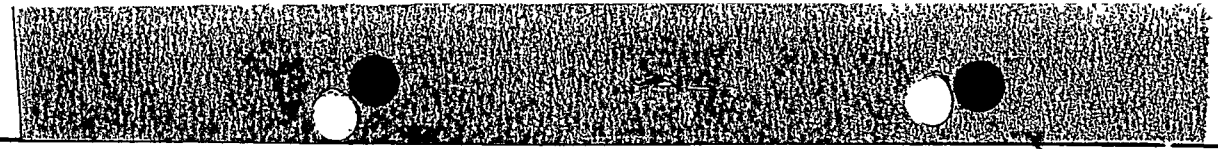


FIG 3
FINAL MODIFIED STATE OF JETTISON LEVERS.


EXISTING FERRULES FOR ATTACHMENT OF THE FALSE FLOOR-(REAR CENTRE)
D.H.S 103 MK.2
FERRULE 2BA 5-OFF
EXISTING REDUNDANT FERRULE
EXISTING REDUX PLATE
0"·75
3"·25
OF AIRCRAFT
0"·65
5"·53
CENTRE PLY LAPSTRIP-REF.
BULKHEAD № 2
WING TANK JETT"N BRACKET 1-OFF
15 F 2637
BOLT 2BA 4-OFF
A25 1C
WASHER 2BA 4-OFF
AGS 2035 C
TWO FERRULES MADE REDUNDANT UPON THE REMOVAL OF THE SUPPORT CASTING PART № 15.F. 2263 (REF ONLY)
FORWARD
NOTE: FOR THE PURPOSE OF CLARITY, THE AREA OF THE COCKPIT FLOOR UNDER MODIFICATION IS SHOWN BARE AND ONLY THE FITMENTS NECESSARY TO THE EMBODIMENT OF THE MODIFICATION ARE ILLUSTRATED.
VIEW ON REAR COCKPIT FLOOR- IMMEDIATELY AFT OF THE FALSE FLOOR.
D.H. DRAWING № M.A.655 SHEET 4 OF 5 SHEETS.
MOD № VAMPIRE 3362.
MODIFICATION TO REPOSITION TEMPERATURE AND DROP TANK JETTISON CONTROLS AND TO INCORPORATE LARGER DIAMETER TEMPERATURE CONTROL HANDWHEEL AND REDESIGNED DROP TANK JETTISON CONTROL LEVER



V.M.C.

COCKPIT - TO REPOSITION TEMPERATURE AND DROP TANK JETTISON CONTROLS AND INTRODUCE LARGER DIAMETER TEMPERATURE CONTROL HAND WHEEL AND REDESIGNED DROP TANK JETTISON CONTROL LEVER.

AS 1248 11C ○ BOLT 1-OFF

AS 1248 12C ● BOLT 1-OFF

AS 1248 13C BOLT 2-OFF.

A 27 CP NUT 4-OFF.

SEE SHEET 3 OF THE DRG. FOR MODIFICATION TO JETTISON HANDLES

SEE SHEET 5 OF THE DRG. FOR ROUTING OF TELEFLEX ON BKD Nº 2.

FORWARD

EXISTING FAIRLEAD AND GREASER CONNECTORS ON TOP OF FUSELAGE.

BULKHEAD Nº 2

LAYSHAFT - HYDRAULIC CONTROLS (REF)

ONE FOR EACH CONDUIT — 15 CE 1895 ND — TELEFLEX CABLE 2-OFF

STBD — 15 CE 1897 ND — TELEFLEX CONDUIT 1-OFF

PORT — 15 CE 1899 ND — TELEFLEX CONDUIT 1-OFF.

DHS 86 9 CLIP 1-OFF

A 32 C6 SCREW 1-OFF.

SEE SHEET 4 OF THE DRG FOR POSITIONING OF BRACKET AND FERRULES

COCKPIT

FLOOR

PLAN

VIEW

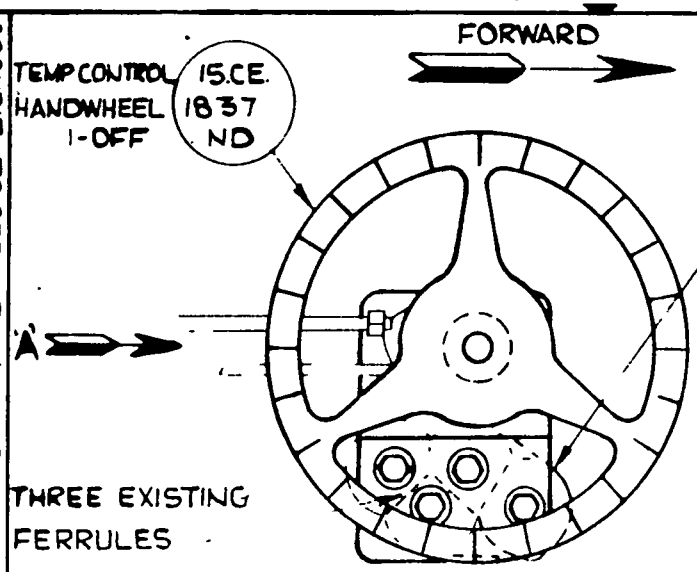
℄ OF AIRCRAFT

VIEW OF THE REVISED COCKPIT TELEFLEX RUN FOR THE DROP TANK JETTISON CONTROLS.

D H DRAWING Nº MA 655
SHEET 1 OF 5 SHEETS
MOD Nº VAMPIRE 3362

B.H.P.

COCKPIT - TO REPOSITION TEMPERATURE AND DROP TANK JETTISON CONTROLS AND INTRODUCE LARGER DIAMETER TEMPERATURE CONTROL HANDWHEEL AND REDESIGNED DROP TANK JETTISON CONTROL LEVER



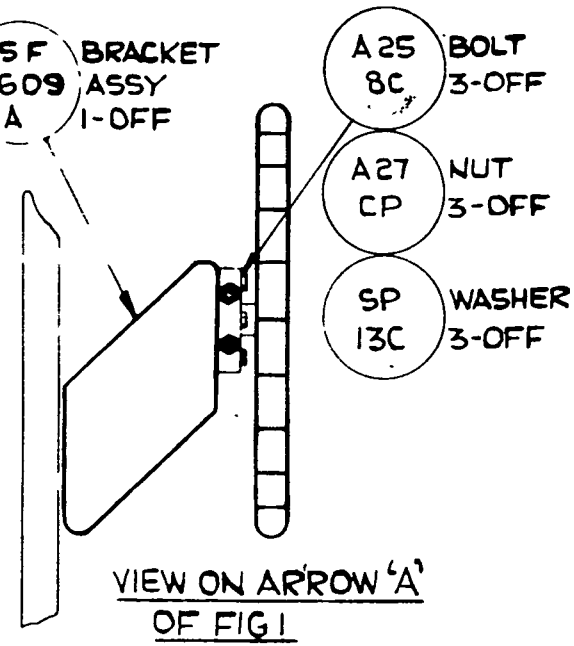
15 FS 3533 ND SPRUCE PACKING. 1-OFF

DHS 103 MK2 FERRULE 1-OFF

A25 1C BOLT 4 OFF

AGS 2035 C WASHER 4 OFF

FIG 1
VIEW OF NEW TEMPERATURE CONTROL HANDWHEEL ASSY INSTALLED ON PORT COCKPIT WALL.



15 F 2609 A BRACKET ASSY 1-OFF

A25 8C BOLT 3-OFF

A27 CP NUT 3-OFF

SP 13C WASHER 3-OFF

VIEW ON ARROW 'A' OF FIG 1

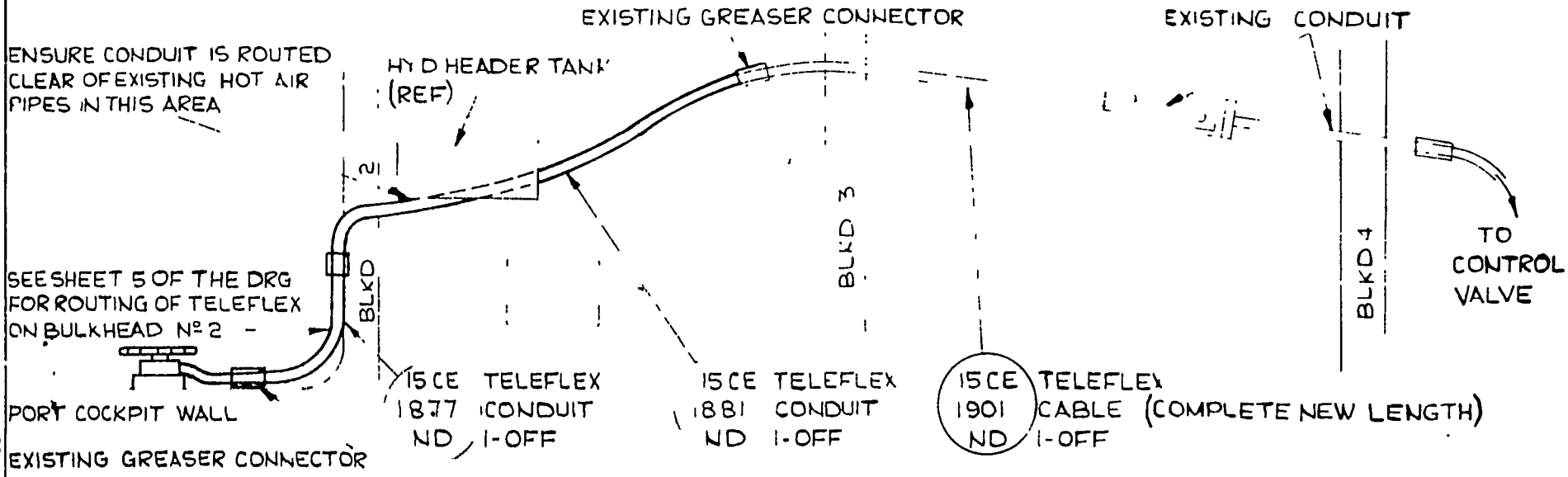
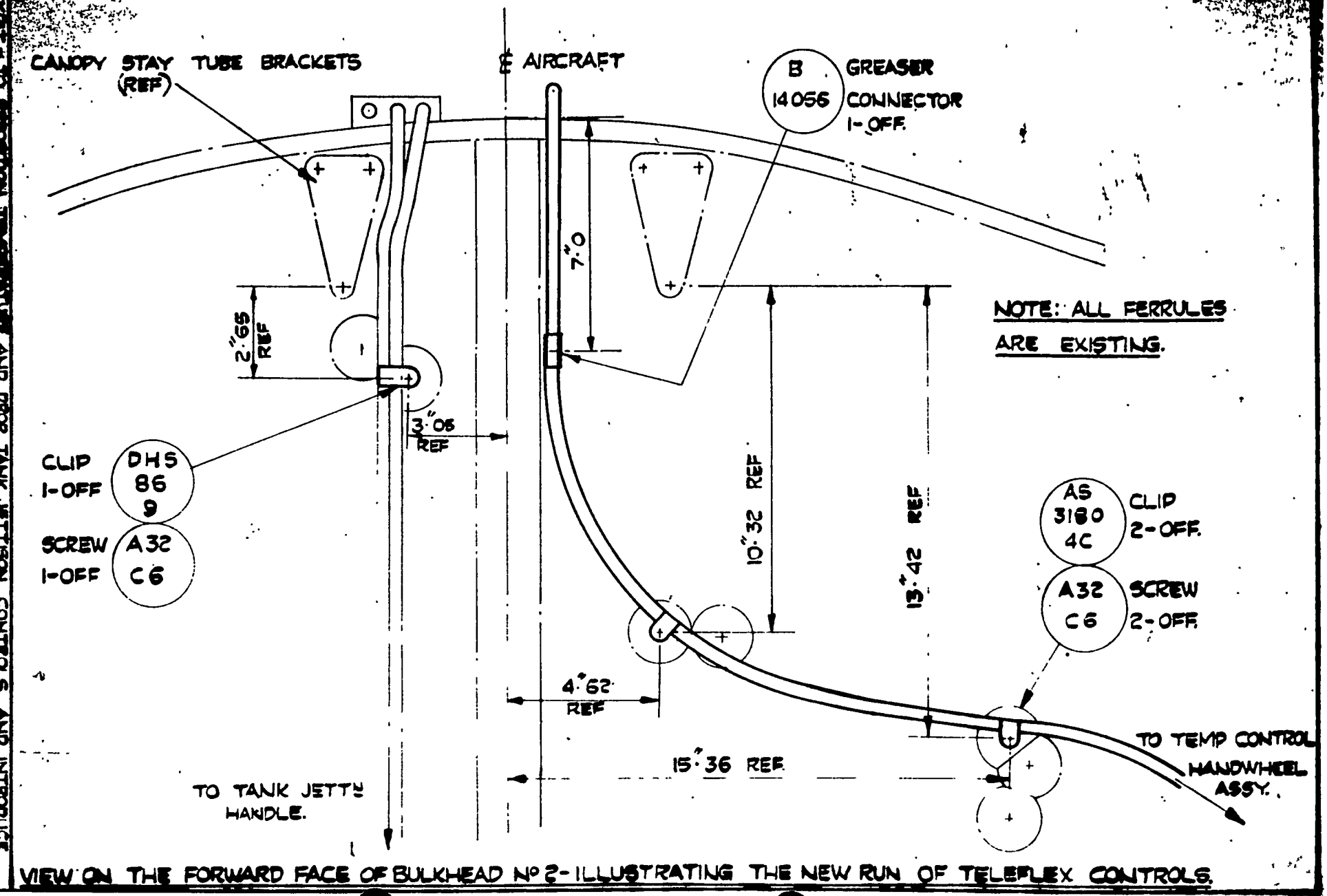


FIG 2.
VIEW OF THE REVISED TELEFLEX RUN FOR THE COCKPIT TEMPERATURE CONTROL - CANOPY AND STRUCTURE REMOVED.

D.H DRAWING Nº M A 655
SHEET 2 OF 5 SHEETS
MOD Nº VAMPIRE 3362



VIEW ON THE FORWARD FACE OF BULKHEAD Nº 2 - ILLUSTRATING THE NEW RUN OF TELEFLEX CONTROLS.

EXCEPT TO INTRODUCTION TEMPERATURE AND DROP TANK JETTISON CONTROLS AND INTRODUCE DAMPER, TEMPERATURE CONTROL HANDWHEEL AND REDESIGNED DROP TANK CONTROL LEVER.

DRAWING Nº MA 655
SHEET 5 OF 6 SHEETS
MOD Nº VAMPIRE 3362.

2. EMBODIMENT.
(a) This modification is to be embodied within 10 days of

(1) Para.2 Embodiment is now authorised for all T 11 aircraft. rs.
(2) Embodiment to commence immediately on Squadron aircraft, e
one aircraft to be modified per Squadron perweek. nd
(3) M.U. holdings to be modified within the next 2 months or
before issue to USER UNITS. A.L. 168. 163.

aircraft will be issued as and when modification kits become available.

1. INTRODUCTION.

The existing main fuel tank vent allows fuel to be carried back in to the cowling under negative G flight conditions. This modification introduces an extended vent to clear the boundary layer and improved sealing at the cowling vent aperture

(i) This modification partially supersedes the work called for by Mod. Nos. Vampire 996 and 3209.

(ii) This modification is applicable only if Mod. No. Vampire 3209 (To Introduce Relief Valve in Fuel System Vent Line) and Mod. No. Vampire 3045 (To Introduce Light Weight Packing in Wing Tank Bays between Tanks and Wing Structure); are already embodied.

EMBODIMENT. See attachment above.

~~(i) This modification is to be embodied immediately on RRAF 121, 124, 128 & 129. Authority for embodiment of remaining T11 aircraft will be issued as and when Mod. Kits become available.~~

APPROXIMATE TIME REQUIRED FOR EMBODIMENT.

The work will take approximately 10 man hours, not including drying time. Strip 2 hours; Embodiment 7 hours; Reassembly 1 hour.

DRAWINGS REQUIRED.

(i) Drawing No. A.P. 40991/ / , Sheets 1 to 5 is incorporated in this leaflet.

PARTS AND SPECIAL TOOLS REQUIRED.

(i) Parts and/or Materials.
(a) The modification kit consists of the following items.
(i) Items to be supplied by O.C. Equipment Depot.

...ores Ref.	Part No.	Nomenclature	Qty.	Class of Store
	15 EC 81	Blanking plate	1	
	15 EC 83	Insert plate	1	
	15 FS 3669	Packing	1	
	15 FS 3671ND	Ferobestos tape	1	
	15 FS 3679	Packing block	1	
	15 FS 3681Nd	Ferobestos tape	1	
	15 S 1355A	Vent pipe and bracket sub-assembly	1	
	15 S 1357A/ND	Pipe	1	
	15 S 1359A/ND	Pipe	1	
	15 S 1375	Clamp block	2	
	15 V 997ND	Pipe	1	
	DHS 159/B20	Hose connection	1	
28D/12528	A25/1B	Bolt, hexagon head 4B.A. X 0.5 in.	6	C
28D/12624	A25/7B	Bolt, hexagon head 4B.A. X 1.1 in.	2	C
28D/12512	125/1C	Bolt, hexagon head 2B.A. X 0.55 in.	2	C

2/.....

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
26FC/1039	L00 66	RAIL, HINGE, LOWER		

The method of modifying the above spare is detailed in Paragraph 8 (Sequence of Operations) operation (9) and on sheet 4 of the drawing.
There are no parts required to modify the above spare.

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS.

The embodiment of this modification changes Stores Ref., Part and Assembly Nos. as follows:-

OLD			NEW	
Stores Ref.	Pt/Asst No.	Nomenclature	Pt/Assy No.	Stores Ref.
26FC/6814	L00 51A/1	Door, inspection, lower	L00 51A/2	
26FC/1039	L00 66	Rail, hinge, lower	15 EC 97	
	L00 82ND	Hinge, lower (Spares)	15 EC 103ND	
	L00 4016	Hinge, lower L.H.	15 EC 101	
	L00 4016	Hinge, lower, R.H.	15 EC 102	
	L00 364	Strip, hinge packing	15 EC 99	
	13 V 101A/ND	Drain assy,, B.P.C.	15 V 1005A/ND	
	15 FS 1061A/4	Bulkhead, fireproof	15 FS 1061A/5	
	15 FS 1691A/ND	Bulkhead bottom half, fireproof	15 FS 3683A/ND	
	15 V 361ND	Pipe, B.P.C.	15 V 1007ND	

The following is the sequence of operations:-

(1) Lower and remove the cannon bay doors. Release the hydraulic accumulator pressure and drain the hydraulic fluid from the aircraft in accordance with current authorized procedure. Release and remove the lower engine cowling retaining the screws supporting the hinge to the cowl support channel.

(2) Working now on the lower aft face of the fireproof bulkhead, the location is shown on sheet 1 of the drawing, remove the two redundant hydraulic pipes, Part Nos. Q00 3697A/ND and Q00 3701A/ND (ref. only) from the ground test connection on the port side to the coupling support bracket starboard of the bulkhead centre line and blank off the adaptors. Retain all clips and attaching items.

(3) Disconnect and retain the lower hose clip connecting the vent pipe assembly to the vent pipe, remove the now redundant vent relief valve assembly and packing Part Nos. P00 3727A/1 and P00 3897 (ref.only) (respectively) discarding its attaching items. Remove the now redundant cowling support bracket, Part No. A00 1298A (ref.only) which is situated about the centre line of the lower bulkhead, and also the clamp block, Part No. Q00 108A (ref.only) which is mounted on the port side of the redundant cowling support bracket. Retain the clip securing the main tank vent pipe to the forward face of the fireproof bulkhead.

(4) Locate and remove the barometric control drain assembly, Part No. 13 V 101 A/ND (ref.only) situated to port of the centre line, retain this assembly for further modification. Also retain the two hose joints and four clips and one 'P' clip and its attaching items. Redundant is one 'P' clip, Part No. DHS.30/4 (ref.only) which provides for the barometric pressure control pipe at the redundant clamp block position.

(5) Refer now to sheet 3 of the drawing and working on the cowl support channel, cut away the section from the port side of the centre line 2.5 in X 0.15 in. and 0.53 in. radius cut-out about the centre line.

4/..... .....

Offer up to the existing cut-out starboard of the centre line (vacated by the redundant relief valve assembly) a packing, Part No. 15 FS 3669, trim this packing to suit the contour of the cut-out and remove. Temporarily offer up to the support channel the new vent pipe and drain assembly, Part No. 15 S 1355A, ascertain the landing for this assembly on the port side of the vent pipe on the support channel and drill out the mushroom head rivets necessary to allow the vent pipe assembly to seat flush. Again temporarily offer up the vent pipe assembly, ensure that the assembly is centrally mounted about the bulkhead centre line. (The centre line can be ascertained by marking a vertical line in the centre of the two vertical rows of three holes which secured the now redundant cowling support bracket removed in operation 3).

(6) Now using a No. 26 (0.1470 in.dia) drill, drill back from the bulkhead two holes at positions 'DE' and two holes No. 11 (0.1910 in.dia.) at positions 'BC', sheet 3 of the drawing refers. Temporarily secure the assembly at these positions. Working now to starboard of the centre line and using the No. 26 drill, drill back from the bulkhead three holes, and drill back from the support channel four holes. Working now to port of the centre line drill the bulkhead one No. 26 hole to suit the vent pipe assembly and drill the support channel four holes No. 26 to suit the vent pipe assembly countersink these four holes 90 deg. X 0.25 in on the undersurface. Temporarily secure the vent pipe assembly at all its attaching points.

(7) Offer up to the cut-out, to starboard of the centre line, in the support channel, the packing which was trimmed to fit in operation 5. Drill this packing eight holes No. 41 (0.0960 in. dia.) to suit the vent pipe assembly and remove the packing. Countersink these eight holes in the packing on its undersurface 120 deg. X 0.193 in. dia. Now remove the vent pipe assembly from the support channel. Deburr all holes and edges on the packing and rivet it to the vent pipe assembly using eight 120 deg. countersunk head 3/32 in. dia. rivets, Part No. AS 2230/304, having first coated the mating surfaces with compound, pigmented varnish, jointing (Stores Ref. 33C/1264). Ascertain which holes on the bulkhead and support channel were being used for attachment, fill up the remainder of the holes with 120 deg. countersunk head 5/32 in. dia. rivets, Part No. AS 2230/505, countersink the inner surfaces of the support channel 120 deg. X 0.316 in. dia. Deburr all holes drilled and remove all swarf.

(8) Finally offer up the vent pipe assembly to its position and referring to sheets 3 and 4 of the drawing secure in positions with two 2 B.A. bolts and stiffnuts, Part Nos. A25/1C and AGS 2001/C1, respectively, and six 4 B.A. bolts, Part No. A25/1B, and eight 4 B.A. 90 deg. countersunk bolts, Part No. AS 1242/1B, using fourteen stiffnuts, Part No. AGS 2001/B1 and twelve washers, Part No. SP13/B, re-attaching the main fuel tank vent pipe clip at its original position on the forward face of the bulkhead. Reconnect the hose pipe to the existing vent pipe using the retained clip.

(9) Working now on the lower cowling, Part No. L00 51A/1 (ref.only) and referring to sheets 4 and 5 of the drawing trim back the lower hinge, hinge rail and packing 1.6 from the forward edge of the cowling, drill out the rivets securing the redundant part of the hinge, fill the redundant holes to port of the centre line with two 90 deg. countersunk head rivets, Part No. AS 2229/406, flush on the outer surface. Refer to sheet 5 of the drawing and drill out the two rivets on the hinge as indicated, countersink both surfaces 90 deg. X 0.22 in. dia. and rivet the hinge with two 90 deg. countersunk head 1/8 in. dia. rivets, Part No. AS 2229/406, flush these two rivets both sides. Refer now to section 'A-A' on sheet 4 of the drawing and trim off 0.52 in. from the centre flange of the lower hinge rail, now reshape the forward end of the hinge rail as detailed. Deburr all edges.

(10) Refer now to sheet 5 of the drawing, and offer up to the cut-out to starboard of the centre line on the cowling an insert plate, Part No. 15 EC 83, trim this plate to suit the shape required, mark off the plate as detailed on the drawing in eight No. 41 holes and deburr. Now offer up to the underside of the cowling a blanking plate, Part No. 15 EC 81, trim this plate to suit, then using a No. 30 (0.1285 in.dia) drill, drill twelve holes in the plate to suit the cowling, remove the plate and countersink these twelve holes, on the underside 120 deg. X 0.25 in.dia. deburr all holes, coat the matingsurfaces with compound, pigmented varnish,

jointing and finally secure to the cowling using twelve 120 deg. countersunk head 1/8 in. dia. rivets, Part No. AS 2230/404.

(11) Offer up to the cowling on the inside of the plate just fitted, the insert plate, trimmed t suit in the previous operation, and drill the blanking plate eight No. 41 holes to suit the insert plate. Remove the insert plate, countersink the undersurface of the blanking plate 120 deg. X 0.19 in. dia. and deburr. Coat the mating surfaces of the blanking and insert plates with compound, pigmented varnish, jointing and finally secure the insert plate to the blanking plate with eight 120 deg. countersunk head 3/32 in. dia. rivets, Part No. AS 2230/304. Refinish the cowling locally using an equal mixture of primer, etch accelerator (Stores Ref. 33B/1023) and primer, etch base (Stores Ref. 33B/1021) and finally with finish, cellulose, aluminium, spec. D.T.D. 772 (Stores Ref. 33B/1060). Renumber the lower cowling, Part No. L00 51A/2 (ref. only).

(12) Refer now to sheet 2 of the drawing and ascertain the position of the new clamp block, top anchorage, and drill a No. 26 hole. drill the lower anchorage No. 26 to suit the clamp block. Slave up to each of these two holes an anchor nut, Part No. AGS 2007/B1, and drill the bulkhead four No. 41 holes to suit the anchor nuts, countersink these four holes 90 deg. X 0.16 in. dia. on the aft face of the bulkhead. Deburr all holes drilled and secure the two anchor nuts with four 90 deg. countersunk head 3/32 in. dia. rivets, Part No. AS 2229/303, on the forward face of the fireproof bulkhead, having first coated the mating surfaces with comp ound, pigmented varnish, jointing. Offer up the two new clamps blocks, Part No. 15 S 1375, to this position and temporarily secure in position with two 4 B.A. bolts and washers, Part Nos. A25/7B and SP13B respectively.

(13) Refer now to sheet 1 of the drawing and offer up to the hydraulic test connection on the port side, two new pipes, Part Nos. 15 S 1357A/ND, pump suction, and 15 S 135 A/ND, pump pressure, route these pipes as detailed and connect to the coupling support bracket to starboard of the centre line, wire lock the pipe union nuts with 22 S.W.G. nickel alloy locking wire (Stores Ref. 30A/3055). Route the pump pressure pipe through the new clamp block, lower channel, and the pump suction pipe aft of the new vent drain, ensure a minimum clearance of 0.15 in. between this pipe and the vent assembly bracket, sheet 2 of the drawing refers. Secure the existing barometric pressure control pipe to the new suction pipe with the retained 'P' clips.

(14) Working now on the barometric drain assembly, Part No. 13 V 101A/ND (ref.only), removed in operation 4) cut back the two connecting pipes 1 inch and deburr, the modified assembly now becomes, Part No. 15 V 1005A/ND (ref.only), sheet 1 of the drawing refers. Refit the assembly using the retained hose connection and clips to the existing B.P.C. pipe on the port side, also fit the assembly to the existing clamp block using the retained 'P' clip. To the other side of this drain assembly fit a new pipe, Part No. 15 V 997ND, again using the retained hose connection and clips, route this new pipe through the new clamp block, upper channel and through the grommet in the coupling support bracket. Now cut the existing B.P.C. pipe, Part No. 15 V 361ND (ref. only) routed from the starboard wing root, at a position to suit the new pipe just fitted, deburr the modified pipe which now becomes Part No. 15 V 1007 ND (ref.only). Connect these pipes using a hose connector, Part No. DHS 159/B20, and two hose clips, Part No. AGS 605/00.

(15) Refit the lower engine cowling at the aft achorage using its retained attaching items and drill the hinge at its forward anchorage two No. 11 holes to suit the anchor nuts on the vent pipe assembly. Secure the cowling at this front anchorage with its retained attaching items,

(16) Refer now to sheet 3 of the drawing and offer up to the cowling channel outer face, two pieces of ferobestos tape, Part No. 15 FS 3671ND, to fit part of the centre line, and Part No. 15 FS 3681ND, to fit starboard of the centre line, each piece of the ferobestos tape is to finish 0.75 ins. from the bulkhead centre line. Secure the ferobestos tape to the landing channel by using 120 deg. countersunk head 1/8 in. dia. rivets, Part No. AS 2230/405, where necessary, drill 1/8 in. dia. holes through the ferobestos tape and landing channel in the centre, ensure these rivets do not foul any fittings.

6/.....

(17) Again refer to sheet 3 of the drawing and offer up a packing block, Part No. 15 FS 3679, to the area aft of the vent pipe and forward of the cowling hinge, trim this packing on the edges indicated on the drawing ensuring a maximum clearance of 0.020 in. chamfer the bottom edge 0.030 in X 45 deg. to clear the cowling. Drill the bracket support to suit this packing and finally rivet the packing to the support with two 90 deg. countersunk head 1/8 in. dia. rivets, Part No. AS 2229/408, having first coated the mating surfaces with compound, pigmented varnish, jointing.

(18) Recharge the hydraulic system in accordance with current authorized procedure and replace the cannon bay doors.

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:-

Carry out a functional test of the hydraulic system as detailed in A.P. 4099J, Vol 1, Sect 3, Chap 6.

10. RECORDING ACTION. - Record in Form 700 and Form 4801.

11. DISPOSAL OF REDUNDANT PARTS.

(i) The undermentioned parts rendered redundant by the embodiment of this modification are to be returned to O.C. Equipment Depot.

Stores Ref.	Part No.	Nomenclature	Qty.
		NIL.	

(ii) The undermentioned parts rendered redundant by the embodiment of this modification are to be returned to O.C. Equipment Depot and classified as scrap.

Stores Ref.	Part No.	Nomenclature	Qty.
26FC/1987	A00 1298A	Bracket, bottom centre	1
27V/	F.M.B.A./1	Valve, vent relief	1
26FC/6980	P00 3727A/1	Valve, vent rekief	1
26FC/8091	P00 3897	Packing	1
26FC/2380	Q00 108A	Block, clamp	1
	Q00 3697A/ND	Pipe assembly pump pressure	1
	Q00 3701A/ND	Pipe assembly, pump suction	1
	D.H.S.30/4	Clip 'P'	1

Alternatives

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of + .91 lb., and a change of moment of NIL. lb.ft.

B.H. GIBBONS
Squadron Leader
S.T.S.O.

Source:- AP 4099J, Vol 2, Pt (1)

Distribution:-

O.C. M.U.	(1)
A.R.S.	(2)
M.U. Tech Control	(1)
No. 1 Squadron	(3)
No. 2 Squadron	(3)
O.C. Equip Depot	(1)
S.E.S.O.	(1)
Tech Stats	(1)
File	(1)

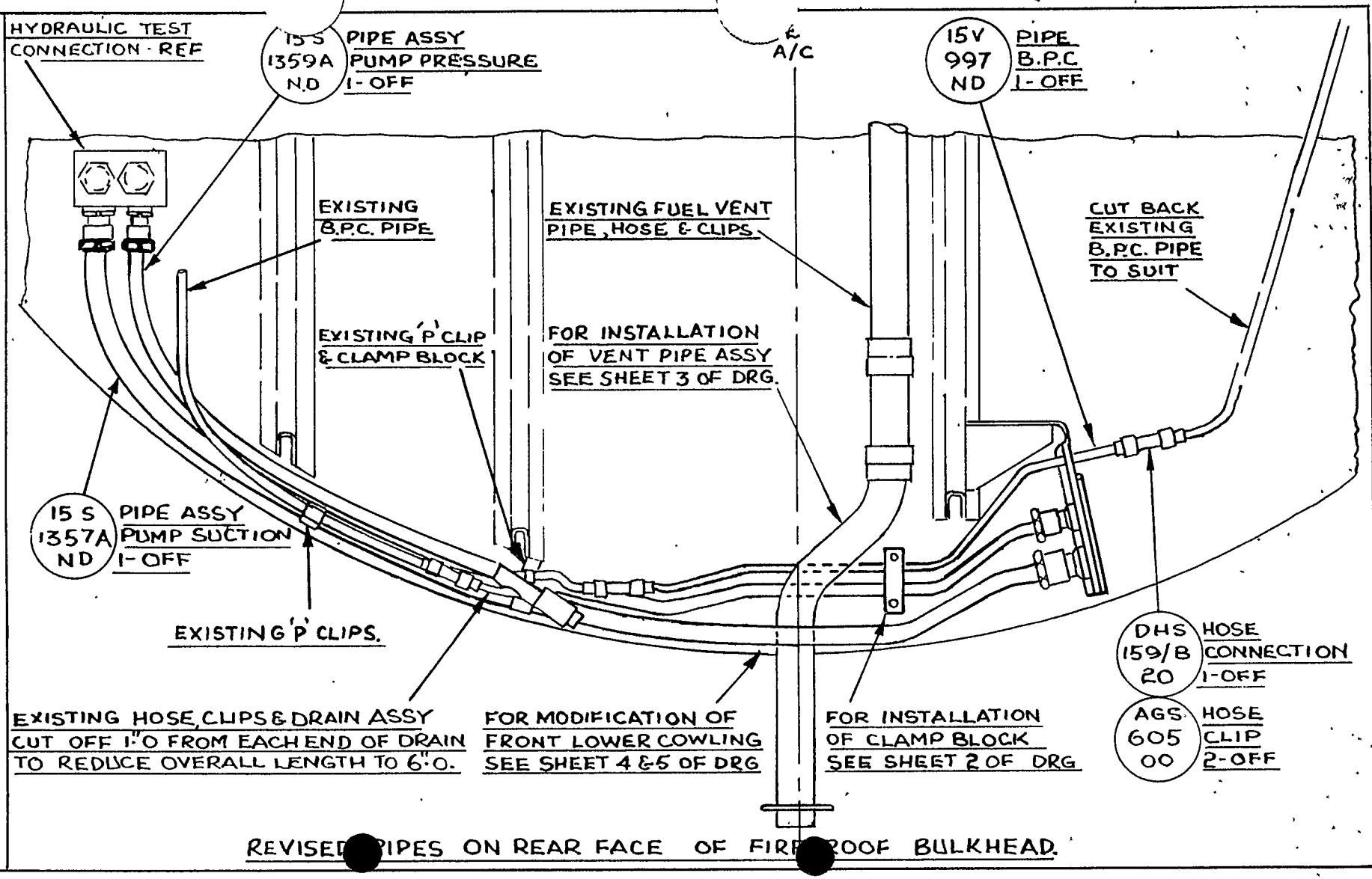
FUEL SYSTEM - TO EXTEND FUSELAGE FUEL TANK VENT AND INTRODUCE IMPROVED SEALING BETWEEN VENT AND COWLING

D.H. DRAWING N° M.A. 997

SHEET 1 OF 5 SHEETS

MOD N° VAMPIRE 3506

RRAF DRG N° AV 36



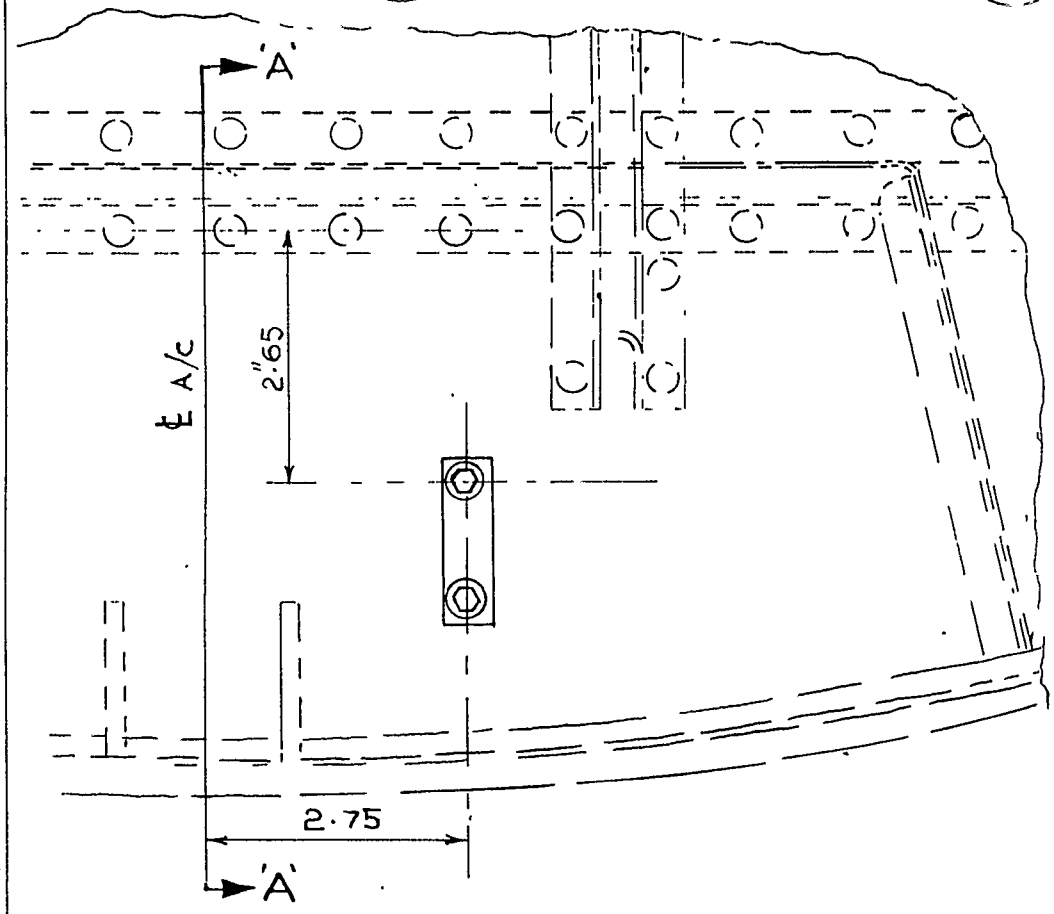
FUEL SYSTEM - TO EXTEND FUSELAGE FUEL TANK VENT AND INTRODUCE IMPROVED SEALING BETWEEN VENT AND COWLING

D.H. DRAWING Nº M.A. 997

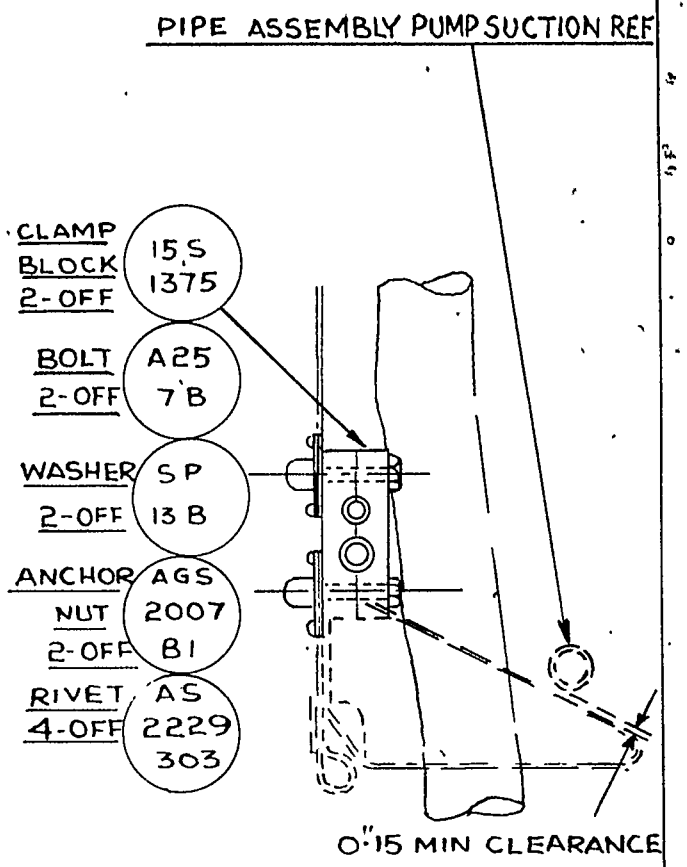
SHEET 2 OF 5 SHEETS

MOD Nº VAMPIRE 3500

R.R.A.F DRG NºAV36



VIEW LOOKING ON AFT FACE OF FIREPROOF BULKHEAD.

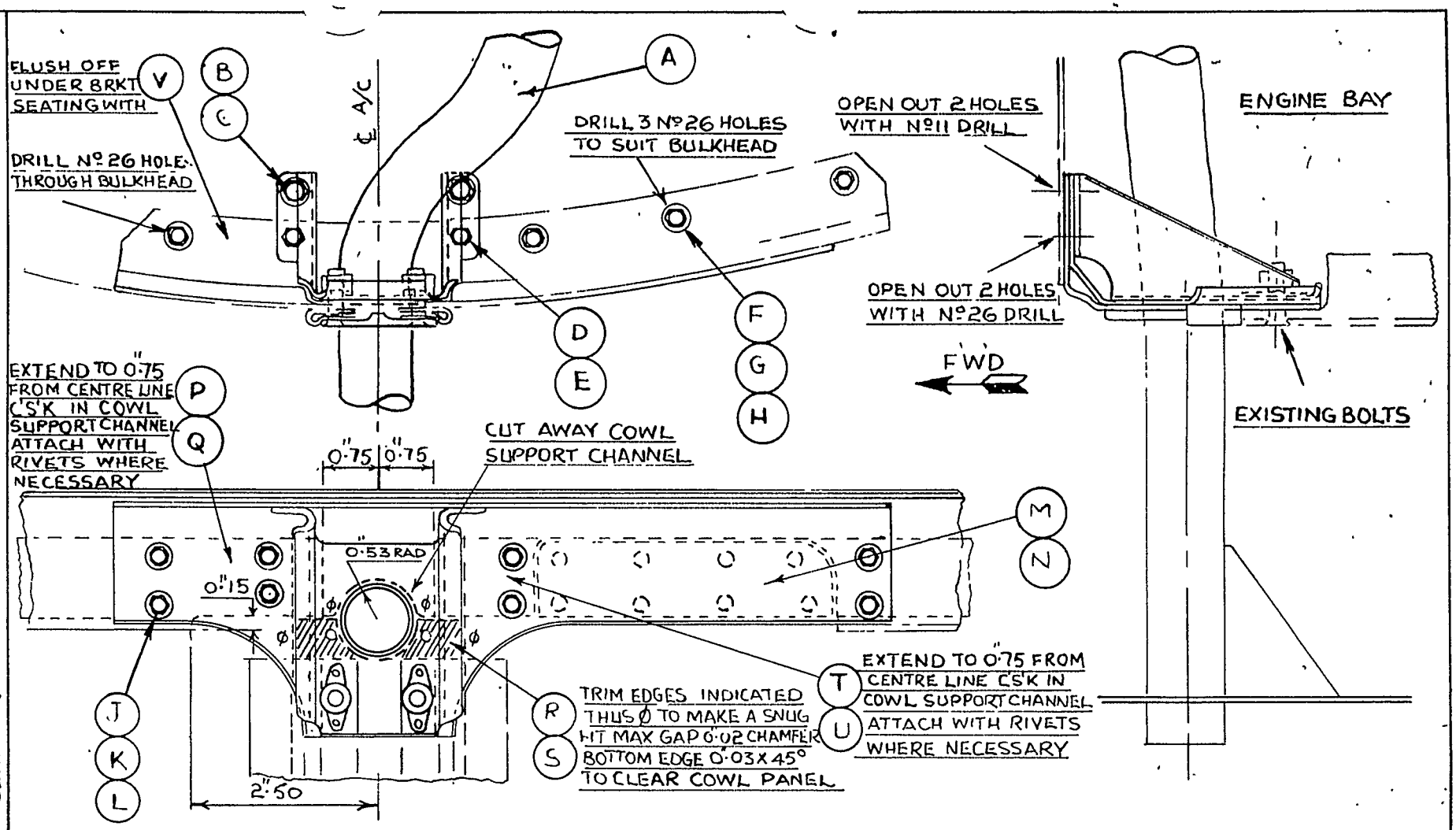


VIEW ON ARROWS 'A-A'

INSTALLATION OF CLAMP BLOCK

FUEL SYSTEM - TO EXTEND FUSELAGE FUEL TANK VENT AND INTRODUCE IMPROVED SEALING BETWEEN VENT AND COWLING

MOD Nº VAMPIRE 3500
R.A.F. DRG Nº AV 36



SEE SHEET 4 FOR KEY

INSTALLATION OF VENT PIPE ASSY ON REAR FACE OF FIREPROOF BULKHEAD

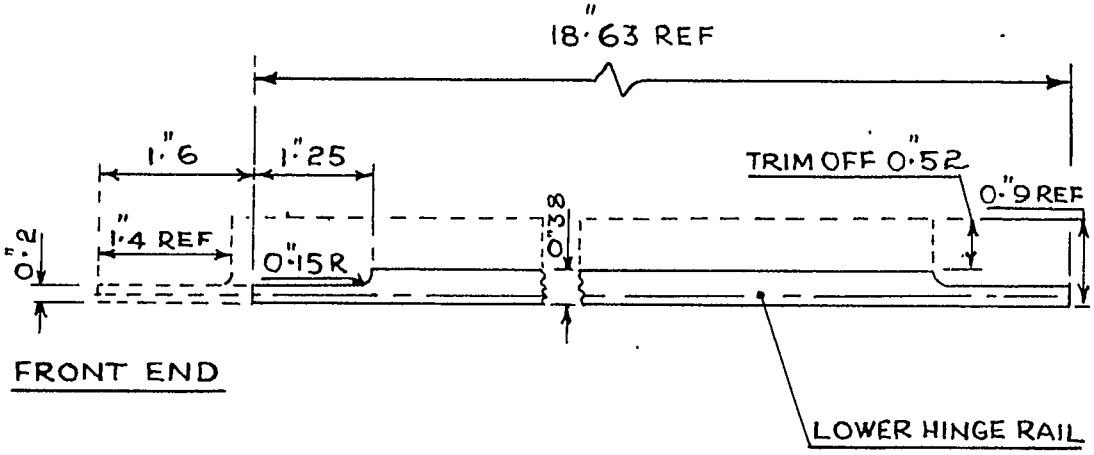
D.H DRAWING No M.A 997
SHEET 4 OF 5 SHEETS

FUEL SYSTEM- TO EXTEND FUSELAGE FUEL TANK VENT AND INTRODUCE IMPROVED SEALING BETWEEN VENT AND COWLING

MOD No VAMPIRE 3500
R.R.A.F. DRG No AV 36

KEY

CODE	PART No.	NOMENCLATURE	QTY
A	15 S 1355 A	VENT PIPE & BRK'T ASSY	1
B	A25/1C	BOLT 2BA	2
C	AGS.2001/C1	NUT 2BA	2
D	A25/1B	BOLT 4 BA	2
E	AGS.2001/B1	NUT 4 BA	2
F	A25/1B	BOLT 4 BA	4
G	SP 13/ B	WASHER 4 BA	4
H	AGS2001/B1	NUT 4 BA	4
J	AS1242/1B	BOLT 4 BA	8
K	SP 13/ B	WASHER 4 BA	8
L	AGS2001/B1	NUT 4 BA	8
M	15 FS.3669	PACKING	1
N	AS.2230/304	RIVET $\frac{3}{32}$" DIA	8
P	15 FS.3671.ND	FEROBESTOS	1
Q	AS2230/405	RIVET $\frac{1}{8}$" DIA.	3
R	15.FS.3679	PACKING BLOCK	1
S	AS.2229/408	RIVET $\frac{1}{8}$" DIA	2
T	15 FS 3681 ND	FEROBESTOS	1
U	AS 2230/405	RIVET $\frac{1}{8}$" DIA	3
V	AS. 2230/505	RIVET $\frac{5}{32}$" DIA	5



TRIM THE HINGE AND PACKING 1·6
TRIM THE HINGE RAIL TO THE NEW SHAPE DETAILED
FINISH THE HINGE RAIL WITH MATCHING CELLULOSE
TO SPEC. DTD. 772 ALUMINIUM.

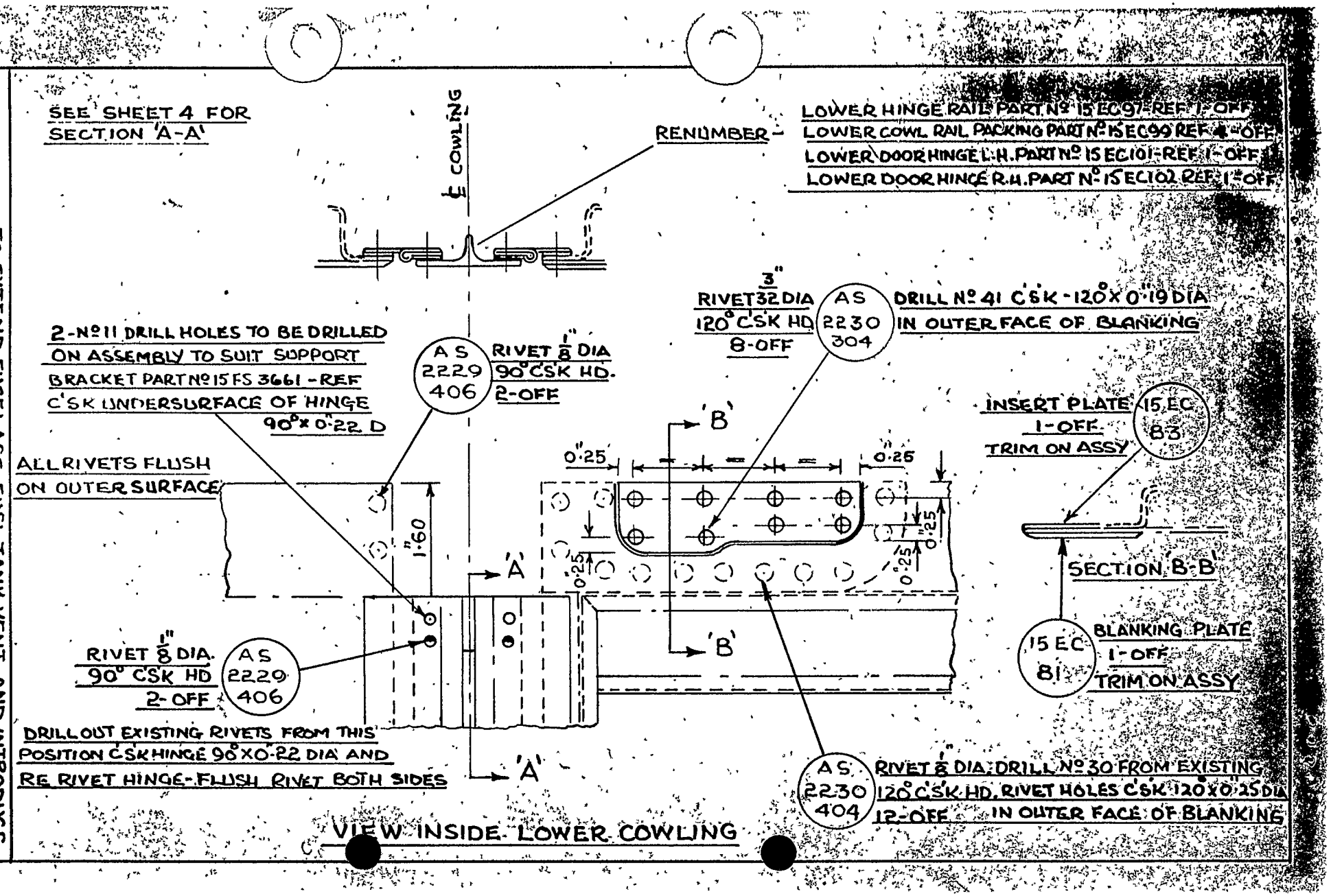
SECTION 'A'-'A' SEE SHEET 5

EQUIPMENT FOR VENT PIPE INSTALLATION AND FURTHER DETAILS OF COWLING

FUEL SYSTEM - TO EXTEND FUSELAGE FUEL TANK VENT AND INTRODUCE IMPROVED SEALING BETWEEN VENT AND COWLING

D.H. DRAWING Nº MA.997
SHEET 5 OF 5 SHEETS

MOD Nº VAMPIRE 3500
RRAF DRG Nº AV 36



R.R.A.F. Technical Order
Vol.3, Sect.2, Sub.Sect. B.17 (Issue 1)
Vol.7, Sect.2, Sub.Sect.B.4 (Issue 2).

Cancelling and Superseding
Vol.7, Sect.2, Sub.Sect. B.4 (Issue 1).

Air Headquarters,
Royal Rhodesian Air Force,
NEW SARUM.
24th July, 1956.

VAMPIRE F.B. MK.9 AIRCRAFT - ELECTRICAL - PROVISION FOR HIGH ENERGY IGNITION EQUIPMENT - INTRODUCTION.

MOD NO. VAMP/963.

1. INTRODUCTION

This modification is necessitated by the fitment of engines with high energy ignition equipment. It makes the necessary changes to the electrical installation, and provides for the fitting of a re-light switch, in the cockpit. rovision is also made for contact to the booster coils for use when engines are itted without high energy equipment.

This modification is essentially connected with Mod. No. Vampire 3076 to delete Oil Pressure Gauge, Stores Ref. 6A/1563) if that work is not already mbodied it must be effected concurrently.

. EMBODIMENT.

(1) This modification is to be embodied concurrently with the embodiment of Mod. No. Goblin/830 or when an engine with Mod. No. Goblin/830 is eceived as a replacement.

(2) Applicable to all F.B.9 aircraft excluding R.R.A.F. 110 and R.R.A.F. 11.

. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 10 man-hours (½ hour strip; 8½ hours embody; 1 hour re-assembly.) This does not include the drying time of the Bostik mpound.

. DRAWINGS REQUIRED.

Drawing No. A.P.4099G/F.10/54, Sheets 1-6, is incorporated in this aflet.

PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and materials.

(a) The modification kit consists of the following items.

ores Ref.	Part No.	Nomenclature.	Qty.	Class of Store.
FC/-	B00 3693	Adaptor plate	1	-
26FC/-	B00 3697	Label	1	-
26FC/-	N00 619ND	Blank disc	1	-
26FC/-	N00 3721A	Cable assy.	1	-
26FC/-	B 16936	Rubber boot	3	-
26FC/-	13 N 821A	Mounting bracket	1	-
26FC/-	15 N 1281A	Cable assemblies	2	-
26FC/-	DHS.373/4	Rubber tubing, each 4 ft. 6 ins. long (make from Section Ref. No.32C/407).	2	-
5CW/5275	P.T.C./DH/30	Venner time switch	1	A
28E/8183	A.G.S.605/1	Clip hose	2	C
28Q/10406	AS.2227/507	Rivet 5/32 ins. dia.	4	C
5K/-	T.2	Twinlay marker coded 'E'	6	C
5K/-	T.2	Twinlay marker coded 'SA.2 +'	2	C
5K/-	T.2	Twinlay marker coded 'SA.7'	Make from 5K/2577 2	C
5K/-	T.2	Twinlay marker coded 'SA.8'	10	C
5K/-	T.2	Twinlay marker coded 'SA.12 +'	4	C

(ii) Items to be assembled by the Maintenance Unit to complete the kit:-

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
5CZ/1255		Fuse, 20 amp.	2	C
5K/910		Cable end	2	C
5K/911		Cable end	4	C
5K/1498		Gland nut	1	C
5K/2577		Rubber sleeve	24	C
5X/1383		Cut ferrule	2	C
+5X/1963		Cap plug screening	2	C
* 5X/3149		Thimble	4	C
* 5X/3237		Pin socket	4	C
5X/6004		Breeze socket	2	B

+ These items are only required where the 6000 series socket is used. At other times they are to be returned to stores and retained as spares.

* This item will be required only when an engine with high energy ignition equipment is fitted. At other times, these parts are to be retained in stores pending requirement.

The complete Kit is to be demanded from O.C. Equipment Depot under Stores Ref. No. 26FC/100963.

(b) The following materials are also required, and are to be provided under Unit arrangements:-

ores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
/3040		Cable Unipren 12	As reqd.	C.
A/94		Cord braided stringing	As reqd.	C.
C/10		Beeswax	As reqd.	C.
C/1264		Compound, pigmented varnish jointing	As reqd.	C.
C/1138		Bostik Compound, pressure cabin sealing 1790	As reqd.	C.
C/1139		Bostik Primer 1751	As reqd.	C.

(2) Special Tools and Test Equipment

There are no special tools or test equipment required for the odiment of this modification.

SPARES AFFECTED

There are no spares affected by this modification.

CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

There are no changes of Stores Reference, Part, or Assembly Numbers a result of this modification.

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-
(Refer to Drg. No. A.P.4099G/F.10/54.)

(1) Disconnect the aircraft batteries. Remove the top and bottom engine inspection doors.

(2) Refer to Sheet 1 of the drawing, locate the left-hand instrument panel in the cockpit. On the instrument panel immediately inboard of the jet temperature gauge, will be found the blanking plate, Part No. B00 3451 (Ref. only), fitted on removal of the oil pressure gauge. Remove this plate by disconnecting the two 4 B.A. screws and nuts. Open out the two holes in the panel using a No.22 (0.157 in dia.) drill. Drill out the rivet at the edge of the panel adjacent to the top existing hole using the No.22 drill. Offer up the new adaptor plate, Part No. B00.3693, in position on the panel aligning the three holes in the plate with those in the panel. Mark off the 2.0 in. dia. hole to be cut in the panel and also the fourth rivet hole. Cut and trim the 2.0 in. dia. hole using a half-round file and drill the rivet

3/.....

hole using the No.22 drill. De-burr the rivet holes and the 2.0 in. dia. hole. Apply pigmented varnish jointing compound (Stores Ref. 33C/1264) and fit the adaptor plate and new label, Part No. BOO.3697, in position and secure by means of four 5/32 in. dia. rivets, Part No. AS.2227/507. Now fit the new "Venner" time switch, Part No. P.T.C./DH/30, into the adaptor plate.

(3) Refer to Sheet 2 of the drawing and locate junction box 1 on the starboard side of the cockpit. Remove the cover, Make up a length of cable, Unipren 12 (Stores Ref. 5E/3040) making the ends as shown on Sheet 4 of the drawing, using two rubber sleeves (Stores Ref. 5K/2577) and two twinlay markers, Part No. T.2, coded 'SA.12+'. Connect the cable to run from fuse 37 to plug C.1, pin G. Locate the fuse box cover transfer against fuse 37 and alter the inscription to read "20-ignition". Fit a new 20 amp. fuse (Stores Ref. 5CZ/1255) into the housing and fit a spare fuse (Stores Ref. 5CZ/1255) into the lid stowage.

(4) Locate the cable loom C.1 which runs from junction box 1 and disconnect and remove the three cables 'SA.7' (Ref. only) from pin W. 'SA.8' (Ref. only) from pin X and 'SA.2+' (Ref. only) from pin Y. Make up three new cables, Unipren 12 (Stores Ref. 5E/3040) as shown on Sheet 4 of the drawing using six rubber sleeves (Stores Ref. 5K/2577) and six twinlay markers, Part No. T.2, two coded 'SA.7', two coded 'SA.8', and two coded 'SA2+'. Make up another cable, Unipren 12, using two rubber sleeves (Stores Ref. 5K/2577) and two twinlay markers, Part No. T2, coded 'SA.12+'. Connect the one end of the cable coded 'SA.7' to plug C.1, pin W; 'SA.8' to pin X; 'SA.2+' to pin Y; 'SA.12+' to pin G, using four socket pins (Stores Ref. 5X/3237) and four thimbles (Stores Ref. 5X/3149) only where the 6000 series socket is used.

(5) Locate the Pye micro switch, Part No. 83467 (Ref. only), on the port side of the fuselage. Disconnect and remove the cables coded 'SA.10' (Ref. only) and 'SA.2+' (Ref. only) linking the micro switch to the Q.1 relay. Remove the micro switch from the aircraft and also the switch cover, Part No. NOO.229A (Ref. only); the label, Part No. NOO.566 (Ref. only); two distance pieces, Part No. NOO.1795ND (Ref. only); the woodscrew, Part No. A.G.S. 253/37 (Ref. only); two woodscrews, Part No. A.G.S. 253/44 (Ref. only).

(6) Connect the other end of the new cables fitted in operation (4) to loom C1 as follows: Connect the cable 'SA.2+' to the Venner time switch terminal 2. Connect the cable 'SA.7' to the time switch terminal 1, using two cable ends (Stores Ref. 5K/910) and two rubber boots, Part No. B.16936. Connect the cable 'SA.8' to the Q.1 relay terminal 4. Connect the cable 'SA.12+' to the Q.1 relay terminal 5. Prepare two lengths of Unipren 12 cable as necessary and link Q.1 relay terminal 3 with terminal 5; and terminal 4 with terminal 6. Run the new cable assembly, Part No. NOO.3721A,, from Q.1 relay terminal 1 to the time switch terminal C, ensuring that the end of this cable bearing the cable lug goes to the time switch terminal, using a new rubber boot, Part No. B.16936. All these cables are to be bound where necessary using beeswax coated braided stringing cord (Stores Ref. 33C/10 and 32L/94.

(7) Refer to Sheet 3 of the drawing. Locate junction box 2, sitauated on bulkhead 4 and remove the cover. Disconnect the existing cable 'SA.8' from plug C.14, pin P only and re-route it to the spare terminal on terminal block 2. Make up three new lengths of cable Unipren 12 as shown on Sheet 4 of the drawing using six rubber sleeves (Stores Ref. 5K/2577) and six twinlay markers, Part No. T.2, four coded 'SA.8' and two coded 'E'. Connect the two cables coded 'SA.8' to the spare terminal on terminal block 2 and one of them to plug C.14, pin P, and the other to plug C.14, pin R. Connect the cable coded 'E' from plug C14, pin A, to the earth terminal on terminal block 1.

4/.....

(8) Refer to Sheet 5 of the drawing and make up four lengths of cable Unipren 12 as shown on Sheet 4 of the drawing each 4 ft. 8 in. long, using eight rubber sleeves (Stores Ref. 5K/2577) and eight twinlay markers, Part No. T.2, four coded 'SA.8' and four coded 'E'. Group the cables together in opposite pairs and pass over them the rubber tubings, Part No. D.H.S.373/4. Connect the two new breeze sockets (Stores Ref. 5X/6004) to the two pairs of cables connecting core 'SA.8' to pin B and core 'E' to pin A. Seal the breeze sockets where the cables enter in the following manner.

(a) Pack Bostik Compound 1790)Stores Ref. 33C/1138) into the end of the rubber tubing, filling all spaces between the cables and the wall of the tubes.

(b) Tightly bind the cables to the breeze socket in the normal manner, and also bind the rubber tubing to the cables just adjacent to, and at the rear of the breeze socket, using beeswax coated braided stringing cord.

(c) Pass the two new cut ferrules (Stores Ref. 5X/1383) over the rubber tubes and position them over the binding.

(d) Fill all spaces between the tubes and the ferrules with Bostik Compound 1790 and allow 48 hours to set.

(e) Apply two coats of Bostik Primer 1751 (Stores Ref. 33C/1139) overall, allowing the first coat to dry before applying the second.

(9) Locate loom C14 which runs from junction box 2 and disconnect and remove the two cables to the booster coils 'SA.8' (Ref. only) and E (Ref. only); which are connected to pins P. and O. respectively. Secure the four new cables assembled in the previous operation, to plug C.14, connecting the one cable core 'E' TO pin A, and its fellow cable core 'SA.8' to pin R. Connect the other cable core 'E' to pin O and its fellow cable core 'SA.8' to pin P. It is essential to pair off the cables correctly as above.

(10) Refer to Sheet 6 of the drawing and ascertain the position for fitting the new mounting bracket, Part No. 13N.821A. Apply pigmented varnish jointing compound (Stores Ref. 33C/1264) to the bracket and secure in position by means of two jubilee clips, Part No. A.G.S605/1, passed through the slots.

(11) Route the new cables, added to loom C.14 in operation (9) as shown and bind where necessary to the loom and to the aircraft structure using beeswax coated braided stringing cord leaving the surplus cable in the vicinity of the bracket for connection in a later operation.

(12) Referring to the same sheet of the drawing fit the two new cable assemblies, Part No. 15 N.12814, binding where necessary with beeswax coated braided stringing cord, and securing the breeze plugs as shown into the mounting bracket fitted in operation (10). Utilise the existing 'P' clips and pass the cables through the boost coil glands, and fit four new cable ends (Stores Ref. 5K/911). Connect cores 'SA.8' to terminals S, and cores 'E' to terminals M.2. Over the redundant gland, left on removal of the cables from the loom C14, fit a new blank disc, Part No. N00.619ND, and a new gland nut (Stores Ref. 5K/1498).

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 screening caps (Stores Ref. 5X/1963) over the ends of the booster coil plugs.

5/.....

(13) Clean out all dirt and metal particles from inside the junction boxes and replace the covers. Replace the engine inspection doors and reconnect the aircraft batteries.

9. TESTING AFTER EMBODIMENT

When this modification has been embodied, the following tests are to be carried out:-

Test the new wiring circuit for electrical continuity in accordance with current authorised procedure.

10. RECORD ACTION.

Record on Form 700 and 4801.

11. DISPOSAL OF REDUNDANT PARTS

(i) The undermentioned parts rendered redundant by the embodiment of this modification are to be returned to O.C. Equipment Depot.

Stores Ref.	Part No.	Nomenclature.	Qty.	Class of Store.
5cW/2081	Pye 83467	Micro switch	1	B

(ii) The undermentioned parts rendered redundant by the embodiment of this modification are to be disposed of ~~in accordance with current procedure:-~~ as scrap, 10/6.

Stores Ref.	Part No.	Nomenclature.	Qty.	Class of Store.
26FC/-	B00.3451	Blanking plate	1	-
26FC/-	N00.566	Label	1	-
26FC/2314	N00.2294	Switch cover	1	C
26FC/-	N00. 1795ND	Distance piece	2	-

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes a weight change of +0.71 lb., and a change of moment ± Nil lb. ft.

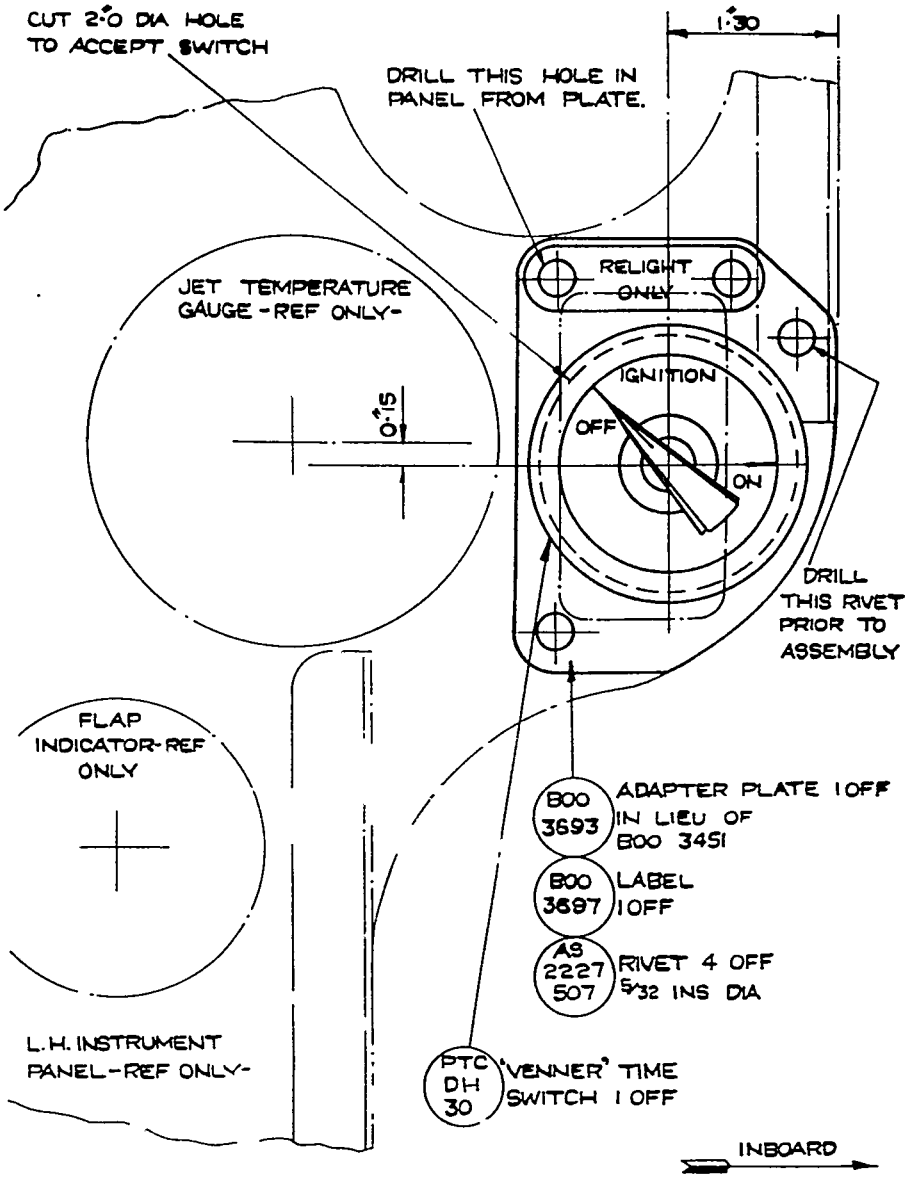
Note:- This affects A.D.4551, Issue 3, which will be modified accordingly.

SOURCE:- A.P.4099G, Vol.2, Pt.1, Leaflet F.10.

(B.H. GIBBONS)
Squadron Leader,
S.T.S.O.

Distribution:-

O.C./M.U.	(1)
A.R.S.	(2)
Elect. Sect.	(2)
Specialist Officer	(1)
E.R.S.	(2)
M.U. Tech. Control	(2)
S.E.S.O.	(1)
O.C. Equip. Depot	(1)
Tech. Stats	(1)
File 7513/2/ENG	(1)



INSTALLATION OF 'VENNER' TIME SWITCH TO INSTRUMENT PANEL

DRG. No. A.P. 4099 G / F. 10 / 54
SHEET 1

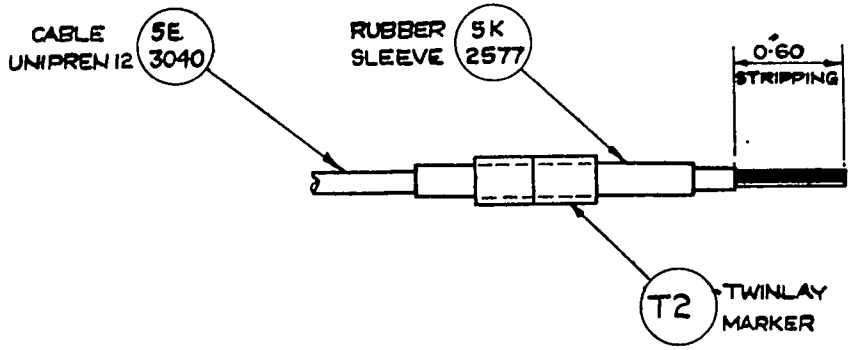
RESTRICTED

LP28688 10/54 500 C&P Gp. 959 (4)

RESTRICTED

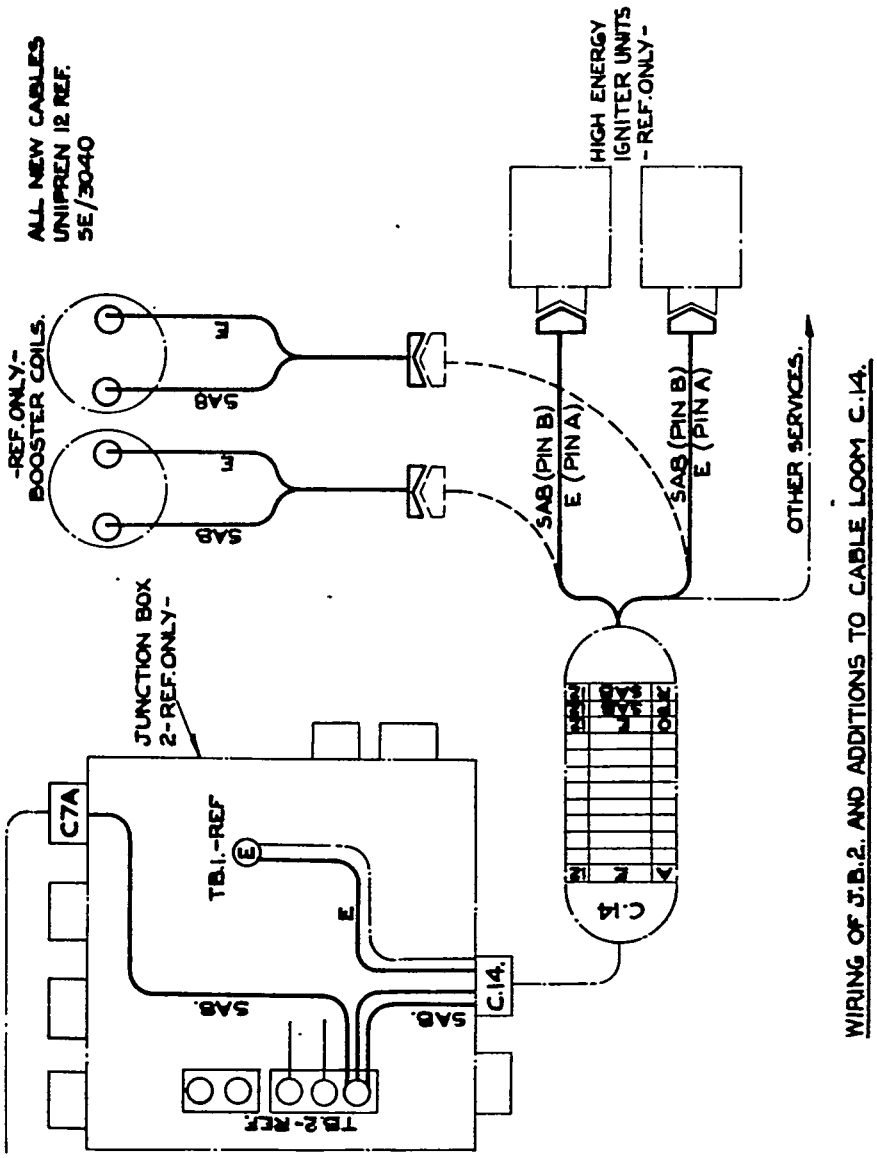
DRG. No. A.P.4099 G / F. 10 / 54
SHEET 4

LP28688 10/54 500 C&P Gp. 959 (4)



1. CUT CABLE TO THE REQUIRED LENGTH
2. STRIP ENDS OF CABLE TO 0·60 INS.
3. SECURE RUBBER SLEEVES IN POSITION.
4. FIT TWINLAY MARKERS BEARING THE APPROPRIATE CODE TO CABLE ENDS.
5. INSTALL CABLE IN ACCORDANCE WITH APPROPRIATE OPERATION IN THE SCRIPT.

METHOD OF MAKING UP ENDS OF NEW LENGTHS OF UNIPREN CABLE.



RESTRICTED

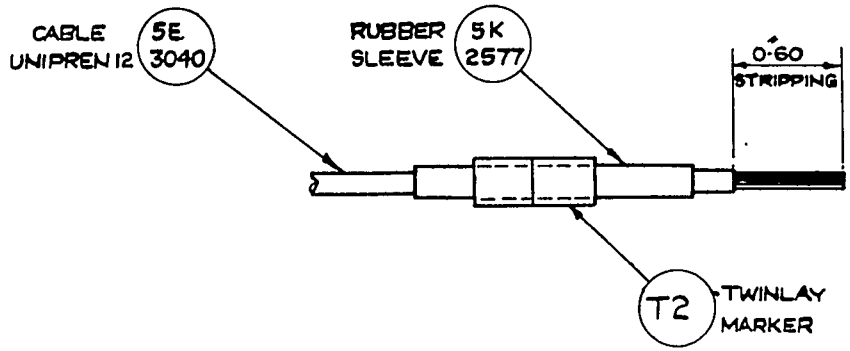
DRG. No. A.P. 4099 G / F. 10 / 54
SHEET 3

LP28688 10/54 500 C&P Gp. 959 (4)

RESTRICTED

DRG. No. A.P.4099 G / F. 10 / 54
SHEET 4

LP28688 10/54 500 C&P Gp.959 (4)



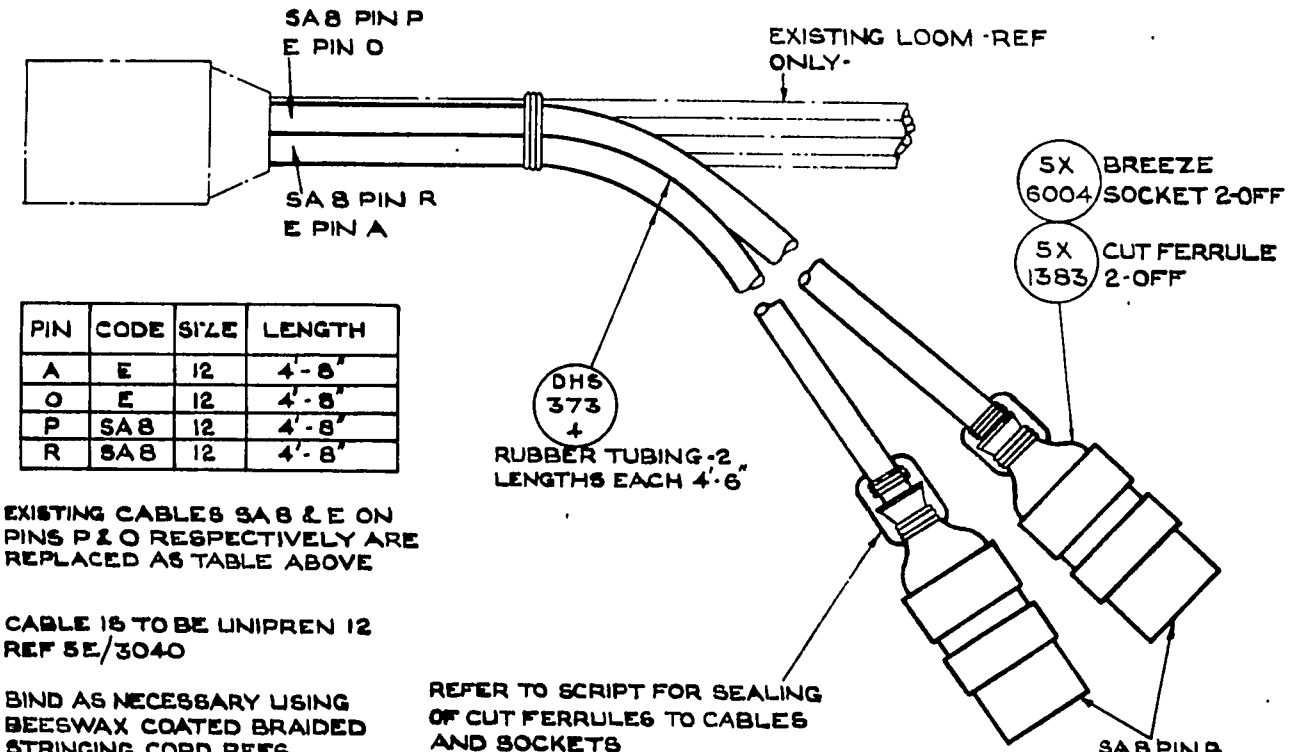
1. CUT CABLE TO THE REQUIRED LENGTH
2. STRIP ENDS OF CABLE TO 0·60 INS.
3. SECURE RUBBER SLEEVES IN POSITION.
4. FIT TWINLAY MARKERS BEARING THE APPROPRIATE CODE TO CABLE ENDS.
5. INSTALL CABLE IN ACCORDANCE WITH APPROPRIATE OPERATION IN THE SCRIPT.

METHOD OF MAKING UP ENDS OF NEW LENGTHS OF UNIPREN CABLE.

RESTRICTED

DRG. No. A.P. 4099 G / F. 10 / 54
SHEET 5

LP2668 10/54 500 C&P Gp. 959 (4)



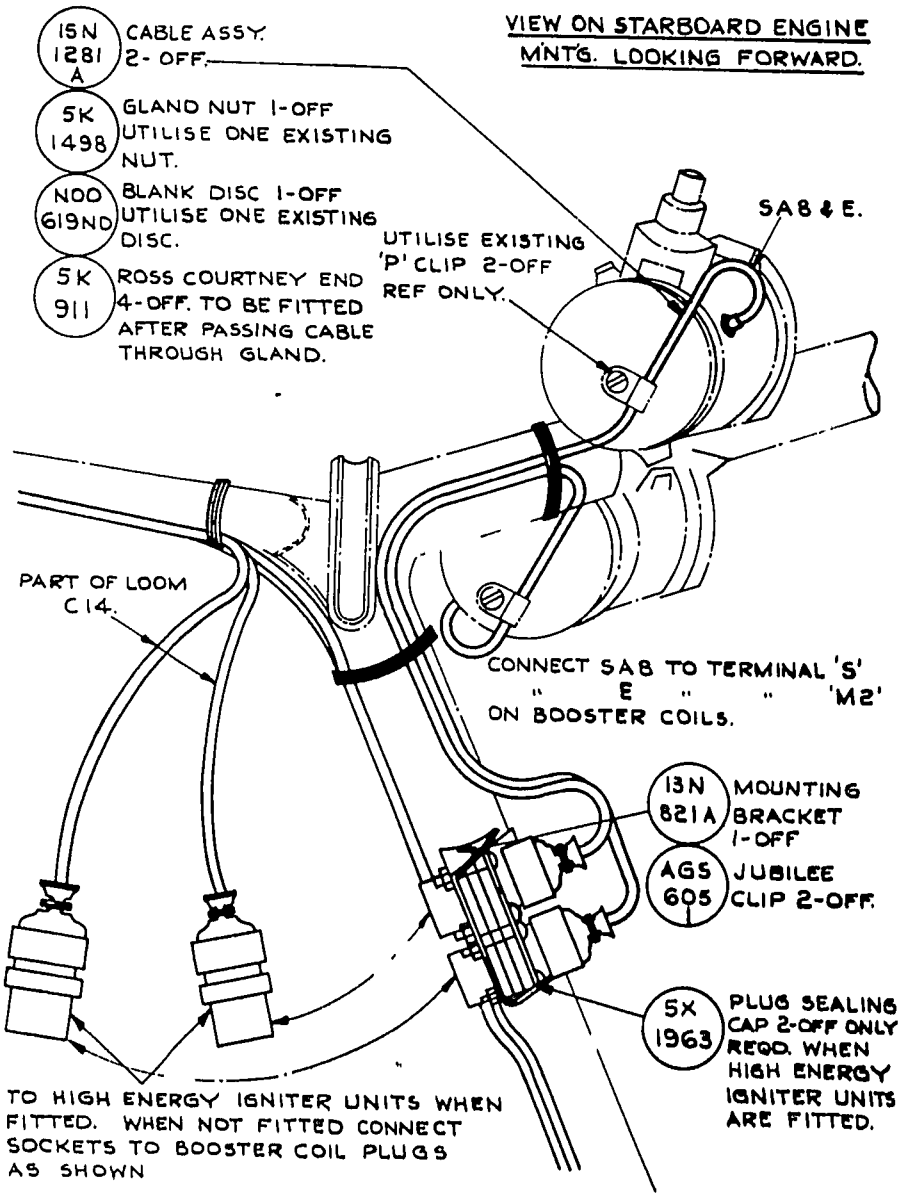
PIN	CODE	SIZE	LENGTH
A	E	12	4'-8"
O	E	12	4'-8"
P	SA 8	12	4'-8"
R	SA 8	12	4'-8"

EXISTING CABLES SA 8 & E ON PINS P & O RESPECTIVELY ARE REPLACED AS TABLE ABOVE

CABLE IS TO BE UNIPREN 12 REF 5E/3040

BIND AS NECESSARY USING BEESWAX COATED BRAIDED STRINGING CORD REFS 33C/10 & 32A/94

ADDITIONS TO CABLE LOOM C 14.



CONNECTION OF LOOM C14 TO BOOSTER COIL CABLES.

Air Headquarters,
Royal Rhodesian Air Force,
NEW SARUM.

29th June, 1956.

Vampire T. Mk. 11 Aircraft - Flying Controls - Lock Nuts at Elevator Trim Cable Turnbuckle on Rib No. 1 - Introduction.

(Mod. No. Vampire/3335).

1. INTRODUCTION

It has been discovered that the elevator trim cable adjusting turnbuckles have been fitted without locknuts. To avoid the possibility of slackening of the cables due to the turnbuckles becoming loose, this modification introduces lock nuts at this position.

(1) This modification does not cancel, supersede, or render unnecessary any work called for by approved modifications, Command modifications. S.T.Is, S.Is or S.R.I.M.s.

(2) This modification is not essentially connected with any other approved modification.

EMBODIMENT

This modification is to be embodied on adjustment or replacement of cable. Aircraft effected are RRAF 116, 117, 118, 119 and 122.

APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 5 man-hours.

DRAWINGS REQUIRED

There are no drawings required for the embodiment of this modification.

PARTS AND SPECIAL TOOLS REQUIRED.

(1) Parts and/or Materials

The following parts and materials are required, and are to be provided under Unit arrangements:-

Stores Ref.	Part No.	Nomenclature.	Qty.	Class of Store.
[illegible]/13253	A.27/C.T.L.	Nut, thin, 2 B.A., L.H.	1	C
[illegible]L/13124	A.27/C.T.	Nut, thin, 2 B.A., R.H.	1	C
[illegible]A/3055		Wire, locking, nickel alloy, .22 S.W.G.	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.

There are no spares affected by this modification.

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

There are no changes of Stores, Ref., Part or Assembly Nos. as a result of this modification.

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Remove the top middle engine cowling, and locate the elevator trim cables running along the inboard face of the port wing, Rib 1. Break the locking wire and disconnect the cable tensioning turnbuckles.

(2) Thread on to the swaged cable ends two B.A. locknuts, Part Nos. A.27/C.T.L. (left hand) - one off - and A.27/C.T. (right hand) - one off - taking care to fit the handed nuts to the correct ends.

2/.....

(3) Re-assemble the original turnbuckles to their correct cable assemblies, and re-rig the system as detailed in A.P.4099J, Vol. 1, Section 3, Chapter 4. When correct adjustment has been obtained, tighten the locknuts on to the turnbuckles and renew the locking wire using 22 S.W.G. nickel alloy locking wire (Stores Ref. 30A/3055). Replace the top middle engine cowling.

9. TESTING AFTER EMBODIMENT
There are no special tests required after the embodiment of this modification.

10. RECORDING ACTION
Record on Aircraft Form 700. and 4801

11. DISPOSAL OF REDUNDANT PARTS
There are no parts rendered redundant by the embodiment of this modification.

12. EFFECT ON WEIGHT AND C. OF G.
This modification causes a weight change of +0.06 lb., and no change of moment.

SOURCE:- A.P.4099J, Vol.2, Pt.1, D7.

(B.H. GIBBONS) SQN. LDR.
S.T.S.O.

Distribution:-

O.C./M.U.	(1)
A.R.S.	(2)
1 Squadron	(3)
2 Squadron	(3)
O.C. G.T.S.	(1)
O.C. Stores Equip.	(1)
S.E.S.O.	(1)
Tech. Stats	(1)
File 7515/2/ENG.	(1)

R.R.A.F. Technical Order
Vol.3, Sect 2. Sub Sect. B15 (Issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
NEW SARUM

22nd June, 56.

Vampire F.B. Mk.9 Aircraft - Miscellaneous improvements to prevent entry of Sand and Grit into Oil Supply for Cold Air Unit.

(Mod. No. Vampire/3265).
(Class B/3.)

INTRODUCTION

1. This modification is introduced because damage to the cold air unit [illegible]rings is being caused by the entry of sand and grit into the unit oil supply, [illegible] by grit thrown up during formation take off. A filter is introduced into the [illegible] tank inlet neck and the air vent hole diameters are reduced.

The work will take approximately 2 man-hours.

[illegible]BODIMENT

2. This modification is to be embodied on all F.B.9s except RRAF 110 and [illegible], at the first available opportunity and not later than the next Minor [illegible]rvicing.

[illegible]QUENCE OF OPERATIONS

3. The following is the sequence of operations:-

(1) Remove the cold air unit access panel and oil reservoir, 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.

(2) Located at approximately 1¼ in. from the face of the mounting flange of the reservoir is a 1/16 in. dia. drilled hole. Seal this hole by brazing or silver solder and drill a 1/64 in. dia hole opposite. Ensure no swarf enters the reservoir, and that scrupulous cleanliness is observed throughout this operation. The reservoir will then become Part No. R00 2621A (ref. only).

(3) Insert the filter, Part No. 12 V 667A, with the rivet uppermost, and temporarily enclose it by lightly screwing the new dipstick assembly, Part No. R00 2619A, into position.

(4) Replace the reservoir and access panel, using the reverse of the removal procedure and utilizing the original attachment items.

(5) Refill the reservoir, to the level indicated on the dipstick, with oil OEP-71 (Stores Ref. 34A/206).

4. Upon embodiment of this modification the undermentioned part number alteration becomes necessary:-

Stores Ref.	Old Part No.	Nomenclature	New Part No.	Stores Ref.
[illegible]/4524	R00 2047A	Cold air unit oil tank assembly.	R00 2621A	26FC/10183.

2/.....

SPARES REQUIRED

5. The undermentioned items will be demanded from O.C. Equipment Depot as a Modification Kit (Stores Ref. 26FC/103265). and will comprise of the following:-

Stores Ref.	Part No.	Nomenclature	No. off	Class of Store.
26FC/10184	R00 2619A.	Dipstick assembly	1	C
26FC/-	12 V 667A	Filter	1	C

6. The undermentioned item is required to embody this modification and is to be supplied under Unit arrangements:-

Stores Ref.	Nomenclature	No. off.	Class of Store
344/206	Oil, OEP-71	As reqd.	C

7. The undermentioned item, rendered redundant by the embodiment of this modification, is to be returned to O.C. Equipment Depot.

Stores Ref.	Part No.	Nomenclature	No. off.	Class of Store.
26FC/4525	R00 1893A	Dipstick assembly	1	C

8. RECORDING ACTION

Record on Forms 700 and 4801.

9. EFFECT ON WEIGHT AND C OF G.

This modification has no effect on weight or C of G.

(B.H. GIBBONS) SQN. LDR.
S.T.S.O.

SOURCE:- 4099G. Vol.2, Pt.1 T.3.

Distribution:-

O.C./M.U.	(1)
A.R.S.	(3)
No.1 Squadron	(3)
No.2 Squadron	(3)
O.C. Equipment Depot	(2)
S.E.S.O.	(1)
Components Section	(2)
Instrument Section	(2)
O.C. G.T.S.	(1)
Tech. Stats	(1)
File 7513/ENG/2.	(1)

R.R.A.F. Technical Order
Vol.3. Sect.2. Sub.Sect. B14.

Air Headquarters,
Royal Rhodesian Air Force,
NEW SARUM.

22nd June. 1956.

Vampire F.B. Mk. 9 Aircraft - Dowty Seals at Fuel Tank Vent and Fuel Transfer Connections.

(Mod. No. Vampire/3259) C4.

INTRODUCTION

1. Cases have occurred of the fuselage fuel tank fracturing in the vicinity of the vent connections, due to the effort required to tighten down on the aluminium washer. This modification provides for the fitting of metal and rubber bonded sealing washers in place of aluminium.

The work will take approximately 3 man-hours.

EMBODIMENT

2. RRAF 108, 109, 110 and 113 to be embodied at the next intermediate inspection.

SEQUENCE OF OPERATION

3. The following is the sequence of operations and must be preceded by the draining of the fuel:-

(1) Remove the upper front cowling panel and locate the two vent connections in the fuel system, situated at the top of, and immediately aft of, the fireproof bulkhead.

(2) Release the jubilee clips adjacent to the connections and disconnect the bonding flexes and the locking wire from the cap nuts.

(3) Unscrew the two cap nuts, and having eased the hose connections to suit, withdraw the cap nut, jointing washers and banjo fitting from the upper connection, and the cap nut, jointing washers, banjo fitting and the spring from the lower connection. Unscrew the lower pipe adaptor and withdraw it from the aircraft, together with the retaining disc, sealing ring and jointing washer. Unscrew the upper pipe adaptor and pull it aft a sufficient amount to provide access for the removal of the four bolts, the retaining disc and sealing ring. Remove the pipe adaptor from the aircraft, together with the retaining disc, sealing ring and jointing washer.

(4) In place of the two jointing washers, Part Nos. A.G.S. 1138/H (ref. only) and A.G.S. 568/F (ref. only), removed from the forward ends of the pipe adaptors, fit new Dowty sealing washers, Part No. SP.837/Mk.20B, to the upper vent connection, and Part No. SP.837/Mk.24B, to the lower vent connection.

(5) Replace the upper pipe adaptor and secure the retaining disc and sealing ring by means of the four bolts and screw the pipe adaptor into position, using sufficient force to make a good fuel tight connection, ensuring not to fracture the fuel-tank.

(6) Replace the lower pipe adaptor with the retaining disc and sealing ring and screw into position, using the same method as in the previous operation.

2/.....

(7) Complete the assembly of both vent connections by fitting two new Dowty sealing washers, Part No. SP.837/Mk.20B, to the upper connection and, Part No. SP.837/Mk.24B, to the lower connection, together with the spring, banjo fittings and cap nuts. Ease the hose connections into their former positions and secure the jubilee clips.

(8) Wire-lock the cap nuts, using 22 S.W.G. nickel alloy locking wire (Stores Ref. 30A/3055), and refasten the bonding flexes. Replace and secure the upper front cowling panel.

Note:- When the aircraft is re-fuelled, inspect the new sealing washers for any sign of leakage.

DRAWINGS AND SPECIAL TOOLS REQUIRED

4. There are no special tools or drawing required.

SPARES REQUIRED

5. The undermentioned items will be demanded from O.C. Equipment Depot as a Modification Kit (Stores Ref. 26FC/103259) and comprising of the following items:-

Stores Ref.	Part No.	Nomenclature	No. off.	Class of Sto
26FC/6983	SP.837/Mk.20B	Washer, Dowty sealing	3	C
26FC/6984	SP.837/Mk.24B	Washer, Dowty sealing	3	C

6. The undermentioned parts are also required and are to be provided under Unit arrangements:-

Stores Ref.	Nomenclature	No. off.	Class of Store.
30/A3055	Wire, locking, nickel alloy, 22 S.W.G.	As reqd.	C.

7. The undermentioned parts are rendered redundant by this modification and are to be returned to O.C. Equipment Depot.

Stores Ref.	Part No.	Nomenclature	No. off.	Class of S
28W/7792	A.G.S.568/F	Washer, jointing	3	C
28F/9439	A.G.S.1138/H	Washer, jointing	2	C

RECORDING ACTION

8. Record in Form 700 and 4801.

EFFECT ON WEIGHT AND C OF G.

9. This Modification has no effect of Weight or C of G.

(B.H. GIBBONS) SQN. LDR.
S.T.S.O.

Distribution:-
O.C./M.U. ✓
A.R.S. ✓
Components Sect. ✓
No.1 Squadron ✓
No.2 Squadron ✓
O.C. Equipment Depot ✓
S.E.S.O. ✓
O.C. G.T.S. ✓
Tech. Stats.
File 7513/2/ENG.

11. DISPOSAL OF REDUNDANT PARTS

The undermentioned parts rendered redundant by the embodiment of this modification are to be disposed of in accordance with current authorised procedure:-

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
26FC/3272	K00.384	Fork end	2	C

12. EFFECT ON WEIGHT AND C. OF G.

This modification has no effect on weight or C. of G.

(B.H. GIBBONS) SQN. LDR.
S.T.S.O.

SOURCE:- A.P.4099G, Vol.2, Leaflet D2.

Distribution:-

O.C./M.U.	(1)	G.T.S.	(1)
A.R.S.	(2)	Tech. Stats	(1)
1 Sqdn.	(3)	S.E.S.O.	(1)
2 Sqdn.	(3)	O.C. Equip. Depot	(1)
		R.R.A.F. File 7513/ENG/2	(1)

Air Headquarters,
Royal Rhodesian Air Force,
P. O. Box 8131, Causeway,
SOUTHERN RHODESIA.

15 May 56.

Vampire F.B. Mk.9 Aircraft - Flying Controls - Re-designed Fork End on Elevator Control Rod - Introduction

(Mod. No. Vampire/3343)
(Class B/2)

1. INTRODUCTION

It has been found that, with the elevator in the extreme 'up' position, fouls have been experienced between the fork end and lever, resulting in bending of the fork end. This modification introduces a redesigned fork end giving additional clearance.

EMBODIMENT

At the next intermediate or minor whichever is the earliest.

APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 7 man-hours (2 to strip; 4 to embody; 1 to re-assemble).

DRAWINGS REQUIRED

There are no drawings required for the embodiment of this modification.

PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The undermentioned items will comprise the Mod. Kit and are to be demanded under Stores Ref. No. 26FC/103343.

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
26DV/7654	12.20F.225	Fork end	2	C
28P/12462	SP.9/C.8	Pin, split	2	C

(b) The following materials are also required, and are to be provided under Unit arrangements.

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
30A/3055	-	Wire, locking, nickel alloy 22 s.w.g.	As reqd.	C.
33C/1264	-	Compound pigmented varnish jointing	As Reqd.	C.
28D/13360	A30/7E	Bolt, ¼ in. dia. B.S.F.	2	C.

(2) Special tools and Test Equipment.

No special tools of test equipment are 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.

2/.....

Stores Ref.	Part No.	Nomenclature	Qty.	Class of Store.
26FC/-	J00.1007A/2	Fin and boom, port.	1	A
26FC/3130	J00.1008A	Fin and boom, stbd.	1	A
26FC/3271	K00.379A	Rod elevator control strut	1	C
28D/13360	A30/7E	Bolt, ¼ in. dia. B.S.F.	2	C
		Parts required		
26DV/7654	12.2CF.225	Ford end	2	C

Spares holdings to be modified under arrangements by O.C. Equipment Depot.

7. CHANGE OF STORES REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Stores Ref., Part, and Assembly Nos. as follows:-

OLD.			NEW	
Stores Ref.	Pt./Assy No.	Nomenclature	Pt./Assy No.	Stores Ref.
26FC/-	J00.1007A/2	Fin and tail boom assy. port	J00.1007A/3	26FC/10401
26FC/3130	J00.1008A	Fin and tail boom assy. stbd.	J00.1008A/1	26FC/10402
26FC/3271	K00.379A	Elevator control strut	K00.379A/1	26FC/10403

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Locate the two rear access panels on the outboard side of the tail booms, and remove them from both the port and starboard sides of the aircraft. Retain the panels and attachment screws for re-assembly.

(2) Withdraw the split pin, nut and bolt, at the bottom connection of the elevator control strut assemblies, Part No. K00.379A (ref. only). Break and remove the locking wire securing the lock nut and release the lock nut, unscrew and remove the now redundant fork end, Part No. K00.384 (ref. only) from the control struts. Retain the lock nuts.

(3) Insert the new fork ends, Part No. 12.2CF.225, into the control struts using the retained lock nuts. The elevator control struts now become, Part No. K00.379A/1 (ref. only).

(4) Set the elevator control in accordance with current authorised procedure, and when the fork ends have been correctly positioned by rotation, insert new bolts, Part No. A.30/7E, and fit the retained nuts. Mark the position for drilling the split pin holes. Drill the split pin holes using a No. 52 (0.063 in. dia.) drill. On final assembly fit two new split pins. Part No. SP9/C8. Tighten the locknuts and wire lock using 22 s.w.g. nickel alloy locking wire (Stores Ref. 30A/3055).

(5) Apply pigmented varnish jointing compound (Stores Ref. 33C/1264) to the access panels and replace and secure them by means of the retained attachment screws.

9. TESTING AFTER EMBODIMENT

When this modification has been embodied and inspected, the following tests are to be carried out:-

Check the setting of the elevator control, as performed in operation (4), in accordance with current authorised procedure.

10. RECORDING ACTION

Record on Aircraft Form 700 and 4801.

3/.....

R.R.A.F. Technical Order
Vol.3, Sect.2, Sub.Sect. B.12 (Issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
P. O. Box 8131, Causeway,
SOUTHERN RHODESIA.

2nd June, 1956.

Vampire F.B.9 and T.11 Aircraft

Introduction of Rubber Moulded Sleeves on Moulded Outlets of Wing Fuel Tanks, No.1 and 3.

(Modification/Vampire/3257)
(Class C/3)

This modification is introduced to reduce fuel tank failures due to the breaking away of the moulding. It fits moulded rubber sleeves on the tank moulded outlet connections.

This modification is applicable to aircraft embodying Mod. No. Vampire/694.

The work will take approximately one man hour.

This modification already embodied on R.R.A.F. T.11 Aircraft but is to be embodied on all F.B.9 aircraft as follows:-

a). In use aircraft:- Before or not later than next Primary Servicing.

b) Command Reserve Aircraft:- Before issue and/or not later than 7 days after receipt of this order.

The following is the sequence of operations, applicable on both port and starboard wing tanks:-

(1) Locate the outlet from No.3 wing fuel tank leading to the balance pipe, then slacken off the hose clip and ease it clear of the moulding. Remove the existing clip guard and fit the new moulded rubber sleeve, Part No. FTC/6876/6 or MS/382/10, over the moulded outlet. Replace and tighten up the existing hose clip.

(2) Locate the fuel feed pipe outlet on No.1 wing fuel tank, situated towards the rear of the tank; then proceed as in operation (1).

Note:- These sleeves are only to be fitted to No.1 and 3 tanks that have moulded inlet and outlet connections, and must be fitted prior to the installation of the tanks into the aircraft.

The undermentioned items comprise a set, which is to be issued as a Modification Kit (Stores Ref. 26FC/103257). Demands for Modification Kits, which must quote the Stores reference number, are to be submitted to O.C. Equipment Depot.

Stores Ref.	Part No.	Nomenclature	No. off.	Class of Store.
26DV/2892 or 26FC/-	FTC/6876/6 or MS/382/10	Sleeves, moulded	4	C

5. The undermentioned items, rendered redundant by the embodiment of this modification, are to be returned to Equipment Depot for disposal in accordance with current authorized procedure:-

2/.....

Stores Ref.	Part No.	Nomenclature	No. off.	Class of Store.
26EW/4164	DHS.209/4	Guard, clip	8	C

6. Record on F.700 and 4801 as Mod./Vamp/3257.

7. Embodiment of this Modification renders compliance with STI/RRAF/Vamp/5 (Vol. 3-2-D48) unnecessary.

SOURCE: AP.4099J Vol.2, Pt.1
Leaflet No. H.16.

(B.H. GIBBONS) SQN. LDR.
S.T.S.O.

Distribution:

O.C./M.U.	2 copies
A.R.S.	3 "
Components Section	2 "
No.1 Squadron	4 "
No. 2 Squadron	4 "
O.C. Equip. Depot	2 "
S.E.S.O./A.H.Q.	1 copy
O.C. Training School	1 "
RRAF/File/7513/2/ENG.	1 "
Tech. Stats. T.O. Vol.	1 "

R.R.A.F. Technical Order
Vol.3, Sect.2, Sub.Sect. B11 (Issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
P. O. Box 8131, Causeway,
SOUTHERN RHODESIA.

17 May 56.

Vampire F.B. Mk.9 Aircraft - Two Bolt Plates in place of two Anchor Cap Nuts, Part No. A.G.S.2023/B1, to support Cables on Engine side of Bulkhead - Introduction.

(Mod. No. Vampire/3263).
(Class C/3, on removal of No.1 fuel tank (port).

1. This modification is introduced to eliminate damage to the No.1 port wing tank. The bolts securing the cable clips on the engine side of the rib have frequently been excessively tightened and the consequent shearing of the nylon cap has resulted in the chafing of the bolts on the tank. It makes provision for the replacement of the two anchor cap nuts by two bolt plates.

This modification, which will take approximately one man-hour, supersedes and cancels Mod. No. Vampire/3052.

2. This modification is to be embodied on removal of No.1 port fuel tank.

3. The following is the sequence of operations:-

Note:- The No.1 port wing tank is considered as having been removed, and the upper and lower engine inspection panels opened.

(1) Working from either above or below the port mainplane, locate the cable run along the inboard side of wing rib No.1 The cables are covered in asbestos for part of the run and are clipped just aft of the flame switches with two 'P' clips. Unscrew the two round-headed bolts securing these clips in position and carefully pull the cables to one side to clear the clearance hole in the rib. The bolts are not required for future use.

Note:- The following operation is applicable only to aircraft with Mod. No. Vampire/3045 embodied.

(2) Locate the positions of the countersunk head rivets retaining the anchor cap nuts to the outboard face of the rib. Drill these rivets out, using a No.44 (0.086 in. dia.) drill, and continue drilling into the Hycar packing in the tank bay. Cut away sufficient packing to permit the removal and replacement of these cap nuts.

Note:- The following operations is applicable only to aircraft not embodying Mod. No. Vampire/3045.

(3) Locate the positions of the countersunk head rivets retaining the anchor cap nuts to the outboard face of the rib. Drill these rivets out, using a No.44 (0.086 in. dia.) drill, and remove the anchor cap nuts from the aircraft.

Note:- The remaining operations (4) and (5) are applicable to all aircraft.

(4) Offer up the new captive bolts, Part No. D.H.S.141, Mk.1, from the tank bay side, and enlarge the existing rivet holes in the rib, using the holes in the bolt plates as guides. Countersink these holes 90 deg. x 0.22 in. dia. Coat the mating surfaces

2/.....

of the bolt plates and the rib with pigmented varnish jointing compound (Stores Ref. 330/885) and rivet them in position with four rivets, (Part No. AS.2229/404).

5. Replace the cables and their clips in position and secure them with two stiffnuts and washers, Part Nos. A.G.S.2001/B1 and SP.13/B.

4. The undermentioned items will be delivered as a Set. No additional items are required to be added. The set is to be issued as a Modification Kit (Stores Ref. 26FC/103263). Demands for modification kits are to be submitted to Equipment Depot quoting relevant reference number.

Stores Ref.	Part No.	Nomenclature	No. off.	Class of Store.
26EW/2846	DHS.141 Mk.1	Bolt, captive	2	C
28M/10287	A.G.S.2001/B1	Stiffnut	2	C
28Q/6640	AS.2229/404	Rivet	4	C
28W/12305	SP.13/b	Washer	2	C

5. The undermentioned item is also required and is to be provided under Unit arrangements:-

Stores Ref.	Nomenclature	No. off.	Class of Store.
330/885	Compound, jointing, varnish, pigmented	As reqd.	C.

6. Record on F.700 and 4801.

(B.H. GIBBONS) SQN. LDR.
S.T.S.O.

SOURCE: A.P.4099G, Vol.2, Leaflet 45.

Distribution:

O.C./M.U.	(1)
A.R.S.	(2)
1 Sqdn.	(3)
2 Sqdn.	(3)
G.T.S.	(1)
Tech. Stats	(1)
S.E.S.O.	(1)
O.C. Equip. Depot	(1)

R.R.A.F. Technical Order
Vol. 8. Sect.8 Sub.Sect. B6 (issue 1)
Vol. 3. Sect.2 Sub.Sect. B10 (issue 1)

Air Headquarters,
Royal Rhodesian Air Force,
New Salisbury Airport,
P. O. Box 8131, Causeway,
SOUTHERN RHODESIA.

26th April, 1956.

Vampire FB.9 Aircraft - Repositioning of Pilots Mic./Tel. Socket.

(MODIFICATION/R.R.A.F./RADIO/4).

1. INTRODUCTION

This modification is introduced to eliminate jamming of the pilot's mic/tel. socket between the seat and the control column, which can occur with the existing installation.

2. EMBODIMENT

This modification is to be embodied on all R.R.A.F. Vampire FB.9 aircraft as soon as conveniently possible.

3. TIME REQUIRED FOR EMBODIMENT

It is estimated that this work will take approximately 2 man hours (A/F trades), and 2 man hours (Radio trades).

4. DRAWINGS REQUIRED

R.R.A.F. Drawing No. AV-24/1 is required and copies are available direct from the W.O. i/c Drawing Office.

5. PARTS REQUIRED

The following parts and materials are required and are to be provided under Unit arrangements:-

Section Ref.	Description.	Qty.
1CHA/11458	Connector T.3720	1
or		
1CHA/14841, which supersedes 1CHA/11458.		
28E/10042	Clips, "Terry"	1
28S/2176	Screws, wood, brass (cadmium coated) ½" No.4	2
28S/2183	" " " (cadium coated) ⅜" No.4	2
28S/2815	" 4 B.A. x ½", C/sk. head.	1
28S/2863	" 4 B.A. x ½", round head.	4
28M/5850	Nuts, "Simmonds", 4 B.A.	5
28E/N.I.V.	Clips, special, complete (3 parts) (Local manufacture to DRG. AV.24/1)	1
N.I.V.	Blocks, composition fibre, ¼" x 1" x 1¼") (Local manufacture by Drg. AV.24/1 - Ex radio salvage, supply)	1

6. SEQUENCE OF OPERATIONS

Referring to Drg. AV.24/1 :-

1) Manufacture quantity one off - Blocks, composition, fibre ¼" x 1" x 1¼".
2) Fit Clips "Terry" (28E/10042) to fibre block.
3) Remove existing mic/tel. wiring from 5-Way Terminal Block (5C/868) situated on front of pilots' seat.
4) Remove pilots seat.
5) Remove 5-Way Terminal Block (5C/868) and Socket Type 359 (1CH/2206) from pilots seat.
6) Fit 5-Way Terminal Block (5C/868) and manufactured Fibre Block Assembly on No.2 Bulkhead behind pilots seat.

2/.....

7) Separate existing mic./tel. wiring and uncleat mic./tel. wiring between seat and No.2 Bulkhead.

8) Re-route mic./tel. wiring directly to 5-Way Terminal Block using original cleats and screws.

9) Re-connect mic./tel. and V.H.F./A.D.F. switch wiring and Socket Type 359 to 5-Way Terminal Block.

10) Shorten Connector Type 3720 by coiling up to a length of 24 inches.

11) Fit plug-end of Connector Type 3720 into Socket Type 359.

12) Fit Socket Type 359 into "Terry" Clip on Fibre Block.

13) Attach Socket Type 626 (10H/18574) to harness straps as per Drawing.

7. TESTING AFTER EMBODIMENT

Carry out functional check and ensure that no strain is imposed on Connector Type 3720 in all positions of shoulder harness straps.

8. RECORDING ACTION

Record on Forms 700 and 4801 as "Mod./R.R.A.F./RAD./4" embodied.

9. EFFECT ON WEIGHT

There is a negligible effect on weight as a result of this Modification.

SOURCE: File/RRAF/8059/3/ENG.
(Enclosure 10)

(B.H. GIBBONS) SQN. LDR.
S.T.S.O.

Distribution:

O.C./M.U.	2 copies	O.C. Equip. Depot	2 copies
Signals Officer/A.H.Q.	2 "	A.R.S.	3 "
Radio Section	5 "	O.C. Training School	2 "
No. 1 Squadron	5 "	Tech. Stats. T.O. Vols.	2 "
No. 2 Squadron	5 "		
S.E.S.O./A.H.Q.	2 "		

Headquarters,
Royal Rhodesian Air Force,
New Salisbury Airport,
P.O. Box 8131, Causeway,
SOUTHERN RHODESIA.

14th February, 1956.

Vampire F.B. Mk. 9 Aircraft - Nitrided Stop Pin for Canopy Winding Gear - Introduction.

(Mod. No. Vampire/3255.)

(Class B/2.)

1. This modification results from excessive wear on the stop pin of the canopy winding gear, resulting in disengagement of the locking and subsequent loss of the canopy, and makes provision for the introduction of a hardened pin to obviate this. This modification supersedes and cancels Mod. No. Vampire/970.

The work will take approximately one man-hour.

This modification is to be embodied as soon as conveniently possible and not later than next Intermediate (or equivalent) servicing.

(I) Aircraft requiring embodiment are R.R.A.F. 100 - 101 - 102 - 103

(2) Spares holdings must be modified before fitment to Aircraft.

The following is the sequence of operations:-

(I) Locate the canopy winding gearbox on the starboard side of the cockpit.

(2) Remove and retain the special pin, Part No. A00.7363A (ref. only), that locks the crank of the canopy winding handle to the link assembly of the gearbox, thus allowing the handle to be moved away from the face of the gearbox and facilitating removal of the now redundant stop pin, Part No. A00.7263A (ref. only).

Notes:- a) Access to the head of the special pin is gained through a hole drilled in one side of the crank.

b) As this hole is burred over to retain the pin, it will be necessary to clear the hole carefully before removal of the pin.

(3) Insert the new stop pin, Part No. 12 FC 93, and secure with a new nut, Part No. A16Y/ET. Peen the pin over to lock.

Note:- If Mod. No. Vampire/970 has not been embodied, it will be necessary to file the handle as described in A.P.4099G, Vol. 2, Part 1, Leaflet No. J3.

P.S:- Mod. 970 has been embodied on R.R.A.F. 100 - 101 - 102 - 103.

(4) Re-secure the crank to the gearbox link, using the original special pin, which should not be screwed up tight. Now burr the edge of the hole to lock the pin. Check the winding gear for correct functioning and locking.

R.R.A.F. Technical Orders
Vol. 3 Sect. 2 Sub Sect. B9 (Issue I)

4. The undermentioned part-number alterations become necessary upon embodiment of this modification:-

Stores Ref.	Old Part No.	Nomenclature	New Part No.	StoresRef.
26FC/5627	A00.7267A	Handle assembly	A00.7363A	26FC/6764
26FC/6707	A00.2053A/4	Assembly of gear-box canopy winding gear.	A00.7365A	26FC/6765

5. The undermentioned items will be made up into Sets in Equipment Depot and demanded and issued as Modification Kit (Stores Ref. 26FC/103255).

Stores Ref.	Part No.	Nomenclature	No. off	Class of Store
26FC/6766	12.FC.93	Pin, stop	1	C
[illegible]/776	A16Y/ET	Nut	1	C

6. The following items are rendered redundant and are to be disposed of in accordance with current authorized procedure:-

Stores Ref.	Part No.	Nomenclature	No. off	Class of Store
26FC/5628	A00.7263	Pin, stop	1	C

(B.H.GIBBONS)
Squadron Leader
S.T.S.O.

Distribution:-

O.C./M.U.	2 Copies	For Information:-	
A.R.S.	2 "	S.E.S.O./ A.H.Q.	1 Copy
No. I Squadron	3 "	O.C. Training School	1 "
No. 2 Squadron	3 "	Tech. Stats/Files	2 "
O.C. Equipment Depot	2 "		

Headquarters,
Royal Rhodesian Air Force,
New Salisbury Airport,
P.O. Box 8131, Causeway,
SOUTHERN RHODESIA.

14th February 1956.

Vampire F.B. Mk. 9 Aircraft - Improved Sealing at Fuselage Fuel Tank Filler Neck - Introduction.

(Mod. No. Vampire/3249.)

(Class C/3 on removal of fuselage fuel tank.)

1. This modification introduces a new sealing between the filler neck of the main fuselage fuel tank and the structure, with improved resistance to Avtag fuel, to prevent possible seepage of fuel into the tank bay when the tank is overfilled.

The work will take approximately 3 man-hours.

2. Embodiment

This modification is to be embodied when the fuselage fuel tank is next removed.

NOTE Aircraft requiring embodiment of this Modification are R.R.A.F. 100 - 101 - 102 - 103.

3. The following is the sequence of operations:-

(Refer to Drg. No. A.P.4099G/H.22/54.)

(1) Remove the ten visible nuts on the main fuselage tank filler assembly, allowing the earth socket and eight cup washers to be removed. Remove existing sealing ring.

(2) Refer to the drawing, and apply an even film of Bostik 1410 to the mating surfaces of the existing metal sealing ring and the new rubber sealing ring. Part No. 12PT1429. After 15 - 20 minutes, position the rubber ring centrally on the metal ring and apply pressure until the joint has set.

NOTE It will be necessary to distort the rubber sealing ring to clear the earthing socket.

(3) Replace the assembly of metal and rubber sealing rings and secure in position, using the original cup washers and ten new nuts, Part No. A.G.S.2001/C1. Note that the sealing ring must be positioned so that the ¼ in. hole in it coincides with the vent hole in the base ring. Attach the earth socket to the two appropriate bolts.

NOTE Treat all gaskets, washers, etc., with plastic Hermetite or any other approved sealing compound before assembly.

(4) Remove the sealing ring, Part No. P00.222 (ref. only), from the filler neck locating block, taking great care not to damage the wood. Remove all traces of adhesive and thoroughly clean the surface.

(5) Before refitting the tank, apply an even film of Bostik 1410 adhesive to the bearing surfaces of the fuel filler locating block and the sealing ring, as shown in the drawing. The coated surfaces must be joined 15-20 minutes after applying

the adhesive, and replacement of the tank should be so timed.

4. The following Part number alterations become necessary upon embodiment of this modification:-

Vampire F.B. Mks. 5 & 9, N.F. Mk. 10 & T. Mk. 11 only

Stores Ref.	Old Part No.	Nomenclature	New Part No.	Stores Ref
26FC/4261	P00.3279A	G.A. main fuel tank	P00.3279A/1	26FC/6888
26FC/4420	P00.3425A/ND	Main fuel tank, less fues contents gauge and booster pump	P00.3937/ND	26FC/6889

5. The undermentioned items already held in Equipment Depot will be made up into sets and will be demanded and issued as a Modification Kit (Stores Ref. 26FC/103249).

Stores Ref.	Part No.	Nomenclature	No. off	Class Stor
26DV/6890	12 PT 1429	Ring sealing	1	
28M/10288	A.G.S.200I/CI	Nut	10	

6. The following items are also required and are to be pro... under Unit arrangements:-

Stores Ref.	Nomenclature	No. off	Class Stor
33C/1327	Adhesive, Bostik 1410	As reqd.	
34B/523	Plastic Hermetite (or any other approved sealing compound)	As reqd.	

7. The following item is rendered redundant and is to be di... posed of in accordance with authorized current procedure:-

Stores Ref.	Part No.	Nomenclature	No. off	Class Stor
26FC/1972	P00.222	Ring, sealing	1	

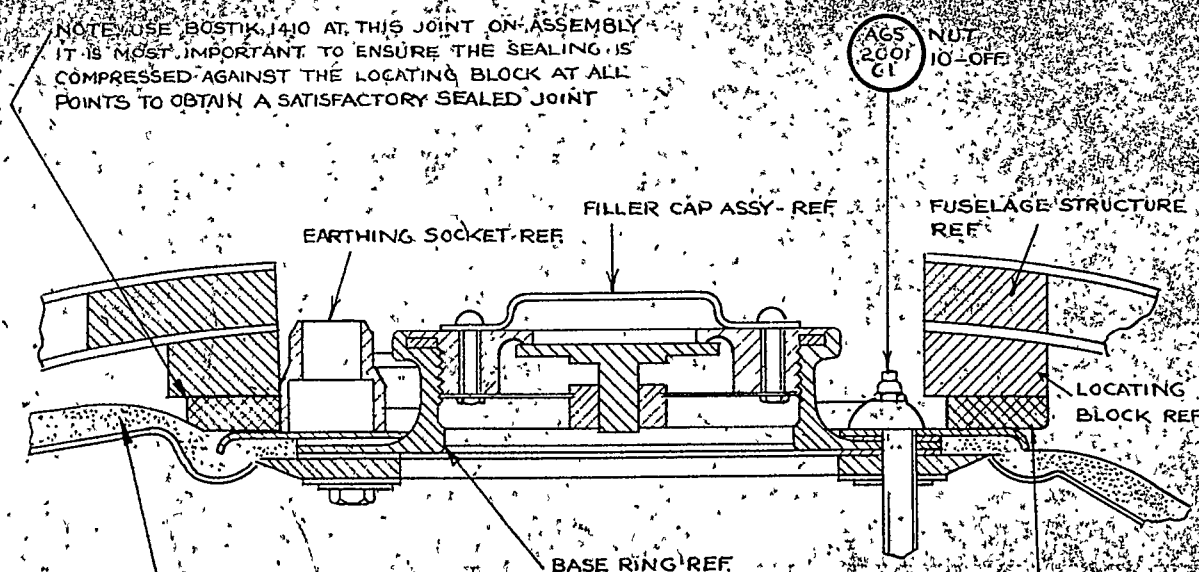
Source:-

(A.P.4099G. Vol 2
(Leaflet No. H.22

(B.H.GIBBONS)
Squadron Leader
S.T.S.O.

Distribution:-

		For Information:-	
O.C./M.U.	2 Copies	S.E.S.O./A.H.Q.	1 Copy
A.R.S.	2 "	O.C. Equipment Depot	2 "
No. 1 Squadron	3 "	O.C. Training School	1 "
No. 2 "	3 "	Tech. Stats Files	2 "
Components Section	2 "		



ARRANGEMENT OF MAIN FUEL TANK FILLER.

TRACING of DRG No. AP 4099 C/H. 22/54

MODIFICATION / VAMPIRE / 3249 A.V. 31

R.R.A.F. TECHNICAL ORDER
Vol. 3, Sect. 2, Sub Sect. B7
(Issue No. 1)

Headquarters,
Royal Rhodesian Air Force,
New Salisbury Airport.

6th. December, 1955.

VAMPIRE F.B.9 AIRCRAFT - RE-DESIGNED
INSULATING PACKING RING AT FILLER NECK
ON NO. 1 FUEL TANK - INTRODUCTION

Modification No. Vampire/3248
(Class B/2)

1. Authority is granted for embodiment of the above modification.

2. Aircraft affected are RRAF 100, 101, 102, 103.

3. Modification Kits are to be demanded from Equipment Depot under Sect. Ref. 26FC/103248.

4. EMBODIMENT:-

RRAF 100, 101, 102 - At first opportunity and not later than next MINOR INSPECTION.

RRAF 103 - During repair.

5. Leaflet No. H.14 of Air Publication 4099G, Vol. 2, Part 1, and Alteration No. 1 to Leaflet H.14 are to be released to the Sections concerned by the Base Publications Section (Library) for compliance with this Technical Order. The leaflets are to be returned on completion of the modification requirements.

6. Record in Form 700 and Form 4801 as "Mod/Vamp/3248" embodied.

(R.M. PARRY) F/O.
A/S.T.S.O.

DISTRIBUTION:

S.T.O.	1 copy
Deputy S.T.O.	"
A.R.S.	2 copies
A.S.F.	"
E.R.S.	"
Vampire Sqdn.	"
Transport Sqdn.	1 copy
Provost Sqdn.	"
O.C. Equipment Depot	2 copies

FOR INFORMATION:

S.E.S.O.	1 copy
O.C. Training School	"
O.C. Flying	"
Air I	"
Tech. Control	"
RRAF to File	"
RRAF/7513/2/Eng	"

Headquarters,
Royal Rhodesian Air Force,
New Salisbury Airport,
P.O. Box 8131, Causeway,
SOUTHERN RHODESIA.

14th February 1956.

Vampire F.B. Mk. 9 Aircraft - Improved Sealing at Fuselage Fuel Tank Filler Neck - Introduction.

(Mod. No. Vampire/3249.)

(Class C/3 on removal of fuselage fuel tank.)

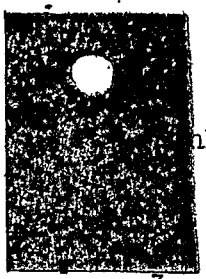
1. This modification introduces a new sealing between the filler neck of the main fuselage fuel tank and the structure, with improved resistance to Avtag fuel, to prevent possible seepage of fuel into the tank bay when the tank is overfilled.

The work will take approximately 3 man-hours.

Embodiment

This modification is to be embodied when the fuselage fuel tank is next removed.

NOTE Aircraft requiring embodiment of this Modification are R.R.A.F. 100 - 101 - 102 - 103.

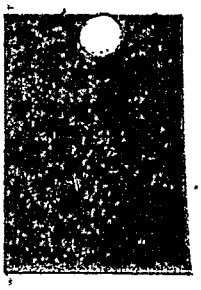


3. The following is the sequence of operations:-

(Refer to Drg. No. A.P.4099G/H.22/54.)

(1) Remove the ten visible nuts on the main fuselage tank filler assembly, allowing the earth socket and eight cup washers to be removed. Remove existing sealing ring.

(2) Refer to the drawing, and apply an even film of Bostik 1410 to the mating surfaces of the existing metal sealing ring and the new rubber sealing ring. Part No. 12PT1429. After 15 - 20 minutes, position the rubber ring centrally on the metal ring and apply pressure until the joint has set.



NOTE It will be necessary to distort the rubber sealing ring to clear the earthing socket.

(3) Replace the assembly of metal and rubber sealing rings and secure in position, using the original cup washers and ten new nuts, Part No. A.G.S.2001/C1. Note that the sealing ring must be positioned so that the $\frac{1}{4}$ in. hole in it coincides with the vent hole in the base ring. Attach the earth socket to the two appropriate bolts.

NOTE Treat all gaskets, washers, etc., with plastic Hermetite or any other approved sealing compound, before assembly.

(4) Remove the sealing ring, Part No. P00.222 (ref. only), from the filler neck locating block, taking great care not to damage the wood. Remove all traces of adhesive and thoroughly clean the surface.

(5) Before refitting the tank, apply an even film of Bostik 1410 adhesive to the bearing surfaces of the fuel filler locating block and the sealing ring, as shown in the drawing. The coated surfaces must be joined 15-20 minutes after applying

the adhesive, and replacement of the tank should be so timed.

4. The following Part number alterations become necessary upon embodiment of this modification:-

Vampire F.B. Mks. 5 & 9, N.F. Mk. 10 & T. Mk. 11 only

Stores Ref.	Old Part No.	Nomenclature	New Part No.	Stores Ref
26FC/4261	P00.3279A	G.A. main fuel tank	P00.3279A/1	26FC/6888
26FC/4420	P00.3425A/ND	Main fuel tank, less fues contents gauge and booster pump	P00.3937/ND	26FC/6889

5. The undermentioned items already held in Equipment Depot will be made up into sets and will be demanded and issued as a Modification Kit (Stores Ref. 26FC/103249).

Stores Ref.	Part No.	Nomenclature	No. off	Class of Store
26~~FC~~DV/6890	12 PT 1429	Ring sealing	1	
28M/10288	A.G.S.2001/CI	Nut	10	

6. The following items are also required and are to be pr[illegible] under Unit arrangements:-

Stores Ref.	Nomenclature	No. off	Cl St
~~26FC~~ ~~330~~/1327	Adhesive, Bostik 1410	As reqd.	C
34B/523	Plastic Hermetite (or any other approved sealing compound)	As reqd.	C

7. The following item is rendered redundant and is to be disposed of in accordance with authorized current procedure:-

Stores Ref.	Part No.	Nomenclature	No. off	Class of Store
26FC/1972	P00.222	Ring, sealing	1	

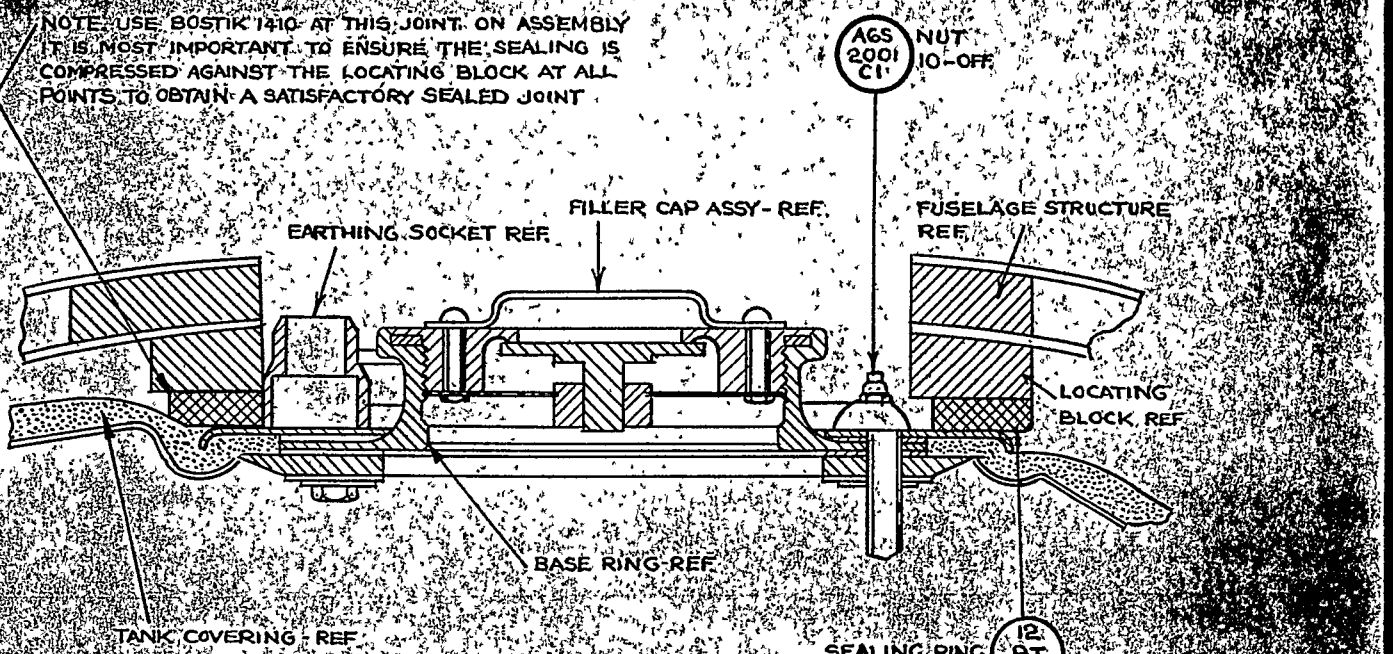
Source:-

(A.P.4099G. Vol 2
(Leaflet No. H.22

(B.H.GIBBONS)
Squadron Leader
S.T.S.O.

Distribution:-

		For Information:-	
O.C./M.U.	2 Copies	S.E.S.O./A.H.Q.	1 Copy
A.R.S.	2 "	O.C. Equipment Depot	2 "
No. 1 Squadron	3 "	O.C. Training School	1 "
No. 2 "	3 "	Tech. Stats Files	2 "
Components Section	2 "		



ARRANGEMENT OF MAIN FUEL TANK FILLER.

TRACING & DRG. No. A.P. 4099 C/H. 22/54

R.R.A.F. Technical Order
Vol. 3 Sect. 2 Sub Sect. B 6.

Headquarters,
Royal Rhodesian Airforce,
New Salisbury Airport,
P.O. Box 8131, Causeway,
SOUTHERN RHODESIA.

28th November, 1955.

MODIFICATION/No./DUNLOP/2165

To introduce Brake Unit, Part No. AH.50329 (Stores Ref.27G/4105) in place of Part No. AH.9140 (Stores Ref. 27G/4067) to permit use of reclaimed Brake Drum - Vampire F. Mk. 1, F. Mk 3, F.B. Mk. 5, F.B. Mk. 9, N.F. Mk. 10, and T. Mk. 11 Aircraft -

(Class C/3 on fitting repaired Brakedrum)*

1. This Technical Order is reproduced from A.P.2337, Vol. 2, Leaflet C.17 and is to be read in conjunction with R.R.A.F.; T.O. Vol. 3 Sect. 2 Sub Sect. C I. as amended by R.R.A.F., T.O. Amendments Nos. 101 and 114 respectively.

2. This modification makes provision for the introduction of Brake Unit, Part No.A.H.50329 (Stores Ref. 27G/4105) in place of Part No. A.H.9140 (Stores Ref. 27G/4067) to permit use of reclaimed Brake Drums.

A repair scheme has been issued to allow reclaim of the Brake Drum by skimming it out. The Brake Linings must therefore travel further and two holes in the Brake Clip have been elongated to allow this to take place.

The change entails re-numbering the Brake Lining Assembly from Part No. A.H.O.25170 (Stores Ref. 27G4840) to Part No. A.H.O.29658 (Stores Ref. 27G/5202).

The reclaimed Brake Drum has six $\frac{1}{8}$ in. dia. holes drilled adjacent to the bolt attachment holes as an easy means of recognition. (See fig. 2 on the drawing). The repaired Brake Drum will be re-numbered from Part No. A.H.O.25185 (Stores Ref. 27A/2831) to A.H.O.35345 (Stores Ref. 27A/3687).

Either Brake Drum can be used with Brake Unit, Part No. A.H.50329 (Stores Ref. 27G/4105) but the reclaimed drum must not be used with Brake Unit, Part No. A.H.9140 (Stores Ref. 27G/4067).

The work will take approximately $1\frac{1}{2}$ man-hours per unit after removal from aircraft.

3. This modification is to be embodied on fitment of repaired brakedrum.

4. Drawing No. A.P.2337/C.17/55, is incorporated in this leaflet.

5. The following is the sequence of operations:

i) Refer to the appropriate Airframe Manual, Vol. 1 and remove the Brake Unit, Part No. A.H.9140 (Stores Ref. 27G/4067) from the aircraft.

ii) Remove one of the Brake Lining Assemblies, Part No. A.H.O.25170 (Stores Ref. 27G/4840) by pressing the ends of spring , Part No. A.H.O.23019 (Stores Ref. 27G/4713) downwards with a screw-driver and disengaging the spring from the holes in the Brake Clip, Part No. A.H.O.25168.

R.R.A.F. Technical Order
Vol. 3 Sect. 2 Sub Sect. B 6 Continued:-

ii) Continued:- Repeat the process with the other springs, removing the Brake Lining Assemblies consecutively, and marking each one, so that it can be replaced in its original position.

iii) Using suitable rat-tailed file elongate the holes in the lugs of the Brake Lining Assemblies to the dimensions shown in fig. (I) on the drawing

iv) After filing, apply a thin coat of varnish seaplane (Stores Ref. 33B/107 or 550 to the bare metal.

v) After modification all the Brake Lining Assemblies must be re-stamped Part No. A.H.9.29658 (Stores Ref. 27G/5202), Issue I.

vi) Re-assemble the Brake Unit using the modified Brake Lining Assemblies and refitting the original springs.

vii) Delete Part No. A.H.9140 (Stores Ref. 27G/4067) and issue number of the Brake Unit and re-stamp A.H. 50329 (Stores Ref. 27G/4105), Issue I.

viii) Refer to the appropriate Airframe Manual, Vol. 1 and re-install the Brake Unit.

(H.M.PATRY) F/O.
A/S.T.S.O.
ROYAL NORWEGIAN AIR FORCE.

DISTRIBUTION:

S.T.O.	1 Copy	S.E.S.O.	1 Copy
Deputy S.T.O.	1 "	O.C. Training Sch.	1 "
A.R.S.	2 "	O.C. Flying	1 "
A.S.F.	2 "	Tech. Control	1 "
E.R.S.	2 "	Machine Shops	1 "
Provost Squadron	2 "		
Vampire "	2 "		
Transport "	2 "		
O.C. Equip. Depot	2 "		
Components Section	2 "		

FOR INFORMATION:

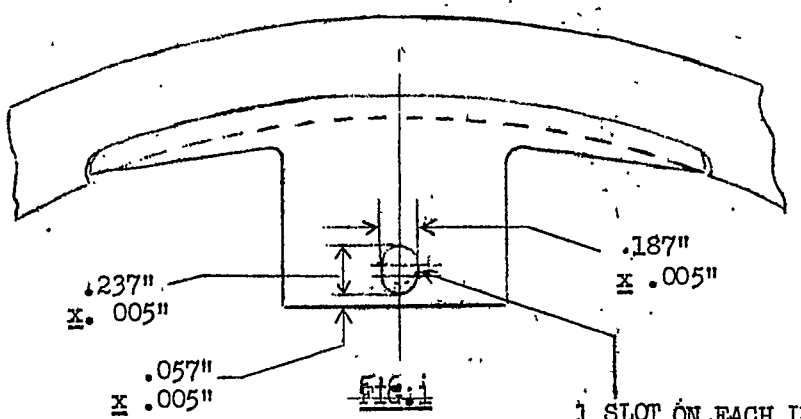


FIG.1

1 SLOT ON EACH LUG
AS SHOWN

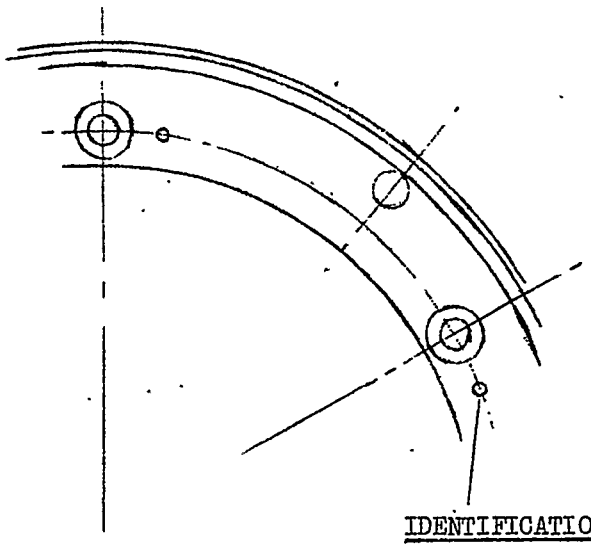


FIG 2.

R.R.A.F. TECHNICAL ORDER
VOL. 3 SECT. 2 SUB. SECT. B5.

Headquarters,
Royal Rhodesian Air Force,
New Salisbury Airport,
P. O. Box 8131,
CAUSEWAY.
20th September, 1955.

VAMPIRE F.B.9 AIRCRAFT - TO MAKE PROVISION FOR OVERBOARD DRAIN PIPE AT REAR OF ENGINE JET PIPE.

Modification No. Vampire/3163
Class B/2.

1. Authority is granted for embodiment of the above modification.

2. Aircraft affected are R.R.A.F. 100, 101, 102, 103, 104.

3. Modification kits are to be demanded from Equipment Depot under Sect. Ref. 26FC/103163.

4. Embodiment - to be embodied at next INTERMEDIATE Servicing.

5. Leaflet P.6 of Air Publication 4000G Vol. 2 Part 1 is to be released to the Sections concerned by the Publications Section for compliance with this Technical Order. The leaflet is to be returned on completion of the requirements of the modification.

6. This Technical Order DOES NOT APPLY to aricraft based at R.R.A.F. Detachment, Livingstone. Embodiment of this modification will be effected when the aircraft returns to R.R.A.F. Base.

(B.H. GIBBONS) SQN. LDR.
S.T.S.O.

Distribution:		For information:	
S.T.O.	1 copy	S.E.S.O.	1 copy
A.R.S.	2 copies	O.C. Training School	1 "
A.S.F.	2 "	O.C. Flying	1 "
E.R.S.	2 "	Air I	1 "
'A' Flight	2 "	Tech. Control	1 "
Transport Flight	2 "	File	1 "
O.C. Livingstone	2 "	File RRAF/7573/2/ENG.	1 "
O.C. Equipment Depot	1 "	O.C. Livingstone	2 copies

VAMPIRE T.II AIRCRAFT.

GROUND/FLIGHT SWITCH (STORES REF. 5GW/2828). - FAILURE.

MODIFICATION/RRAF/VAM.44(T)/I

INTRODUCTION

A number of cases have occurred where the arm of the Ground/Flight Switch, d on the forward face of number one bulkhead, has fractured, rendering the inoperative from the cockpit. No means is at present provided to prevent ading of the switch arm when "Ground" selection is made.

This interim modification introduces an adjustable stop to the lever (Part F.479). The stop is to be mounted on a bridge type bracket, fitted to isting switch bracket (Part No. 15F409).

The work will take approximately 2 man hours per aircraft.

EMBODIMENT

This modification is to be embodied before the next primary inspection.

SEQUENCE OF OPERATIONS (Refer to Drawing No. AV.17. Available drawing office).

The following is the sequence of operations:-

a) Raise the fuselage nose cap and secure in the "open" position.

b) Disconnect battery leads and remove batteries.

c) Remove the control lock rig from its stowed position.

d) Mask the cabin pressure control valve to prevent the ingress of swarf during drilling operations.

e) Position the drilling template on the Ground/Flight switch bracket and drill the four holes, (No. 27 drill) required for the attachment of the "stop" bracket assembly.

f) Bolt the stop bracket assembly in position on the switch bracket (LH Part No. 15F/409).
N.B. Mating surfaces to be coated with lanoline (Stores Ref. 33C/511).

ADJUSTMENT

a) Ensure that no load exists on the switch when the switch operating hand control in the cockpit is in the "Flight" position. The cockpit control should reach the limit of its forward travel against the front face of the panel on which it is mounted, simultaneously with the Ground/Flight Switch movement into "Flight" position. Adjustment on the operating rod should be made if the operation is not satisfactory.

b) Place the cockpit G/F control in the "Ground" position. Adjust the stop on the new bracket assembly until contact is made with the switch operating lever (LH Part No. 15F/479).

c) All settings to be locked on completion of adjustment.

/2....

5. TESTING AFTER EMBODIMENT

Refit aircraft batteries and carry out functional check on the operation of the Ground/Flight switch. Re-position control lock rig, remove masking from cockpit control valve and ensure that all waste material is removed from the nose compartment.

6. SPARES REQUIRED

The following parts comprise one Mod. set:-

30A/544	Mild Steel 16 SWG. (6" x 19/16") Spec. S.3. (Stop Bracket)	1	C
30A/544	Mild Steel 16 SWG (3½" x 1") Spec. S. 3. (Template)	1	C
28D/3	Bolt 4BA x 4" Long	4	C
28D/29	Bolt ¼" BSF x 1" long	1	C
28K/750	Nut ¼" BSF	1	C
28M/5850	Nut 4 BA Self locking	4	C
28M/5852	Nut ¼" BSF Self locking	1	C
30/A1054	MS Welding Rod. 20 SWG 2½"	1	C

Proposed number of sets - 8 off (N.B. One Mild Steel template only required).

7. RECORDING ACTION

Record on aircraft F.700 and RAF Form 1125. as Mod/RRA/Vampire/1

8. DISPOSAL OF REDUNDANT PARTS

Nil.

9. EFFECT ON WEIGHT AND C. OF G.

Negligable.

(H.J. PRINGLE) F/LT.
A/S.T.S.O.

Distribution:

File	1 copy
S.T.O.	"
Tech. Control	"
A.E.S.	2 copies
A.S.F.	"
O.C., Livingstone	"
O.C., Training School	1 copy
S.E.S.O.	"
O.C., Equipment Depot	"
S.S.O.	"
Electrical Section	2 copies

Refer to relevant AP's

AL.340

VAMPIRE FUEL TANKS IN WING

The following is a revised summary of modifications affecting Fuel Tanks in Wing.

To make it easier to determine what flexible wing tanks can be used in Vampire aircraft, the following information has been compiled, detailing all the applicable Modification Nos., the Tank Nos., and their interchangeability.

* IMPORTANT Where it is stated that certain tanks are 'interchangeable with those they supersede', it is meant that they are physically and not functionally interchangeable. When a tank is to be changed, the modification standard of the replacement should be, where possible at least equivalent to the defective tank. Where this is not possible, and the only suitable tank available is of a lower modification standard, an entry must be made in the aircraft log book recording the change and the reversion of the aircraft modification standard. The correct tank should be fitted as soon as it is available.

Mod. Vam.15. Introduction of Vampire Mk.3.

No. 1 Tank	A.M.528/P. A.M.528/S.
No. 2 Tank	A.M.570/P. A.M.570/S.
No. 3 Tank	A.M.571/P. A.M.571/S.
No. 4 Tank	A.M.573/P. A.M.573/S.

Mod. Vam. 384. Introduction R.P. and Bombs (fixed parts) in wing - (for Mk. 5 and subsequent).

No. 1 Tank A.M. 634/P) replace AM.528/1/P & S for Mk. 5 a/c and sub.
A.M. 634/S) A.M.634/P & S is interchangeable with AM.528/P & S on Mk.3 a/c only.

Mod. Vam. 389 Introduction of Smaller Bearer Channels.

No. 1 Tank A.M.528/1/P) replaces AM.528/P & S for Mk. 3 a/c only.
A.M.528/1/S) These are interchangeable.

A.M.701/1/P) For Mk. 20 only.
A.M.701/1/S)

No. 3 Tank A.M.571/1/P) replaces AM.571/P & S and are
A.M.571/1/S interchangeable.

Mod. Vam. 391 - Mods. involved on introduction of improved undercarriage.

No. 2 Tank A.M.734/P) Not interchangeable with AM.570/P & S.
A.M.734/S)

/2.....

Mod. Vam. 429 - Improved method of attaching fittings to tank shell.

No. 1 Tank A.M.528/1/P/M) for Mk. 3 only.
A.M.528/1/S/M)

A.M.634/P/M) for Mk. 5 and subsequent aircraft.
A.M.634/S/M

A.M.701/1/P/M.) for Mk. 20 only.
A.M.701/1/S/M.)

No. 2 Tank A.M.570/P/M) Pre-Mod. Vam. 391
A.M.570/S/M)

A.M.734/P/M) Post Mod. Vam. 391
A.M.734/S/M)

No. 3 Tank A.M.571/1/P/M.
A.M.571/1/S/M.

No. 4 Tank A.M.873/P/M.
A.M.573/S/M.

All the tanks introduced on this modification are interchangeable with those they supersede.

Mod. Vam.513 - Light alloy fittings in lieu of Steel.

No. 1 Tank A.M.835/P)
A.M.835/S)

No. 2 Tank A.M.836/P)
A.M.836/S)

No. 3 Tank A.M.837/P)
A.M.837/S)

No. 4 Tank A.M.838/P)
A.M.838/S)

Mod. Vam. 674 - Introduction of tanks (with Formvar Inner lining) with improved fittings.

No. 1 Tank A.M.878/P)
A.M.878/S) All the tanks introduced on this mod. are interchangeable with those they supersede.

No. 2 Tank A.M.879/P)
A.M.879/S) Note: This mod. is superseded by Vam.625.

No. 3 Tank A.M.880/P)
A.M.880/S)

No. 4 Tank A.M.881/P)
A.M.881/S)

Mod. Vam. 625 - Introduction of 'Flexelite' (Hycar inner lining) in lieu of 'Marflex' (Formvar Inner lining).

No. 1 Tank A.M.904/P)
A.M.904/S) All the tanks introduced on this mod. are interchangeable with those they supersede.

/3.....

No. 2 Tank	A.M.905/P A.M.905/S	Note: This mod. supersedes Mod.Vam.674.
No. 3 Tank	A.M.906/P A.M.906/S	
* No. 4 Tank	A.M.907/P A.M.907/S	

Vam. 662 - Introduction of Messrs. Fireproof Tanks as alternative to Marstons.

No. 1 Tank	F.T.4507 (Port) F.T.4058 (Stbd)	All these tanks are interchangeable with tanks introduced on mod. Vam.625.
No. 2 Tank	F.T.4509 (Port) F.T.4510 (Stbd)	
No. 3 Tank	F.T.4511 (Port) F.T.4512 (Stbd)	
No. 4 Tank	F.T.4513 (Port) F.T.4514 (Stbd)	

Vam. 568 - Introduction of Pacitor Fuel Contents Units in lieu of Smiths Type.

No. 1 Tank	A.M.1103/P. A.M.1103/S. F.T.5665 (Port) F.T.5666 (Stbd)	These tanks are <u>not</u> interchangeable with tanks introduced on Mods. Vam. 625 and 662.
No. 3 Tank	A.M. 1104/P A.M. 1104/S F.T. 5667 (Port) F.T. 5668 (Stbd)	

Vam. 694 - Introduction of Rear fuel feed at No.1 and 3 tanks (incorporating Mod. Vam. 368).

No. 1 Tank	A.M.1157/P. A.M.1157/S. * F.T.5669 (Port) * F.T.5670 (Stbd)	These tanks are <u>not</u> interchangeable with tanks introduced on Mods. Vam. 568 and 694 minus 568.
No. 3 Tank	A.M.1158/P. A.M.1158/S. * F.T.5671 (Port) * F.T.5672 (Stbd)	* These tanks incorporate internal support pillars.

Mod. Vam. 694 - Introduction of Rear fuel feed at No. 1 and 3 Tanks (not incorporating Mod. Vam. 568).

No. 1 Tank	A.M.1189/P. A.M.1189/S. F.T.5689 (Port) F.T.5690 (Stbd)	These tanks are <u>not</u> interchangeable with tanks introduced on Mods. Vam. 568 and 694 plus 568.

/4.....

Mod. Vam. 694 - Introduction of Rear Fuel feed at No. 1 and 3 Tanks (not incorporating Mod.568) cont'd...

No. 3 Tank	A.M.1190/P. A.M.1190/S. F.T.5691 (Port) F.T.5692 (Stbd)	These tanks are not interchangeable with tanks introduced on Mods. Vam. 568 and 694 plus 568.

od. Vam. 3036 - Introduction of tanks incorporating internal support pillars.

No. 1 Tank	F.T./H6023 (Port) F.T./H6024 (Stbd)	These tanks are interchangeable with tanks introduced on Mod. Vam. 662.
No. 2 Tank	F.T.5818 (Port) F.T.5819 (Stbd)	
No. 3 Tank	F.T.H6025 (Port) F.T.H6026 (Stbd)	
No. 4 Tank	F.T.5820 (Port) F.T.5821 (Stbd)	

od. Vam. 3036 - Introduction of tanks incorporating rear fuel feeds at No. 1 nd No. 3 tanks (Vam.694) Smiths contents transmittor (pre Vam.568) and internal support pillars.

No. 1 Tank	F.T.5822 (Port) F.T.5823 (Stbd)	These tanks are interchangeable with tanks introduced on Mod. Vam. 694 minus Vam.568.
No. 3 Tank	F.T.5824 (Port) F.T.5825 (Stbd)	

od. Vam. 3042 - Introduction of No. 1 Fuel Tank having metal reinforcing plate at fuller cap.

No. 1 Tank	A.M.1400/P. A.M.1400/S.	These tanks are interchangeable only with those introduced on Mods. Vam. 625 and 662.
No. 1 Tank	A.M.1401/P. A.M.1401/S.	These tanks are interchangeable only with those introduced on Mod. Vam. 568.
* No. 1 Tank	A.M.1402/P. * A.M.1402/S.	These tanks are interchangeable only with those introduced on Mods. Vam. 694 plus Vam.568.
No. 1 Tank	A.M.1403/P. A.M.1403/S.	These tanks are interchangeable only with those introduced on Mod. Vam. 694 minus Vam.568 and on Mod. Vam. 3036.

Mod. Vam. 3075 - Introduction of Modified Nos. 2 and 3 tanks incorporating anti-surge valves at outboard feed connections.

* No. 2 Tank	A.M.1419/P. * A.M.1419/S.	These tanks are interchangeable with existing tanks.
No. 2 Tank	F.T.H6157 (P) F.T.H6158 (S)	These tanks are interchangeable with existing tanks.
* No. 3 Tank	A.M.1422/P. * A.M.1422/S.	These tanks are interchangeable with those introduced on Mods. Vam.568 and 694.

/5.....

No. 3 Tank FT/H6183 (P) These tanks are interchangeable with those
FT/H6184 (S) introduced on Mods. Vam. 658 and 694.

* This paragraph to be considered as a whole.

* THESE ARE THE ONLY TANKS TO BE USED IN SRAF AIRCRAFT

SOURCE: D.H.T.N.S. V.330.
DATE: 8.7.52.

(B.H. GIBBONS) MAJOR.
S.T.S.O.

CB/EMT.
25 Jan.54.