

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V No 322DATE 13.5.52.ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETINVAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 11, ELECTRICAL EQUIPMENT.Circuit Breakers, Type 'A', Stores Ref. 5C/2559,  
60, 61, 62, 63 and 64. Use with Trip Button  
Covers, Stores Ref. 5C/3610.

Circuit Breakers, Type 'A', are now being manufactured with longer trip buttons, and when button covers (5C/3610) are fitted to such circuit breakers, the buttons may be permanently depressed, making it impossible to set the mechanism. Deeper covers are now being specified and will be allotted a new reference number to differentiate them from the present type.

2. Pending production of the new covers, a careful check for fouling of the trip button should be made when fitting the present type of cover. A Circuit breaker should be selected which has a button short enough to ensure that no fouling is possible.

SUB HEADING 12, FUEL SYSTEM.

Cases have been reported of the presence of "Blow Holes" in the brass castings of the wing tank filler caps.

All caps should be inspected for this defect and rejected if found porous. Defect reports are necessary in such cases.

SUB HEADING 7, FUSELAGE ASSEMBLY.Locking of Bolts in Ferrules.

In all cases where equipment of details are attached to structure by means of ferrules DHS 72 or 103 and bolts, and not otherwise locked, shakeproof washers are to be fitted under head of bolt for purposes of locking

Continued.....

sizes to be as follows :-

- 4 BA Bolt - Shakeproof washer A.G.S. 2035/B.
- 2 BA Bolt - Shakeproof washer A.G.S. 2035/C.
- 1/4" B.S.F. Bolt - Shakeproof washer A.G.S. 2035/E.

SUB HEADING 8. GENERAL.

Bostik preparations in contact with Perspex.

Many Bostik preparations contain solvents which are liable to cause crazing of Perspex if used in direct contact.

Only the following preparations are suitable for use where direct contact with Perspex is required.

- (i) Bostik ("B") Glazing Compound.  
(Not with Vinal/Glass Laminates for which use (ii))
- (ii) Bostik 1222 Glazing Compound (Has fair adhesive properties)
- (iii) Bostik 6515 Cleaner, or No. 3 cleaner.

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TECHNICAL NEWS SHEET

SERIES V No 323



DATE 23.5.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES. OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME. GENERAL CIRCULATION.  
SUB HEADING 13. RADIO.

- A) Special Technical Instruction/Radio/(Airborne Assembly)/26.  
A.I. Mk.10/SCR 729 (ARI 5570/U) - Wrong connections in Junction  
Box Type 253. (10 AB/6858) at D.C. Plug W.196 (Red) (10H/389).
- B) All A.I. Mk.10 Junction Boxes Type 253, (10AB/6858), in use and in store.
- C) Twelve cases have been reported of the blowing of fuse F.1112 in Junction Boxes Type 253 due to incorrect connections to the D.C. Plug W.196 (Red) feeding the Aerial Switch Motor of the SCR 729.
- D) (a) At the earliest opportunity, inspect all Junction Boxes Type 253 for this defect. The Sequence of operations required to ensure correct connections to the plug concerned and to attain uniformity of wiring with the DC Plug W.196 (No.1) used to feed the SCR 729 Transmitter/Receiver, is given below:- (See also AP 2913, Vol.1, 3rd Ed., Chap.1, Fig.40).
- (i) Locate Plug W.196 (No.1), Ref.10H/389, feeding the SCR 729 Transmitter/Receiver, on the side of the Junction Box, near the compensating strip.
- (ii) Unsolder wiring of Pin 2 and re-connect to Earth.
- (iii) Unsolder wiring of Pin 1 and re-connect to Positive 24 Volt terminal No.1181.
- (iv) Locate Plug W.196, (red), feeding the aerial switch, at the opposite corner of the Junction Box and re-wire as in sub-para (ii) and (iii), above.
- E) Record on Forms 700 and F.3592.
- F) No further reports are required.

Continued...

- G) The attention of Contractors has been drawn to this defect, through the A.I.D., in order to prevent recurrences on future issues. This S.T.I. will be superseded by RMC Modification No. 2434/2, Class C.3. which is now being prepared.

SUB HEADING 13. RADIO.

Mark IV Miniature Plugs and Sockets - Assembly Defects.

1. A number of defects have recently been reported caused by tracking between high voltage poles of the above plugs and sockets, and investigation of the defective items has indicated that in some cases assembly technique has been at fault. Details of the faults found are given below, and all users are asked to take such action as may be necessary to avoid repetition.

(a) Use of P.I.C. No.1 or similar compound on plug pins. This compound was originally introduced to prevent water getting into the earlier-types of plugs and sockets. The Mark IV miniature plugs and sockets are completely water-proof and no insulating compound of any kind should be used on the pins. Use of the compound may have a deleterious effect on the rubber sealing washers of the plug.

(b) Insufficient cleaning after soldering. After cables have been soldered to their respective pins the plug insert should be washed with carbon tetrachloride to remove all traces of soldering flux, swarf, etc. It is apparent in many cases that this not being done.

(c) Use of varnish. Some manufacturers are applying varnish to the back of the plug, presumably to cover the soldered cable connections. This varnish is remaining, or becoming tacky in service, and by picking up dirt, swarf etc., contributes to break-down of insulation between poles. The varnish has also been observed to cause serious deterioration of synthetic cable sleeves.

(d) Use of single cables on a multi-pin plug, instead of multi-core cables for which the sealing grommet at the cable entry is designed. This has allowed the ingress of moisture with subsequent break-down.

(e) Electrical break-down of the rubber sealing washers between the mating faces of plug and socket. This is at present thought to be due to the trapping of minute particles of swarf during assembly, and again the necessity for absolute cleanliness is emphasised.

2. The above faults have all lead to the serious breakdown in flight of essential aircraft electrical and instrument services.

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SUB HEADING 4. CONTROLS, FLYING.

- A) Special Technical Instruction/Vampire/57.  
Elevator L.H. Hinge Cover Plate Part No. J.00916A - Fouling Attachment Bolt.
- B) Vampire and Sea Vampire and Venom all marks.
- C) A case has been reported of fouling of the elevator support link attachment bolt by the lower hinge cover plate, Part No. J.00916A, Stores Ref. 26FC/3160 (Vampire), resulting in momentary interference with elevator control. The Vampire Vol III, Plate A12, illustrates the cover plate.
- D) 1. As soon as possible and not later than next Primary Star Servicing, and at each subsequent elevator replacement, check for clearance at the above-mentioned point with the elevator moved towards the fully down position.
2. Where there is evidence of fouling file the end of the bolt to a minimum of  $1\frac{1}{2}$  threads clear of the nut and slightly flatten the stiffening turn-over in the cover plate locally to provide a clearance of approximately  $1/16$ ".
- NOTE The attention of all concerned should be drawn to the necessity of carrying out these checks when subsequent elevator replacements are made.
- E) Record on Form 701 or F1125 as applicable.
- F) Nil.
- G) Nil.

SUB HEADING 7. FUSELAGE ASSEMBLY.

- A) Servicing Instruction/Vampire/34.  
Fouling of Nose Wheel Door on Cannon Spout Fairing.
- B) Vampire and Sea Vampire aircraft - all marks.
- C) Cases have been reported of fouling between the edge of the nose wheel door and the cannon spout fairing. In one case the door jammed closed resulting in a wheel up landing.
- D) 1. At next Primary Star and at each subsequent Minor Servicing and whenever a nose wheel door or cannon fairing is replaced, the following action is to be taken.

Continued.....

D) 2. Close the nose wheel door manually by "breaking" the lock mechanism and check the clearance between the edge of the door and the cannon spout fairing at the closed position.

3. The clearance may vary but a minimum of 1/16" should be maintained by filing the edge of the door or the cannon spout fairing as necessary.

E) Record on Form 700 and enter on Supplementary Servicing Record Sheet of Servicing Schedule.

F) Nil.

G) Nil.

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SUB HEADING 11. SERVICES, AIRCRAFT.

Oxygen Economisers Mks. 3 and 4 -  
Damage to inlet connection nuts.

Numerous cases of damage to the inlet connection banjo nuts have been reported on oxygen economisers returned for repair. It is apparent from the nature of the damage that unsuitable tools are being used and insufficient care is being exercised when slackening or tightening the nuts.

2. The introduction of economiser bags as a unit spare will call for more frequent removal of the inlet connection nut and also removal of the outlet connection nut which in the past was not adjusted at units. It is essential that damage to these nuts should be kept to a minimum.

3. It is considered that a 3/8" W. Spanner, ref 11/25, is satisfactory for use on the nuts and that the introduction of a special box spanner is not warranted provided that normal care is exercised by servicing personnel.

4. It is requested that this matter be drawn to the attention of all units.

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# DE HAVILLAND SERVICE

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TELEPHONE HATFIELD 2345  
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## TECHNICAL NEWS SHEET

SERIES V No. 324



DATE 26.5.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 13, RADIO.

TO PROVIDE INCREASED CLEARANCE BETWEEN A.I.10  
RESISTORS AND AIRCRAFT STRUCTURE.

MK.NF.10.

Class B/2 N.C.P.

Mod. No. Vampire 3133.

This modification has been necessitated by reports that under certain landing conditions the A.I.10 resistors are shorting on the aircraft structure and provision is made therefore for the fitment of a new stiffening bracket which will give greater clearance between the resistors and the structure.

SUB HEADING 15, TAIL UNIT ASSEMBLY.

TO INTRODUCE AN ADDITIONAL STRIP TO ELEVATOR  
TRAILING EDGE.

MK.20 & 21.

Class C/3.

Mod. No. Sea Vampire 3115.

This modification has been necessitated by reports that up to a mach No. of .78, elevator overbalance is experienced and provision is made therefore for the fitment of a spoiler strip on the elevator to cure this defect.

SUB HEADING 7, FUSELAGE ASSEMBLY.

SUB HEADING 13, RADIO.

IMPROVEMENTS TO FACILITATE ACCESS TO AND REMOVAL OF RADIO  
EQUIPMENT (A) QUICK RELEASE ACCESS PANEL IN BLISTER UNDER  
SCANNER. (B) QUICK RELEASE PINS IN PLACE OF BOLTS AND NUTS  
FOR MOUNTING R.F. UNITS. (C) TWO GEE UNITS IN NOSE TO BE  
MOVED FORWARD 1/2" (D) ANCHOR NUTS TO BE USED FOR ATTACH-  
MENT OF A. I. CONTROL UNIT TO RADAR CRATE - INTRODUCTION.

MK.10.

Class B/2.

Mod. No. Vampire 3006 Issue 2.

Continued.....

This modification has been necessitated by a Ministry of Supply request and makes provision for the introduction of certain improvements to facilitate access to and removal of Radio Equipment.

SUB-HEADING 19. GROUND EQUIPMENT.

AN ADAPTOR FOR STANDARD R.A.F. TOWING ARM

INTRODUCTION.

MK.NF.10

Class S.O.O.

A.M. Mod. No. Vampire GE 972.

This modification has been necessitated by a Ministry of Supply request and makes provision for the introduction of a steering head adaptor assembly to fit either the standard towing or steering arms.

SUB HEADING 15. TAIL UNIT ASSEMBLY.

ADDITIONAL ATTACHMENT FOR RUDDER HORN BALANCE

WEIGHT - INTRODUCTION. PART (A) INTERIM SCHEME

PART (B) PRODUCTION SCHEME.

MK.NF.10. T.11.

Class C/3 N.C.P.

Mod. No. Vampire 3152 (PT.A)

This modification has been necessitated by the occurrence of cracking at the forward end rib securing the rudder mass balance weight, resulting in possible rudder buffeting and makes provision for additional attachments.

SUB HEADING 4. CONTROLS. FLYING.

REDESIGNED BRAKE CABLES. - INTRODUCTION.

MKS.20.& 21.

Class C/3.

Mod. No. Sea Vampire 3166

This modification has been necessitated by reports of the continual failure of existing brake cables adjacent to the nipples due to fatigue caused by the incorrect alignment of the cable during brake operation, and makes provision for the introduction of a redesigned brake cable embodying improved swaging of the nipples and the addition of a Dunlop torque plate.  
NOTE. This modification supersedes Mod. No. Sea Vampire 944.

Continued.....



SUB HEADING 14. SERVICES AIRCRAFT.

DUNLOP SINGLE WIRE BRAID HOSE TYPE WH3/1 FOR HIGH PRESSURE  
LINE AT HYDRAULIC PUMP IN LIEU OF EXISTING ALTERNATIVES,  
WEATHERHEAD AND SILVOFLEX - INTRO.  
MKS. F20 & 21.

Class C/4. on replacement.

A.M. Mod. No. Sea Vampire 3116.

This modification introduces a new high pressure hose at the Hydraulic Pump, as failures of the existing type at the end fittings have been reported.

SUB HEADING 11. ELECTRICAL INSTALLATION.SUB HEADING 13. RADIO.

MISCELLANEOUS IMPROVEMENTS IN RADIO COMPARTMENT TO FACILITATE  
RE-ARMING AND SERVICING V.H.F. SETS (A) MOVE VOLTAGE REGULATOR  
1" TO STARBOARD (B) REPOSITION OXYGEN CHARGING VALVE FROM  
BULKHEAD NO. 2. TO BULKHEAD NO. 3. (C) RE-RUN VARIOUS ELECTRICAL  
LEADS ON STARBOARD SIDE AND ADD GUARD - INTRODUCTION.  
MKS. NE. 10.

Class B/2.

Mod. No. Vampire 3007.

This modification has been necessitated by a Ministry of Supply request and makes provision for the introduction of miscellaneous improvements in the radio compartment to facilitate re-arming and servicing of the V.H.F. sets.

SUB HEADING 14. SERVICES AIRCRAFT.

REDESIGNED HYDRAULIC HEADER TANK TO PREVENT AIR  
LOCKS - INTRODUCTION.  
MKS. 20 & 21.

Class C/3 at wastage Rates.

Mod. No. Sea Vampire 789.

This modification has been necessitated by the occurrence of air locks in the existing hydraulic reservoir and makes provision for a redesigned reservoir to overcome them.

SUB HEADING 18. WING ASSEMBLY.

1 IN. DIA. H.T.S. BOLTS IN LIEU OF 2BA N.S. BOLTS  
FOR ATTACHING UNDERCARRIAGE DIAPHRAGMS TO RIB 2 -  
INTRODUCTION.

Class C/3 N.C.P. on repair or on removal of No. 1 Wing Tank.

Mod. No. Vampire 846.

Continued

This modification has been necessitated by reports that the 2BA Mild Steel bolts attaching the undercarriage diaphragms to wing rib No.2 have sheared off, with the consequent buckling of the rib, and makes provision for the introduction of  $\frac{1}{4}$  in. dia. high tensile steel bolts to obviate this failure.

SUB HEADING 7, FUSELAGE ASSEMBLY.

IMPROVEMENTS TO JETTISON ARRANGEMENTS FOR EXISTING  
TYPE CANOPIES - INTRODUCTION.  
MK. NF.10.

Class B/2.

Mod.No. Vampire 3125.

This modification has been necessitated as a result of jettison trials in the Boscombe tunnel and makes provision for the introduction of improved jettison arrangements.

SUB HEADING 18, WING ASSEMBLY.

SHORTER BOLT AND GUARD FOR WING TANK DOOR.  
INTRODUCTION.

Class C/3.

MKS.F3, FB5, FB9, NF.10.

Mod.No.Vampire 3053.

This modification has been necessitated by the fact that in certain cases a foul can occur between one of the tank door fixing bolts on Rib No.5 and the No.3 fuel tank feed pipe and makes provision for the introduction of a guard and a shorter bolt to prevent damage to the pipe.

SUB HEADING 14, SERVICES AIRCRAFT.

DULOP SINGLE WIRE BRAID HOSE, TYPE WH3/1 FOR HIGH  
PRESSURE LINE AT HYDRAULIC PUMP IN LIEU OF EXISTING.  
ALTERNATIVES, WEATHERHEAD AND SILVOFLEX - INTRO.  
MKS. F1, F3, FB5, FB9, NF10 & T11.

Class C/4.

A.M. Mod. No. Vampire 3116.

This modification introduces a new high pressure hose at the hydraulic pump, as failures of the existing type at the end fittings have been reported.

SUB HEADING 3, CONTRCLS, ENGINE.

TO INTRODUCE A BREAK AFT OF FIREPROOF BULKHEAD  
IN TELEFLEX CONTROL CONDUIT FOR AIR CONDITIONING  
SYSTEM.  
MK.NF10.

Continued.....

Class C/3 N.C.P. on removal of engine.A.M. Mod. No. Vampire 3123.

This modification has been necessitated by the fact that it is at present necessary to bend the air conditioning conduit to remove the engine, and makes provision for the fitting of a conduit connection aft of the fireproof bulkhead to obviate this.

SUB HEADING 8. GENERAL.

MISCELLANEOUS IMPROVEMENTS TO REDUCE MAGNETIC INTERFERENCE WITH E.2 A COMPASS - INTRODUCTION.  
MK. NF10.

Class B2 N.C.P.Mod. No. Vampire 3067.

This modification is necessitated by a Ministry of Supply request, and makes provision for the fitting of non-magnetic nuts and bolts in the region of the E.2 A compass; an anti-magnetic cover for the R.F. unit and an access hole for the correction scale of the E 2A compass.

SUB HEADING 4. CONTROLS; FLYING.

BRAKE CABLES PART NO. A.C.M.16525 WITH TORQUE PLATES AND SWAGED NIPPLES IN LIEU OF A.C.O. 5761 - INTRO.  
MKS. 1, 3, 5, & 9.

Class C/2.Mod. No. Vampire 3166.

This modification has been necessitated by reports of the continual failure of existing brake cables adjacent to the nipples due to fatigue caused by the incorrect alignment of the cable during brake operation, and makes provision for the introduction of a redesigned brake cable embodying improved swaging of the nipples and the addition of a Dunlop torque plate.

SUB HEADING 6. ENGINE INSTALLATION.

FIREGUARDS AND ADDITIONAL FLAME SWITCHES AT WING ROOT RIBS IN ENGINE BAY - INTRODUCTION.  
MKS. F20, F21.

Class B/2. Complementary to Goblin Mod.497. Mod. No. Sea Vampire 844.  
Issue 2.

This modification has been necessitated by reports that accidents have occurred due to the splitting of combustion chambers, and the consequent over-heating of wing fuel tanks and makes provision for the introduction of additional flame switches, mounted in banks of four per side; and the extension of the fire shield cone by fitting stainless steel cover plates between the cone and the forward ends of the chambers.

Continued.....

SUB HEADING 14. SERVICES. AIRCRAFT.

TO REPOSITION OXYGEN PIPE UNIONS AWAY FROM EMERGENCY HYDRAULIC  
PUMP IN COCKPIT.  
MK.NF.10.

Class B/2.

Mod. No. Vampire 3122.

This modification is necessitated by the risk of explosion due to hydraulic oil coming into contact with oxygen, and makes provision for the repositioning of the oxygen pipe unions on the cockpit floor to minimise this risk.

SUB HEADING 14. SERVICES. AIRCRAFT.

MODIFIED CONTROL CAMS IN THE REFRIGERATION SYSTEM  
INTRODUCTION.  
MK.FB9.

Class C/3 after old type spares are consumed. Mod. No. Vampire 3107.

This modification has been necessitated by the fact that, under the present arrangement, difficulty has been experienced in shutting off the hot air supply and makes provision for the introduction of modified control cams.

SUB HEADING 11. ELECTRICAL INSTALLATION.

AUTOMATIC CHANGE OVER RELAY, REF. 5C/4102 FOR TURN  
AND SLIP INDICATOR, INTRODUCTION.  
MK.FB5 & 9.

Class B/2.

Mod. No. Vampire 954.

This modification is necessitated by a Ministry of Supply request and makes provision for the fitment of a type Q automatic relay in the turn and slip indicator circuit for emergency operation, and segregates this circuit from that of the G4F compass.

SUB HEADING 5. DECK LANDING & ACCELERATING GEAR.

AN ARRESTER HOOK WITH AN INCREASED THROAT DIAMETER  
INTRODUCTION.  
MK.F20, F21.

Class B/2.

Mod. No. Sea Vampire 1048.

This modification has been necessitated by a Naval request and makes provision for the introduction of an arrester hook with an increased throat diameter for use with  $3\frac{1}{2}$  Inch dia. arrester wires.

SUB HEADING 7. FUSELAGE ASSEMBLY.TO INTRODUCE HEEL BRACING BARS FOR PILOT AND NAVIGATOR.MK.NF.10.Class C/3.Mod. No. Vampire 3118.

This modification has been introduced to assist the pilot and the navigator to rise from their seats and to hasten their leaving the aircraft in an emergency and makes provision for the fitment of heel bracing bars, to accomplish this.

SUB HEADING 15. TAIL UNIT ASSEMBLY.TO INTRODUCE AN ADDITIONAL STRIP TO ELEVATOR TRAILING  
EDGE.MK.F3, 5, & FB.9.Class C/3.Mod. No. Vampire 3115.

This modification has been necessitated by reports that up to a mach. No. of .78 elevator overbalance is experienced and provision is made therefore for the fitment of a spoiler strip on the elevator to cure this defect.

**"IMPORTANT-Alter dimension of Drawing MA-154 to read "34 amendment action is being taken."**

SUB HEADING 11. ELECTRICAL INSTALLATION.5 AMP FUSE REF. 5C/880 IN LIEU OF 10 AMP FUSE  
REF. 5C/881 IN GYRO GUNSIGHT CIRCUIT -INTRODUCTION.MK.F20, F21.Class B/2. N.C.P.Mod. No. Sea Vampire 3091.  
Amendment No.1.

Further to Technical News Sheet V.317 herewith Amendment No.1.

SUB HEADING 14. SERVICES, AIRCRAFT.REDESIGNED HYDRAULIC HEADER TANK TO PREVENT  
AIR LOCKS - INTRODUCTION.MK.F1, F3, FB5.Class B/2. applicable to FB5.Mod. No. Vampire 789.Class C/3. applicable to F1 & F3.Amendment No.1.

Further to Technical News Sheet V.207, herewith Amendment No.1.

Continued.....

SUB HEADING 6. ENGINE INSTALLATION,  
SUB HEADING 11. ELECTRICAL EQUIPMENT.

FIREGUARDS AND ADDITIONAL FLAME SWITCHES AT WING ROOT RIBS  
IN ENGINE BAY - INTRODUCTION.

Class B/2.

A.M. Mod. No. Vampire 844.  
Amendment No.5.

Further to Technical News Sheets V.215, 222, 258 and 317, herewith  
Amendment No.5.

SUB HEADING 18. WING ASSEMBLY.

TO REINFORCE CUTAWAY IN RIB NO.2 ON MAINPLANE FOR  
UNDERCARRIAGE LEG.  
MK.FB.5.

Class C/3.

Mod. No. Vampire 698 Amd. No.2.

Further to Technical New Sheets V.310 & V.317, herewith Amendment No.2.

SUB HEADING 11. ELECTRICAL INSTALLATION.

5 AMP FUSE REF. 5C/880 IN LIEU OF 10 AMP FUSE REF  
5C/881 IN GYRO GUNSIGHT CIRCUIT - INTRODUCTION.  
MK.F1, F3, FB5, FB9.

Class B/2 N.C.P.

Mod. No. Vampire 3091.  
Amendment No.1.

Further to Technical News Sheet V.317, herewith Amendment No.1.

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HATFIELD HERTFORDSHIRE ENGLAND

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TECHNICAL NEWS SHEET

SERIES V

No. 325



DATE 12.6.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 8, GENERAL.

The following information is issued for the guidance of operators :-

"The slots of DZUS and similar types of fastener need not be in 'line of flight' of the aircraft when in the locked position, unless specifically called for by Design Office.

When the fastener slots are not in 'line of flight' the locked position of the slot must be marked with paint in the form of a small bar at either end of the slot.

Where these paint marks will become obliterated by handling or polishing of unpainted surfaces they may be lightly marked with an electric etching tool.

Where the locked position of a line or group of fasteners is in 'line of flight', they need not be so marked."

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SUB HEADING 10, MISCELLANEOUS EQUIPMENT.

Quick Release Fittings Type Z

Reference the above subject, herewith follows text of Air Ministry letter A.30874/49/Air.Eng.1(a) dated 28th April, 1952, for information and any necessary action :-

"I am directed to refer to the servicing and repair of Quick Release Fittings for Safety Harness and to advise that it is apparent from an inspection of quantities of the Type Z fittings which have been returned to the manufacturers for repair that, amongst others, the following particular items are being inter-changed between fittings :-

Continued.....

- |     |                 |        |  |
|-----|-----------------|--------|--|
| (a) | Body            | Item 1 | ) Of A.P. 1182B, Volume 1,<br>Section 1, Chapter 8, Fig.4. |
| (b) | " Cover         | " 5    |  |
| (c) | Operating Lever | " 11   |  |

2. As the fitting is proof loaded on initial assembly it is considered essential that the items referred to in sub. paras. (a) (b) and (c) above should be retained in the original fitting and not inter-changed unless proof loaded after assembly. I am to advise, therefore, that in the event of any of those items become unserviceable the complete fitting is to be returned through the Equipment Section for repair by the manufacturer. There is no objection to the other items which comprise the assembly being interchanged between fittings.

3. I am also to advise that a list of Spare Parts for the Type Z Quick Release Fitting is being prepared but that due to the critical supply situation it will be some considerable time before these parts are available in the Service.

4. In conclusion I am to add that A.P.1182B, Volume 1, will be amended in due course".

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#### SUB HEADING 22, PROPELLORS & THEIR CONTROL.

- A) Special Technical Instruction/Instruments/17.  
Indicators Air Speed Mark 9 H# (6A/1985) - Misleading presentation  
caused by incorrect positioning of figure 10.
- B) All Indicator Air Speed Mark 9 H# (6A/1985) installed in aircraft, held as spares or in storage at Maintenance Units.
- C) A small number of indicators air speed Mark 9 H# have been manufactured with the figure 10 representing 100 knots so positioned that the pilot might think his air speed is 100 knots, whereas, in fact, it is only 90 knots.
- D) Before the Next Flight in the case of indicators installed in aircraft; and prior to issue in the case of indicators held as spares or held in storage the following action is to be taken.
- (i) Inspect the position of the figure 10 in relation to its scale mark. (The 100 knot scale mark is slightly longer and thicker than the intermediate markings).

Continued.....



- (ii) Where the figure 10 stands above the 100 knot scale mark the instrument is satisfactory.
  - (iii) Where the figure 10 stands to the side of the 100 knot scale mark and between it and the 90 knot scale mark the instrument is unsatisfactory.
  - (iv) Defective indicators installed in aircraft are to be removed and a serviceable instrument fitted. Leak test the Pitot static system after fitting. (Note. Where serviceable replacements are not available the defective instruments may continue in use at the discretion of the O.C. Flying Wing until serviceable stocks are received).
  - (v) Defective indicators held as spares or in storage are to be segregated and are not to be issued.
  - (vi) All defective indicators are to be clearly marked and held pending issue of disposal instructions.
- E)
- (i) Record on appropriate Forms.
  - (ii) Mark on the instrument case "STI/INST/17" using lacquer opaque yellow, stores reference 33B/809. (The marking of Serviceable instruments installed in aircraft is to be done at the next convenient opportunity. There is no need to remove instruments for marking only.) In the case of packed instruments the S.T.I. data is also to be marked on the outer carton.
- F) Report quantity of defective instruments found to RDA Defects, M. of S., and Air Ministry E.5(a) Harrogate, stating manufacturer of instruments.
- G) No modification. Action has been taken to correct new manufacture instruments and defective instruments will be recalled for fitting of new dials.

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SUB HEADING 28. INSTRUMENTS.

- A) Serviceing Instruction/Instruments/2.  
Thermometers Electrical - Defective Contacts at Resistance Bulb Plug.
- B) Bulbs resistance Mark 3A Stores Ref. 6A/1775 and Plugs Ref. 6A/1755 installed in aircraft. This instruction does not apply to items in stores.
- C) Many cases have been reported of the fluctuation of thermometer

Continued.....

indicators, and this defect is caused by the formation of a high resistance deposit on the silver-plated pins of the resistance bulb plug. Service Trials have demonstrated that sealing the plug and socket will considerably improve the serviceability of the equipment.

- D) 1. At the next Minor Servicing, Plugs Ref. 6A/1755 are to be removed from the resistance bulbs and the pins examined. Any oil present on the plug or in the resistance bulb sockets should be removed by the application of a de-greasing fluid, but no attempt is to be made to remove deposit or discoloration from the pins by abrasive method. The silver-plating on the pins is extremely thin, and if the deposit cannot be removed without damaging the plating, or if the plating has been penetrated by previous cleaning, a new plug should be fitted. The cable entry to the plug is to be examined to ensure that the rubber sealing grommet is fitted properly round the outer covering of the cable, and that the metal washer is in position between the rubber grommet and the outer shield nut of the plug. A new Gasket, rubber Ref. 6A/2545 is to be fitted over the plug pins.
2. The threads of the outer shield nut and the corresponding threads on the resistance bulb are to be cleaned with de-greasing fluid and liberally coated with Varnish, Synthetic Resin, Ref. 33B/139. The plug is then to be inserted in the bulb, the outer shield nut screwed home and wire locked in position.
3. Unless a defect occurs sealing plugs and sockets are to be left undisturbed for a period of 300 flying hours (or until the first aircraft servicing period after the completion of 300 hours) when the above operations should be repeated.
- E) Initial compliance with this S.T.I. is to be recorded on Form 700 and details of subsequent action required should be entered in the appropriate "Supplementary Inspection Record Sheet" of the Servicing Schedule.
- F) Reports on Form 1022 are to be rendered on plugs and sockets sealed in accordance with this S.I. which do not achieve 300 hours trouble-free. Defect reports are also required on plugs with gold-plated pins (see para. G below).
- G) The Manufacturers have recently changed from silver to gold plating on the plug pins. If plugs are encountered with gold plated pins they are not to be sealed with varnish as it is desired to ascertain by service experience if this alteration will in itself provide a satisfactory remedy.

Continued.....

SUB HEADING 7. FUSELAGE ASSEMBLY.

Engine Mounting Attachments.

A case has been reported of wear on the bolt passing through the eyebolt on bulkhead 4 to which is attached the engine bearer side bracing strut Pt.No. L.001270A. Wear had also taken place on the eyebolt and in the forkend of the strut. This wear is considered due to insufficient plain bolt shank on which the bearing takes place i.e. the bolt has too much threaded portion and consequently part of the load is taken on the thread.

It is suggested that whenever the engine is next removed these items be checked and bolt Part No. A15-Y-5A fitted which has the required length of plain shank.

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SUB HEADING 11. ELECTRICAL INSTALLATION.

Fuel Pressure Warning Light Units  
Stores Reference No. 6A/1912 and 6A/1913  
Marks 1E<sup>22</sup> and 1F<sup>22</sup>

Further to Technical News Sheet V.314 dated 31.3.52. please amend as follows :-

Para 2: Delete "Stores Reference Number 6A/3103"  
Substitute "Stores Reference Number 6A/3013"

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TECHNICAL NEWS SHEET

SERIES V No 326



DATE 13.6.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME. GENERAL CIRCULATION.  
SUB HEADING 7. FUSELAGE ASSEMBLY.

A GUARD IN RADIO COMPARTMENT TO PREVENT INADVERTENT  
OPERATION OF CANOPY JETTISON CONTROL CABLE BY GROUND  
PERSONNEL - INTRODUCTION  
MKS. 20, 21.

Class C/3.

Mod. No. Sea Vampire 3114.

This modification has been necessitated by accidental jettisoning of the canopy in the past, due to inadvertent operation of the jettison cable by ground personnel during re-arming, and makes provision for the fitting of a guard to the cable to prevent this.

SUB HEADING 7. FUSELAGE ASSEMBLY.

TO BRING CANOPY JETTISON HANDLE WITHIN REACH OF  
PILOT WHEN FULLY STRAPPED IN.  
MK. 10.

Class B/2.

Mod. No. Vampire 3160.

This modification has been necessitated by the difficulty experienced by pilots in reaching the canopy jettison handle when they were fully strapped in, and makes provision for the raising of the jettison handle by approximately 5 in. from its existing station. Note. This modification is only applicable to aircraft without Mod. Vampire 3150 embodied.

SUB HEADING 12. FUEL SYSTEM.

NEW PRESSURE REDUCING VALVE, DUNLOP PART NO.  
ACM/16514 INCORPORATING REDESIGNED BLOW OFF  
VALVE IN LIEU OF EXISTING REDUCING VALVE  
PART NO. ACO/4798 IN AIR SUPPLY LINE TO DROP  
TANKS.  
MKS. 3, 5, 9, 10, 11.

Continued.....

Class C/3 N.C.P.

Mod. No. Vampire 3088.

This modification has been made necessary because the existing blow off valve was unsatisfactory since it could not be set correctly, resulting in excessive blow off pressure, with possible damage to the drop tanks.

SUB HEADING 4. CONTROLS, FLYING.

TO INTRODUCE AN ADDITIONAL STRIP TO  
ELEVATOR TRAILING EDGE.  
MKS. F1, F3, FB5, FB9.

Class B/2 For Mk.1.

Class C/3 For Mk. F3, FB5, FB9.

Mod. No. Vampire 3115 Issue 2.

This modification has been necessitated by reports that up to a Mach No. of .78, elevator overbalance is experienced and provision is made therefore for the fitment of a spoiler strip on the elevator to cure this defect. This issue supersedes Issue 1 with Amendment 1 incorporated.

.....

SUB HEADING 6, ENGINE INSTALLATION.

Vampire 5 - Engine Mounting Installation.

A case has been reported of excessive wear on the bolt attaching the engine mounting side bracing strut to the lug on the engine mounting itself due to the threaded portion being too long and the correct bolt to be used is A.1.6G (.6" plain length) using a washer if required.

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SUB HEADING 22, INSTRUMENTS.

Servicing Instruction/Instruments/2.

Thermometers Electrical - Defective Contacts of Resistance Bulb Plug.

Further to Technical News Sheet V.325 dated 12.6.52. please amend as follows :-

After Para. (B) insert :-

"Not applicable to Sycamore Aircraft".

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SUB HEADING 3, CONTROLS, ENGINE.

Servicing Instruction/Vampire/23A.

(Amending Servicing Instruction/Vampire/23)

Adjustment of high pressure fuel cock control.

Further to Technical News Sheet V.264 dated 4.9.51. please amend as follows :-

Para. (B) add "Vampire Mk.10 and Goblin Mk.3 engines".

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SUB HEADING 8, GENERAL.

Dzus Fasteners - Position of Slots.

Further to Technical News Sheet V.325, dated 12.6.52. would you please delete Paragraph 5.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
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## TECHNICAL NEWS SHEET

SERIES V No. 327



DATE 26.6.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.

SUB HEADING 18, WING ASSEMBLY.

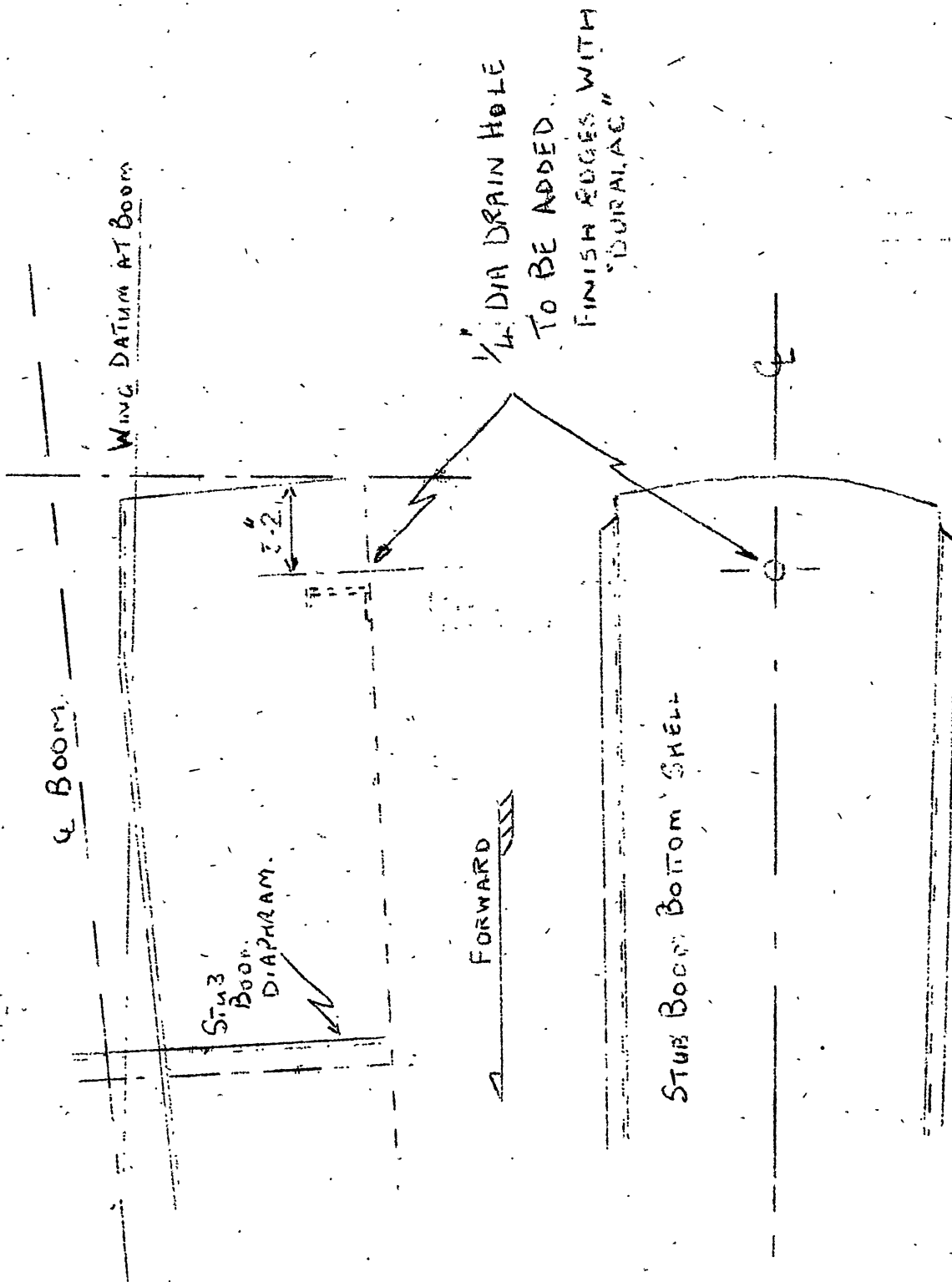
SUB HEADING 24, REPAIR SCHEME.

### INCREASED DRAINAGE - STUB BOOM.

The attached sketch ROD.317 Issue 1, details the position of an additional drain hole to be drilled in the Stub Boom. This is covered by Internal Modification O/2747.

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See Overleaf.



WIRE - DRAIN HOLE IN TAIL STUB BOOM ~ R00D 317 ISSUE 1  
 14/16/52 MATHews.

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## TECHNICAL NEWS SHEET

SERIES V No 328



DATE 1.7.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION. SUB HEADING 12. FUEL SYSTEM.

Under certain circumstances it may be found necessary to convert fuel tanks from the Smiths fuel gauge installation to that of Messrs "Pacitor". The following information has been compiled with the assistance of both companies and details the procedure for carrying out the change of units.

#### "VAMPIRE FUEL TANKS" - AS MANUFACTURED BY FIREPROOF TANKS LIMITED.

#### PROCEDURE FOR CHANGING OVER FROM SMITH'S TO PACITOR UNITS.

1. Disconnect cable leads.
2. Remove nuts securing Smith's Gauge, located in dished portion of container.
3. Withdraw Gauge, keeping pillar to one side and tipping to allow float to pass through hole.
4. Disconnect two 2 BA nuts and washers from top of canister inside.  
(Take care that nuts and washers do not fall into Tank.)
5. Remove nuts and washers on outer circle of bolts securing canister to Tank, and remove canister complete. Note outer stiffening washer FT.1697 will be required for next assembly.
6. Obtain new canisters FT.3590 or FT.3591 for Nos. 3 and 1 Tank respectively, assemble bolt ring FT.1642 and retaining ring FT.1699 as on Smith's type canister, but without Kompolastic washer between canister and bolt ring. (See (10) below re. washers).
7. Push complete unit into Tank, ensuring bolts in anchorage in top of Tank emerge through top of canister.

Continued.....

8. Place stiffening washer referred to in (5) above, in position, ensuring all bolts are protruding through rings evenly, and secure with nuts and washers previously removed. (Torque spanner load 18 in. lbs.)
9. Screw on the two 2 BA nuts, IGS.2002/C/1, securing top of canister (without the washers), do not use nuts as from (4) above.
10. Place in position two Kompolastic washers together FT.3545/S/30, over studs projection from bolt ring.
11. Insert Pacitor Gauge ensuring that top of Gauge is not fouling projecting bolts from top anchorage, as short circuit will otherwise occur.
12. Assemble nuts and washers securing Gauge in position, connect cable leads.
13. Test Tank for leaks at new joint in approved manner.

METHOD OF MODIFYING GAUGES ON VAMPIRE TANKS.

MARSTON EXCELSIOR LTD.

Removal of existing gauges.

Remove the existing 16 - 2 BA Nuts securing the metal clamp rings and gauge mounting plate, and remove the bonding tag which is no longer required. Lift the metal clamp ring situated on the outside of the tank. Remove the dished gauge mounting plate taking great care not to cause damage to the rubber retaining ring which is situated immediately beneath the flange of this plate. Screw drivers or sharp pointed levers should not be used as penetration of the rubber may result. It is recommended that the ends of the studs should be lightly tapped with a plastic headed hammer or a hammer and wooden block, when it will be found that the plate may be removed without difficulty. Remove the stud ring from the gauge mounting plate by removing the locknuts, gauge, joint washer, base plate and the inner joint washer, leaving the stud ring assembly free for fixing to the condenser type gauge adaptor plate.

Fitting of Pacitor gauges.

Fix the adaptor plate and Pacitor gauge to the stud ring, first by inserting the loose rubber joint ring, then the mounting plate, then a further rubber joint ring and finally the gauge securing the assembly by locknuts. The gauge and mounting plate complete are now ready for fitting to the tank. To ensure the correct run of gauge cable, it is important that the relative

Continued.....

position of the 1/4" studs in the inner and outer ring stud ring assemblies correspond with those indicated on the G.A. drawings. Thread the mounting plate over the studs in the outer ring on the tank and add the clamp ring and 4 support lugs in the appropriate positions, as shown on the General Arrangement securing with the necessary locknuts. The locknuts should be tightened to a torque of approximately 35 lbs/in. maximum, over tightening will cause damage to the tanks.

#### Pressure Test.

When the above assembly has been completed it is necessary to carry out a pressure test, and for this operation it is recommended that the tank is made to hold approximately 20 gallons of kerosene, the apertures sealed off, and air pumped into the tank to give small pressure which is sufficient just to distort the walls of the tank. This pressure should not be above 1/4 lb./sq. in. If the operation of fitting the gauge and mounting plate has been correctly performed no leakage of fuel will appear, in the case of leakage it will be necessary to strip the part of the joint effected in order to discover the cause, and the joint will have to be re-made and re-tested.

When the tank has been tested the part number stencilled on the outside should be changed as defined by the G.A. Drawing.

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#### SUB HEADING 13. RADIO.

- A) Servicing Instruction/Radio (Airborne Assembly)/6.  
A.I. Mk. 10 (A.R.I.5570) - Check of standing wave ratio in R.F. Feeder (11OH/5060), and of correct pressurization, to prevent mis-match and burning of feeder with subsequent possible explosion of R.F. Unit and/or Scanner Dipole Housing.
- B) All A.I. Mk.10 installations fitted to aircraft and provided with R.F. Cable Assembly, Type Army/Navy Card CG-54/U, Reference 11OH/5060, vide S.T.I./Radio (Airborne Assembly)/24.
- C) Since the introduction of the above-quoted R.F. transmission line, two types of serious defect have been reported :-

Continued.....

- (a) Loss of range, caused by an initial slight mis-match in the R.F. Transmission Line Assembly, the cause of which is still under investigation. This mis-match was undetected for several flights, until the Polythene dielectric was severely burned and broke down, generating an inflammable gas, possible of an ethylene type. After landing, this gas combined with the air in the R.F. unit, to create an explosive mixture which ignited when the Transmitter was subsequently switched on. This explosion was sufficiently violent to fracture the top of the R.F. Unit casing in several places.
- (b) Shattering of the scanner Dipole Housing, due to mechanical damage--sustained when the Scanner was removed from the nose compartment of a Vampire N.F.10 aircraft. This damage became apparent when the Scanner was subjected to acceleration and resulted in air leaks from the Housing, loss of pressure and subsequent "flash-over" in the feeder system, thereby causing a severe mis-match and break-down of the R.F. feeder.
- D) (a) At Minor Inspections, or when the range of the A.I. Mk.10 deteriorates, a check of the standing wave ratio on the R.F. feeder is to be made, using the test set TS-3/AP, (Reference 11CSB/106). These test sets, together with their hand-books of operating instructions are being made available by the Air Ministry). The standing wave ratio should be NOT WORSE THAN 0.75.
- (b) After installation in aircraft and subsequently at Minor Inspections, a careful check for air leaks is to be made by applying soap solution to all joints in the pressurized system. Pressurization is to be checked during Primary and Pre-Flight Inspections, in accordance with instructions contained in AP.2913, Volume 4.
- (c) NOTES :-
- (i) Sealing compound is NOT to be used because of the danger of blockage of the air passages.
- (ii) Pressurization is normally to be effected at the R.F. Unit schraeder valve and checked at the scanner unit valve. This will reveal any blockage of the intervening air passages.
- E) Record on F.700 and also on the "Supplementary Inspection and Record Sheet" of the Servicing Schedule, (for the first inspection) and on Form 2988 (for subsequent inspections). (AP.2913, Volume 4, will be amended in due course).
- F) Further reports are not required.

Continued.....

- G) An airframe Modification to the Vampire N.F.10 aircraft, (on similar lines to Meteor N.F.11 Mod. No.5540), is being devised in order to facilitate installation and replacement of the R.F. feeder cable. This will obviate the need to remove the scanner from the N.F.10 when replacing the R.F. cable and will therefore minimise the possibility of mechanical damage.

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Further to Technical News Sheet V.326, dated 13.6.52, will you please amend Vampire Mod. No. 3088 to read as follows :-

SUB HEADING 12. FUEL SYSTEM.

NEW PRESSURE REDUCING VALVE, DUNLOP PART NO.  
ACM/16314 INCORPORATING REDESIGNED BLOW OFF  
VALVE IN LIEU OF EXISTING REDUCING VALVE  
PART NO. ACO/4798 IN AIR SUPPLY LINE TO DROP  
TANKS.

MKS. 3, 5, 9, 10, 11.

Class C/3 N.C.P.

Mod. No. Vampire 3068.

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Further to Technical News Sheet V.326, dated 25.6.52, would you please alter the number to read V.326A.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
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## TECHNICAL NEWS SHEET

SERIES V No. 329



DATE 4.7.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.

SUB HEADING 1, ARMAMENT.

SUB HEADING 7, FUSELAGE ASSEMBLY.

VAMPIRE MK. 9 - BELT MECHANISM FOULS THE GUN  
HEATER PIPE STARBOARD SIDE.

On certain Mk.9 aircraft the above defect has been found. Mod. Vampire 3187, which introduces a redesigned Gun Heater pipe is being issued to cover this defect on production aircraft but until this is available the remedial action is to alter the length of the Cannon Lanyard from 5" to 5.2" which has been found to give the necessary clearance.

.....

SUB HEADING 8, GENERAL.

MK.T.11. BALLAST WEIGHT BELOW CAMERA GUN.

The Ballast weight situated immediately below the Camera Mounting in the nose weighs 40 lb. and may be considered a permanent fixture. Should I.F.F. not be carried then a further 15 lb. weight should be carried on the mounting. Should the gun sights not be fitted a further 15 lb. weight should be carried.

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Continued.....

SUB HEADING 7. FUSELAGE.MK. T. 11. RIGGING DATUM BLOCKS.

- It has been agreed that, pending further consideration, the transverse cockpit levelling blocks will not be fitted and levelling of the aircraft for any purpose is to be carried out on the wing rigging boards.

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SUB HEADING 23. INSTRUMENTS.

For your guidance the Gun sights are not symmetrically placed about the centre-line of the fuselage. The Port Sight centre line being ten (10) inches horizontal distance from the centre line and the starboard eleven (11) inches.

SUB HEADING 14. SERVICES. AIRCRAFT.MK. 9 AIRCRAFT - COCKPIT AIR CONDITIONING.

The manufacturers of the Godfrey Cold Air Unit installed in the above aircraft have laid down a maximum time limit of one minute ground running. Operators should therefore avoid prolonged ground running of the unit which will be with the "Cold Air On" selection allowing heated air from the engine to pass through the cold air unit without the cooling effect of ram air through the heat exchanger.

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# DE HAVILLAND SERVICE

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## TECHNICAL NEWS SHEET

SERIES V No. 330



DATE 8.7.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION. SUB HEADING 12. FUEL SYSTEM.

The following is a revised summary of modifications affecting Fuel Tanks in Wing and replaces Technical News V.194 dated 5.5.50; Technical News Sheet V.247 dated 30.4.51, and Technical News Sheet V.270 dated 4.10.51., all of which should be cancelled.

#### Vampire 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.

Continued.....

Mod. Vam. 384. Introduction R.P. and Bombs (fixed parts) in wing -  
(for Mk. 5 and subsequent).

No. 1 Tank	A.M. 634/P	} replaces AM.528/1/P & S for Mk. 5 a/c and sub.
	A.L. 634/S	
		} AM.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. These are interchangeable.
	A.M. 528/1/S	
	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 interchangeable.
	A.M. 571/1/S	

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	

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.L. 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.

Continued.....

Mod. Vam.513 - Light alloy fittings in lieu of Steel.

- No. 1 Tank AM.835/P )  
                  AM.835/S )
- No. 2 Tank AM.836/P )  
                  AM.836/S )
- No. 3 Tank AM.837/P )  
                  AM.837/S )
- No. 4 Tank AM.838/P )  
                  AM.838/S )

Mod. Vam.674 - Introduction of tanks (with Formvar Inner lining) with improved fittings.

- No. 1 Tank AM.878/P )  
                  AM.878/S )
- No. 2 Tank AM.879/P )  
                  AM.879/S )
- No. 3 Tank AM.880/P )  
                  AM.880/S )
- No. 4 Tank AM.881/P )  
                  AM.881/S )

All the tanks introduced on this mod. are interchangeable with those they supersede.

Note: This mod. is superseded by Vam.625.

Mod. Vam.625 - Introduction of 'Flexelite' (Hycar inner lining) in lieu of 'Marflex' (Formvar Inner lining).

- No. 1 Tank AM.904/P )  
                  AM.904/S )
- No. 2 Tank AM.905/P )  
                  AM.905/S )
- No. 3 Tank AM.906/P )  
                  AM.906/S )
- No. 4 Tank AM.907/P )  
                  AM.907/S )

All the tanks introduced on this mod. are interchangeable with those they supersede.

Note: This mod. supersedes Mod. Vam.674.

Continued....

Mod. Vam. 662 - Introduction of Messrs. Fireproof Tanks as alternative to Marstons

- |                           |   |
|---------------------------|---|
| No. 1 Tank FT.4507 (Port) | } All these tanks are interchangeable with tanks introduced on Mod. Vam. 625. |
| FT.4508 (Stbd)            |   |
| No. 2 Tank FT.4509 (Port) |   |
| FT.4510 (Stbd)            |   |
| No. 3 Tank FT.4511 (Port) | }   |
| FT.4512 (Stbd)            |   |
| No. 4 Tank FT.4513 (Port) | }   |
| FT.4514 (Stbd)            |   |

Mod. Vam. 568 - Introduction of Pacitor Fuel Contents Units in lieu of Smiths Type.

- |                       |   |
|-----------------------|---|
| No. 1 Tank AM.1103/P. | } These tanks are <u>not</u> interchangeable with tanks introduced on Mods. Vam. 625 and 662. |
| AM.1103/S.            |   |
| FT.5665 (Port)        |   |
| FT.5666 (Stbd)        |   |
| No. 3 Tank AM.1104/P  | }   |
| AM.1104/S             |   |
| FT.5667 (Port)        |   |
| FT.5668 (Stbd)        |   |

Mod. Vam. 694 - Introduction of Rear fuel feed at No.1 and 3 tanks (incorporating Mod. Vam. 368)

- |                       |   |
|-----------------------|---|
| No. 1 Tank AM.1157/P. | } These tanks are <u>not</u> interchangeable with tanks introduced on Mods. Vam. 568 and 694 minus 568. |
| AM.1157/S.            |   |
| ≠ FT.5669 (Port)      |   |
| ≠ FT.5670 (Stbd)      |   |
| No. 3 Tank AM.1158/P. | } ≠ These tanks incorporate internal support pillars.   |
| AM.1158/S.            |   |
| ≠ FT.5671 (Port)      |   |
| ≠ FT.5672 (Stbd)      |   |

Mod. Vam. 694 - Introduction of Rear fuel feed at No.1 and 3 Tanks (not incorporating Mod. Vam. 568).

- |                       |  |
|-----------------------|--|
| No. 1 Tank AM.1189/P. | } These tanks are <u>not</u> interchangeable with tanks introduced on Mods. Vam. 568 and 694 plus 568. |
| AM.1189/S.            |  |
| FT.5689 (Port)        |  |
| FT.5690 (Stbd)        |  |

Continued.....

Mod. Vam. 694 - Introduction of Rear fuel feed at No.1 and 3 Tanks (not incorporating Mod. Vam. 568) Cont.

No. 3 Tank AM.1190/P.	} These tanks are <u>not</u> interchangeable with tanks introduced on Mods. Vam. 568 and 694 plus 568.
AM.1190/S.	
FT.5691 (Port)	
FT.5692 (Stbd)	

Mod. Vam. 3036 - Introduction of tanks incorporating internal support pillars.

No. 1 Tank FT/H6023 (Port)	} These tanks are interchangeable with tanks introduced on Mod. Vam. 662.
FT/H6024 (Stbd)	
No. 2 Tank FT.5818 (Port)	
FT.5819 (Stbd)	
No. 3 Tank FT/H6025 (Port)	}
FT/H6026 (Stbd)	
No. 4 Tank FT.5820 (Port)	}
FT.5821 (Stbd)	

Mod. Vam. 3036 - Introduction of tanks incorporating rear fuel feeds at No.1 and No.3 tanks (Vam.694) Smiths contents transmitter (pre Vam.568) and internal support pillars.

No. 1 Tank FT.5822 (port)	} These tanks are interchangeable with tanks introduced on Mod. Vam. 694 minus Vam.568.
FT.5823 (Stbd)	
No. 3 Tank FT.5824 (Port)	}
FT.5825 (Stbd)	

Mod. Vam. 3042 - Introduction of No.1 Fuel Tank having metal reinforcing plate at filler cap.

No. 1 Tank AM.1400/P.	} These tanks are interchangeable only with those introduced on Mods. Vam. 625 and 662.
AM.1400/S.	
No. 1 Tank AM.1401/P.	} These tanks are interchangeable only with those introduced on Mod. Vam. 568.
AM.1401/S.	
No. 1 Tank AM.1402/P.	} These tanks are interchangeable only with those introduced on Mods. Vam. 694 plus Vam. 568.
AM.1402/S.	
No. 1 Tank AM.1403/P.	} These tanks are interchangeable only with those introduced on Mod. Vam. 694 minus Vam. 568 and on Mod. Vam. 3036.
AM.1403/S.	

Continued.....

Mod. Vam. 3075 - Introduction of Modified Nos. 2 and 3 tanks incorporating anti-surge valves at outboard feed connections.

No. 2 Tank AM.1419/P. These tanks are interchangeable with existing AM.1419/S. tanks.

No. 2 Tank FT/H6157 (P) These tanks are interchangeable with FT/H6158 (S) existing tanks.

No. 3 Tank AM.1422/P. These tanks are interchangeable with those AM.1422/S. introduced on Mods. Vam. 568 and 694.

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.



# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

No 331



DATE 10.7.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION.

#### SUB HEADING 13, RADIO.

- A) Special Technical Instruction/Radio (Airborne Assembly)/28.  
A.I. Mk.10 (ARI 5570) - Incorrect size Glands and Gland Nuts  
fitted to Power Units, Type PE/158A, (Stores Ref :- 110KB/153).
- B) All Power Units (Inverters), Type PE/158A, (110KB/153) in use or in store.
- C) Some of these Power Units have been fitted with two different sizes of sleeves and gland nuts. One size corresponds to the locking nuts and glands fitted by the airframe contractors to the D.C. Power Input Cable No. 45 on Meteor NF.11 aircraft; the other size, however, necessitates the replacement of locking nuts and glands on this cable.
- D) At the next Minor Inspection of installed equipment and before fitting or replacing Power Units, Type PE/158A ensure that the latter are provided with Glands marked :-  
3064/10/1  
and locking Nuts marked :-  
3066/10
- E) Record on Form 3592, and on equipment labels.
- F) Further reports are not required.
- G) Modification action is not required.

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#### SUB HEADING 13, RADIO.

- A) Servicing Instruction/Radio (Airborne Assembly/7)  
A.I. Mk.10 (ARI 5570) - Faulty operation of Relay  
(Leach), (Ref. 110FB/98), fitted to Control Units  
Type B.C. 1150A, (Ref. 110LB/7)

Continued.....

- B) All Control Units, Type BC.1150A (110LB/7) installed in aircraft.
- C) As a result of numerous reported defects of weak spring tensions, sparking, poor contact and erratic operation of these Relays, a detailed investigation has been made to establish the maximum trouble free "life" which can, in general, be expected from these items. It has been concluded that they have a "life" of 200 hours.
- D) By reference to their Servicing Records, (e.g. Form 3592, "Component Servicing Record Sheets"), units are to ensure that Relays, (Leach), (110FB/98) are removed from their Control units and are replaced by new or reconditioned items, at 200 hour intervals.
- E) Record on Form 700, F. 3592 and also on the "Supplementary Inspection and Record Sheet" of the Servicing Schedule, (for the first inspection) and on form 2988 (for subsequent inspections). (A.P. 2913, Volume 4, will be amended in due course).
- F) Further reports are NOT required.
- G) Modification action is not appropriate.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE . HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

No 332



DATE 18.7.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION.

SUB HEADING 1. ARMAMENT.

SUB HEADING 23. INSTRUMENTS.

GGs RETRACTION UNIT TYPE 3 MK. 3 IN LIEU  
OF TYPE 1 MODIFIED - INTRODUCTION.

MK. T11.

Class A/O.

Mod. No. Vampire 3140.

This modification has been necessitated by a Ministry of Supply request and makes provision for the fitment of a type 3 Mk.3 GGS retraction unit, in lieu of the present type 1 modified, as fitted to the first 50 production aircraft.

SUB HEADING 11. ELECTRICAL INSTALLATION.

SUB HEADING 13. RADIO.

LOOSE PIN BULKHEAD PLUGS 4000 OR 6000 SERIES  
IN LIEU OF OBSOLETE FIXED PIN TYPE - INTRO.

MK. F20, F21.

Class D/4.

Mod. No. Sea Vampire 3070.

This modification has been necessitated by a Ministry of Supply request, and makes provision for the introduction of loose pin bulkhead plugs, 6000 series (or 4000 series where necessary), in lieu of obsolete fixed pin types.

SUB HEADING 18. WING ASSEMBLY.

TO INTRODUCE GUARDS AT JETTISON BOMB/DROP TANK  
RELEASE MECHANISM AND RE-RIG CONTROLS IN WING  
TO PREVENT INADVERTENT RELEASE OF STORES.

MKS. F3, FB5, & FB9.

Continued.....

V.332 Cont.

Sheet 2.

Class B/2.

Mod. No. Vampire 973 And.No.1.

Further to Technical News Sheet V.243, herewith Amendment No.1.

SUB HEADING 12, FUEL SYSTEM.

TO DELETE RUBBER SEALING STRIP FROM FAIRING OF  
DROP TANKS.  
IKS.F3, FB5.

Class C/3 N.C.P.

Mod. No. Vampire 673 And.1.  
Companion & consequential to  
Mcd.184.

Further to Technical News Sheet No. V.136, herewith Amendment No.1.

SUB HEADING 12, FUEL SYSTEM.

TO CORRECT PROFILE OF DROP TANK FAIRING TO FIT  
WING - INTRO.  
MK.F3.

Class B/2. for overseas A/C only.

Mod. No. Vampire 538 Issue 2.  
Amendment No.1.

Further to Technical News Sheet V.228, herewith Amendment No.1.

SUB HEADING 6, ENGINE INSTALLATION.  
SUB HEADING 14, SERVICES, AIRCRAFT.

TO REPOSITION FIRE EXTINGUISHER SPRAY RINGS  
FROM IMPELLOR CASING TO ACCESSORY COMPARTMENT  
MK. NF.10.

Class B/2.

Mod. No. Vampire 988 Issue 2.  
And.No.1.

Further to Technical News Sheet V.317, herewith Amendment No.1.

# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

NO 333



DATE 18.7.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 11, ELECTRICAL INSTALLATION.

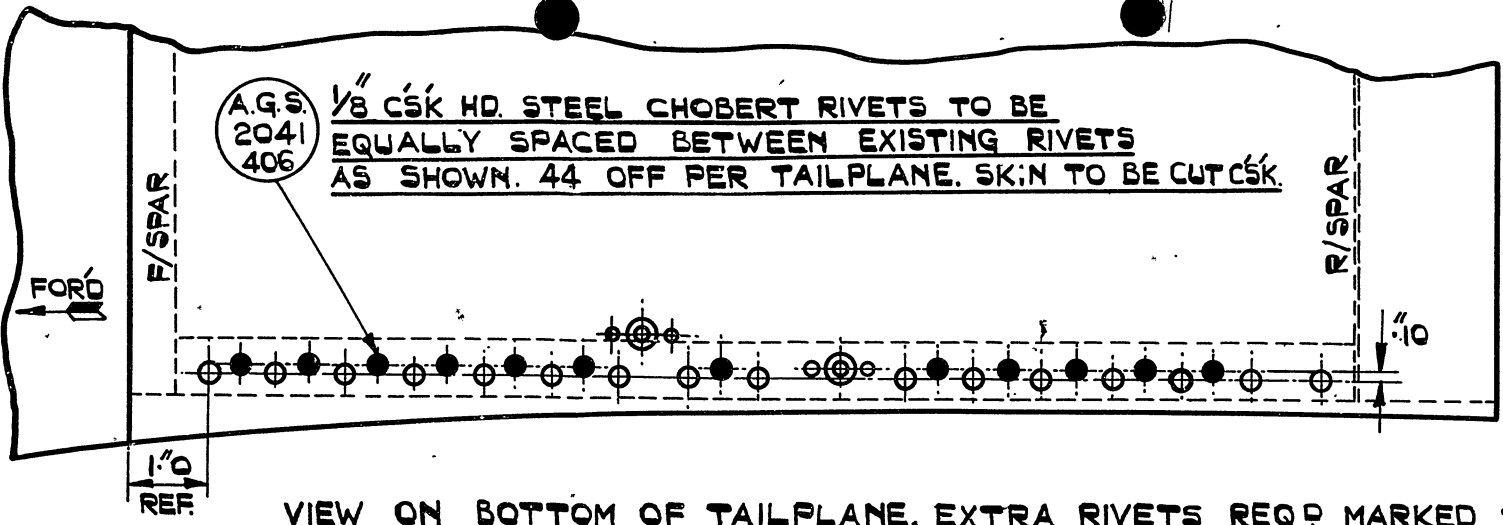
- A) Special Technical Instruction/Electrical/54.  
Regulator and Cut Out Units. Type A, A.2 and B -  
Ingress of Foreign Matter to Armature Assemblies on Regulators.
- B) All Regulator and Cut Out Units Type A (Ref. No. 5U/2702) Type A.2 (Ref. No. 5U/3830) and Type B (Ref. No. 5U/3880), installed in aircraft or held as spares.
- C) A number of cases have been reported on the above type Regulator and Cut Out Units of foreign matter obtaining access to the regulator armature assembly and affecting the operation of the regulator and/or causing excessive corrosion. Meteor aircraft on which the units are installed in the wheel housings, have been particularly affected.
- D) 1. At the earliest opportunity, and not later than the next Minor Servicing proceed as follows :-
- (i) Obtain quantity 1 size 3 Hose Clip (AGS.605 Ref. No. 28E/8185) and a strip of jointing asbestos (Ref. No. 32B/689) 10" x  $\frac{3}{4}$ ".
  - (ii) Wrap the asbestos strip around the armature gap on the regulator, with the edges over-lapping the first fin and the coil housing, and the ends over-lapping at the top.
  - (iii) Secure the strip with the hose clip.
2. All Regulators and Cut Out Units quoted held as spares are to be rectified in accordance with Para. (D) 1 before issue.
- E) Record on appropriate Form.
- F) Nil.
- G) Modification action to seal the armature gap is under consideration.

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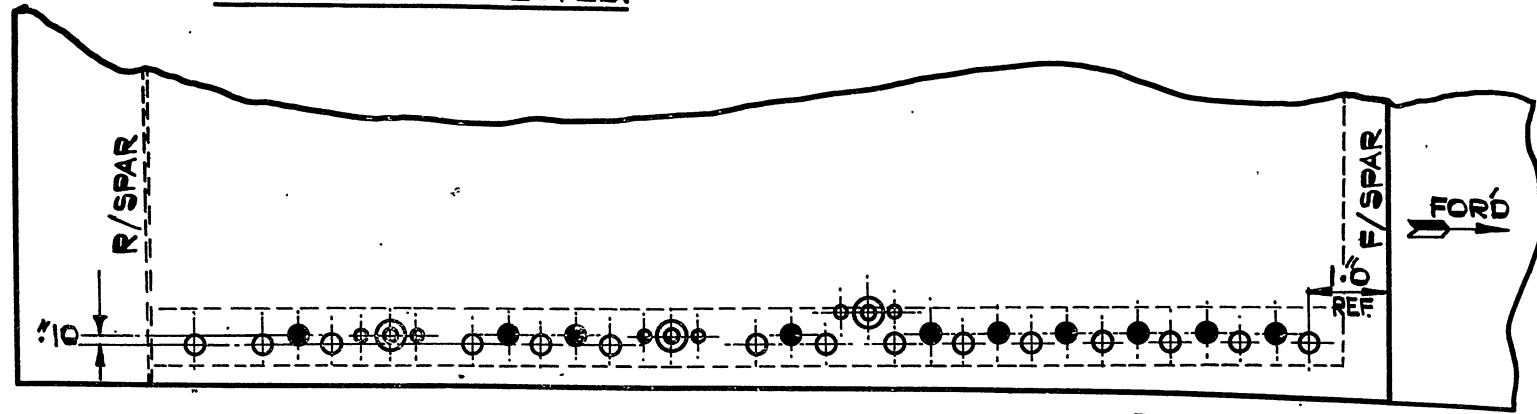
Continued....

SUB HEADING 15. TAIL UNIT ASSEMBLY.

- A) Special Technical Instruction/Vampire/56.  
Special Technical Instruction/Venom/2.  
Tailplane 12.TP.1A - Incorrect Rivetting.
- B) Vampire and Sea Vampire All Marks with Mod. Vampire 928 and Sea Vampire Mod. 928 embodied, Venom All Marks. All Tailplanes 12.TP.1A held as spares or in store..
- C) Cases have been reported of incorrect rivetting of the tailplane 12.TP.1A introduced by Modification Vampire 928, Sea Vampire Mod.928. The suspect tailplanes are incorrectly rivetted at outboard ribs between the front and rear spars.
- D) 1. As soon as possible and not later than the next Minor Servicing the following action is to be taken:-
- (i) Remove the tailplane fin fairings and check the size of the rivets through the end ribs in the top and bottom skins shown on drawing R.12.TP.109, Issue 2, attached. These rivets should be 5/32".
- Note 5/32" 120° countersunk rivets are 0.31" across the head.  
 1/8" 120° countersunk rivets are 0.25" across the head.
- (ii) Where the rivets are found to be 5/32" no action need be taken.
- (iii) Where 1/8" rivets are found, extra Chobert rivets in accordance with the attached sketch, are to be fitted.  
 The tail plane skin being drilled countersunk at 120° to suit.
- Note 1. This STI is necessary on Vampire aircraft due to interchangeability of tailplanes from Vampire to Venom, and the embodiment of the STI is essential in the latter.
- Note 2. Add to drawing attached after "Repair to:- Vampire Aircraft".
- D) 2. Examine and rectify all tailplanes 12.TP.1A held as spares or in store, before issue, and stamp STI/Vampire/56, or STI/Venom/2, as appropriate on the modification plate.
- E) Record on F.701 or F.1125 as applicable.
- F) Nil.
- G) The attention of sub-contractor has been drawn to the correct size and pitch at this location.



VIEW ON BOTTOM OF TAILPLANE, EXTRA RIVETS REQ'D MARKED THUS:-●  
BOTH ENDS AFFECTED.



VIEW ON TOP OF TAILPLANE, EXTRA RIVETS REQ'D MARKED THUS:-●  
BOTH ENDS AFFECTED.

SCALE:-  
 1/2 FULL SIZE.

THE DE HAVILLAND AIRCRAFT CO LTD HATFIELD, HERTS.	M/C TYPE	M/C REGn. NO	REPAIR TO:- <u>VENOM TAILPLANE</u> <u>12 TPIA</u>	DR. BY	APR BY	R. 12 TP 109. ISSUE:- X 2
	112			BES		





# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

No 334



DATE 14.8.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 11, ELECTRICAL INSTALLATION.

Relay, Slow Engagement, Ref.. 5C/3852  
Fitted to Vampire Engine Starting Circuit.

A large number of defect reports have been received complaining of overheating and burning out of the slow engagement relay fitted to the Vampire engine starting circuit. Examination of many of the defective relays has not disclosed any faults which would result in the overheating and it can only be assumed that the trouble is caused by incorrect operation of the starter button.

2. The cycle of operation of the starting system does not commence until the push button is released, but the relay and resistor are in circuit from the moment of depression of the push button until released by operation of the time delay switch at the completion of the first stage of the cycle. Therefore, the time the resistor is in circuit, is the length of time the button is held in, plus the normal switch operating time of 4-7 seconds. It will be appreciated therefore, that a delay in releasing the push button when starting the engine, will result in the overheating of the resistor.
3. Overheating will also result if too little time is left between starts or attempts to start.
4. The attention of all personnel concerned should be drawn to the necessity for pressing the starter button momentarily only in order to prevent overheating and perhaps burning out of the slow engagement relay.

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SUB HEADING 12, FUEL SYSTEM.

- A) Special Technical Instruction/Vampire/58.  
Gun Bay Door, Quick Release Assemblies -  
Interference to Airflow into Fuel Venting System.

Continued.....

- B) Vampire, all marks, fitted with Venom type gun bay doors, introduced on Mod. Vampire 791.
- C) Cases have occurred of incorrect fuel gauge readings due to partial screening of the external fuel vent pipe, by the port gun bay door quick release assemblies, which stand proud of the gun bay doors by approximately .065".
- D) (i) As soon as convenient but not later than the next Primary Star Servicing, fair off the fore and aft edges of the quick release assembly with two pieces of 1/16" plywood, 2" wide, feathering both pieces down to the skin, to streamline the assembly.
- (ii) Glue and brad these fairings in position.
- (iii) Finish to match existing colour scheme.
- E) Record on appropriate Form.
- F) Nil.
- G) This instruction is an interim measure pending the introduction of a modified fuel venting system.

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SUB HEADING 11. ELECTRICAL EQUIPMENT.

NF.Mk.10 - Repositioning of Cable.

After an investigation into a case of chafed Du-pren cable in the engine bay it has been agreed by the Drawing Office that the cable to the isolating valve solenoid on the starboard fuel pump may be repositioned on the underside of the starboard engine mounting side bracing strut.

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SUB HEADING 16. UNDERCARRIAGE.

- A) Special Technical Instruction/Vampire/59.  
Fouling of Nose Wheel on Nose Undercarriage Door Bolts.
- B) Vampire Mk. 10 and Vampire Trainer Mk.11.

Continued.....

- C) Cases have occurred of fouling between the two 2 B.A. nuts and bolts on the lower forward edge of the nose wheel door, Part No. 13FS2015A/1, and the nose wheel, when the undercarriage is retracted.
- D) As soon as possible and not later than the next Minor Servicing.
  - (1) Remove the two countersunk 2 B.A. nuts and bolts and replace them with 3/16" dia. aluminium rivets AS160/615.
  - (2) Finish the rivets with a snap head on the inside of the door.
- E) Record on appropriate Form.
- F) Nil.
- G) Mod. Vampire 3201, when embodied, will render compliance with this STI no longer necessary.

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SUB HEADING 7. FUSELAGE ASSEMBLY.

Vampire Mk.10 (N.F)  
Cannon Blast Tube Fairing.

A case has been reported of one of the noise eliminator deflector plates rivetted to the forward edge of the cannon blast tube fairing breaking off, either through damage through ill-treatment of the cowling or other means not yet established, and probably passing into the engine.

The security of these plates both on the fuselage and the fairing should be checked periodically all cases of defective plate attachment.

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SUB HEADING 18. WING ASSEMBLY.

Distortion of Wings.

Further to Technical News Sheet V.308 dated 13.2.52. with an enclosed date sheet ROC311, please note that this data sheet is now cancelled and should be ignored. A revised data sheet will be issued on a later Technical News Sheet in the very near future.

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Continued...

NF.10 Aircraft  
Undercarriage Locking

A very recent case of an undercarriage retraction on the ground showed that a contributory factor was the failure of the Undercarriage Magnetic Plunger Lock to extend to the "Lever Locked" position. In this case the Solenoid Plunger was held in the "IN" position due to three small "Pips" which built up as a result of the unit overheating which may have been caused by mis-use of the pilots emergency Undercarriage retraction over-ride switch.

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SUB HEADING 13, RADIO.

- A) Special Technical Instruction/Radio (Airborne Assembly)/29.  
TR.1934/5/6 VHF. R/T Incorrect rating of Resistor 3R19 in  
Receiver Unit Type 112.
- B) All Receiver Units Type 112.
- C) Owing to confusion between R.M.A. and Interservice ratings the resistor fitted in circuit position 3R19 is, in some cases, 1/2 watt Interservice rating instead of 3/4 watt Interservice rating. As a result there is a tendency for this component to overheat.
- D) At the earliest opportunity and not later than next Minor Servicing examine all resistors in circuit position 3R19 in Receiver Units Type 112. If the resistor is RC7J, length 5/8", tolerance + 1/16 or - 3/32, replace with Resistor RC7H, Stores Reference 10W/Z222069; length 7/8" tolerance + 1/16 or - 3/32.
- E) Record in Forms 3592.
- F) Nil.
- G) Modification under consideration.

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SUB HEADING 14, SERVICES, AIRCRAFT.

- A) Special Technical Instruction/Vampire/60.  
Air Conditioning Control Valves - Loosening of Gland Nuts.

Continued.....

- I Vampire Mks. 9 and 11. Venom Mks.1 and 2, Sea Venom 20.
- C) Cases have been reported of restricted travel of the pilot's control to the air conditioning system, due to the loosening of gland nuts Part No. R001961 on the control valves, Part No. R001991A - 2 off.
- D) At earliest opportunity and not later than next Minor Servicing,
- (1) Uncrew the gland nuts, and remove the graphited asbestos string packings.
  - (2) Refit the gland nuts and fully tighten them.
  - (3) Check control for correct operation.
- E) Record on appropriate form.
- F) Nil.
- G) Mods. Vampire 3200; Venom 231; and Sea Venom N.32 when embodied will render compliance with this. S.T.I. no longer necessary.

SUB HEADING 11. ELECTRICAL INSTALLATION.SUB HEADING 12. FUEL SYSTEM.

"Pacitor" Fuel Contents Gauges  
Power Unit Defects.

Reference the above subject S.T.I./Instruments/14 was raised because of the high rate of failure of vibrators fitted to "Pacitor" Power Units, Ref. 6A/1998. Most of the failures occurred through over-driving of the vibrators and high peak voltages which caused burning of the contacts. The S.T.I. was designed to eliminate these two sources of failure.

2. Defects Reports are now being received which complain of vibrator defects despite satisfaction of the S.T.I. It also appears that some Units are experiencing vibrator trouble and are then satisfying the S.T.I. in an attempt to overcome it.

3. It should be understood that although the S.T.I. will undoubtedly extend the life of vibrators, it will not cure trouble which has already started in them, e.g. burnt contacts. On the contrary, it is probable that vibrators which were on the point of failure will cease to function soon

Continued.....

after satisfaction of the S.T.I. because of the decrease of driving power to the vibrator. Similarly, it is obvious that the S.T.I. will not make serviceable those vibrators which have already failed.

4. It is requested therefore that future Defect Reports on units which have defective vibrators, should state the number of running hours since satisfaction of S.T.I./Instruments/14.

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SUB HEADING 10. GENERAL.

NF.10 - NOSE LEG SHOCK ABSORBER  
AIR 54862.

We have been advised by Messrs Lockheed the manufacturers of the above shock-absorber, that two special tools are required to dismantle and correctly assemble it. They are as follows:-

Spanner      A.T. 20929 (Plunger tube to Cylinder tube).  
"            A.T. 22734 (Wiper retainer).

We understand that these are special tools and may not yet be available through Service Maintenance Units.

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SUB HEADING 4. CONTROLS, FLYING.

T.MK.11 & 55 DIVE BRAKES - CONTROL LEVER

One case has been reported of the Dive Brakes extending in flight during a turn which was found to be due to insufficient locking of the Pilot's Dive Brake Selector Lever in the cockpit. In order to improve the operation of the ball catches which retain the Dive Brake Lever at each end of its slot in the control box, the hole in which the catches engage in the lever is to be opened out with a number seven (7) drill.

This may be accomplished in situ by removing the label, catches and spring from the face of the control box, thus exposing the hole in the lever for drilling.

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Continued.....

SUB HEADING 23. INSTRUMENTS.Vampire MK. 11 and 55  
Retractable Gyro-Gunsight.

One case of failure of the Gyro-Gunsight retraction mechanism was recently investigated and the following points were observed :-

- (1) Fouling may occur between the emergency switch wiring on the retraction mechanism and the right angled pipe union of the turn and bank indicator.
- (2) The presence of foreign matter i.e. swarf on the worn drive will cause the sight to jamb in any position.
- (3) The wiring for the retractable mounting is connected to the Junction Box beneath the starboard side false floor which has to be removed to obtain access to the connections. It is not necessary to remove the 2nd pilot's seat to do this.

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SUB HEADING 20. TRAIL INSTALLATIONS & MODIFICATIONS.Vampire Mks. 1, 3, 5 and 9 Aircraft  
Modification 3115.

Vampire Modification 3115 "To introduce a Spoiler Strip to the Elevator Trailing Edge" has now been upgraded to Class B/2 for Mks. 1, 3, 5, and 9.

2. Modification Sets are now becoming available and it is recommended that the modification should be embodied at the first opportunity.
3. A limited number of copies of the Draft Technical Leaflet are available and may be obtained from R.D.A. Defects on request.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V No 335



DATE 19.8.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 11, ELECTRICAL INSTALLATION.

ROTAX TIME DELAY SWITCH TYPE D. 8403 IN LIEU  
OF ROTAX TYPE D. 4903 REF. 5C/3183 - INTRO.  
F.MK.20 & F.MK.21.

Class C/3. at wastage rate.

Mod. No. Sea Vampire 3078.

This modification has been introduced due to the present Rotax time delay switch becoming obsolete, and makes provision for the fitment of a new switch together with a new terminal block, and the modification of the existing starter panel.

SUB HEADING 6, ENGINE INSTALLATION.  
SUB HEADING 12, FUEL SYSTEM.

TO REINFORCE DUMP VALVE DRAIN.  
MKS.F.20, F.21.

Class B/2.

Mod. No. Sea Vampire PP30.

This modification reintroduces the drain hose between the fuel dump valve and the drain box on the lower cowl support ring. The removal of this hose and subsequent fitting of blanking plugs (On Mod. Sea Vampire PP.29) adversely affected engine starting. It should be noted that this modification cancels and supersedes Sea Vampire Mod. PP.29. This modification is to be embodied concurrently with Goblin Mod. 539.

SUB HEADING 12, FUEL SYSTEM.

RE-DESIGNED LOW PRESSURE FILTER IN FUEL  
SYSTEM - INTRODUCTION.  
MK.F.20, F.21.

Class D/4. on replacement.

Mod. No. Sea Vampire 955.

Continued.....

This modification has been necessitated by a Ministry of Supply request and makes provision for the introduction of a redesigned low pressure filter in the fuel system to prevent particles passing into and clogging the barostat and overspeed governor. This modification supersedes Sea Vampire Mods. 245, 441, 692, 872, 987 and 3092.

SUB HEADING 10, MISCELLANEOUS EQUIPMENT.  
SUB HEADING 11, ELECTRICAL INSTALLATION.

TO RE-ROUTE AND REPLACE UNIRUBBER WIRING IN  
LOOMS FOR FIRE WARNING AND EXTINGUISHER SERVICE  
BY FLAMEPROOF CABLES IN ENGINE-BAY.  
MKS. 20 & 21.

Class B/2. N.C.P.

Mod. No. Sea Vampire 965.

This modification has been necessitated by a Ministry of Supply request and makes provision for the replacement of the Unirubber fire warning and extinguisher cables in the engine-bay by fire resisting cables. This modification supersedes S.T.I. Sea Vampire 360 Para.D. (11).

SUB HEADING 6, ENGINE INSTALLATION.  
SUB HEADING 7, FUSELAGE ASSEMBLY.  
SUB HEADING 11, ELECTRICAL INSTALLATION.

AN ACCESS DOOR IN FIREWALL FOR ELECTRIC  
ENGINE STARTER MOTOR - INTRODUCTION.  
MK. 11.

Class C/3. on removal of engine.

Mod. No. Vampire 3135.

This modification has been necessitated by the difficulty experienced by servicing personnel in removing the electric starter motor, and makes provision for an access door in the firewall to facilitate this operation. It also calls for replacement of two existing bulkhead stiffeners, by new modified stiffeners, and the repositioning of the armament relay panel.

SUB HEADING 7, FUSELAGE ASSEMBLY.  
SUB HEADING 8, GENERAL.

A GUARD IN RADIO COMPARTMENT TO PREVENT  
INADVERTENT OPERATION OF CANOPY JETTISON  
CONTROL CABLE BY GROUND PERSONNEL  
INTRODUCTION.  
MKS. 3, 5 & 9.

Continued.....

Class C/3.Mod. No. Vampire 3114.

This modification has been necessitated by accidental jettisoning of the canopy in the past, due to inadvertent operation of the jettison cable by ground personnel during re-arming, and makes provision for the fitting of a guard to the cable to prevent this.

SUB HEADING 15, TAIL UNIT ASSEMBLY.BOLTS IN LIEU OF RIVETS AT ELEVATOR TRIM TABHINGE - INTRODUCTION.MKS. F1, F3, FB5, FB9, NF.10.

Class C/3. N.C.P. on repair or on replacement  
for Mks. F1, F5, FB5 & FB9.

Class B/2. N.C.P. for NF.10.Mod No. Vampire 3034 Issue 2.

This modification has been necessitated by reports that the rivets securing the trim tab hinge to the elevator tend to work loose, and therefore provision is made for the fitment of bolts and nuts in lieu. This replacement will also facilitate removal of the tab during servicing.

SUB HEADING 10, MISCELLANEOUS EQUIPMENT.SUB HEADING 11, ELECTRICAL INSTALLATION.

TO RE-ROUTE AND REPLACE UNIRUBBER WIRING  
IN LOOMS FOR FIRE WARNING AND EXTINGUISHER  
SERVICES BY FLAMEPROOF CABLES IN ENGINE BAY.

F.MKS.1 & 3, FB MKS. 5 & 9.Class B/2 N.C.P.Mod. No. Vampire 965.

This modification has been necessitated by a Ministry of Supply request and makes provision for the replacement of the unirubber fire warning and extinguisher cables in the engine bay by fire resisting cables. This modification supersedes S.T.I./Vampire 360-Pasa D(11).

SUB HEADING 12, FUEL SYSTEM.

RE-DESIGNED LOW PRESSURE FILTER IN FUEL  
SYSTEM - INTRODUCTION.

MK.F1, F3, FB5, FB9.Class D/4 on replacement.Mod. No. Vampire 955.

This modification has been necessitated by a Ministry of Supply request and makes provision for the introduction of a redesigned low pressure filter in the fuel system to prevent particles passing into and clogging the barostat and overspeed governor. This modification supersedes Vampire Mods. 245, 441, 692, 872, 987 & 3092.

Continued.....

SUB HEADING 4, CONTROLS, FLYING.TO IMPROVE ELEVATOR TRAVEL.  
MK.10.

Class C/2.

Mod. No. Vampire 3056.

This modification has been necessitated due to the difficulty experienced in obtaining full elevator travel - nose up position - with the control column in its present position, and makes provision for setting the control column forward, in its neutral position. This entails the fitting of a new elevator connecting rod, and a new control column top casting. It also calls for alterations to the instrument panel, on aircraft with Vampire Mods. 3030 and 3117 embodied.

NOTE: On aircraft with Vampire Mod. 3030 embodied it is essential that Vampire Mod. 3117 be embodied prior to, or concurrent with this modification.

SUB HEADING 13, RADIO.TO MODIFY GEE III INDICATOR CRATE.  
MK. NF.10.

Class B/2.

Mod. No. Vampire 3172.

This modification has been introduced to modify the standard SBAC backing to suit the production GEE indicator, as it has been found that the indicator is  $\frac{1}{2}$  in. longer than the indicator supplied for the trial installation. The modification makes provision for the fitment of an extension bracket, on which the locking device is now secured. The first 25 aircraft are to be modified by a contractors working party, concurrently with Mods. 3018 and 3119.

SUB HEADING 11, ELECTRICAL INSTALLATION.LOOSE PIN BULKHEAD PLUGS, 6000 SERIES (OR 4000  
SERIES WHERE NECESSARY), IN LIEU OF OBSOLETE  
PIN TYPE - INTRODUCTION.  
MK. F1, F3, FB5, FB9.

Class D/4.

Mod. No. Vampire 3070.

This modification has been necessitated by a Ministry of Supply request and makes provision for the introduction of loose pin bulkhead plugs, 6000 series (or 4000 series where necessary), in lieu of obsolete fixed pin types.

SUB HEADING 11, ELECTRICAL INSTALLATION.ROTAX TIME DELAY SWITCH TYPE D. 8403 IN LIEU  
OF ROTAX TYPE D. 4903 REF. 5C/3183 - INTRODUCTION.  
MK. F.1, F3, FB5, FB9.

Continued.....

Class C/3. after old type spares have been consumed.

Mod. No. Vampire 3078.

This modification has been introduced due to the present Rotax time delay switch becoming obsolete, and makes provision for the fitment of a new switch, together with a new terminal block, and the modification of the existing starter panel.

SUB HEADING 7, FUSELAGE ASSEMBLY.

SUB HEADING 11, ELECTRICAL INSTALLATION.

TO IMPROVE COCKPIT LIGHTING.

MK.10.

Class C/2.

Mod. No. Vampire 3111.

This modification has been necessitated by the failure of the present cockpit lighting system to give adequate illumination, and makes provision for the fitting of two additional red flood lights, and the repositioning of four of the existing red flood lights, and one of the existing U/V lights. It also calls for the fitment of a different type of dimmer switch in place of the existing dimmer switch, to control the instrument panel lights.

SUB HEADING 6, ENGINE INSTALLATION.

FIREGUARDS AND ADDITIONAL FLAME SWITCHES AT WING ROOT RIBS IN ENGINE BAY - INTRODUCTION.

MKS. F1, F3, FB5.

Class B/2 Complimentary to Goblin Mod. 497. Mod. No. Vampire 844 and No. 6.

Further to Technical News Sheets V.215, 222, 258, 317, 324, herewith Amendment No.6.

SUB HEADING 15, TAIL UNIT ASSEMBLY.

TO INTRODUCE A SPOILER STRIP TO ELEVATOR TRAILING EDGE.

MKS.F1, F3, FB5, FB9.

Class B/2.

Mod. No. Vampire 3115 Issue 2  
and No.1.

Further to Technical News Sheet V.324, herewith Amendment No.1.

Continued.....

SUB HEADING 15. TAIL UNIT ASSEMBLY.

TO INTRODUCE AN ADDITIONAL STRIP TO ELEVATOR TRAILING EDGE.  
MK. 20 & 21.

Class C/3.

Mod. No. Sea Vampire 3115 Amd.1.

Further to Technical News Sheet V.324, herewith Amendment No.1.

SUB HEADING 6. ENGINE INSTALLATION.

FIREGUARDS AND ADDITIONAL FLAME SWITCHES AT WING ROOT RIBS IN ENGINE BAY - INTRODUCTION.  
MK. F20 & F21.

Class B/2. complimentary to Goblin Mod.497. Mod. No. Sea Vampire 844 Issue 2.  
Amd. No.1.

Further to Technical News Sheet V.324, herewith Amendment No.1.

## TECHNICAL NEWS SHEET

SERIES V No 336DATE 21.8.52.ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETINVAMPIRE AIRFRAME. GENERAL CIRCULATION.SUB HEADING 12. FUEL SYSTEM.SUB HEADING 23. INSTRUMENTS.PACITOR FUEL GAUGES.

Considerable trouble has been experienced with Pacitor gauges on Vampire aircraft due to :-

- (a) Incorrect calibration.
- (b) Faulty co-axial cables.
- (c) Faulty electrical connections to indicator.
- (d) Incorrect reading due to venting troubles.

With regard to (a), this has been largely overcome by instructions to Production and Service by Simmonds personnel and also by ensuring that the calibration was carried out in a manner representative of flight conditions on the aeroplane.

With regard to (b), these faults have been due to bad assembly of the end fittings on the cable and also running the cables under conditions in the engine bay, for which they were not designed to operate, i.e. too hot. These points have both been covered by the gauge manufacturer making current production cable assemblies and also Inspection Department watching the installation of the cables on initial assembly.

Regarding (c), at the present time when the indicator cables fail the indicator reads "Full" but to overcome this it is proposed to introduce a modified type of indicator which will have an extended scale such that during electrical failure of the system, the needle travels to a special position well outside the normal range. Developments on this are in hand at Messrs. Simmonds at the moment.

(d) It has been found that due to the introduction on Mk.9 aircraft of some modified gun door catches, the disturbed air flow set up by these protuberances have caused the Pacitor gauge to read incorrectly. During high speed flight, due to the fact that the tanks are subject to a depression, this pushes the fuel up around the tank unit. This will be overcome by

Continued....

fairing off the catches and will be covered by Vampire Mod. No. 3044.

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SUB HEADING 11. ELECTRICAL INSTALLATION.

- A) Special Technical Instruction/Electrical/57.  
Engine Driven D.C. Generators Type HX.2 - Corrosion of Brush Boxes.
- B) All type HX.2 Generators Stores Ref. 5A/4184 and /4185 fitted to Naval aircraft.
- C) Corrosion of the light alloy Brush Boxes by salt laden atmosphere may cause sticking of the Brushes in HX.2 Generators with resultant Power Failure.
- D) Not later than next Daily<sup>XX</sup> Inspection, examine all HX.2 generators fitted to aircraft for corrosion of brush boxes and sticking brushes. Clean and free as necessary.
- E) Record on appropriate Form.
- F) Defect reports are required.
- G) Modification action is under consideration to fit either brass or anodic treated brush-boxes.

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## TECHNICAL NEWS SHEET

SERIES V No 337



DATE 25.8.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION. SUB HEADING 12, FUEL SYSTEM.

- A) Special Technical Instruction/Vampire/61.  
Fuel Leaks from Wing Fuel Tanks.
- B) Vampire all marks.
- C) Cases have been reported of Fuel Leaks from Wing Tank Filler Caps, due to the underside of the filler caps bottoming on the flange of the filler orifice, which is immediately below the last thread. This prevents the filler cap from seating correctly on its sealing washer, thus giving rise to leakage or causing deterioration of tank outer-covering.
- D) As soon as possible, and not later than the next Minor Servicing, remove 0.050" from the lower end of the threaded portion.
- E) Record on appropriate form.
- F) Nil.
- G) Modification 3204 in conjunction with Mod. 3041 covers the S.T.I.

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### SUB HEADING 23, INSTRUMENTS.

- A) Special Technical Instruction/Instruments/19.  
Union connections becoming detached from oxygen low-pressure tubing Mark 5.
- B) This instruction applies to oxygen low-pressure tubing Mark 5 installed in aircraft and fitted with any one of the following end connections.

Union bayonet socket	Mark 4	Ref.	6D/527
"	"	"	Mark 4b "
"	"	"	6D/1300
Quick release socket	Mark 1	"	6D/606
Plug quick release	Mark 3	"	6D/1531
"	"	"	Mark 5 "
"	"	"	6D/1612
"	"	"	Mark 6 "
"	"	"	6D/1613

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- C) Cases have been reported of the union connection, which is fitted to the end of the low-pressure flexible tubing at the point where the mask-tube assembly is connected, being pulled out of the tubing during flight. It has therefore been decided to replace the present type of spring wire retaining clip by a hose clip which is capable of exerting considerably greater pressure.
- D) As soon as possible, and not later than the next Minor Servicing, the spring wire retaining clip at present fitted to low-pressure flexible oxygen tubing at the mask-tube connection end, is to be removed and replaced with clip hose, AGS.605/0, Stores Reference 28E/8182.

Note 1.

In the case of fighter aircraft fitted with quick release connections, particular care is to be taken to ensure that when the Mark 5 flexible tubing is pulled up into position it would normally assume with an aircrew occupant in place and mask-tube assembly connected, the operating screw of the hose clip shall be on the side away from the body of the occupant so that it is unlikely to catch in flying clothing or equipment in an emergency.

Note 2.

If STI/Instruments/18 has not been embodied this instruction can conveniently be carried out at the same time.

- E) Record on appropriate form.
- F) Nil.
- G) Modification action in hand.

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SUB HEADING 23. INSTRUMENTS.

SPECIAL FLYING INSTRUCTION, R.N. NO.203.

MARK 14 BAROMETRIC ALTIMETERS

Following high altitude flight and rapid descent, errors of up to 150 feet have been reported with these instruments.

- 2. Pilots should be warned accordingly.

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## TECHNICAL NEWS SHEET

SERIES V No 338



DATE 5.9.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 4, CONTROLS, FLYING.

TRAINER AIRCRAFT - ELEVATOR TRIM TAB.

An isolated case of difficulty in trimming an aircraft in flight was investigated and it was found that the elevator trim tab had lost some of its torsional stiffness.

As a result Modification Vampire 3210 was issued which introduces a strengthened trim tab.

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SUB HEADING 23, INSTRUMENTS.

TRAINER AIRCRAFT - GYROSYN COMPASS CONTROL PANEL.

Operators are advised to check that, on the above panel, the switch control plate is firmly attached to the pillar otherwise arcing will take place with a possibility of incorrect selection.

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SUB HEADING 14, SERVICES, AIRCRAFT.

TRAINER AIRCRAFT - HYDRAULIC HAND PUMP STOWAGE CATCH.

A case has been reported of a failure of the above catch leaf spring due probably to lack of knowledge of the type of catch used. Operators are advised to ensure the catch is released before returning the pump to the stowed position. It will also be advantageous to draw the pump slightly outwards before pressing the release.

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## TECHNICAL NEWS SHEET

SERIES V No. 339



DATE 8.9.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME; GENERAL CIRCULATION.  
SUB HEADING 7. FUSELAGE ASSEMBLY.

- A) Special Technical Instruction/Vampire/62.  
Rear Tail Cone Assembly - Additional Drain Hole.
- B) Vampire and Sea Vampire All Marks.
- C) Cases reported of burning of downward identification light cover and leads in the rear tail cone, on aircraft not embodying Mod. 934 or 1044 and cables were wrapped in a form of asbestos tape, which had absorbed Kerosene.
- D) At earliest opportunity and not later than next Minor Servicing the following action is to be taken :-
1. Remove rear tail cone assembly from aircraft. Enlarge the existing  $\frac{1}{4}$ " hole on the left-hand side of the centre line fore and aft stringer to  $\frac{3}{8}$ " diameter. Drill additional  $\frac{3}{8}$ " hole on the right-hand side of the fore and aft stringer adjacent to the existing hole.
  2. Remove downward identification light wiring complete unless Vampire Mod. 934 or 1044 has been embodied.
- E) Record on appropriate Form.
- F) Nil.
- G) Provision of additional drain hole on future production aircraft assured by amendment to drawing. Modification action not being taken.

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Continued.....

SUB HEADING 12. FUEL SYSTEM.

- A) Special Technical Instruction/Miscellaneous/200.  
Drop Fuel Tanks Servicing. TECHNICAL
- B) Drop Fuel Tanks fitted to all aircraft except Meteor Mk. 8, 9, 10, 11, Vampire Mk. 10, 11 and Hornet Mk. 3 (Trop).
- C) Cases reported of Tanks and Connections damaged and deteriorated.
- D) 1. At the next and subsequent after flight Servicing the following action is to be taken :-

Before refuelling examine by feel for security of attachment.

2. At the next and subsequent Primary and Primary X Servicing the following action is to be taken :-

Examine externally for signs of fuel leakage and damage, and security of attachment.

3. At the next and subsequent Intermediate Servicing the following action is to be taken :-

(i) Examine externally for signs of fuel leakage and security of attachment.

(ii) Examine fuel and air connections for leaks, damage and security of attachment.

4. At the next and subsequent Minor and Minor Star Servicings examine jettison mechanism by operation, for correct functioning as follows :-

(i) Ensure that tanks are empty.

(ii) Remove access fairing or panels, fuel nose and air connections.

(iii) Position lifting cradles immediately under tanks.

(iv) In conjunction with electrical and armament tradesmen jettison tanks and lower on to cradle.

(v) Examine externally for signs of chafing, corrosion, fuel leaks and damage.

(vi) Refit as detailed in Vol. 1 in conjunction with electrical and armament tradesmen.

Continued.....

(vii) Re-connect fuel hose and air connections.

(viii) Refit fairings and access panels.

5. At the next and subsequent Major Servicing, the action to be taken is as for Minor plus operations as follows :-

Before re-fitting :-

(i) Remove tank inspection covers.

(ii) Examine internally as far as possible using lamp inspection (5A/2011) for corrosion, damage, and foreign matter. If foreign matter is present flush out with gasoline, non-leaded.

E) Record first examination on F.700 and on Supplementary Servicing sheet of Servicing Schedule.

F) Nil.

G) Nil.

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SUB HEADING 7, FUSELAGE ASSEMBLY.

NF. 10 AIRCRAFT - CANNON BAY DOORS.

Cases have occurred of slackening of the long screws which attach the metal edging strip to the Gun Bay Doors. Where this is found the screws may be replaced with countersunk 4BA bolts provided, the bolt end and nut do not foul any other equipment on the inside when the doors are closed. Cases of slackening still require reporting in the usual manner to Hatfield.

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SUB HEADING 12, FUEL SYSTEM.

It has been found that certain drop tank break tubes were made with the curve extending to the tube end, thus eliminating the necessary straight portion which should enter the gland assembly on the wing.

In such cases the break tube should be rejected.

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Continued.....

SUB HEADING 13. RADIO.NF. 10 AIRCRAFT - GEE INSTALLATION.

As a result of a number of defects on Gee connectors, which have been investigated, it has been established that connector failures as a whole are attributed to handling by inexperienced service personnel who have obviously expected connector ends to have a "universal" movement which has resulted in the individual cables being pulled off their pins. Personnel should be warned to treat all cables, whether Gee installation or otherwise in the aircraft with care.

The Drawing Office have advised that the junction box sockets can be positioned to enable the easy fitting of the connectors without the sharp bends which also put a load on the solder connecting the pins and the wire.

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SUB HEADING 13. RADIO.NF. 10 AIRCRAFT.RADAR EQUIPMENT IN NOSE OF AIRCRAFT.

It has been found that under certain conditions the directional coupling CU 60 AP of AI Mk. 10 installation fouls the casing of the motor generator type 7, reference 5U/4197. Mod. Vampire 3086 which alters the position on the RF unit also re-positions the motor generator type 7. Until this modification is embodied, however, the aircraft should be inspected for this defect, particularly after heavy landings.

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SUB HEADING 7. FUSELAGE ASSEMBLY.NF. 10 AIRCRAFT - GEE INSTALLATION.

It has been established that the canopy seal pipe line interferes with the removal of the mounting tray for the CRT Type 26 indicator. Operators should be warned that it is necessary to remove two clips holding the canopy seal pipe line; one situated on a mounting tray and the other on No. 2 bulkhead, and the disconnecting pipe at the main union adjacent to the later clip, prior to removing the mounting tray. Unless the pipe is removed in this manner it will be found to receive damage when the mounting tray is withdrawn.

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Continued.....



SUB HEADING 23. INSTRUMENTS.

NF.10 AIRCRAFT.  
TURN AND SLIP INDICATORS.

It has been established that on the first twenty-five aircraft produced, the standard R.A.F. Turn and Slip Indicator cannot be fitted because of a different type socket involved which is suitable only for the civil type instrument. In view of this, when the civil type instrument, which may be fitted, is changed, it will be necessary to fit plug and socket, reference. 10H/19137 Mk. IOL.2. two pin type.

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SUB HEADING 12. FUEL SYSTEM.

Further to Technical News Sheet V.334, dated 14.8.52., would you please make the following amendment to S.T.I/Vampire/58.

Para G. - Delete "port" gun bay door.  
Substitute "starboard" gun bay door.

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TECHNICAL NEWS SHEET

SERIES V No 340



DATE 17.9.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.

SUB HEADING 12, FUEL SYSTEM.

SUB HEADING 23, INSTRUMENTS.

PACITOR FUEL GAUGES.

Further to Technical News Sheet V.336, dated 21.8.52., you are requested to alter para. (d) last line, to read "This will be overcome by fairing off the catches as called for by S.T.I/Vampire/58 issued on T.N.S. V.334, as amended to read Std. gun bay door (para C)".

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SUB HEADING 11, ELECTRICAL INSTALLATION.

SUB HEADING 16, UNDERCARRIAGE.

Hornet, Vampire, Venom and Devon Aircraft  
Undercarriage Selector Lever Locking Solenoid

The current rating of the solenoid situated in the throttle box for the purpose of preventing the undercarriage from being retracted during the period when the aircraft is not airborne, is not continuous. Consequently, any condition which allows current to pass through the solenoid continuously, will cause overheating of the coils with consequent distortion of the coil former inner wall and hence, fouling of the plunger. This could result in :-

(a) If fouling occurred with the plunger in the extended position, failure to raise the undercarriage.

(b) If fouling occurred during the period of undercarriage up condition, or with plunger withdrawn whatever the cause, the lock would cease to function as a safety device when the aircraft was on the ground.

Continued.....

2. It is clear, therefore, that the solenoid should only be energised for a short period (not more than 2 seconds) during the passage of the undercarriage selector lever from "down" to "up" positions. Such action is achieved by a cam on the lever passing over a single leaf spring which in turn depresses the plunger of a micro switch (it will be noted that this arrangement also causes the solenoid to be energised during movement of the lever from the "up" to "down" position. This is unnecessary but unavoidable).

3. To ensure that the solenoid is energised only momentarily, it is important that the micro switch is not depressed over the full travel of the undercarriage lever and that a short distance at each end of the movement is allowed for free travel. This condition may be achieved by :-

(a) Adjusting the micro switch position in relation to the cam by slackening off and retightening the securing bolts. A very small relative adjustment between the switch and spring can also be made. If this does not achieve the required result, then

(b) Slight distortion of the leaf spring should be made with the fingers.

4. It is understood that it is practice of some units to remove the locking wire from the over-ride switch. If this switch is left in the "on" position, apart from rendering the under-carriage oleo ground switch inoperative and thus defeating the object of this system, current will flow through the solenoid continuously if the undercarriage selector lever switch is not adjusted correctly in accordance with para. 3 above, or if the lever is inadvertently moved to a position not quite fully "down" so that the spring is depressed sufficiently to operate the micro switch and yet not enough to operate the hydraulics.

5. The over-ride switch, which is for use by the pilot for deliberate emergency raising of the undercarriage of the ground, should be wire locked in the "off" position. The gauge of the wire should be such that it can be broken easily by reasonable fingure pressure.

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TECHNICAL NEWS SHEET

SERIES V No 341



DATE 18.9.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 10, MISCELLANEOUS EQUIPMENT.

Preliminary warning oxygen mask tube assemblies Mark 1, 1A, 4, 4A, 7, 7A, Stores Reference Numbers 6D/723, 1571, 1193, 1572, 1470 and 1573. Cases reported of deterioration and possible fracture of emergency supply, small rubber tubing at points of connection to end fittings. All tube assemblies to be inspected as soon as possible and quantities found defective notified to R.D.A. Defects, Ministry of Supply, by signal quoting this signal number. Defective assemblies to be retained pending issue of special technical instruction covering local rectifications. This failure affects operation of emergency oxygen system only and replacement stocks of mask tube assemblies are low.

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SUB HEADING 23, INSTRUMENTS.

Trainer aircraft - E.2. Compass.

Operators should be warned to ensure the cockpit canopy hatch is closed when the E.2. Compass is being swung. It has been established that portions of the canopy assembly on existing aircraft can affect the E.2. Compass reading.

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## TECHNICAL NEWS SHEET

SERIES V

NO 342



DATE 26.9.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 10. MISCELLANEOUS EQUIPMENT.  
SUB HEADING 11. ELECTRICAL INSTALLATION.

### CAMERA GUN MOUNTING - INTRODUCTION MK. NF. 10.

Class C/3

Mod. No. Vampire 3014.

This modification is necessitated by a Ministry of Supply request, and makes provision for the introduction of a new camera gun mounted on the port inner tank door.

SUB HEADING 12. FUEL SYSTEM.  
SUB HEADING 18. WING ASSEMBLY.

### LIGHT WEIGHT PACKING IN WING TANK BAYS BETWEEN TANKS AND WING STRUCTURE - INTRODUCTION. MKS. F3, FB5, FB9, NF10, T11.

Class C/3 on removal of individual tanks.

Mod. No. Vampire 3045.

This modification has been necessitated by the report that the excessive space between the tank walls and the wing structure allows the tanks to move, and this 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.

SUB HEADING 11. ELECTRICAL INSTALLATION.

### ROTAX TIME-DELAY SWITCH TYPE D.8403 IN LIEU OF ROTAX TYPE D.4903 REF. 5C/3183 - INTRODUCTION. MK. NF. 10, T.11.

Class C/3 after old type spares have been  
consumed.

Mod. No. Vampire 3082.

Continued.....

This modification has been introduced due to the present Rotax time delay switch becoming obsolete, and makes provision for fitment of a new switch, together with a new terminal block.

SUB HEADING 15. TAIL UNIT ASSEMBLY.

INTERNALLY REINFORCED VENOM TYPE TAILPLANE TO DRAWING NO. 12.TP.1A/1 EMBODYING VENOM MOD. 136 - INTRODUCTION.  
MK.NF.10. T.11.

Class B/2.

Mod. No. Vampire 3095.

This modification has been necessitated by the cracking of the tailplane skin and the pulling through of rivets during flight trials and makes provision for the introduction of an internally re-inforced tailplane.

SUB HEADING 13. RADIO.

T.R. 1934/1935 IN LIEU OF TWIN T.R. 1934 V.H.F. INTRODUCTION.  
MK. 10.

Class B.2. N.C.P.

Mod. No. Vampire 3100.

This modification has been necessitated by a Ministry of Supply request and makes provision for the substitution of the T.R. 1935 for the second T.R. 1934 V.H.F. radio.

SUB HEADING 19. GROUND EQUIPMENT.

TO MAKE PROVISION FOR SLINGING THE AIRCRAFT  
MK.NF.10.

Class C/0

Mod. No. Vampire 3029.

This modification introduces forward slinging points on the top of bulkhead No.1. to enable the aircraft to be slung horizontally by use of the sling introduced by Vampire Mod. 3171. Prior to the incorporation of this modification it will be found that the aircraft has a marked nose-down tendency in the slung condition and lifting is difficult, requiring the use of ballast at the tail.

Continued.....



SUB HEADING 19. GROUND EQUIPMENT.TO MAKE PROVISION FOR SLINGING THE AIRCRAFTMK. T. 11.Class C/0.Mod. No. Vampire 3134.

This modification introduces forward slinging points on the top of bulkhead No. 1 to enable the aircraft to be slung horizontally by use of the sling introduced by Vampire Mod. 3171. Prior to the incorporation of this modification it will be found that the aircraft has a marked nose-down tendency in the slung condition and lifting is difficult, requiring the use of ballast at the tail.

SUB HEADING 13. RADIO.PROVISION FOR I.F.F. - INTRODUCTIONMK. 11.Class C/2.Mod. No. Vampire 3138.

This modification has been necessitated by a service requirement and makes provision for the installation of a R. 3121 receiver and its associated equipment.

SUB HEADING 1. ARMAMENT.TO SHORTEN THE FRONT POSTS OF THE R.P. INSTALLATION  
TO SUIT ROCKETS AND REDUCE GUIDE RAIL WEAR.MKS. FB. 5, FB9, T. 11.Class B/2 to rocket projector.Mod. No. Vampire A.R.M. 3169.

This modification has been necessitated following the trials of a modified R.P. installation, and makes provision for the introduction of shorter front attachments.

SUB HEADING 4. CONTROLS; FLYING.TO REINFORCE CONTROL COLUMN GUARDMK. T. 11.Class B/2.Mod. No. Vampire 3134.

This modification has been necessitated by a Service Defect report and makes provision for the introduction of a distance piece which will engage with the chain guard socket and separate the two halves of the guard to prevent the possibility of the free edges of the guard fouling the turnbuckle on the chain assembly, in the event of damage from the pilots feet.

Continued.....

SUB HEADING 19. GROUND EQUIPMENT.CONTROL LOCKING GEAR AND STOWAGE INTRODUCTION.Mk. T. 11.Class C/3.Mod. No. Vampire 3141.

This modification has been necessitated by the lack, on the Vampire Mk. T. 11. of a suitable stowage for the control locking gear, and makes provision for the introduction of a stowage mounted on the radio shelf in the nose of the aircraft, to obviate this deficiency.

SUB HEADING 4. CONTROLS FLYING.SUB HEADING 15. TAIL UNIT ASSEMBLY.ADDITIONAL ATTACHMENTS FOR RUDDER HORN BALANCE  
WEIGHT PART (C) RETROSPECTIVE VERSION - INTRO.Mk. NF. 10, T. 11.Class C/2 by a pool of rudders.Mod. No. Vampire 3152.

This modification has been necessitated by reports that fractures have occurred at the attachment of the balance weight to the structure, allowing the weight to become loose, and makes provision for the fitment of new modified rudders embodying a welded assembly of balance weight and diaphragm, to cure this defect.

SUB HEADING 18. WING ASSEMBLY.SUB HEADING 12. FUEL SYSTEM.LIGHT WEIGHT PACKING IN WING TANK BAYS BETWEEN TANKS  
AND WING STRUCTURE - INTRODUCTION.MKS. F20, F21.Class C/3 on removal of individual tanks.Mod. No. Sea Vampire 3045.

This modification has been necessitated by the report that the existing space between the tank walls and the wing structure allows the tanks to move, and this 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.

Continued.....

SUB HEADING 18. WING ASSEMBLY.

TO BLANK OFF HOLES IN REAR PORTION OF RIB NO. 1.  
MKS. F20, F21.

Class B/2.

Mod. No. Sea Vampire 1052.

This modification has been necessitated by the fact that in the event of a fire at the rear of root rib No. 1, considerable damage can be caused to various electrical equipment in the flap shroud, and therefore makes provision for sealing off the holes in the root ribs to obviate this danger.

SUB HEADING 11. ELECTRICAL INSTALLATION.

TO REPLACE CABLES USED FOR FIRE WARNING AND EXTINGUISHER  
CIRCUITS BY PRENMET AND REPLACE 'CEL' AND 'VIN' CABLES  
ENDING IN ENGINE BAYS AND TAIL CONE BY PREN.  
MKS. FB5, FB9.

Class B/2.

Mod. No. Vampire 934 Amd. 2.

Further to Technical News Sheets V. 239/285, herewith amendment No. 2.

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TECHNICAL NEWS SHEET

SERIES V No 343



DATE 26.9.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 8, GENERAL.

Vampire T Mk. 11  
C.S.(A) Release for Service use.

1. The Vampire T Mk.11 with Goblin Mk. 3 engine is a side-by-side dual control trainer variant of the Vampire N.F. Mk.10 with substantially the same emergency escape facilities and comparable ditching qualities. It is fitted with a cold air unit and is equipped for dual armament and advanced instrument training.
2. The Vampire T Mk. 11 is hereby released for operation in all conditions from sub-arctic to tropical.
3. You may care to inform the Service on the following points :-
  - (a) Weight Limitations
    - (i) The maximum permissible weight for take-off and for flying, subject to gentle manoeuvres only is ..... 13,380 lbs.
    - (ii) The maximum permissible weight for all forms of flying and for landing, except in an emergency, is.. 11,610 lbs.
  - (b) Handling Limitations
    - (i) The maximum permissible speed for the aircraft in to "clean" condition (strength limitation) is ..... 455 kts IAS
    - (ii) When under-wing drop tanks are carried, full or empty, flying is limited to gentle manoeuvres only, and the maximum permissible speed and Mach number (buffetting and handling limitations) are :-

Below 15,000 ft.	390 kts IAS
Above 15,000 ft.	0.76 MN

Continued.....

- (iii) Drop tanks should be jettisoned only in straight and level flight and at speeds not exceeding ..... 260 kts. IAS.
- (iv) When bombs are carried the maximum permissible speed and Mach number are as detailed in para (ii).

(c) Spinning

- (i) Intentional spinning is prohibited when drop tanks or external stores are carried.
- (ii) The aircraft is cleared for spinning when in the "clean" condition. Recovery tests have been made from spins up to four turns only. Pilots should be warned that the behaviour of the aircraft during spinning and in the recovery is very violent and unpleasant.

(d) Armament Installations

- (i) R.P. Pending satisfactory completion of the trials now in progress the R.P. installation is not cleared.
- (ii) Bombs. The undermentioned types of bomb installations have so far been tested and are cleared subject to the following limitations :-

<u>Type of Bomb</u>	<u>No. off</u>	<u>Max. angle of dive</u>	<u>Max. Speed at release</u>
1000 lb MC Mk.2 with No. 37 tail plus additional fins	Two	60°	390 kts IAS
500 lb GP Mk. 4, or 500 lb MC Mk. 4 or 9, all with No. 77 tails	Two	60°	390 kts IAS
11½ lb or 25 lb practice bombs on No. 12 light series carriers with No. 3 adaptor	Eight	65°	390 kts IAS

- (iii) Guns. The gun heating installation is comparable with that of earlier marks of Vampire.

Tests to clear the Mark 5 G.G.S. installation have not yet been completed.

Continued.....

Until further notice the removable blast tubes should be examined for damage whenever the guns are fired at speeds in excess of 400 knots IAS below 5,000 ft.

4. Behaviour at high Mach Numbers.

A note on the behaviour is appended.

5. Fuels.

The aircraft may be operated on AVTAG fuel but no tests have yet been made to ascertain the evaporative losses in tropical conditions. Details of the restrictions on fuel pump life pending the incorporation of Modifications 700 and 731 have been promulgated in A.M. letter A.74770/C63/Air Eng. 2(c) dated 30/6/52.

6. Handling and Loading Data.

Pilots' Notes are being prepared. Loading data have been forwarded to Air Eng. 1.

7. Essential modifications.

The following Modifications are essential before aircraft are issued to the Service :-

Vampire/3075 - To introduce Anti-Surge Valves in Fuel Tanks  
Goblin/398 - To introduce strengthened Hub Shaft.

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Appendix to Vampire T Mk. 11 - C.S.(A) Release

Vampire T Mk.11 - Behaviour at high Mach No's.  
as deduced from official trials

1. Above 20,000 ft. compressibility effects become evident at about 0.78 IMN, when buffeting and porpoising set in, aileron snatching and intermittent wing dropping may also occur, the latter being easily corrected with aileron. These characteristics continue as the Mach No. is increased; the porpoising however, gets more pronounced, necessitating an increase in the stick force as the nose rises and a decrease as the nose falls in order to maintain a steady flight path.

Continued.....

2. The maximum obtainable Mach No. is a 25° - 30° dive from 38,000 ft. is about 0.84 IMN, when the control column is nearly fully forward and the nose rising during porpoising prevents the Mach No. from increasing. Recovery is straightforward on closing the throttle and easing the aircraft out of the dive provided that the aircraft has not been trimmed beyond 0.71 IMN; but the characteristics may persist until the IMN is reduced to 0.77.
  
3. Below 20,000 ft. the compressibility effects are, in general, similar but may appear at an IMN about 0.01 earlier; the stick forces however are higher, the porpoising is more violent and there is a danger of the limiting speed (455 knots I.A.S.) being exceeded.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

NO. 344



DATE 7.10.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 1. ARMAMENT.  
SUB HEADING 7. FUSELAGE ASSEMBLY.

- A) Special Technical Instruction/Vampire/63.  
Damage to Blast Tubes and Spoilers when Cannons are Fired.
- B) Vampire Mk.10. Vampire Trainer, Venom FB.1.
- C) Cases have occurred of damage to the blast tubes and Spoilers during the firing of the cannons, when the harmonising eccentrics are in their extreme positions.
- D) As soon as convenient before the next firing exercise, and not later than the next Minor Servicing, check the clearance between the shell trajectory and the blast tube as follows :-
- (1) Set all the eccentrics at their mid position.
  - (2) Referring to the attached drawing (ROOS13) insert the mandrel into the cannon barrel and ensure that the sliding plug will move freely past the spoiler and into the forward end of the blast tube.  
Note: When viewed from the nose of the aircraft, the critical area is  $45^{\circ}$  either side of the centre of the spoiler.
  - (3) If the plug fouls the spoiler or blast tube, the blast tube panel must be changed, and operations (1) and (2) repeated.
  - (4) Harmonise the cannons.
- E) Record on appropriate form.
- F) Nil.
- G) Nil.

The mandrel and plug are to be made locally from any suitable material, to the dimensions given on the drawing.

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Continued.....

SUB HEADING 11, ELECTRICAL INSTALLATION.

Special Technical Instruction/Electrical/54A.  
(Amending Special Technical Instruction/Electrical/54)  
Regulator and Cut-Out Units Type A, A.2, and B -  
Ingress of Foreign Matter to Armature Assemblies  
on Regulators.

Further to Technical News Sheet V.333, dated 18.7.52., the following amendments are to be made :-

Para (D) 1. (iii) Add "Care to be taken to avoid over tightening the clip, otherwise an alteration in the armature gap setting may take place with a resulting voltage increase of 1 to 1½ volts.

Para (D) 1. Add new sub-para. (iv)  
 (iv) After the clip has been fitted check the regulation in accordance with the relevant chapters in AP1095c, Vol. 1, Section 6."

Para (G) Delete in toto and substitute

(G) Mod. Elect.B/117 introduces a shroud to seal the armature gap.

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SUB HEADING 13, RADIO.

Servicing Instruction/(Airborne Assembly)/6.  
A.I. Mk.10 (ARI.557C) -  
Check of standing wave ratio and pressurisation.

Further to Technical News Sheet V.328 dated 1.7.52., the following Addendum is to be made :-

Para.(D), (C), Note (iii) as follows :-

(iii) It is important that Gaskets, Neoprene, Stores Reference 10AL/621 should be fitted at the following points in the Transmission Line, to prevent air leaks and consequent mis-match and arcing :-

1. Between Transmission Line and Scanner.
2. Between Transmission Line and Test Block.
3. Between Test Block and R.F. Unit.

An initial supply of these baskets is included in Modification Kit 10H/4355, which was referred to in STI/Radio (Airborne Assembly)/24 and its superseding Modification RMC 2463, Class B.2. Since adequate spares are also available in No.40 Group, units are to demand these to enable replacement of Gaskets deteriorating or becoming damaged in use. ....

Continued....

SUB HEADING 12. FUEL SYSTEM.

Further to Technical News Sheet V.339, dated 8.9.52., the following amendment is to be made:-

Delete "Special Technical Instruction/Miscellaneous/200"

Substitute "Servicing Instruction/Miscellaneous/49"

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SUB HEADING 13. RADIO.

- A) Special Technical Instruction/Radio/(Airborne Assembly/29A.  
(Amending S.T.I/Radio/(Airborne Assembly/29)  
TR.1934/5/6 - VHF/RT. Incorrect rating of Resistor 3R19 in Receiver Units.

Further to Technical News Sheet V.334, dated 14.8.52., the following amendments are to be made.

Para (A) Amend last line of the title to read :-  
 "in Receiver Units Types 100, 112 and 114".

Para (B) Amend para (B) to read :-  
 "All Receiver Units, types 100, 112 and 114".

Para (D) Delete existing para (D), in toto and substitute the following :-

"(D) At the earliest opportunity and not later than the next Minor Servicing, examine all resistors in circuit position 3R19 in Receiver Units Types 100, 112 and 114. If these resistors are of  $\frac{1}{2}$ " Watt rating, size RC7J, (length 3/8-9/16), replace them with  $\frac{3}{4}$ " Watt resistors, size RC7H, (length 5/8-15/16), Stores Reference 10W/Z.222069. Owing to the concave ends of these resistors, it is essential to make all measurements between the points of emergence of the terminating wires.

Note:- All Resistors of  $\frac{3}{4}$ " Watt Interservice Rating and which are not less than  $\frac{5}{8}$ " long when measured as described above, are acceptable in circuit position 3.R.19.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V No 345



DATE 14.10.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.

SUB HEADING 23, INSTRUMENTS.

SUB HEADING 7, FUSELAGE.

### TRAINER AIRCRAFT

#### DE-MAGNETISATION OF THE CANOPY STRUCTURE

The following instructions are laid down for the application when undue magnetism is found to be present in a canopy structure after it is assembled to an aircraft

(1) Equipment

- 1 Wiper Magnet (Stores Ref. 5P/2139).
- 1 30 ft. lead for use on 220V A.C. 50C fitted with 3 pin niphen socket (shop equipment).

(2) Procedure (with Hatch closed - this is important)

- (a) Check E2 compass for deviation.
- (b) Head aircraft on maximum deviation i.e., if compass permanently reads NORTH head aircraft on SOUTH (minus 180°).
- (c) Remove E2 compass from aircraft and place at a safe distance from wiper magnet, i.e., not less than 10 ft. when magnet is in use. Lower instrument panel to "down" position.
- (d) Switch on wiper magnet before entry into aircraft and hand to operator already standing in cockpit who will apply the poles of the wiper magnet to the suspected portion of the structure and slowly move the magnet backwards and forwards through the length of the structure for a period of 30 seconds. The magnet will then be slowly returned to the operator on the ground who will immediately remove the magnet to a distance of not less than 6 ft. from the aircraft, and then switch off.

Continued.....

- (e) Refit compass to aircraft and check for deviation.
- (f) If deviations are still outside maximum limits of 5° repeat procedure as at (c), (d) and (e).
- (3) Precautions.
  - (a) The whole period of the magnet being "live", from switching on to switching off by the ground operator, must not exceed 5 minutes to prevent overheating of the magnet.
  - (b) The magnet is not to be switched off whilst in use on any offending structure as this will result in re-magnetising and defeat the object of the above procedure.
  - (c) Check the equipment before use for general safety from electric shock.
  - (d) Store the equipment in a cool, dry atmosphere when not in use and ensure that contact with damp is avoided at all times when equipment is in use.

(sgd) P. Kerr.  
Chief Methods Engineer.

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SUB HEADING 11. ELECTRICAL INSTALLATION.

Relay, Slow Engagement, Ref. 5C/3852  
Fitted to Vampire Engine Starting Circuit

Further to Technical News Sheet V.334, the following amendment is to be made :-

Para.4, Line 2. Delete "momentarily"  
Substitute "for two to three seconds".

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

No. 346



DATE 16.10.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 10, MISCELLANEOUS EQUIPMENT.

### Trainer Aircraft - Cockpit Ladders

Operators are to be advised that cockpit ladders are not supplied with each trainer aircraft and must be demanded as normal ground equipment. Also it should be noted that no provision is yet made for stowage of a ladder in the aircraft.

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SUB HEADING 7, FUSELAGE ASSEMBLY.

Special Technical Instruction/Vampire/62A.  
(Amending Special Technical Instruction/Vampire/62)  
Rear Tail Cone Assembly - Additional Drain Hole.

Further to Technical News Sheet V.339, dated 8.9.52., the following amendments are to be made :

Para (D) 2. Delete in toto and substitute

- "2. Remove downward identification light wiring complete unless Vampire Modifications 934 (Mks.5 and 9); Mod. 957 (Mk.1); Mod. 958 (Mk.3); or Mod. 1044 (Sea Vampire), have been embodied."

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TECHNICAL NEWS SHEET

SERIES V No 347



DATE 20.10.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 15, TAIL UNIT ASSEMBLY.

- A) Servicing Instruction/Vampire/36, Venom/7.  
(Superseding and cancelling Special Technical Instruction/Vampire/52, 52A,  
Venom/1 and 1A.)  
Cracking at Forward End Rib at Rudder Balance Weight.
- B) Vampire N.F. Mk.10 and T.11.  
Venom Mk.2, Sea Venom Mk.20.
- C) Cases have been reported of cracking at the forward end rib securing mass balance weight, on rudders with extended tip (fitting only on two seat aircraft), resulting in possible buffeting. As the embodiment of S.T.I/Vampire/52, 52A, which is equivalent to Part (A) of Mod. Vampire 3152, had failed to overcome the fault of skin movement on the rudder horn, both the S.T.I. and Part (A) of the Vampire and Venom Modifications have been cancelled, and a new Part (C), which reinforces the rudder at the affected area, has been introduced for retrospective embodiment; Part (B) remains unaltered for embodiment on production. Meanwhile, pending the incorporation of either Part (B) or (C) of the Modifications, periodical inspection for cracks will be necessary.
- D) At next Primary and subsequently at each Primary Star Servicing the following action is to be taken :-
- (i) Examine rudder at forward end rib at rudder ballast weight for cracks.
  - (ii) If cracks are found, rudder is to be removed and replaced by a rudder to Mod. Vampire 3152/Venom 171, part (B) or (C) standard.
  - (iii) Defective rudders are to be labelled "Found defective in accordance with SI/Vampire/36, Venom/7" and returned through equipment channels to Messrs de Havilland Aircraft Co., Airspeed Division, Christchurch, Hants.
- E) Record initial inspection on F.700 and enter on Supplementary Servicing Record Sheet of Servicing Schedule.

Continued.....

- F) Nil.
- G) Embodiment of Vampire Mod. 3152 or Venom Mod.171, Parts (B) or (C) retrospectively, will render compliance with this S.I. no longer necessary.

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SUB HEADING 4. CONTROLS, FLYING.

A) Special Technical Instruction/Vampire/64.  
Inadequate locking of pin securing ball end to adjustable connecting rod at differential brake relay valve transverse lever.

B) Vampire Mk.9 and Mk.10 (Serial numbers of aircraft affected are given below).

<u>Vampire 9</u>	WL.509,	WL.515 to WL.517	inclusive
		WL.547 to WL.587	"
		WL.602 to WL.616	"
		WR.102 to WR.157	"

WR.176, WR.177, WR.180, WR.183, WR.184, WR.186.

<u>Vampire 10</u>	WM.660 to WM.667	inclusive
	WM.703 to WM.723	"
	WM.725 to WM.727	"

- C) A case has been reported of loss of control whilst taxiing, due to the pin securing the ball end to the adjustable connecting rod at the brake relay unit becoming detached.
- D) i. As soon as possible and not later than the next Primary Servicing, check the ball end securing pins on the aircraft, whose serial numbers are listed above, for adequate locking. The locking of this pin is carried out by centre popping.
- ii. Re centre pop where the existing locking is considered to be inadequate.

E) Record on the appropriate form.

F) Nil.

G) Nil.

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Continued.....

SUB HEADING 12. FUEL SYSTEM.Special Technical Instruction/Vampire/58A.(Amending Special Technical Instruction/Vampire/58)Gun Bay Door Quick Release Assemblies - Interference to Airflow into Fuel Venting System.

Further to Technical News Sheet V.334, dated 14.8.52., the following amendments are to be made.

Para (2) Line 3. Delete "port gun bay door"  
Substitute "Starboard Gun bay door".

Para (D) Delete in toto and substitute new para.

- (D) (i) As soon as convenient, but not later than the next Primary Star Servicing, fair off fore and aft of the rear cannon door quick release assembly with two pieces of 16 S.W.G. light alloy sheet, as detailed in the attached drawing.
- (ii) Fair off the C/SK heads of screws with filler, and finish to match the existing colour scheme.
- (iii) When fitting doors to aircraft, ensure that the nuts on the doors do not foul any of the equipment in the cannon bay.

Note: The 3/32" dia. rivets and the mushroom headed screws, called for on the drawing, must be spaced so that they are not immediately forward, and in line with the fuel vent pipe.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V No. 348



DATE 24.10.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES.  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION SUB HEADING 7. FUSELAGE ASSEMBLY.

#### NF.10 - AIRCRAFT - CANNON BAY DOORS

Certain of the doors have an excessive gap at the rear of the link chute which may be reduced by dressing down the curved lip on the link chute.

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### SUB HEADING 16. UNDERCARRIAGE.

#### TWO SEATER AIRCRAFT - NOSE WHEEL DOOR

A considerable number of cases have been reported of the nosewheel door closing in flight prior to the undercarriage being selected "UP" which were probably due to side loads imposed on the door during a turn or side slip whilst the undercarriage was being lowered. These loads were probably sufficient to prevent the door opening fully into the "locked open" position.

In view of these reported cases Modification Vampire 3236 is being issued to introduce a more positive mechanism for the nosewheel door.

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### SUB HEADING 7. FUSELAGE ASSEMBLY.

#### Modification Vampire 3041.

Complaints have been received of fuel leaking into the wing interior during re-fuelling operations with the above Modification embodied; due to the gap which exists between the two halves of the insulating ring Pt. No. P003667. Modification action is in hand to introduce some form of extra

Continued.....

sealing to eliminate this leakage, but until this is available care must be exercised during the re-fuelling operation to minimise the quantity of fuel permitted to overflow.

Allied to this is the introduction of Modification Vampire 3204 which calls for a steel instead of a light alloy adaptor screwed into the tank and this will eliminate the picking up between the threads now complained of.

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#### SUB HEADING 7. FUSELAGE ASSEMBLY.

##### TRAINER AIRCRAFT

A case has been reported of a foul which may exist between the cut-out for the Ground Electrical test point on the front of the fuselage and the guard which is normally fitted round the starter trolley plug. This may be overcome by removing the guard on the plug until Modification Vampire 3225 is issued which we understand alters the fuselage cut-out.

Details of this Modification will be issued when available.

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#### SUB HEADING 10. MISCELLANEOUS EQUIPMENT.

- A) Special Technical Instruction/Instruments/21.  
 (Preliminary Warning MOS 109 d/d 4.9.52 refers)  
Replacement of Emergency Supply Rubber Tubing in Oxygen Mask Tube Assemblies.
- B) This instruction applies to oxygen mask tube assemblies marks 1, 1A, 4, 4A, 7 and 7A, stores reference number 6D/723, 1571, 1193, 1572, 1470 and 1573, in use and held in storage.
- C) Cases have occurred of deterioration leading to fracture of the small rubber tubing which runs up the centre of the mask tube assembly and carries the emergency oxygen supply. A preliminary warning signal has already been sent out calling for inspection and segregation of defective assemblies, and this instruction deals with the rectification of these items. Mask tube assemblies held in storage should be inspected if necessary prior to issue.

Continued.....

- D) 1. Mask tube assemblies which have been inspected and found defective are to be rectified by fitting a new internal rubber tube. This rubber tube is not a service supply item and should be obtained by local purchase from The Dunlop Rubber Co., Cambridge Street, Manchester. The commercial description is as follows :- "Rubber tubing, Dunlop quality, reference ML.20821, 0.07" I.D. x 0.14 O.D.", and demands should quote Stores Ref. 6D/NN/1.
2. Supplies of new tubing to Naval and R.A.F. Units, will be carried out under arrangements made by Admiralty (D.A.M.R.) and Air Ministry respectively.
3. The corrugated mask tubing should be removed from the lower end fitting by carefully cutting the binding thread, the inner small bore rubber tubing should be removed and appropriate internal end fittings cleaned. The nipple at the mask end is held in position by a spring wire and may be taken out in order to remove and refit the rubber tubing.
4. A length of new rubber tube,  $13\frac{1}{2}$ " to  $13\frac{3}{4}$ " should be fed through the centre of the mask tubing and stretched on to the end fittings. It should be firmly bound at the end fittings with linen thread (Stores reference 32B/550) but varnish is NOT to be applied.
5. The mask tubing is then to be refitted to the lower end fitting in accordance with the instructions given in AP.1275A, Vol. 1, Sect. 8, Chap. 11, Para. 39.
- Note. The existing rubber tubing is the same length as the corrugated mask tubing. A longer length has been specified for the replacement order to relieve the stress at the end fittings when the mask tube is extended.
- E) Tube Assemblies on which this S.T.I. has been carried out are to be marked with a dab of lacquer, opaque yellow stores reference 33B/809 at the lower end of the corrugated mask tubing.
- F) Nil.
- G) Retrospective Modification action is in hand, for all Mask Tube Assemblies, not embodying this S.T.I.

Continued.....

SUB HEADING 10. MISCELLANEOUS EQUIPMENT.NE.10 - FITTING OF PILOTS CONTROL LOCKPT.NO. 13.Y.57.

Where difficulty is found in fitting the above control lock to the control column the corner of the lock attachment lug may be filed away sufficiently to enable the holes to line up.

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SUB HEADING 16. UNDERCARRIAGE.TWO SEATER AIRCRAFT - NOSE UNDERCARRIAGE JACK BOLTS

Complaints of the inaccessibility of the nose leg jack bolts have been investigated and Modification Vampire 3149 raised which, amongst other things, provides an access hole in the nosewheel fairing to facilitate withdrawal of these bolts. It has also been found that the radius rod socket plates have in certain cases been fitted in such a manner that the cut-away portion of the plate is at the top instead of the bottom.

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SUB HEADING 23. INSTRUMENTS.Compasses G.M. Marks 4B and 4F Gyro Units  
Servicing of the "D.G." Flag Assembly

Cases have been reported of the "D.G." flag sticking due to :-

- (a) Fouling of the flag on the gyro casing or on annunciator flag.
- (b) Overtightening of the flag pivot screw.
- (c) Dirt on the flag and pivot assembly.
- (d) Maladjustment of the flag operating arm.

2. Rectification of these defects may be carried out on 2nd Line Units as follows :-

Continued.....



- (a) Remove the eight cover screws at the rear of the unit and carefully withdraw the cover.
- (b) Operate the D.G. relay manually and examine the assembly for signs of fouling of the flag.
- (c) If fouling occurs, slight mechanical adjustment can be carried out to rectify the fault.
- (d) If there are no obvious signs of fouling, remove the cover plate fitted over the annunciator coil assembly, remove the annunciator arm retaining clip and carefully lift off the annunciator flag arm.
- (e) Using an offset screwdriver remove the "D.G" flag pivot screw, taking care not to lose the small washer between the flag and the gyro casing.
- (f) Carefully extract the flag (It will be found that there is sufficient clearance to do this provided the flag is carefully manipulated with a pair of tweezers).
- (g) Using white spirit (34D/246) and a watchmakers brush, clean the flag bearing surfaced, pivot screw and gyro casing recess.
- (h) Apply a slight trace of oil anti-freezing (34B/43) to the pivot screw, flag bearing surfaces and the operating arm slot.
- (j) Reassemble the "D.G" flag in position, ensuring that the small washer is fitted between the flag and the gyro casing. Avoid overtightening of the pivot screw.
- (k) Check the movement of the "D.G" flag by operating the relay manually. Ensure the "D.G" and the annunciator window on the flag are central in the gyro casing window. Adjust the flag arm angle, if necessary, by slackening the clamping nut and retightening after adjustment.
- (l) Carefully reassemble the annunciator assembly and replace the coil cover.
- (m) Again check the operation of the D.G. flag and the annunciator flag by careful manipulation and ensure no fouling occurs.
- (n) Carefully replace the gyro cover and the securing screws.

NOTE

Full details of servicing of the annunciator assembly are contained in previous instructions. Postagram Instruments/R. D. As Defects/4QB dated 18th February, 1952 refers.

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Continued.....

SUB HEADING 23. INSTRUMENTS.

- A) Servicing Instruction/Instruments/3.  
Testing of Low-Pressure Oxygen Flexible Tubing Mark 5.
- B) This instruction applies to all oxygen low-pressure flexible tubing Mark 5 installed in aircraft, and to tubing issued from stores immediately prior to fitment in aircraft. Stores reference numbers of items affected are 6D/531, 532, 533, 573 and 1468.
- C) Cases of failure of the above tubing have been reported and it is considered necessary to introduce an inspection and testing procedure to prevent future defects, and to obtain information for the formulation of a life period for the tubing.
- D) As soon as possible and not later than next Minor Servicing low-pressure flexible oxygen tubing Mark 5 is to be removed from the aircraft and examined as follows :-
1. Inspect the tubing visually with particular reference to the following :-
    - (a) deterioration or undue wear of the canvas covering.
    - (b) perishing of the rubber lining so far as is practicable.
    - (c) rusting of the reinforcing wire in tubes where the wire is normally visible.
  2. Bend the tube on itself by hand so that the surfaces of the tubing inside and below and bend are in contact right up to the bend. Hold the tube in this position for one minute and then examine the tubing at the bend. There should be no signs of splitting or failure of the canvas or rubber. This test is to be carried out at two separate positions on the tube.
  3. Subject the tube to an internal pressure (clean air or oxygen) of 5 lb per sq. in. and immerse in water for a period of two minutes. There should be no leaks evident from any part of the tubing. The tubing is to be thoroughly dried out after this test, but the drying process must not be hastened by the application of undue heat.
  4. The tests are to be carried out in the above order, and tubes not complying with any of the tests are to be withdrawn from use.
  5. Tubes satisfying the tests are to have a small metal label attached stamped "Tested", followed by the month in figures and year, e.g. "Tested 5/52".
  6. At subsequent servicing periods the metal labels are to be examined. When tubes are found which have completed one year since being tested, or which would have completed one year before the following servicing period, the above sequence of tests is to be repeated. Thus all Mark 5 low-pressure flexible oxygen tubing will be inspected and tested at regular intervals of approximately 12 month until eventual rejection as unserviceable.

Continued.....

- E) Initial compliance with this instruction is to be recorded on Form 700. Supplementary inspection record sheets of the appropriate servicing schedules are to be amended to call for inspection of the test date labels, and the removal of tubing for testing when this is found to be necessary.
- F) Defect reports are to be raised in cases where it is known definitely that the rejected tubing has had a service life of less than 12 months. Such reports are to quote the date of manufacture which is marked on the tube.
- G) Nil.

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SUB HEADING 11, ELECTRICAL INSTALLATIONS.  
SUB HEADING 16, UNDERCARRIAGE.

Undercarriage Selector Lever Locking Solenoid

Further to Technical News Sheet V.340, dated 17.9.52, concerning the undercarriage selector lever locking Solenoid on Specified aircraft, it is confirmed that the instructions apply equally to Navalised versions and the title of the Technical News Sheet should be amended accordingly.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

No 349



DATE 30.10.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 4. CONTROLS, FLYING.

- A) Servicing Instruction/Vampire/37.  
Flying Controls - Static Balance Arm.
- B) Vampire Mk. 3, 5 and 9 aircraft.
- C) Cases have occurred of the bolt attaching the lever rudder balance arm on flying controls in boom being sheared, resulting in the fracture of the upper lever rudder balance arm. This has caused the jamming of rudder control.
- D) 1. At the next Minor Servicing and all subsequent Minor Servicings a check is to be made of the end float occurring at the balance arm pivot ball races. This end float must not exceed .03" measured as near to the centre line of the balance arm sprindle as possible.
2. In the event of the end float exceeding .03" the balance arm is to be removed for examination of the races and possible wear in the spindle. Should these show signs of excessive wear replacements should be made as necessary.
- E) Record on Form 700 and enter on supplementary servicing record sheet of Servicing Schedule.
- F) Nil.
- G) No modification action is contemplated.

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Continued.....

SUB HEADING 1. ARMAMENT.SUB HEADING 11. ELECTRICAL INSTALLATION.

- FAILURE OF GUN FIRING CABLE ON CONTROL COLUMN
- A) Special Technical Instruction/Vampire/65.  
Failure of Gun Firing Cable on Control Column.
- B) Vampire Mk.10 aircraft. Serial Nos. WP232 to WP256 inclusive only.
- C) Cases have been reported of the gun firing cable on the control column fracturing due to movement of the aileron control handle. The fracture occurs above the cleat on the column immediately below the handle and is considered to be due to the inadequate flexibility of the Quinpren 6 cable which was used on the first 25 aircraft manufactured.
- D) As soon as possible and not later than the next Minor Servicing, identify which cable is fitted.
1. If Quinpren 6 is fitted replace it from the junction box at the base of the column to the firing button, with Quinprensheath 6, Stores Ref. 5E/3115.
  2. On replacing the whipping, make certain that sufficient cable is left slack below the handle to allow for its Port and Starboard movement.
- E) Record on appropriate Form.
- F) Nil.
- G) No. mod. action.

SUB HEADING 11. ELECTRICAL INSTALLATION.SUB HEADING 12. FUEL SYSTEM.

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Electrical Operated Priming Pumps  
FP.3 Mk.7 Stores Reference 5U/5057

Failures of the above type electrically operated priming pumps have been attributed to corrosion of the internal members, and it has been established that the corrosion occurs during the time the pumps stand idle either fitted to aircraft or in storage after removal from aircraft.

Continued.....

2. Instructions should be issued to all concerned, that whenever these pumps are removed from aircraft for reconditioning, or for any other reason which will allow the pumps to remain idle for any period in excess of 24 hours they are to be inhibited using Oil Storage D.T.D. 698 Stores Reference 34A/180.
3. It is also recommended that priming pumps 5U/5057 installed in aircraft should be operated for a period of 30 secs. at least once in 48 hrs.

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- A) Special Technical Instruction/Instruments/20.  
Gauges Pressure Mk. 14KK, Stores Ref. 6A/2690 and 2691.  
Temporary Withdrawal from Use of Gauges of a Specified Manufacture.
- B) All gauges, pressure, Mk. 14KK, Stores Ref. 6A/2690 and 2691, manufactured by the Murray (Scientific Instrument) Co., whether fitted to aircraft, held as spares, or in M.U. storage.
- C) Gauges manufactured by the Murray (Scientific Instrument) Co., are suspect for poor soldering of the bourdon tube into the pressure block and of the tube end sealing cap, a large number having already failed in service. This instruction requires the withdrawal of all Murray gauges for rectification.
- D) 1. As soon as possible and not later than next Minor Servicing in cases of gauges fitted to aircraft, examine the dials of Mk. 14KK gauges and if the serial number is marked in white at approximately the six o'clock position, such gauges are of Murray manufacture. The serial number suffix will invariably be /50 or /52.
2. Murray gauges are to be returned to No. 14 M.U. as soon as possible, clearly labelled "Returned for rectification in accordance with S.T.I./Instruments/20."
3. Defective gauges fitted to aircraft are to be removed and replaced by gauges of different manufacture or Murray gauges which have been rectified (see para (G)), as and when such serviceable gauges are received.
4. Stocks of serviceable gauges are at present very small, and it will be some time before all demands to satisfy this S.T.I. can be met.
5. In the case of pre-packed stocks, the manufacturer's name is marked on the packet and in such cases, it will not be necessary to open up the packets.

Continued.....

- E) Record changes of aircraft gauges on Form 700.
- F) Nil.
- G) After rectification, the manufacturer will mark the letter "R" in white ink after the serial number on the dial. Pre-packed stocks will also be marked with the letter "R" after the serial number on the packet. There will be no restriction on the use of rectified gauges of Murray manufacture.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V No. 350



DATE 5.11.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 16, UNDERCARRIAGE.

TO REPLACE TWO BOLTS BY RIVETS ON  
NOSE UNDERCARRIAGE DOOR.  
MK. NF. 10, T. 11.

Class C/3 N.C.P.

Mod. No. Vampire 3201.

This modification has been necessitated by the bending of the nose wheel door due to the nose wheel fork fouling on two redundant nuts, and makes provision for the replacement of these nuts and their associated bolts by rivets. This modification supersedes and is satisfied by the embodiment of STI/Vampire/.

SUB HEADING 3, CONTROLS, ENGINE.  
SUB HEADING 7, FUSELAGE ASSEMBLY.

TO SET ANGLE OF THROTTLE GRIPS AT 35 DEG. TO  
CLEAR PILOTS KNEE AND TO REPOSITION UNDERCARRIAGE  
LOCKING OVER-RIDE SWITCH.  
MK. T11.

Class C/3.

Mod. No. Vampire 3188.

This modification has been necessitated by the inadequate clearance between the pilots knee and the throttle grips, and the need to improve the accessibility of the undercarriage locking over-ride switch and makes provision for the re-positioning of this switch and the introduction of new throttle levers.

SUB HEADING 14, SERVICES AIRCRAFT.

FILTER MK. 1 STORES REF. 6D/574 IN OXYGEN SYSTEM  
INTRODUCTION.  
MK. T11.

Continued.....

Class C/3 N.C.P.Mod. No. Vampire 3173

This modification has been necessitated by a Ministry of Supply request and makes provision for the fitment of a filter Mk.1, Stores Ref. 6D/574, in the oxygen system in lieu of the existing N.R. valve, Stores Ref. 6D/427.

SUB HEADING 13. RADIO.

CONNECTOR TYPE 3347/5 STORES REF. 10 HA/11256  
TO ENABLE GEE AERIAL CABLE TO BE USED WITH  
TYPE 51 LOADING UNIT - INTRODUCTION.

MK. NF.10.Class B/2 N.C.P.Mod. No. Vampire 3168

This modification has been necessitated by the failure of the embodiment loan connector to mate with the type 51 loading unit and makes provision for the introduction of an additional connector.

SUB HEADING 16. UNDERCARRIAGE.

SPECIAL TAB WASHER ON NOSEWHEEL JACK END FITTING  
AND IMPROVED ACCESS TO JACK BOLT - INTRODUCTION

MK. NF.10. T.11.Class C/3 on adjustment of jack.Mod. No. Vampire 3149.

This modification has been necessitated (a) by service reports of the slackening back of the locknut on the adjustable end fitting, permitting the ram of the jack to turn and throw the retracting mechanism out of adjustment, and (b) by the present necessity of having to remove the nose undercarriage to withdraw the the hydraulic jack bolts. This modification, to prevent further occurrences of these defects, makes provision for (a) the introduction of a tab washer, and (b) the cutting of an access hole in the nosewheel fairing.

SUB HEADING 23. INSTRUMENTS.

TO INTRODUCE MAGNETIC SHIELD, STORES REF. 6B/538  
FOR G4F OR G4B COMPASS GYRO UNIT.

MKS. FB.5 & 9 NF.10 AND T.11.Class C/3 N.C.P.Mod. No. Vampire 3159.

This modification has been necessitated by excessive magnetic interference between the emergency compass and the gyro unit of the G4F compass. This is overcome by the fitment of a magnetic screen to the gyro unit of the G4F compass. On Mk. 5 & 9 aircraft this modification is applicable only to aircraft with Mod. 668 embodied.

Continued.....

SUB HEADING 11. ELECTRICAL INSTALLATION.SUB HEADING 12. FUEL SYSTEM.TO MAKE PROVISION FOR FUSING UNITS IN WING  
FOR 100 GALLON DROP TANKS.MK. FB. 5, FB. 9.Class S.O.O.Mod. No. Vampire 3077.

This modification is necessitated by a Ministry of Supply request and makes provision for the fitment of fusing units in the mainplane to special order only.

SUB HEADING 14. SERVICES, AIRCRAFT.SUB HEADING 16. UNDERCARRIAGE.STRONGER MAIN UNDERCARRIAGE JACK TOP PIN  
INTRODUCTION.MKS. F1, F3, FB5, FB9, NF10, T11.Class C/3.Mod. No. Vampire 3153

This modification has been necessitated by service defect reports of failure of the existing main undercarriage jack top pin, and makes provision for a H.T.S. pin to provide a greater load tolerance.

SUB HEADING 11. ELECTRICAL INSTALLATION.TYPE "Q" RELAY REF. 5C/2007 IN LIEU OF TYPE "P"  
IN GUN FIRING CIRCUIT - INTRODUCTION.MKS. F1, F3, FB5.Class B/2.Mod. No. Vampire 895 Issue 2.

This modification has been necessitated by a tendency for the existing type 'P' relays in the gun firing circuit to stick, resulting in the inadvertent prolonging of the period of operation of the guns, and makes provision for the substitution of new Type "Q" relays to obviate this danger.

SUB HEADING 13. RADIO.TO INTRODUCE EMBODIMENT LOAN CONNECTORS FOR  
A.I. SETS. PART A PROVISION FOR.MK. NF. 10.Class B/2.Mod. No. Vampire 3024 Part A.

Continued.....

This modification has been necessitated by a Ministry of supply request and makes provision for the fitment of new plugs and glands in bulkhead 1 to facilitate the subsequent introduction of embodiment loan connectors for the A.I. sets in place of the existing D.H. type.

SUB HEADING 15. TAIL UNIT ASSEMBLY.

BOLTS IN LIEU OF RIVETS AT ELEVATOR TAB HINGE INTRODUCTION.

MKS. F1, F3, FB5, FB9, NF10, T11.

Class C/3. N.C.P. on repair or on replacement for Mks. F1, F3, FB5 & FB9.

Mod. No. Vampire 3034 Issue 2. Amendment No.1.

Further to Technical News Sheet V.310, herewith Amendment No.1.

SUB HEADING 6. ENGINE INSTALLATION.

TO INTRODUCE ALTERATIONS TO ENGINE INSTALLATION TO ACCOMODATE SINGLE PUMP SYSTEM AT ENGINE.

MK. NF.10.

Class B/2. on fitment of engine embodying Goblin Mod. 700.

Mod. No. Vampire 3046 Amendment No.1.

Further to Technical News Sheet V.294, herewith amendment No.1.

# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
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## TECHNICAL NEWS SHEET

SERIES V

No 351



DATE 6.11.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 12, FUEL SYSTEM.

### CIVIL MODIFICATION LEAFLETS.

Civil Modification leaflets have been made available for Modification Vampire 3075 Pt. I (Marstons Tanks) for Vampire Mk.54 (Foreign version of Vampire NF.10) and Vampire Mk.55 (Foreign version of Vampire T.Mk.11.)

A similar civil modification leaflet is also available for Modification Vampire 228 applicable for Vampire Mk.3 aircraft.

As the requirement for those leaflets is considered very limited it is intended to issue them in the normal manner via a technical new sheet. However they may be obtained from the Service Dept., de Havilland Aircraft Co., Hatfield, Herts., England.

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### SUB HEADING 12, FUEL SYSTEM.

Further to Technical News Sheet V.347, dated 20.10.52, the following is a new issue of Special Technical Instruction/58A, incorporating all previous amendments.

- A) Special Technical Instruction/Vampire/58.  
Gun bay door, quick release assemblies - Interference to airflow into fuel venting system.
- B) Vampire all marks, fitted with Venom type gun bay doors, introduced on Mod. Vampire 791.
- C) Cases have occurred of incorrect fuel gauge readings due to partial screening of the external fuel vent pipe by the starboard gun bay door quick release assemblies, which stand proud of the gun bay doors by approximately .065".

Continued.....

- D) As soon as convenient and not later than the next Primary star servicing, the following action is to be taken.

Single seater aircraft.

Drawing ROOAl10 issue 2 is to be regarded as a guide only and may be altered to suit individual aircraft, e.g. in some cases the width of the rear fairing strip may be as little as .5" in which case a single row of securing rivets will be sufficient. In other cases it will be found that to obtain correct fairing a gauge of material greater than that called for on the drawing is necessary.

1. Fair off fore and aft of the rear gun bay door fastener with two pieces of light alloy sheet of suitable gauge.
2. Fair off countersunk head of screws with filler and finish to match existing colour scheme.
3. When fitting doors to aircraft, ensure that the nuts on the inside of the doors do not foul any of the equipment in the cannon bay.

NOTE: The attaching mushroom headed screws and snap headed rivets must be spaced so that they are not immediately forward and in line with the fuel vent pipe

Two seater aircraft.

1. Fair off fore and aft of the rear gun bay door fastener using two strips of feathered plywood, 2" wide, glued and screwed/bradded to the gun bay door.
2. Finish to match existing colour scheme. It is not considered necessary to cover these fairings with fabric.

E) Record on appropriate forms.

F) Nil.

G) When the vent relief valve, introduced on Mod. Vampire 3044, is fitted, This S.T.I. will no longer be applicable, but where it has been carried out the fairing need not be removed.

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Continued.....

SUB HEADING 16. UNDERCARRIAGE.

SUB HEADING 18. WING ASSEMBLY.

MAIN UNDERCARRIAGE DOOR - MICRO SWITCH.

On early issue trainer aircraft and possibly other types of Vampires it may be found that insufficient adjustment is available for the setting of the undercarriage door micro switches.

The attached drawing ROOD342 issue 1, details the procedure for improving the degree of adjustment by the fitting of a different bracket.

It is possible this will be covered by a future Modification but at present no details of such a Modification are available.

.....

4EA. NUTS  
 HEAD SCREWS  
 NUTS & WASHERS  
 SHOWN TRUE

SECTION ON A-A

2 EA. ALUMINUM  
 RIVETS ON  
 INSIDE OF DOOR  
 SHOWN TRUE

LOSSING PLATES FEATHERED  
 AS SHOWN ABOVE MATERIAL  
 TO DTD. SID.

NOTES: ALL DIMENSIONS ARE  
 APPROXIMATE

REPAIR TO EXISTING SUBCANNON  
 BY DODG FASTENING (M/S) 10

VAMPIRE

THE DE HAVILLAND AIRCRAFT CO. LTD.  
 HARTFORD, HERTS.



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TECHNICAL NEWS SHEET

SERIES V

No 352



DATE 11.11.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 8, GENERAL.

TRAINER AIRCRAFT - LOADING AND C.G. DATA.

Pending the issue of Section 2, Chapter 3 of the Vampire Civil Maintenance Handbook, the attached Loading and C.G. Data is issued for the guidance of operators.

You are asked to note that amendments to the data chart will take the form of re-issues of individual sheets as indicated against the sheet issue number.

Future amendments will be issued on future Technical News Sheets.

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TECHNICAL NEWS SHEET

SERIES V No 353



DATE 11.11.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 7, FUSELAGE ASSEMBLY.

TRAINER AIRCRAFT - HINGED NOSE.

On certain early aircraft it may be found that the hinged nose is rather stiff to operate which may result in damage to the nose skin if excessive force is used to free it.

The attached drawing R.15.F.101 details the work involved in improving the fit of the nose and the operation of the nose catch.

\*\*\*\*\*

SUB HEADING 16, UNDERCARRIAGE.

- A) Special Technical Instruction/Vampire/66.  
Possibility of incorrect type main wheel inner tubes being fitted to Vampire Aircraft with Mod. Vampire 842 embodied.
- B) All Vampire aircraft with Mod.842 (improved brakes) embodied.
- C) It has been found that relevant Air Publications specify type FC.9 Stores Ref. 27A/2255 for the main wheel inner tubes. Whilst this is correct for aircraft pre Mod. 842, for aircraft with Mod. 842 embodied inner tube type FC.7 Stores Ref. 27A/2786 should be used.
- D) Not later than the next Intermediate Servicing, aircraft with Mod. Vampire 842 embodied are to be checked to ensure that the correct type inner tubes are fitted.
- E) Record on appropriate form.
- F) Nil.
- G) All relevant Air Publications will be amended in due course.



METAL NIP

0.005 MINIMUM SURFACE FINISH ROUND NOSE

THICKNESS OF WOOD PART TO

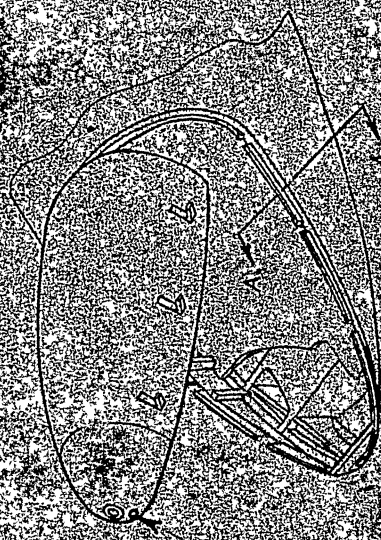
BE TRIMMED BACK TO THAT

ABOVE AIRFRAME FITS

OBTAINED WHEN PARTS

ARE MATED

TYPICAL SECTION ON AA



IN ORDER TO IMPROVE THE OPERATION OF THE FRONT

CASTER, FOLLOW THIS INSTRUCTIONS TO BE REMOVED FROM THE

CAP AND THE 3/8" DIA HOLES IN THE FITTING END

ISFS 487 IS TO BE ENLARGED TO 1/2" DIA

REPLACE ASSY IN NOSE CAB

DIOS 18513 & 18514

REFERS

THE FOLLOWING IS TO BE ADDED TO THE INSTRUCTIONS STENCILED

ON EACH SIDE OF NOSE

AND CHECK LATCH BY HAND PRESSURE

R15F101

DATE

REPAIR TO:

WORTH

THE DE HAVILLAND AIRCRAFT CO. LTD.



IMPROVEMENT TO HINGED NOSE

VAMPRETHINKER

HATHED HERTS



14D  
DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
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TECHNICAL NEWS SHEET

SERIES V No 354



DATE 17.11.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 7, FUSELAGE ASSEMBLY.

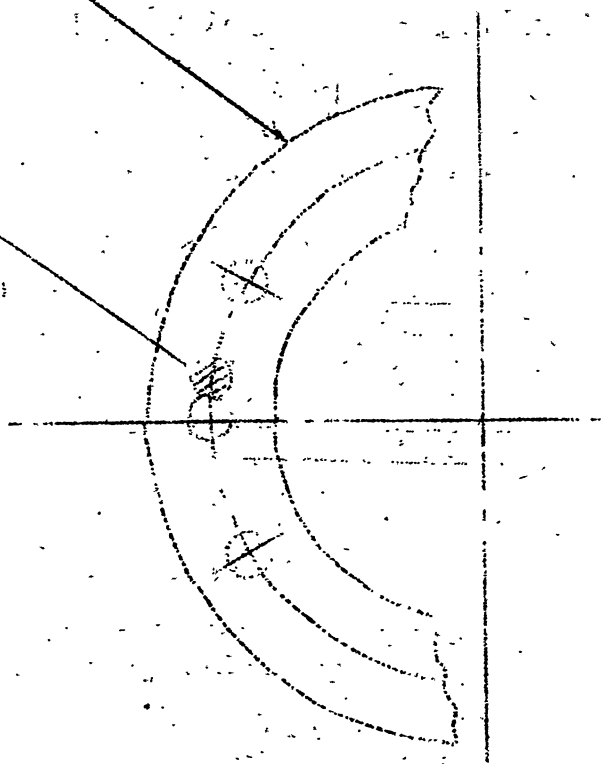
- A) Special Technical Instruction/Vampire/68.  
Re-Rigging of Canopy Winding Handle.
  - B) Vampire Mks.1, 3, 5, and 9. Sea Vampire Mks. 20 and 21.
  - C) Cases have occurred where the canopy has opened in flight.
  - D) At the next Primary Servicing the following action is to be carried out in order to provide a safeguard against the canopy opening in flight.
    - (1) Wind the handle hard forward (do not lock the pin into the hole) and then release to find its own position.
    - (2) Rig the stop plates to give a one dia. clearance between the pin and hole (refer to the attached drawing in conjunction with (AP.4099c Vol.1, Sect.5, Fig.7 for Mk.3) using the vernier adjustment.
    - (3) With the canopy locked in its newly rigged position the clearance between the windscreen and the front edge of the canopy is not to exceed .3" with a pressure of 3 p.s.i. in the cockpit.
- NOTE: This S.T.I. should be carried out in conjunction with SI/Vampire/27.
- E) Record on appropriate Form.
  - F) Nil.
  - G) It is proposed to issue mod. action under Vampire Mod. 3211.C/3. which, when embodied, will cancel this S.T.I.

.....

See Over/.

STOP PLATE

FIN  
(ONE DIA  
CLEARANCE)



SCRAP VIEW SHOWING POSITION OF FIN

RELATIVE TO STOP PLATE.

REFER TO PARA D2 OF THE TEXT.

RE-RIGGING OF CANDY WINDING HANDLE - 17/VAPAC/6/8



# DE HAVILLAND SERVICE

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## TECHNICAL NEWS SHEET

SERIES V

No 355



DATE 20.11.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION. SUB HEADING 12, FUEL SYSTEM.

Further to Technical News Sheet V.351, dated 6.11.52., S.T.I/Vampire/58 should read S.T.I/Vampire/58, 58A. Herewith S.T.I/Vampire/58B, superseding S.T.I/Vampire/58/58A.

- A) Special Technical Instruction/Vampire/58B.  
Superseding and Cancelling Special Technical Instruction/Vampire/58, 58A)  
Gun Bay Door - Quick Release Assemblies - Interference to Airflow  
into Fuel Venting System.
- B) Vampire, all marks, fitted with Venom type gun bay doors, introduced on Mod. Vampire 791.
- C) Cases have occurred of incorrect fuel gauge readings due to partial screening of the external fuel vent pipe by the starboard gun bay door quick release assemblies, which stand proud of the gun doors by approx. .065".
- D) As soon as convenient and not later than the next Primary Star Servicing, the following action is to be taken.

#### Single Seater Aircraft

Drg. issued with STI/Vampire/58A, which is to be retained and attached to this STI and renumbered STI/Vampire/58B, is to be regarded as a guide only and may be altered to suit individual aircraft, e.g. in some cases the width of the rear fairing strip may be as little as .5" in which case a single row of securing rivets will be sufficient. In other cases it will be found that to obtain correct fairing a gauge of material greater than that called for on the drawing is necessary.

1. Fair off fore and aft of the rear gun bay door fastener with two pieces of light alloy sheet of suitable gauge.
2. Fair off countersunk head of screws with filler and finish to match existing colour scheme.

Continued.....

3. When fitting doors to aircraft, ensure that the nuts on the inside of the doors do not foul any of the equipment in the cannon bay.

NOTE The attaching mushroom headed screws and snap headed rivets must be spaced so that they are not immediately forward and in line with the fuel vent pipe.

Two Seater Aircraft

1. Fair off fore and aft of the rear gun bay door fastener using two strips of feathered plywood, 2" wide, glued and screwed/bradded to the gun bay door.
  2. Finish to match existing colour scheme. It is not considered necessary to cover these fairings with facric.
- E) Record on appropriate forms.
- F) Nil.
- G) When the vent relief valve, introduced on Mod. Vampire 3044, is fitted, this S.T.I. will no longer be applicable, but where it has been carried out the fairing need not be removed.

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SUB HEADING 23. INSTRUMENTS.

Servicing Instruction/Instruments/3.

You are advised that the above instruction which was issued on T.N.S. V.348, dated 24.10.52 is cancelled. The authority for this is M.O.S. R.D.A. (defects) signal 615/27 dated 27.10.52.

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SUB HEADING 1. ARMAMENT.

Location Dimensions of Gunsight,  
Camera, and Cannons.

Pending the issue of details of the location dimensions of the above items in the Handbook the following figures are given :-

Continued.....

The centre line of the camera is 20" above the centre line of the cannons at the front mounting and the CL of the Gun sight is 31.46" above the CL of the camera.

The Port Gunsight CL is 10" to Port of the CL of the aircraft and the Starboard 11" to Starboard of the aircraft CL.

The inboard cannons are each  $7\frac{1}{2}$ " outboard of the aircraft CL at the front cannon mountings.

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SUB HEADING 1. ARMAMENT.

SUB HEADING 7. FUSELAGE ASSEMBLY.

Special Technical Instruction/Vampire/62A, Venom/9A.  
(Amending Special Technical Instruction/Vampire 63, Venom/9.)  
Damage to Blast Tubes and Spoilers when Cannons are Fired.

Further to Technical News Sheet V.344, dated 7.10.52., the following amendments are to be made :-

Para.(A) Add after the word "Spoilers" "(where fitted)"

Para.(D) Delete existing Para. (D) & substitute new para.(D)

"(D) As soon as convenient before the next fitting exercise, and not later than the next Minor Servicing, check the clearance between the shell trajectory and the blast tubes as follows :-

- (1) Set the eccentrics to their extreme adjustment and check the clearance with the mandrel and plug, as described in (2) below, in all positions around the periphery of each blast tube.
- (2) Referring to the attached drawing (ROOS13 Issue 2) insert the mandrel into the cannon barrel and ensure that the sliding plug will move freely past the spoiler (where fitted) and into the forward end of the blast tube. Note When viewed from the nose of the aircraft, the critical area is approx. between 11 and 3 o'clock on the starboard blast tubes and the corresponding position on the port tubes.

Drawing R.OOS13 - Amend as follows :-

1. Raise the issue of the drawing to read "ROOS13 Issue 2".

Continued.....

- Alter the diameter of the sliding plug to read :-

1.320  $\begin{matrix} + \\ - \end{matrix}$   $\begin{matrix} .000 \\ .010 \end{matrix}$  dia.

- Amend the note on the drawing "Sliding plug to enter .....  
in mid position" to read :- "sliding plug to enter .....  
in their extreme positions".

# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V \_\_\_\_\_ No. 356



DATE 25.11.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 16, UNDERCARRIAGE.

- A) Special Technical Instruction/Vampire/67 Venom/13.  
Main Undercarriage Leg - Incorrect Machining of Axle.
- B) Vampire and Sea Vampire. All Mks.  
Venom and Sea Venom. All Mks.  
and all Axles Stores Ref. No. 27M/8871, Part No. AIR 39320, held as spares.
- C) Case reported of an axle fracturing at the attachment section of the compression leg, due to a weakness caused by excessive cutting during machining of the recess to take the bolt heads.
- D) 1. At earliest opportunity and not later than next Intermediate Servicing the following action is to be taken.
- (i) Jack up aircraft until Legs are fully extended or alternatively without jacking up, remove Strut Fairings.
  - (ii) With dividers, or similar measuring device, check from centre of torque link pin on rear lug to machines radius with dividers set at maximum dimension, namely 0.880" (approx.  $\frac{7}{8}$ ").
  - (iii) To check forward lug of axle, measure from centre of bushed hole to radius at similar maximum dimension of 0.880".
  - (iv) The above checks are taken from back of axle, i.e., opposite to wheel.
  - (v) Sketch attached refers.
- D) 2. Examine all Axles before issue, in accordance with Para (D)1.
- E) Record on appropriate Form.
- F) Report all cases of defect found to R.D.A. Defects, Ministry of Supply.
- G) Actions taken at Contractors to prevent a repetition of this defect.

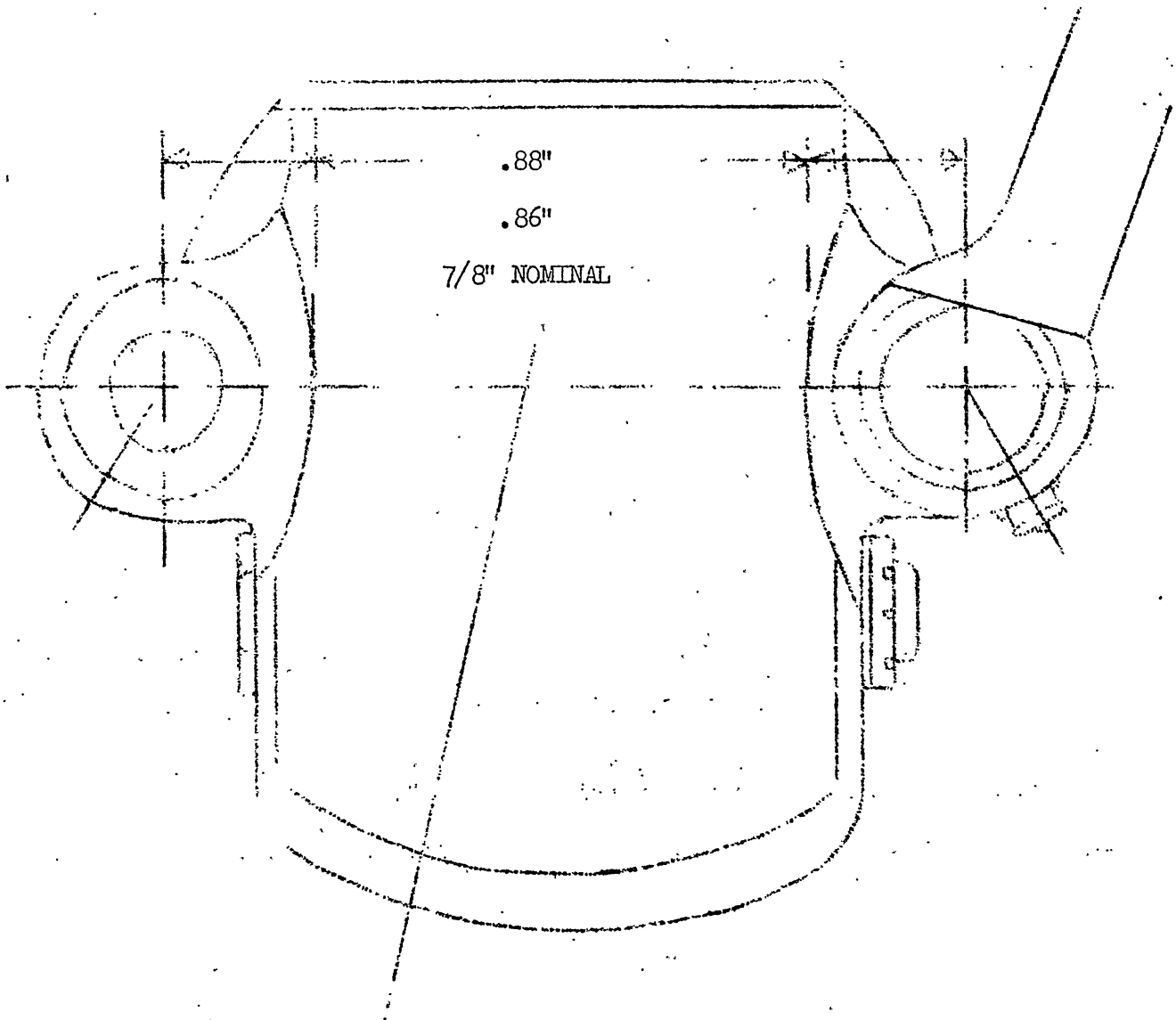
.....

Handwritten mark or signature.

STI/VAMPIRE/67.  
STI/VENOM/13.

VAMPIRE/VENOM MAIN STRUT

CHECK THESE DIMENSIONS



AXLES WITH THIS DIMENSION IN EXCESS  
OF 5/16\" TO BE RETURNED TO MANUFACTURER -  
LOCKHEED - LEAMINGTON.

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DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

TECHNICAL NEWS SHEET

SERIES V No 357



DATE 26.11.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 11, ELECTRICAL INSTALLATION.

Trainer Aircraft

Chafing of Electrical Cables in Cannon Bay.

A recent investigation into an electrical fault has shown that the electrical cable G.A.2 +, which runs along the cannon bay starboard side, had chafed against the rib close to the hinge fitting and had earthed on to the bonding strips which also runs along the starboard side. Pending issue of official instructions this should be watched.

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SUB HEADING 11, ELECTRICAL INSTALLATION.

Booster Pump Switch - Inadvertent Operation.

As a result of complaints of the inadvertent operation of the Booster Pump Switch when the pilot operates the isolating switch with a gloved hand Modification Vampire 3240 has been raised which introduces a guard Reference Number 5C/3860 to the switch and which may be fitted using the existing screws.

This applies to Marks 10, 11, 54 and 55 aircraft.

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Continued.....

SUB HEADING 7. FUSELAGE ASSEMBLY.

Normalair Valve Filter

Further to Technical News Sheet V.320 dated 6.5.52. operators are again reminded that it is very important to keep the wide mesh filter of the above valve clean and clear of obstructions. Apart from the points mentioned in Technical News Sheet V.320 it has been brought to our notice by the valve manufacturers that serious damage can result to the valve mechanism if subject to the surges of pressure which result from partial blockage of the filter.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
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## TECHNICAL NEWS SHEET

SERIES V No. 358



DATE 28.11.52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 7. FUSELAGE ASSEMBLY.

WINDSCREEN DE-ICER PUMP, ROTAX M. 2601. REF.  
27F/2612 IN LIEU OF PUMP REF. 27F/1870 -  
INTRODUCTION.  
MKS. F 1 & 3 FB 5 & 9.

Class C/3 on replacement.

Mod. No. Vampire 883.

This modification introduces an improved and lighter windscreen de-icer pump in lieu of the existing Rotax pump.

SUB HEADING 14. SERVICES, AIRCRAFT.

TO REMOVE GLAND PACKING FROM AIR CONDITIONING  
CONTROL VALVE.  
MK. FB9, T11.

Class C/3 N.C.P.

Mod. No. Vampire 3200.

This modification has been necessitated by the asbestos gland packing causing a slackening of the gland nut in the air conditioning control valve, thus restricting the range of movement of the pilots control, and makes provision for the removal of this gland packing from the valve.

SUB HEADING 13. RADIO.

TO REPOSITION V.H.F. CONTROLLERS.  
MK. T. 11.

Class C/3.

Mod. No. Vampire 3174.

This modification has been necessitated by a Ministry of Supply request and makes provision for the repositioning of the V.H.F. controllers.

Continued.....

SUB HEADING 6, ENGINE INSTALLATION.TO INTRODUCE ALTERATIONS TO ENGINE INSTALLATION TO  
ACCOMMODATE SINGLE PUMP SYSTEM AT ENGINE.MK.T.11.Class B/2 on fitment of engine embodying  
Goblin Mod. 700.Mod. No. Vampire 3192.

This modification has been necessitated by the fact that the Engine Company are supplying Goblin 3 engines fitted with one fuel pump instead of two (Goblin Mod. 700) and makes provision for the necessary airframe alterations to utilize this single pump system.

SUB HEADING 6, ENGINE INSTALLATION.SUB HEADING 14, SERVICES AIRCRAFT.TO REPOSITION THE FIRE EXTINGUISHER SPRAY RING  
FROM IMPELLER CASING TO ACCESSORY COMPARTMENT  
(FOR SINGLE AND TWIN FUEL PUMP ENGINES).MK.T.11.Class B/2.Mod. No. Vampire 3222.

This modification has been necessitated because the existing spray ring does not give sufficient cover to the accessory compartment and makes provision for the fitment of a new spray ring in this compartment to replace the existing one on the impeller casing.

SUB HEADING 23, INSTRUMENTS. ---SUB HEADING 14, SERVICES AIRCRAFT.UNSCREENED WARNING LIGHT IN FIRE WARNING SYSTEM  
INTRODUCTION.MK. NF.10.Class C/3 N.C.P.Mod. No. Vampire 3195.

This modification has been necessitated by a Ministry of Supply request and makes provision for the fitment of a new fire warning light without a night screen and with the letter F painted on the glass.

SUB HEADING 4, CONTROLS, FLYING.TO MODIFY CONNECTING ROD ASSEMBLIES AT ENGINE  
CONTROL BOX, PART A. RETROSPECTIVE VERSION,  
PART B. PRODUCTION VERSION.MK.T.11.Class C/3 N.C.P. on replacement.A.M. Mod. No. Vampire 3208Part A.

Continued.....

This modification introduces improved end attachments on the undercarriage flap and dive brake control rod assemblies at the engine control box, to obviate any possibility of a rod working off the outer race of the self aligning bearing.

SUB HEADING 1, ARMAMENT.

SUB HEADING 7, FUSELAGE ASSEMBLY.

RE-DESIGNED CANNON HEATER PIPE - INTRODUCTION.

MK. FB. 5, FB. 7.

Class-C/3.

Mod. No. Vampire 3187.

This modification has been necessitated by the requirement for a cannon heater pipe that will clear the Pacitor unit on the fuselage fuel tank, whilst maintaining at the same time the necessary clearance with the belt feed mechanism during re-arming operations.

NOTE: This modification is applicable only on aircraft embodying Vampire Mod. 568.

SUB HEADING 6, ENGINE INSTALLATION.

SUB HEADING 7, FUSELAGE ASSEMBLY.

SOLID SHIMS IN LIEU OF LAMINATED SHIMS AT ENGINE

MOUNTINGS - INTRODUCTION.

MK. Fl. 3, FB. 5, 9, NF. 10, T. 11.

Class C/4.

Mod. No. Vampire 3165.

This modification has been necessitated by reports that the laminated shims at the engine mountings have disintegrated, allowing the eyebolts to become loose, and provision is made therefore for the fitment of solid shims in lieu.

SUB HEADING 6, ENGINE INSTALLATION.

SUB HEADING 7, FUSELAGE ASSEMBLY.

SOLID SHIMS IN LIEU OF LAMINATED SHIMS AT ENGINE

MOUNTING - INTRODUCTION.

MKS. F. 20 & 21.

Class C/3 on removal of engine.

A.M. Mod. No. Sea Vampire 3165.

This modification has been necessitated by reports that the laminated shims at the engine mountings have disintegrated, allowing the eyebolts to become loose, and provision is therefore made for the fitment of solid shims in lieu.

This modification is satisfied by and supersedes the introduction of solid shims under SI/Vampire/29.

Continued....

SUB HEADING 14, SERVICES, AIRCRAFT.TO INTRODUCE STOWAGE FOR PILOTS NOTES.MK. T.11.Class C/3.Mod. No. Vampire 3175.

The modification has been necessitated by a Ministry of Supply request and makes provision for stowage of the pilots notes.

SUB HEADING 15, TAIL UNIT ASSEMBLY.TO STRENGTHEN ELEVATOR TRIM TAB.MKS. NF.10, T.11.Class B/2 N.C.P.Mod. No. Vampire 3210.

This modification has been necessitated by reports that the rivets at the elevator tab leading edge have worked loose, and makes provision for the fitment of additional rivets to increase the torsional strength.

SUB HEADING 12, FUEL SYSTEM.TO RE-DESIGN PIPE RUN BETWEEN TANKS ANDBULKHEAD.MKS. F3, FB.5, 9, NF.10, T.11.Class D/4 for F.3, FB5, NF.10.Mod. No. Vampire 3059C/4 for FB.9, T.11.

This modification has been necessitated by reports of difficulty in fitting the fuel pipes between No.1 wing tanks and No.4 fireproof bulkhead and makes provision for the fitment of a re-designed pipe run.

SUB HEADING 7, FUSELAGE ASSEMBLY.WINDSCREEN DE-ICER PUMP, ROTAX M2601, REF.27F/2612 IN LIEU OF PUMP REF. 27F/1870.INTRODUCTION.MKS. F20 & 21.Class C/3 at wastage rates.Mod. No. Sea Vampire 1049.

This modification introduces an improved and lighter windscreen de-icer pump in lieu of the existing Rotax Pump.

Continued.....

SUB HEADING 11, ELECTRICAL INSTALLATION.

TO REPLACE CABLES USED FOR FIRE WARNING AND EXTINGUISHER CIRCUITS BY PRENMET AND REPLACE CEL AND VIN CABLES ENDING IN ENGINE BAYS AND TAIL COME BY PREN.

MKS. F. 20, F. 21.

Class B/2.

Mod. No. Sea Vampire 1044  
Amendment No.2.

Further to Technical News Sheets V.239 and V.285, herewith Amendment No.2.

SUB HEADING 16, UNDERCARRIAGE.

SPECIAL TAB WASHER ON NOSEWHEEL JACK END FITTING AND IMPROVED ACCESS TO JACK BOLT - INTRODUCTION.

NF.10, T.11.

Class C/3 on adjustment of jack.

Mod. No. Vampire 3149 Amd.1.

Further to Technical News Sheet V.350, herewith Amendment No.1.

SUB HEADING 11, ELECTRIC INSTALLATION.

TO INTRODUCE ROTAX TIME DELAY SWITCH TYPE D.8403 (REF. 5C/4434) IN LIEU OF ROTAX TYPE D.4903, REF.

5C/3183.

MKS. F1, F3, FB5, FB.9.

Class C/3 after old type spares have been consumed.

Mod. No. Vampire 3078 Amd.No.1.

Further to Technical News Sheet V.335, herewith Amendment No.1.

SUB HEADING 11, ELECTRICAL INSTALLATION

TO INTRODUCE ROTAX TIME DELAY SWITCH TYPE D.8403 (REF.5C/4434) IN LIEU OF ROTAX TYPE D.4903 REF.

5C/3183.

MKS. NF.10, T.11.

Class C/3 after old type spares have been consumed.

Mod. No. Vampire 3082 Amd.No.1.

Further to Technical News Sheet V.342, herewith Amendment No.1.

Continued....

SUB HEADING 11. ELECTRICAL INSTALLATION.

TO REPLACE CABLES USED FOR FIRE WARNING AND EXTINGUISHER CIRCUITS BY PRENMET AND REPLACE CEL AND VIN CABLES ENDING IN ENGINE BAYS AND TAIL CONE BY PREN.

MK. F1.

Class B/2.

Mod. No. Vampire 957 Amd.2.

Further to Technical News Sheet V.239, and V.280, herewith Amd.No.2.

SUB HEADING 11. ELECTRICAL INSTALLATION.

TO REPLACE CABLES USED FOR FIRE WARNING AND EXTINGUISHER CIRCUITS BY PRENMET AND REPLACE CEL AND VIN CABLES ENDING IN ENGINE BAYS AND TAIL CONE BY PREN.

MK. F.3.

Class B/2.

Mod. No. Vampire 958 Amd.2.

Further to Technical News Sheets V.239 and V.280, herewith Amd.No.2.

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D E H A V I L L A N D S E R V I C E

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

TECHNICAL NEWS SHEET

SERIES V. No. 359.



DATE 4/12/52.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 6 - ENGINE INSTALLATION.  
SUB HEADING 12 - FUEL SYSTEM.

- A) SERVICING INSTRUCTION/VAMPIRE.  
Rear fuel feed pipe from No. 1. port fuel tank to No. 3. Bulkhead fouling and causing distortion of No. 6. engine burner feed pipe.
- B) Vampire Mk. 9.
- C) Cases have been reported that due to the fitting of an incorrect fuel feed pipe from No. 1. port fuel tank to No. 3 Bulkhead, No. 6. Burner pipe is fouled and distorted.
- D) 1. At the first available opportunity and not later than the next primary inspection, identify which fuel feed pipe is fitted. The correct pipe is either P003405 or P003611 introduced by Mod. Vamp. 955. The incorrect pipe is P003611.
2. If P003611 is fitted, demand replacements of P003405.
3. If No. 6 Burner pipe is chafed or damaged by distortion, pending receipt of the correct fuel feed pipe, remove No. 6 Burner Pipe Part No. 75053 and fit a new No. 15 Burner Pipe Part No. 75055 in its place, taking the Burner Pipe around the outside of the fuel feed pipe.
4. Protect the adjacent portions of the fuel feed pipe and Burner Pipe against possible chafing, with suitable binding.
5. On fitting the correct fuel feed pipe replace the correct Burner Pipe in No. 6. position.
- E) Record on appropriate form.
- F) Nil.
- G) Fitting of Pipe No. P003405 or Mod. Vamp. 955 cancels this S.I.

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SUB HEADING 7, FUSELAGE ASSEMBLY.

Mk. 11 and 55 - CANOPY JETTISON CONTROL - MOD VAMPIRE 3164.

After testing or inadvertent operation of the canopy hatch jettison control it is essential to ensure that the selector valve is returned to the "off" position before wirelocking the operating handle to the instrument panel using soft-iron locking wire (26 S.W.G.)

This instruction will be the subject of amendment action to the Trainer A.P. and Civil Type Handbook.

SUB HEADING 18, WING ASSEMBLY.  
SUB HEADING 24, REPAIR SCHEMES.

REPAIRS TO RIB NO.2 - MOD. 698

Some confusion appears to exist in regard to the repair after buckling of Rib No.2. On all aircraft other than Mark 1 and Mark 3 pre-mod. Vampire 391 it is sufficient to incorporate Mod. 698 only to rectify the buckling.

Accordingly Repair drawings ROOD230 and ROOD231 also ROOD290 and ROOD291 are now cancelled and superseded by a later issue of Mod. Vampire 698. Repair Drawing ROOD294 Issue 2, covers the above Modification Amendment.

SUB HEADING 7, FUSELAGE ASSEMBLY.

- A) Serviceing Instruction/Vampire.
- B) Vampire Marks 1, 3, 5, 9 and 10. Sea Vampire 20 and 21.

Continued.....



- C) Cases have occurred on Mk. 10 aircraft of chafing of hydraulic pipes by the control cables above and/or below the ammunition tank floor. The pipes in question are those which run from the hydraulic reservoir through the floor outboard of the port ammunition tank.

Note. Other mark Vampires have a slightly different layout and run of pipes from that used in the Mk 10, but the possibility of a fault occurring is still present. See appropriate Vol. 1 of A.P.'s 4099 and 4269 for details of hydraulic systems.

- D) 1. At the next and subsequent servicing check that there is adequate clearance between the elevator and rudder controls and the hydraulic pipes which pass through the floor on the outboard side of the port ammunition tank.

2. Should cases be found of clearance being less than  $\frac{1}{8}$ " , the pipes should be re-set away from the control cables to ensure that chafing cannot take place.

- E) Record on appropriate forms.
- F) Nil.
- G) No modification is contemplated.

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# D E H A V I L L A N D S E R V I C E

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V No. 360



DATE 8.12.52

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME GENERAL CIRCULATION  
SUB HEADING 11 - ELECTRICAL INSTALLATION

- (A) Special Technical Instruction/Electrical/60.  
Switches Magnetic Relay, Type "J" Stores Ref 5C/1937  
Check for wear of nut securing contact plate on armature spindle.
- (B) Switches, Magnetic Relay, Type "J", Ref 5C/1937 fitted to aircraft.
- (C) Cases have been reported of vibration causing the contact plate to wear away the brass nut which secures the plate on the armature spindle, to the extent that the plate lifts under the action of the spring and bridges the contacts. The relay thus becomes "made" in the de-energised condition. This instruction requires the nut to be checked for wear and the rejection of relays where it is present.
- (D) 1. At next Intermediate Servicing remove the relay from aircraft.  
2. Remove the base plate which is secured by three countersunk screws.  
3. Remove the various sealing gaskets etc., exposed after removal of the base plate.  
4. By tapping on the top of the relay (terminal assembly), withdraw the internal mechanism from its case.  
5. Locate the brass nut on top of the contact plate and inspect as closely as possible for signs of wear of the nut and/or contact plate. As wear in its early stages will not be very apparent, check the gap between the top of the contact plate and the contacts, taking care not to rock the plate on the spindle. This gap should not be less than 1/8 inch. If wear is obvious, or if the gap is less than 1/8 inch. reject the relay as unserviceable.  
6. Before assembling the relay in its case, waterproof with P.I.C. NO.2 as follow:-

Continued.

- (a) using strips of P.I.C. approximately 3 inch long x 1/16 inch diam. cover the terminal and surface, following the shape of the moulded bosses which supports the large terminals, out to the edge and along the sides of the small terminal shroudings, i.e. follow the shape of the aperture at the top of the case body.
- (b) fill up the coil wire side channels, pressing the P.I.C. firmly around the wires. Clean off excess P.I.C. flush with edges of channels.
7. Assemble relay in its case and apply pressure to squeeze out the P.I.C. between the case and moulded top.
8. Assemble paper, cork and rubber washers and screw on base plate tightly and evenly.
8. Remove excess P.I.C. squeezed out between top and case adjacent to terminals.
10. Test functioning of relay in accordance with AP. 4343B, Vol. 1, Sect. 22, Chap. 6 Paras. 5, 6, 7 and 8.
11. Mark the relay as follows: - "S. T. I. /Electrical/60".
- (E) Record on appropriate forms.
- (F) Report cases of wear found as a result of this S. T. I. on Form A21 (R.N.) or 1022C (R.A.F.).
- (G) A modification to eliminate wear is under consideration.

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SUB HEADING 8, GENERAL.

Vampire Aircraft - Refuelling Precautions

An incident has occurred where fuel entered the cockpit of a Vampire aircraft on starting the engine following refuelling with a high speed refueller. The fuel was forced along the fuel transfer air pressure pipes from the wing drop tanks to the impellor casing of the engine, remained there until the engine was started, then entered the cockpit pressurising system.

Continued.

This is caused by an excessive build up of pressure in the wing drop tank when using certain refuelling nozzles, which, when fully entered into the filler orifice, do not permit adequate venting.

Units are to be warned regarding this possibility and instructed to ensure that adequate venting past the refuelling nozzle is permitted, particularly when using high speed refuellers.

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SUB HEADING 16 - UNDERCARRIAGE.

Special Technical Instruction/Vampire/67 - Correction

Further to Technical News Sheet V.356 dated 25.11.52., refer to sketch on reverse of sheet and alter note at bottom to read:-

"Axles.....in excess of 5/16" to be returned....."

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SUB HEADING 7 - FUSELAGE ASSEMBLY

Trainer Aircraft - Sliding panel withdrawal track.

The attention of Pilots and ground crew should be drawn to the need for avoiding using the track plate for the pilots direct vision as a hand or foot hold when entering or leaving the cockpit.

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SUB HEADING 7 - FUSELAGE ASSEMBLY

Trainer Aircraft - Nose Cap fasteners

Cases have been reported of bending and fracturing of the nose cap fastener eyebolts which are considered due to ground crews not suitably positioning the nose cap fastener before lowering the nose cap into its closed position. The attention of all concerned should be down to this point.

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D E H A V I L L A N D S E R V I C E

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
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TECHNICAL NEWS SHEET

SERIES V.

NO 361



DATE 11.12.52

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRÉCEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION

SUB HEADING 7, FUSELAGE ASSEMBLY

SUB HEADING 12, FUEL SYSTEM.

- A. Special Technical Instruction/Vampire/Fuel entering cockpit heater gallery.
- B. Vampire Mks.10 and 11.
- C. Cases have been reported of fuel being emitted from the cockpit heater gallery. The fuel is considered to have entered the system from the wing drop tank pressurising lines, with which it has a common connection.
- D. Wing drop tanks should not be used until Vampire Mod. 3253, which introduces a non-return valve in the drop tank pressurising lines, is embodied.
- E. Record on appropriate form.
- F. Nil.
- G. Embodiment of Vampire Mod. 3253 cancels this S.T.I.

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SUB HEADING 15, TAIL ASSEMBLY.

- A. Special Technical Instruction/Vampire/Aileron Mass Balance Tubes non-standard.
- B. Vampire Mks 5,9,10,11. Sea Vampire 20 and 21, using ailerons between Serial Nos. FL/DH/1649 to 2593, port inclusive and FL/DH/1546 to 2560 inclusive starboard.

Continued.....

- C. Cases have been reported of rough wooden plug being inserted in the lead at the ends of the aileron mass balance tubes. These plugs have been found to work out of the tubes and severely restrict the aileron movement.
- D. At the next Primary Servicing, the following action is to be taken.
1. Remove the ailerons from the aircraft and inspect the ends (excluding the outboard end of outboard tube) of the balance tubes for signs of wooden plugs. These wooden plugs may have a thin film of lead wiped over them which renders them invisible to a casual examination, it is thus necessary to run a 1/16" or nearest dia. drill diagonally in and across the lead at the ends of the tubes and the presence of wood will be indicated by wooden shavings in the swarf.
  2. Should wooden plugs be found, they must be extracted, if possible without disturbing any lead. If lead is removed, however, the aileron must be rebalanced in accordance with A.P.4099, Vol.II Part III, Figs, 6/40-41.
  3. Ailerons held in Stores within the above Serial numbers should also be inspected as above.
- E. Record on appropriate forms.
- F. Serial numbers of aileron with wood plugs fitted to be reported to R.D.A. Defects.
- G. No modification action is contemplated, but a stricter control of the weights is to be introduced on production.
- .....

SUB HEADING 13, RADIO.

- A. Special Technical Instruction/Radio (Airborne Assembly)/33.  
Transmitter-Receiver TR.1520, TR.1920, TR.1934, TR.1935, TR.1936  
Risk of fire due to proximity of Resistors 5R7 and 5R8 to paxolin  
mounting panel.

Continued.....



- B. Transmitter-Receiver TR.1520, TR.1930, TR.1934, TR.1935, TR.1936 in use or held as spares.
- C. A fire in a TR.1934 has been reported due to the burning of the paxolin panel carrying Resistors 5R7 and 5R8. These resistors were observed to be dressed in contact with this paxolin panel. Investigations reveal that scorching of this panel and overheating of the two resistors have also been found in both four and ten Channel R/T equipment.
- D. As soon as possible and not later than the next Minor Inspection of installed equipment, or before fitting new or spare equipment; ensure that:-
- (a) That Resistor 5R7 and 5R8 (ref 10W/16777, Type 5294) are dressed as far from their paxolin mounting panel as possible. They must not, under any circumstances, be permitted to touch the panel.
  - (b) That Resistors 5R7 and 5R8, fitted or held as spares, are of the correct dimensions i.e.,  $2\frac{1}{8}$ " long by  $5/16$ " diameter. Spares issued under ref. No.10W/16777 and measuring  $2\frac{1}{4}$ " long by  $\frac{1}{2}$ " diam. have been reported; these are too large to be fitted to sets with the older issue of Regulator Type 40 which has larger diameter fins and will foul the paxolin panel.
- E. Record on Mod Labels and on Forms 3592.
- F. Forms 1022G endorsed STI/Radio (A.A.)/33 are to be submitted:-
- a) If Resistances 5R7 and 5R8 are found to be dressed in contact with the paxolin panel, quoting whether or not signs of overheating are observed on either panel or resistances.
  - b) If Resistors 5R7 and 5R8 are clear of the panel but the latter shows signs of scorching, the clearance between resistors and panel is to be quoted.
  - c) If Resistors 5R7 and 5R8 show signs of overheating, other than (a) above.
  - d) If Resistors 5R7 and 5R8 fitted or held as spares, are oversize (See para.D(b) above).

Continued.....

NOTE:)

The vitreous enamel resistors used are rated for a temperature rise of 150°C above ambient temperatures, at full dissipation, with a maximum working temperature of 200°C. With the regulator set correctly and a normal supply at 28 volts, the maximum dissipation of each resistor is approx. 5 watts, which should not affect the paxolin panel unless there is physical contact between them. Where signs of overheating, either of the panel or of the resistors, is observed without physical contact existing between them, the functioning of the Regulator Type 40 should be checked in accordance with A.P. 1186D, Vol. 1 Sec. 2. Chap. 8, and the results noted on the Form 1022G. Where practicable the aircraft supply voltage should also be checked and similarly noted.

G. Consideration will be given to a suitable modification if the Defect Reports received confirm the need.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

No 362



DATE 16.12.52

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING, 7 FUSELAGE ASSEMBLY.

TO RE-RIG AND IMPROVE ENGAGEMENT  
OF CANOPY WINDING HANDLE. MKS  
20 AND 21

Class C/3 N.C.P.

Mod No. Sea Vampire 3211

This modification has been necessitated in the possibility of the canopy opening in flight and makes provision for the introduction of a spacer which pre-loads and therefore strengthens the locking spring in the canopy winding gear box.

SUB HEADING 7 FUSELAGE ASSEMBLY

TO FACILITATE REMOVAL OF INSTRUMENT  
PANEL MK. 11

Class C/3

Mod No. Vampire 3218

This modification has been necessitated by the impossibility of removing the instrument panel to adjust the GGS unit in the event of it sticking in the retracted position. To facilitate removal of the panel in these circumstances the lower attachments are modified to permit removal by taking out 16 screws.

SUB HEADING 7 FUSELAGE ASSEMBLY

TO RE-RIG AND IMPROVE ENGAGEMENT OF  
CANOPY WINDING HANDLE. MKS. F.1, F.3,  
FB. 5, FB. 9.

Class B/2 N.C.P.

Mod No. Vampire 3211

This modification has been necessitated by the possibility of

Continued....

the canopy opening in flight and makes provision for the introduction of a spacer which pre-loads and therefore strengthens the locking spring in canopy winding gear box.

SUB HEADING 7 FUSELAGE ASSEMBLY.

SEALING STRIP AROUND BLAST FAIRING  
CUT OUT - INTRODUCTION. MKS.10  
AND T.MK.11.

Class C/3

Mod No. Vampire 3214.

This modification has been necessitated by reports that the madapolam covering in the region of the blast fairing tends to lift on operation of the guns and makes provision for the introduction of a sealing strip which will also obviate wear on removal of the fairing.

SUB HEADING 7, FUSELAGE ASSEMBLY.  
SUB HEADING 11, ELECTRICAL INSTALLATION

TO INCREASE DIAMETER OF GROUND TEST  
SOCKET HOLE IN FUSELAGE WALL, TO  
TAKE GROUND TEST PLUG SHROUD MK T.11

Class C/3 N.C.P.

Mod No. Vampire 3225.

This modification has been necessitated because the existing ground test socket hole in the fuselage wall, is not large enough to take the ground test plug shroud, and makes provision for the hole to be enlarged to rectify this.

SUB HEADING 7 FUSELAGE ASSEMBLY.

TO BRING CANOPY JETTISON HANDLE  
WITHIN REACH OF PILOT WHEN FULLY  
STRAPPED IN. T.MK. 11

Class B/2

Mod No. Vampire 3164.

This modification has been necessitated by the present unsatisfactory location of the canopy jettison handle on the wheel fairing and makes provision for mounting the handle in a more accessible position on the instrument panel.

Continued

SUB HEADING 7 FUSELAGE ASSEMBLY.  
SUB HEADING 6 ENGINE INSTALLATION

AN ACCESS DOOR IN FIREWALL FOR ELECTRIC  
ENGINE STARTER MOTOR INTRODUCTION

Class C/3 on removal of engines.

Mod No. Vampire 3135  
Issue 2.

This modification has been necessitated by the difficulty experienced by servicing personnel in removing the electric starter motor, and makes provision for all access door in the firewall to facilitate this operation. It also calls for the replacement of two existing bulkhead stiffeners, by new modified stiffeners, and the repositioning of the armament relay panel.

SUB HEADING 6 ENGINE INSTALLATION  
SUB HEADING 14 SERVICES, AIRCRAFT.

TO REPOSITION FIRE EXTINGUISHER SPRAY  
RING FROM IMPELLOR CASING TO ACCESSORY  
COMPARTMENT (FOR SINGLE OR TWIN FUEL  
PUMP ENGINES.) MK. NF.10.

Class B/2

Mod No. Vampire 3157

This modification has been necessitated by the fact that Goblin 3 replacement engine will be fitted with one fuel pump instead of two, and makes provision for the modification of the fire extinguisher spray. (Introduced on Mod 988)

SUB HEADING 1 ARMAMENT  
SUB HEADING 23 INSTRUMENTS

CGS RETRACTION UNIT TYPES 3 MK 3  
IN LIEU OF TYPE 1 MODIFIED-INTRODUCTION  
T. MK. 11

Class A/0.

Mod No. Vampire 3140  
Issue 2.

This modification has been necessitated by a Ministry of Supply request and makes provision for the fitment of a type 3 MK3 CGS retraction

Continued.....

unit in lieu of the present type 1 modified, as fitted to the first 50 production aircraft.

SUB HEADING 14, SERVICES, AIRCRAFT.

MODIFIED CONTROL CAMS IN THE  
REFRIGERATION SYSTEM - INTRODUCTION  
MKS FB. 9. T11

Class C/3. After old type spares are consumed. Mod No. Vampire 3107  
Issue 2

This modification has been necessitated by the fact that, under the present arrangement, difficulty has been experienced in shutting off the hot air supply and makes provision for the introduction of modified control cams.

SUB HEADING 11. ELECTRICAL INSTALLATION

TO INTRODUCE CIRCUIT BREAKER TYPE A  
REF 5C/2560 IN LIEU OF FUSE REF 5C/881  
IN STARTER TIMING CIRCUIT AND TO DELETE  
CIRCUIT BREAKER TYPE A. REF. 5C/2561  
MK T. 11

Class C/3

Mod No. Vampire 3193

This modification has been necessitated due to the overloading and consequent failure of the existing 10 amp fuse during engine starting, and makes provision for the fitment of a new circuit breaker to prevent the cutting out of the booster coil and the subsequent fire hazard.

SUB HEADING 13, RADIO.

EMBODIMENT I CAN CONNECTORS FOR  
A. I. SETS PART A PROVISION FOR -  
INTRODUCTION - MK. N. F. 10.

Class B/2

Mod No. Vampire 3024  
Part A Amd. 1.

Further to Technical News Sheet V. 350 herewith amendment  
No. 1.

Contd.....

SUB HEADING 18 WING ASSEMBLY

TO BLANK OFF HOLES IN REAR POSITION  
OF RIB NO.1. MKS F20, F21

Class B/2

Mod No. Sea Vampire 1052 Amd. No.1

Further to Technical News Sheet No. V. 342 herewith amendment No.1.

SUB HEADING 7 FUSELAGE ASSEMBLY

TO BRING CANOPY JETTISON HANDLE  
WITHIN REACH OF PILOT WHEN FULLY  
STRAPPED IN NF. MK. 10

Class B/2

Mod No. Vampire 3160 Amd. No.1

Further to Technical News Sheet V. 326 herewith amendment No.1

SUB HEADING 11 ELECTRICAL INSTALLATION

AUTOMATIC CHANGE OVER RELAY REF. 5C/4102  
AND TURN AND SLIP INDICATOR MK. 2 REF. 6A/  
2945 IN LIEU OF MK. 1 REF. 6A/2672 - INTRODUCTION

Class B/2

Mod No. Vampire 954 And 1

Further to Technical News Sheet V. 324 herewith amendment No.1

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HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

TECHNICAL NEWS SHEET

SERIES V

No 363



DATE 17.12.52

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.

SUB HEADING 19, GROUND EQUIPMENT

R.D.A. REFERENCE NO.

665/30

Preliminary Warning. Trolley Electrical Servicing Mk.3 Stores refer-  
ence 4F/1799. Grave fire risk by electrical short circuit during Air Craft  
Servicing if Trolley is plugged in and Body permitted to contact metal  
structure of Aircraft Short Circuit caused by Trolley Ignition system  
being earthed at twelve volt centre tapping of accumulators and negative  
of Aircraft external supply socket being earthed to Aircraft structure.  
Pending official modification following remedial action to be applied  
immediately. (A) Disconnect earthing link from centre tapping and transfer  
to battery negative. (B) Remove existing ignition supply lead and replace  
with a lead connected between accumulators centre and ignition.

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SUB HEADING 18, WING ASSEMBLY

- A. Special Technical Instruction/Vampire/  
Cracking of underskin of outer flaps at spot welds.
- B. Vampire all marks, except Sea Vampire.
- C. Cases have occurred where small cracks have developed at the spot  
welds which attach the underskin of the outer flaps to the ribs.  
These cracks are in some cases difficult to see and it may be necessary  
to remove some of the existing finish to enable a thorough inspection  
to be carried out.
- D. At the next .....servicing the following check is to be made:
  - (1) Inspect the outer flaps bottom skin for hair cracks radiating  
fore and aft from the spot welds along the flap ribs. The  
three outboard ribs are the ones most affected.

Continued.....

- (2) Remedial action is to repair to Drg No. ROOD.358.
- (3) Ensure that the flap travel is correct and that, when in the 'UP' position, its trailing edge meets the wing trailing edge simultaneously throughout its span.

E. Record on appropriate form.

F. Nil.

G. Future production flaps will be manufactured using solid rivets in place of spot welds.

Note: Repair Drawing ROOD 358 supersedes ROOD 344, but, if a satisfactory repair has already been made to ROOD,344, it need not be altered.

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SUB HEADING 14, SERVICES, AIRCRAFT.

A. Servicing Instruction Vampire/  
Failure of hydraulic pressure hose from engine driven pump to bulkhead, introduced in Mod Vampire 876.

B. Vampire Marks 1, 3, 5, 9, 10, 11. Sea Vampire 20 and 21.

C. Cases have been reported of failure of the hydraulic pressure hose from the engine driven pump to the bulkhead.

D. At the next.....servicing and then at all subsequent.....servicing, inspect the flexible pressure hose, introduced by Mod Vampire 876 (Silvoflex or Weatherhead type) for signs of failure. Where hoses are found to be suspect remove the hose (after releasing the hydraulic accumulator pressure) and fit a hose as specified in Mod Vampire 3116, i.e. single wire braid, type Dunlop WH3/1, Stores Ref.....

E. Enter on appropriate forms.

F. Nil.

G. The fitting of Dunlop hose type WH3/1 is the embodiment of Vampire Mod.3116, and cancels this S.T.I.

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1

2

3

4

7

8

ANY ERRORS ON DRAWINGS MUST BE REPORTED TO THE DRA

HARLINE CORDS

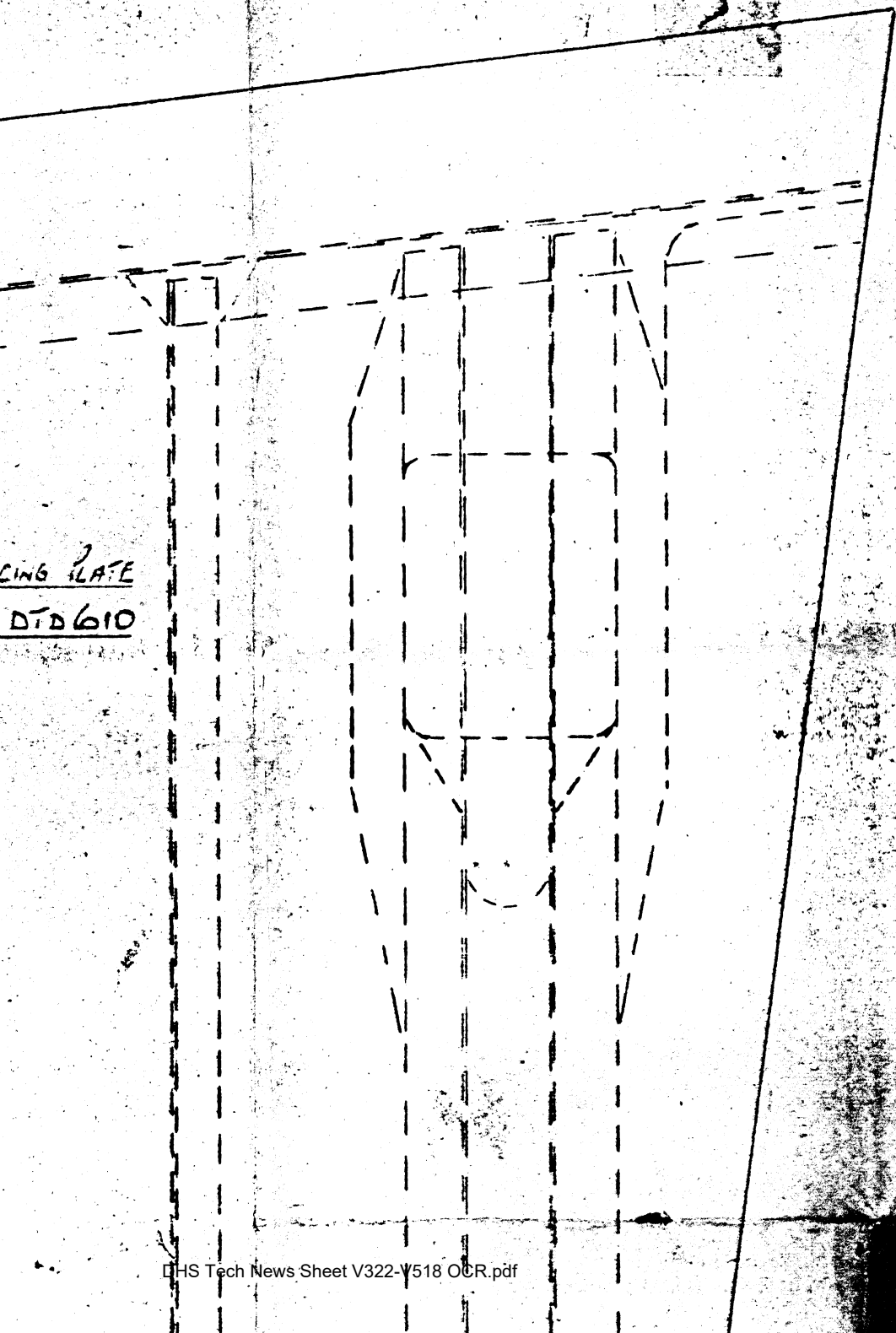
SPOT WELD

SKIN

RIB

REINFORCING PLATE  
22SWG, DTD 610

DRAWINGS MUST BE REPORTED TO THE DRAWING OFFICE



KEY.

- ⊕ PICK UP EXISTING RIVET HOLES USING 1/8" DIA. POP RIVETS TO AGS. 2050 1424 BS.
- ⊕ PICK UP EXISTING RIVET HOLES USING 1/8" DIA. SINK RIVETS AS 2229 1404.
- EXISTING SPOT WELDS.
- + 1/8" DIA. "POP" RIVETS -- AGS. 2050 1424 BS. -- EQUISPACED BETWEEN EXISTING SPOT WELDS.
- \* ADDITIONAL 1/8" DIA. "POP" RIVETS PICKING UP THROUGH REINFORCING PLATE AND EXISTING SINK RIVETS TO AGS. 2050 1419 B.S.

ALL RIVETS TO BE PLUGGED WITH STOPPER.

NOTE!

1. THIS DRAWING HAS BEEN PREPARED TO REMOVE PLAYS THAT HAVE CRACKED SKINS FROM THE LOWER SURFACE. IN WAY OF THE SPOT WELDS.
2. AN INTERNAL MOD. HAS NOW BEEN INTRODUCED (0/34 B) DELETING THE ALTERNATIVE OF

J  
H  
G  
F  
E





## NOTE!

1. THIS DRAWING HAS BEEN PREPARED TO RECTIFY FLAPS THAT HAVE CRACKED SKINS ON THE LOWER SURFACE. IN VIEW OF THE SPOT WELDING.
2. AN INTERNAL MOD. HAS NOW BEEN INTRODUCED (0/3418) DELETING THE ALTERNATIVE OF SPOT WELDING THE SKIN TO THE RIBS SO THAT RIVETS ONLY ARE USED ON FUTURE PRODUCTION.
3. THE EXTENT OF THE CRACKS ON FLAPS AS SEEN HAVE BEEN FROM RIB 8 AND DIMINISHING TOWARDS RIB 4 IN VARYING DEGREES. THE LENGTH OF THE REINFORCING PLATE SHOULD BE CARRIED ONE RIB PAST THE LAST RIB ON WHICH CRACKS APPEAR.
4. APPLICABILITY: — VAMPIRES ALL MKS. — EXCEPT SEA VAMPIRE.
5. TYPES OF A/C REPORTED DEFECTIVE TO DATE ARE — 5-9-10 1850.
6. PRODUCTION DEG. CONCERNED — D.D. 1953A. L.H. AND D.D. 1954A. R.H.
7. CHECK THIS DRAWING IS PREPARED TO LIVE TAILING 2001.





1/1/1952 - Section 2

# D E H A V I L L A N D S E R V I C E

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES       V      

No       364      



DATE       18.12.52      

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION  
SUB HEADING 4 CONTROLS FLYING.

- A. Servicing Instruction/Vampire/  
Rudder Cable Tensions
- B. Vampire Trainer Mark 11.
- C. Cases have been reported of low tensions in the rudder control cables.
- D. At the next daily servicing and then at all subsequent intermediate servicings ensure that the rudder cable tensions are correct. This check should be carried out as follows:
1. Lock the rudder controls at all points provided in the system, i.e. at the pedals, the elliptical pulleys at forward end of each boom, and at the levers at the rear end of each boom.
  2. Set the cable tensions to 80 lb  $\pm$  10 lb., using a Mk.V Tensiometer on the 25 cwt. scale.
  3. Remove the locking devices and ensure that the cable tensions are maintained throughout the full range of movement of the rudders.
  4. Re-lock the cable adjusters.
  5. Check the rudder controls for full and free movement.
- NOTE: Rudder movement must be set to 6.34 in  $\pm$  .3" both to port and starboard (20° rudder movement each way).
- E. Record on appropriate forms.
- F. Report any cases of tensions found below 60 lb. to R.D. A. Defects, together with flying hours of the affected aircraft. Foreign operators are requested to advise the Service Department De Havilland Aircraft Co. Ltd.,

Contd.....

- G. The mean tension of the rudder control cables may be raised when the results of investigations now proceeding have been analysed.

.....

SUB HEADING 8. GENERAL

INTRODUCING SPECIAL TECHNICAL NOTICES

From time to time it is necessary to transmit to the Armed Services, Civil Air Lines, Contractors and various other bodies interested in the use of aircraft, important information which cannot be made appropriate for issue either as a Special Technical Instruction or a Servicing Instruction, both of which require something definite to be done at a specified time; nevertheless the information may be mandatory.

- 2. In the past such information has been communicated under normal letter references which differ according to the various issuing department.
- 3. In future, RDA (Defects) will issue such information under the heading of SPECIAL TECHNICAL NOTICE, irrespective of whether they are the originators or not. The Notices will be grouped in the same way as Special Technical Instruction and Servicing Instructions, as for example; Special Technical Notice/Armament/1 or Special Technical Notice/Meteor/1: and so on likewise.
- 4. The information contained in these Special Technical Notices may eventually find its way into appropriate Air Publications in the same manner as Special Technical Instructions and Servicing Instructions are sometimes incorporated into modifications or Servicing Schedules respectively.
- 5. Any particulars with respect to recording action that may be necessary in connection with Special Technical Notices will be given in the text of each individual Notice.

Continued.....

6. The Special Technical Notices will be in paraphrased letter form on the same lines at this postagram and will not conform to any standard pattern as does a Special Technical Instruction or Servicing Instruction.

7. Amendment to a Special Technical Notice will be indicated by the addition of an alphabetical suffix as for example:-  
Special Technical Notice/Armament/1A or Special Technical Notice/Meteor/  
1A. If there are any further amendments they will follow as...../1B,  
...../1C, and so on.

8. Our object in introducing this procedure is to facilitate, generally, reference to, and filing of important information and to make all forms of information issued by this Department readily available under one or other of our classified numbered systems.

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HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

No 365



DATE 1.1.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION  
SUB HEADING 11, ELECTRICAL INSTALLATION

- A. Special Technical Instruction/Vampire/
- B. Vampire Mk.T.11
- C. Cases have been reported of the main power cables G.A.2+ between plugs C.16A and main fuse No.54, on the rear face of No.2 bulkhead, being fouled by the bonding strip on the gun bay access door.
- D.1. At the first possible opportunity and not later than the next D.1. locate the above mentioned portion of the cables as per the attached drawing, No.R.15.F102.
  - 2. If any of the cables are damaged, replace them with new cables.
  - 3. Bind the cables for the portion shown, with P.V.C.tape.
  - 4. Remove the clip AS.3180/13C securing the cables to the breeze plug sealing plate 15N423A.
  - 5. Manufacture new saddle clip as shown, bind it with P.V.C.and secure the cables with it to No.2. bulkhead, keeping the cables as flat as possible to the bulkhead.
- E. Record on appropriate form.
- F. Nil
- G. Modification action is being taken to introduce this method of securing the cables.

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Continued.....



SUB HEADING 14. SERVICES, AIRCRAFT.

- A. Servicing instruction Vampire/ Failure of hydraulic pressure hose from engine driven pump to bulkhead, introduced in Mod.Vampire 876
- B. Vampire Marks, 1, 3, 5, 9, 10, 11. Sea Vampire 20, 11.
- C. Cases have been reported of failure of the hydraulic pressure hose from the engine driven pump to the bulkhead.
- D. At the next.....servicing, and then at all subsequent..... servicings, inspect the flexible pressure hose, introduced by Mod Vampire 876 (Silvoflex or Weatherhead type) for signs of failure. Where hoses are found to be suspect, remove the hose (after releasing the hydraulic accumulator pressure) and fit a hose as specified in Mod.Vampire 3116, i.e., single wire braid, type Dunlop WH3/1, Stores Ref.....
- E. Enter on appropriate forms.
- F. Nil.
- G. The fitting of Dunlop hose type WH3/1 is the embodiment of Vampire Mod 3116, and cancels this S.I.

SUB HEADING 18. WING ASSEMBLY

- A. Special Technical Instruction/Vampire/69 Aileron Mass Balance Tubes - Non-standard
- B. Vampires Mks.5,9,10,11; Sea Vampire Mks.20 and 21, fitted with Port Ailerons Serial Odd Numbers. FL/DH/1649 to 2593 inclusive, and starboard Ailerons Serial Even Numbers FL/DH/1546 to 2560 inclusive, and all Ailerons within this Serial Number range held as Spares or in Stores.
- C. Cases have been reported of rough wooden plugs being inserted in the lead at the ends of the aileron mass balance tubes. These plugs have been found to work out of the tubes and severely restrict the aileron movement.
- D. 1. At earliest opportunity and not later than next Primary Star Servicing, the following action is to be taken:-  
 (i). Remove ailerons bearing Serial Numbers quoted in Para. (B) from aircraft.

Contd.....

SUB HEADING 18 WING ASSEMBLY Contd.

- (ii) At inboard end of outboard balance tube and at each end of inboard balance tube, drill a  $3/32$ " hole parallel to aileron chord  $1/4$ " from ends of tubes and fit a  $3/32$ " M.S. split pin of suitable length.
2. Action in accordance with (D)(ii) above is to be taken on all Ailerons bearing Serial Numbers quoted in Para.(B) held as spares or in Stores, before issue.
- E. Record on appropriate Forms.
- F. Nil
- G. This non-standard practise of plugging has been eradicated on production.

NOTE: This cancels the advanced information given on T.N.S. V.361.

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SUB HEADING 4. CONTROLS, FLYING.SUB HEADING 14. SERVICES, AIRCRAFT.

- A. Special Technical Instruction/Vampire/70, Venom/16 (Preliminary Warning Signal M.O.S. 4075, d/d 19/11/51 refers)
- B. Vampire Mk.s.1,3,5,9 and 10. Sea Vampire Mk.s.20 and 21. Venom FB Mk.s.1 and 2, Sea Venom Mk.20.
- C. Cases have been reported in Vampire Mk.10 aircraft of chafing of hydraulic pipes by control cables above and/or below the ammunition tank floor. The pipes are those which run from the hydraulic reservoir through the floor outboard of the port ammunition tank. Other marks of Vampire and Venom aircraft have a slightly different layout and run of pipes from that used in the Vampire Mk.10 but the possibility of a foul occurring is still present. See appropriate Vol.1 of A.P's 4099 and 4269 for details of hydraulic systems.
- D. 1. At the next Primary Star Servicing check that there is adequate clearance between the elevator and rudder controls and the hydraulic pipes which pass through the floor on the outboard side of the port ammunition tank.

Continued.....



2. Should cases be found where clearance is less than  $\frac{1}{8}$ " , the pipes should be re-set away from the control cables to ensure that chafing cannot take place.

E. Record in appropriate Form.

F. Nil.

G. Nil.

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SUB HEADING 11 ELECTRICAL INSTALLATION.

Special Technical Notice/Vampire/1  
Undercarriage Warning Light - Servicing.

Following an accident due to incorrect wiring recommend that all Vampire and Sea Vampire-Servicing Schedules include the following note: "It is essential that the undercarriage lights are checked individually for correct functioning as each Leg Lock is broken."

2. Official amendment to Servicing Schedule is in hand.

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SUB HEADING 12. FUEL SYSTEM

SUB HEADING 23. INSTRUMENTS

PACITOR FUEL GAUGE SYSTEM

The whole of the text of Venom Technical News Sheet No.VE 65 with the exception of line four alter "Venom 288" to read "Vampire 3239.

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SUB HEADING 16. UNDERCARRIAGE.

Special Technical Instruction/Vampire/67A.Venom/13A.  
(Amending Special Technical Instruction/Vampire/67.Venom/13)  
Main Undercarriage Log - Incorrect Machining of Axle.

Para. (B) Delete 2nd and 3rd lines and substitute and all axles, Stores Ref: No.27H/8871, Part No.AIR39320 and Stores Ref: No.27M/9112, Part No.AIR53842, held as spares."

Continued.....

Para (D) (ii) and (iii)

Add "Note. Under concession dimensions up to 15/16" as detailed in sketch attached, are acceptable for continuation in Service."

SUB HEADING 1. CONTROLS FLYING.

Servicing Instruction/Vampire/31A  
(Amending Servicing Instruction/Vampire/31)  
Elevator and Rudder Control Cables - Fraying at  
Elliptical Pulleys.

Para.(D) Add new Para. 2.

"2. After 300 flying hours change cables, quoted in Para.(C), irrespective of condition."

FREEZE PLUG  
SEALING PLATE

MAIN  
POWER  
CABLES

P.V.C.  
TAPE

BULKHEAD  
Nº 2 REAR

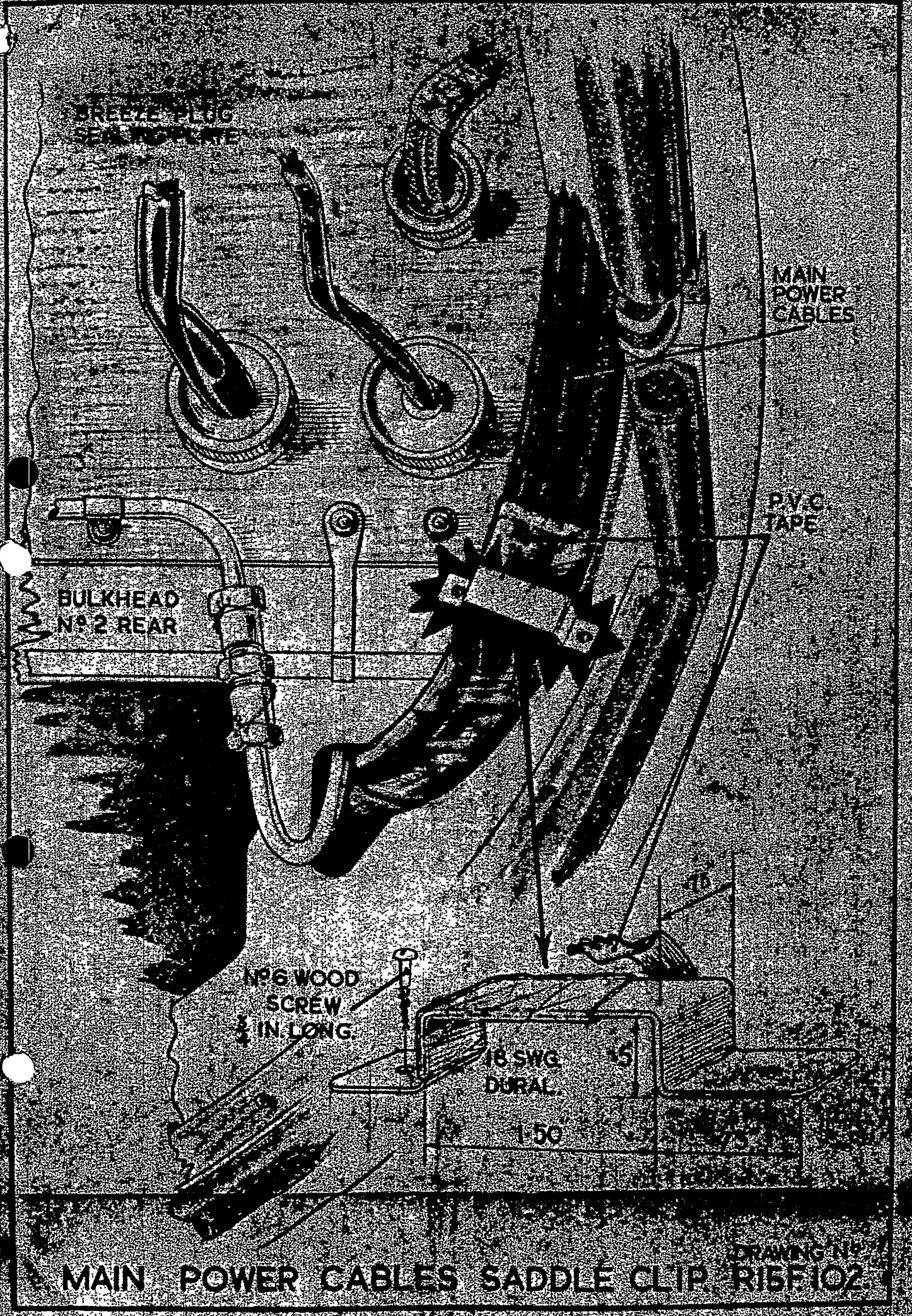
Nº 6 WOOD  
SCREW  
3/4 IN LONG

18 SWG  
DURAL

1.50

DRAWING Nº

MAIN POWER CABLES SADDLE CLIP RISE 102



TO BE AN INTERFERENCE FIT  
IN THE PIPE ASSEMBLY  
WITH JOINTING COMPOUND

.25 DIA.

.375 LEAD IN

1.25 APPROX

OPEN UP TO .375  
WITH PLATE  
ASSEMBLED

COVER PLATE SHOWN  
EXPLODED FOR  
CLARITY ONLY

BLANKING PLUG

FILLER DRAIN PIPE

AGS  
1143  
B.B.  
CONE PLUG  
1 OFF

AGS  
904  
B.B.  
OUTER SLEEVE  
1 OFF

AGS  
1185  
B.B.  
CONE PLUG  
1 OFF

AGS  
166  
SPLIT PIN  
2  
1 OFF

THIS REPAIR SCHEME SATISFIES  
VAMPIRE MODIFICATION 291

BLANKING MAIN TANK FILLER NECK DRAIN

ROOP 104





HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES       V       No       366      



DATE 9.1.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRCRAFT. GENERAL CIRCULATION  
SUB HEADING 8. GENERAL.

Servicing Instructions/Vampire/38  
Cracking of Underskin of Outer Flaps at Spot Welds.

- B. Vampire all marks, except Sea Vampire
  - C. Cases have occurred where small cracks have developed at the spot welds which attach the underskin of the outer flaps to the ribs. These cracks are in some cases difficult to see and where cracking is suspected it may be necessary to remove some of the existing finish to enable a thorough inspection to be carried out.
  - D. At each Primary Servicing the following check is to be made:
    - 1. Inspect the outer flaps bottom skin for hair cracks radiating fore and aft from the spot welds along the flap ribs. The three outboard ribs are the ones most affected.
    - 2. Remedial action is to repair to Drg.No.ROCD.358 attached.
    - 3. Ensure that the flap travel is correct and that, when in the 'UP' position its trailing edge meets the wing trailing edge simultaneously throughout its span.
- Note: Repair Drawing ROCD.358 supersedes ROCD.344, but, if a satisfactory repair has already been made to ROCD.344, it need not be altered.
- E. Record on appropriate form.

Continued.....

F. Nil.

G. Future production flaps will be manufactured using solid rivets in place of spot welds.

NOTE: Repair drawing ROOD 358, previously issued with T.N.S.V.363 should now be attached to this S.I.

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SUB HEADING 6 ENGINE INSTALLATION  
SUB HEADING 12. FUEL SYSTEM

A. Special Technical Instruction/Vampire/71  
Rear Fuel Feed Pipe from No.1 Port Fuel Tank to No.3 Bulkhead -  
Fouling and Distortion of No.6 Engine Burner Feed Pipe

B. Vampire Mk's 5 and 9 with Mod 694 embodied.

C. Cases reported that due to fitting of an incorrect fuel feed pipe from No.1 port fuel tank to No.3 bulkhead, No.6 Burner pipe is fouled and distorted.

D. 1. At first available opportunity and not later than next Primary Servicing the following action is to be taken:-

2. Identify which fuel feed pipe is fitted. The correct pipe is either P003405, Stores Ref: 26 FC/4429, or P00 3801, Stores Ref: 26FC/6508 introduced by Mod.Vamp 955.

3. The incorrect pipe is P00 3611, Stores Ref.26FC/6406.

4. If P00 3611 is fitted, demand replacements of P003405, or P00 3801 as appropriate.

5. If No.6 Burner Pipe is chafed or damaged by distortion, pending receipt of the correct fuel feed pipe, remove No.6 Burner Pipe Part No.75053 and fit a new No.15 Burner Pipe Part No.75055 in its place, taking the Burner Pipe around the outside of the fuel feed pipe.

6. Protect the adjacent portions of the fuel feed pipe and Burner Pipe against possible chafing, with suitable binding.

7. On fitting the correct fuel feed pipe, replace the correct Burner Pipe in No.6 position.

Continued.....



- E. Record on appropriate form.
- F. Nil.
- G. Fitting of Pipe No. P003405 or P003801 (with mod. 955) cancels this S.T.I.

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SUB HEADING 12 FUEL SYSTEM.

SUB HEADING 17 VENTILATION AND CABIN HEATING.

Special Technical Notice/Vampire/3  
Fuel Entering Cockpit Heater Gallery

Cases have been reported of fuel being emitted from the cockpit heater gallery. The fuel is considered to have entered the system from the wing drop tank pressurising lines, with which it has a common connection.

Wing drop tanks should not be used on Vampire Mks. 10 and 11 until Vampire Mod. 3253, which introduces a non-return valve in the drop tank pressurising lines, is embodied.

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SUB HEADING 14 SERVICES, AIRCRAFT

Special Technical Notice/Miscellaneous/2  
Draining Hydraulic Fluid from Aircraft Systems -  
Fire Precautions.

Case has occurred of explosion and fire in an aircraft on the ground due to spillage during draining of hydraulic fluid being ignited by electrics.

- 2. Attention of all concerned should be drawn to the necessity for providing proper pipes to drain fluid into a receptacle of adequate dimensions on the ground well clear of the aircraft and away from all possible flames and electrical equipment.

Continued.....

3. If in special circumstances fluid is drained under pressure the drain pipe should be earthed to the receptacle.

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Special Technical Notice/Vampire/2  
Vampire NF.10 Engine Driven Generator.

A case has been reported where a Generator Rotax Type B.1506 was fitted to a Vampire N.F.10 aircraft.

2. This Generator is a civil version of the type K.X. and is rated at 29 Volts 60 Amps. The Generator normally fitted is the Type O.2. rated at 30 Volts 100 Amps. As a result of consistent overloading of the Type B.1506 Generator, a failure of the electrical services occurred during flight.

3. It is considered that there may be further cases of the wrong type Generator fitted to Vampire N.F.10 aircraft, and units are to be instructed to examine their aircraft to ascertain that the correct type of Generator is fitted and, if necessary, fit the correct type.

4. Action has been taken with the manufacturers to prevent recurrence of this defect in future production.

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SUB HEADING 12 FUEL SYSTEM.

- A. Special Technical Instruction/Vampire. Main Fuel Tank filler neck drain pipe damaged by refuelling nozzle.
- B. Vampire all marks.
- C. Cases have been reported of the main fuel tank filler neck drain pipe being damaged and fractured by the refuelling nozzle.
- D. When the drain pipe has fractured and it is not convenient to change the tank, proceed as follows:
1. Manufacture from local resources an aluminium plug as shown on Drawing No.ROOP.104.
  2. Open out the hole in the filler neck cover plate, immediately

Continued.....

above the drain pipe, to 3/8" dia. This can be effected without removing the cover plate, but care should be taken not to damage the drain pipe, and to clear out any swarf.

3. Amply cover the plug with jointing compound and tap it into the drain pipe, leaving 1/4" proud of the pipe.

4. Disconnect the external drainpipe at the base of the tank rear wall, and blank off the union on the tank and the drain pipe as shown on Drawing No.ROCP 104.

E. Record on appropriate form.

F. Nil.

G. This repair scheme satisfies Vampire Modification No.291.

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#### SUB HEADING 12 FUEL SYSTEM.

A. Special Technical Instruction/Vampire/Wing tanks self-sealing deteriorating

B. Vampire all marks.

C. Cases have been reported of the self-sealing on wing tanks deteriorating due to fuel being spilt on the outside of the tanks. It is considered that the fuel enters the tank bay during refuelling, due to over fuelling.

D. At the next convenient opportunity proceed as follows:-

1. Manufacture from local resources, the required number of sealing Rings as per Drg.No.ROOP103 using Langite, Klingerite, or any alternative jointing material approved under DTD.762.

2. No.4 Tank Port and Starboard. Remove the four B.S.F. Screws securing the filler neck to the wing skin, depress the filler neck downwards and insert the sealing ring coated with jointing compound, between the filler neck and the wing skin. Replace the four securing screws.

3. No.1. Tank Port and Starboard. Where Vampire Mod.3041 which introduces a filler adaptor and a two piece insulating

Continued.....

ring is not embodied, proceed as detailed in Para.D(2).

4. Where Vampire Mod.3041 is embodied, but the adaptor threads become damaged, and a replacement of it or Vampire Mod.3204 Steel Adaptor are not available, remove the insulating ring and adaptor, then proceed as detailed in Para. D(2).

E. Record on appropriate form.

F. Nil.

G. Embodiment of Vampire Mod.3248, introducing rubber insulating ring on No.1 Tank filler neck, cancels this S.T.I.in respect of No.1 tank. Compliance with this S.T.I.satisfies Vampire Mods. 3246. and 3247

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SUB HEADING 7 FUSELAGE

SUB HEADING 10 MISCELLANEOUS

Special Technical Instruction/Miscellaneous/198B  
(Superseding and Cancelling Special Technical Instruction/Miscellaneous/198A Z Type Harnesses, Quick Release Box (Stores Ref.6F/247

B. Quick Release Boxes, Stores Ref 6F/247, on all "Z" Range of Safety Harnesses, fitted to aircraft or held as spares.

C. 1. During ejection trials of seats with the M.L.Automatic release fitted to the type Z safety harness the dummy failed to separate from the seat on a number of occasions.

2. Immediate investigation shows that after the harness release box has been operated by the automatic release there is a tendency for the starboard lapstrap harness lug to jam in its slot in the release box. The jam occurs when the lug is withdrawn from the slot sufficiently to allow the edge of the slot to bite into the hole in the lug.

3. S.T.I./Miscellaneous/198 was raised to cover Harnesses fitted with the Automatic Release, but it has been established that seizure on release can occur whether an M.L.Automatic Release is fitted or not, the S.T.I.is therefore extended to cover all Release Boxes Type Z, which in different aircraft installations may be found fitted to either port or Starboard lap straps.

Continued....

- D. 1. Not later than the next TWO MONTHLY SERVICING OF "Z" Type Safety Harnesses fitted in Aircraft, the following action is to be taken:-
- (i) Remove Box from Harness.
  - (ii) Plug all lug slots to prevent entry of swarf.
  - (iii) Remove body from Release Box, AP1182B, Vol.1, Sect.1. Chap.8 refers.
  - (iv) File the circumference of the body of the Q.R.Box at the rear (i.e. nearest to the lapstrap) of the slots into which both lap-strap lugs are inserted, until a flat is obtained extending the full length of the slots.
  - (v) File the inner edge of these tangential flats to give a radius of 1/16 inch.
  - (vi) Remove plugs and all swarf and filings from the body.
  - (vii) Re-assemble the release box, after completion of normal two monthly Servicing, in accordance with current instructions, and carry out a functional test.
- D. 2. Action in accordance with Para(D) 1 is to be carried out on all Quick Release Boxes, Stores Ref.6F/247, held in storage, or held as spares, before issue.
- E. Record on appropriate Form, and label all spares rectified, "STI/Misc/198B".
- F. Nil.
- G. All Quick Release Boxes, Stores-Ref.6F/247, will be rectified in future production by normal modification action.
- .....



TECHNICAL NEWS SHEET

SERIES V. 367 No. 367



DATE 12.1.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING, 7 FUSELAGE ASSEMBLY

IMPROVED NEOPRENE FACED CANOPY  
SEALS INTRODUCTION

Class C/4 And on replacement

Mod No. Vampire 3190

This modification has been necessitated due to the deterioration which is taking place with the existing type canopy seals, and makes provision for the fitment of neoprene faced canopy seals to eliminate this. This modification supersedes Mod 699.

SUB HEADING, 7 FUSELAGE ASSEMBLY

Class B/2

Mod No. Vampire 3164 Issue 2.

TO BRING CANOPY JETTISON HANDLE  
WITHIN REACH OF PILOT WHEN FULLY  
STRAPPED IN VAMPIRE T.MK.11

Further to Technical News Sheet 362 herewith amendment Issue 2.





# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V No. 368



DATE 13.1.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 7 FUSELAGE ASSEMBLY.

- A. Special Technical Instruction/Vampire/68A  
(Superseding and cancelling Special Technical Instruction/Vampire/68) Re-Rigging of Canopy Winding Handle.
- B. Vampire Mks.1,3,5 and 9 Sea Vampire 20 and 21.
- C. Cases have occurred where the canopy has opened in flight.
- D. At next Primary Star Servicing the following action is to be taken:-
1. Disconnect the winding gear torque tube at its splined joint approx.18" aft of the winding handle, after suitably marking both male and female parts to ensure correct position on re-assembly.
  2. Remove the winding gear assembly complete from the aircraft. If jointing gasket is damaged during this operation, make up a new one from 1/16" thick jointing material DTD.762.
  3. Drill out eight 3/32" dia.rivets securing the back plate to gear box, remove the back plate.
  4. Remove special pin A00106, ref.only, from winding handle.
  5. Pull plunger and link out through back of gear box.
  6. Place spacer made up to dimensions on drawing ROOA.119 attached in position as shown, and pack box with low temperature grease DTD.577 and re-attach back plate with 3/32" dia.rivets AS.2229/309.

Continued.....

- 7. Refit pin A00106 through winding handle and link.
- 8. Replace gear box in position on side of fuselage with the new gasket, using Bostik 1791 (Primer) and Bostik 1790/ Sealant, at the same time re-making the torque tube joint.
- 9. Wind the handle hard forward (Do not lock the pin in the hole) and then release to find its own position.
- 10. Set the stop plates using the Vernier adjustment to give one dia. clearance between centres of hole and pin-as-shown in the drawing.
- 11. With canopy locked in its newly rigged position, the clearance between the windscreen and the front edge of the canopy is not to exceed .3" with the pressure of 3 p.s.i. in the cockpit.

Note: This S.T.I. must be carried out in conjunction with SI/Vamp./27.

- E. Record on appropriate form.
- F. Nil.
- G. Mod.Vampire 3211, Class C/3, when embodied will cancel this S.T.I.

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SUB HEADING 7 FUSELAGE ASSEMBLY.

Special Technical Notice/Ejection Seat/1  
Martin Baker Ejection Seats - Servicing

A recent accident involving a Martin Baker Ejection seat has been provisionally attributed to the inadvertent withdrawal of the Ejection gun sear by being gripped with pliers when removal of the sealed locking wire was proceeding in conditions of partial darkness.

- 2. To preclude the possibility of further accidents from this probable cause it has been decided to amend the instructions contained in A.P.4288A Vol.I, Chap.5, Para.2. all Sections, to call for removal of the safety pin from the hole in the sear only after the locking wire has been removed and immediately prior to the unscrewing of the firing body.

Continued.....

3. .Until such time as the above publication is amended the contents of Para.2 are to be adhered to on all occasions when removal of the Primary cartridge is undertaken and should be brought to the notice of all Armament personnel Servicing Martin Baker Ejection seats.

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A  
007537

SPACER 17 SWG M.S. TUBE

3/8 DIA

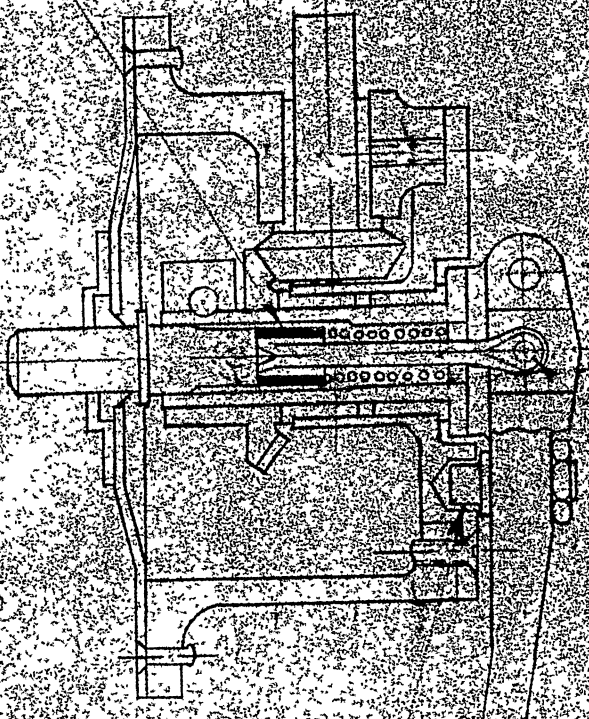
SLOT 1/4" WIDE

1/4" DEEP

35  
1/8 DIA

25A THREAD

STOP PLATE



PIN ONE D  
OVERIDE W/RES  
LOCKED

105106  
FORMER PIN  
SET ONLY

DRILL HOLE UP FRONT BELOW  
OF HOLE IN CRANK TO WIDER

REPAIR TO SET CRANK DAY

THE DE HAVELAND AIRCRAFT CO. LTD.  
WINDING

DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

TECHNICAL NEWS SHEET

SERIES V NO 369



DATE 15.1.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRCRAFT, GENERAL CIRCULATION.  
SUB HEADING 6 INSTALLATION, ENGINE

ALTERATIONS TO ENGINE INSTALLATION  
TO ACCOMMODATE SINGLE PUMP SYSTEM  
AT ENGINE - INTRODUCTION.  
VAMPIRE MKS. 6, 50, 52.

Class 2 on introduction of an  
engine with Goblin Mod 700  
Embodied.

Mod No. Vampire 3148

This modification has been necessitated due to the fact that the Engine company are supplying Goblin Engines fitted with one fuel pump instead of two and makes provision for the necessary airframe alterations to utilize this single pump system.

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CIVILIAN MODIFICATION LEAFLET.

AIRCRAFT TYPE :- VAMPIRE MKS. 6,50,52

ALTERATIONS TO ENGINE INSTALLATION  
TO ACCOMMODATE SINGLE PUMP SYSTEM  
AT ENGINE - INTRODUCTION.

MOD. NO. VAMPIRE 3148  
CLASS 2 ON INTRODUCTION OF AN ENGINE  
WITH GOBLIN MOD. 700 EMBODIED.

1. THIS MODIFICATION HAS BEEN NECESSITATED DUE TO THE FACT THAT THE ENGINE COMPANY ARE SUPPLYING GOBLIN ENGINES FITTED WITH ONE FUEL PUMP INSTEAD OF TWO AND MAKES PROVISION FOR THE NECESSARY AIRFRAME ALTERATIONS TO UTILIZE THIS SINGLE PUMP SYSTEM.

THE WORK WILL TAKE APPROXIMATELY 5 MAN HOURS PER AIRCRAFT.

2. THE FOLLOWING IS THE SEQUENCE OF OPERATIONS, (THE DOUBLE PUMP ENGINE CONSIDERED AS HAVING BEEN REMOVED).

REFER TO D.H. DRAWING NO. MA.271.

- 1) COMPLETELY REMOVE THE EXISTING TOTAL HEAD AIR LINE THAT RUNS FROM THE FIRE-PROOF BULKHEAD TO THE BANJO TOTAL HEAD AIR CONNECTION ON THE BPC UNIT, RETAINING THE HOSE JOINT, THE HOSE CLIPS AND THE BONDING STRIP FOR FUTURE REASSEMBLY.
- 2) NOTE 1. IF VAMPIRE MOD.996 HAS BEEN EMBODIED, INSERT A RUBBER GROMMET, PART NO. SP40/A10, IN THE 7/16IN. DIA. HOLE IN THE BRACKET, PART NO. LOO 3698 - REF. ONLY.

NOTE 2. BEFORE OFFERING UP THE PIPES REFERRED TO IN THE FOLLOWING OPERATIONS ENSURE THAT THE INTERNAL SURFACES ARE THOROUGHLY CLEAN AND FREE FROM OBSTRUCTION.

OFFER UP THE NEW PIPE, PART NO. ROO 2605ND, PASS IT THROUGH THE GROMMET, IF FITTED, AND CONNECT IT TO THE EXISTING PIPE, PART NO. ROO 1461A/ND - REF. ONLY, - USING THE HOSE JOINT; HOSE CLIPS AND BONDING STRIP RETAINED FROM OPERATION 1).

- 3) REFER TO THE DRAWING AND POSITION THE SECOND NEW PIPE, PART NO. ROO 2607ND, AND CONNECT IT TO THE PIPE FITTED IN THE PREVIOUS OPERATION, USING A HOSE CONNECTION, PART NO. DHS 159/B20, TWO HOSE CLIPS, PART NO. AGS 605/00, AND A BONDING STRIP (TINNED COPPER) 1/4" X 22 SWG. STILL REFERRING TO THE DRAWING PLACE A CLIP, PART NO. DHS 30/2 AROUND THE PORT ENGINE MOUNTING IN THE POSITION SHOWN. NOW SLIDE TWO CLIPS, PART NO. DHS 30/4, OVER THE PIPE, SECURING ONE TO THE BOLT THROUGH THE CLEAR NEAREST THE HOSE CONNECTION, AND THE OTHER TO THE CLIP AROUND THE ENGINE MOUNTING, USING A 2BA BOLT, A 2BA WASHER AND A STIFFNUT, PART NOS. A25/1C, SP/15C, AGS 2001/C1 RESPECTIVELY.
- 4) LOCATE THE SOLENOID ISOLATING VALVE CABLE (CODED SV2 AND E), CUT THE TWINE WHIPPING IT TO THE LOWER STARBOARD BRACING TUBE AND REMOVE IT FROM THE CLIPS ATTACHING IT TO THE FIREPROOF BULKHEAD; PROCEED NOW TO DISCONNECT THE LOOM C14 SOCKET FROM JUNCTION BOX 2.
- 5) DISMANTLE THE LOOM C14 SOCKET AND COMPLETELY REMOVE THE SOLENOID CABLE FROM THE LOOM. NOW REFER TO THE DRAWING AND MAKE UP THE NEW CABLE AS SHOWN; THEN PASS IT THROUGH THE EXISTING IDENTIFICATION TAPE, AND CONNECT THE LEAD CODED SV 2 TO PIN M, AND THE LEAD CODED E TO PIN N. REASSEMBLE THE SOCKET AND, AFTER BINDING THE CABLES WITH A FEW TURNS OF WAXED CORELESS TWINE AT DISTANCES APPROXIMATELY 5 1/2 AND 12 INCHES FROM THE END OF THE SOCKET, RECONNECT IT TO JUNCTION BOX 2.
- 6) REPLACE THE 'P' CLIP IN ITS ORIGINAL POSITION AND ROUTE THE NEW CABLE AS SHOWN ON THE DRAWING ( i.e. ALONG THE TOP PORT BRACING TUBE AND DOWN THE PORT MOUNTING SIDE FRAME).

NOTE: ONLY TEMPORARILY BIND THE CABLE TO THE MOUNTING AT THIS STAGE.

- 7) LOCATE THE LOW PRESSURE FUEL FILTER, AND BREAK THE LOCKING WIRE AND UNSCREW THE BANJO BOLT LOCATING THE FUEL PRESSURE WARNING SWITCH ON THE FILTER. TEMPORARILY PLACE THE SWITCH AND THE BOLT ON ONE SIDE, AND REMOVE THE BANJO PILLAR AND GASKETS. REMOVE THE BANJO ASSEMBLY PART NO. POO 2439A - REF. ONLY - AND THE FUEL PIPE, PART NO. POO 2610A - REF. ONLY - AND THEN PLACE A PROTECTIVE COVER OVER THE FILTER TO PREVENT THE INGRESS OF FOREIGN MATTER.
- 8) BEFORE INSTALLING THE MODIFIED ENGINE, CONNECT THE NEW 'FILTER TO PUMP' HOSE ASSEMBLY, PART NO. POO 3663A, IN ITS CORRECT POSITION. PROCEED NOW TO WIRE LOCK THE NEW CONNECTION WITH 22 SWG NICKEL ALLOY WIRE IN ACCORDANCE WITH CURRENT AUTHORIZED PROCEDURE. THE REMAINING OPERATIONS CAN ONLY BE EFFECTED WHEN THE SINGLE PUMP REPLACEMENT ENGINE HAS BEEN INSTALLED.
- 9) REMOVE THE PROTECTIVE COVERING PLACED ON THE LOW PRESSURE FUEL FILTER IN OPERATION 7), AND THEN FIRMLY FIX THE NEW SPECIAL BANJO END ASSEMBLY IN POSITION WITH THE ORIGINAL GASKETS AND BANJO PILLAR. REPLACE THE FUEL PRESSURE WARNING SWITCH AND BANJO BOLT, AND WIRELOCK THE ASSEMBLY WITH 22 SWG NICKEL ALLOY WIRE.
- 10) UNSCREW AND REMOVE THE REDUNDANT STARBOARD PUMP GLAND DRAIN, PART NO. 2296A - REF. ONLY - FROM THE COMMON DRAIN BOX, AND BLANK OFF THE REDUNDANT HOSE CONNECTION WITH A NIPPLE PLUG, AN OUTER SLEEVE AND A SPLIT PIN, PART NOS. AGS.1140/B, AGS.904/B AND SP9/C8.
- 11) CONNECT THE LEADS OF THE NEW CABLE TO THE ISOLATING SOLENOID ON THE SINGLE PUMP. NOW PROCEED TO FIRMLY BIND THE CABLE TO THE ENGINE MOUNTING SIDE FRAME, AND TO THE FILTER SUPPORT STRUT, WITH WAXED CORELESS TWINE. COAT THE TWINE WITH SHELLAC VARNISH, AND WIRE LOCK THE SCREW ON THE SOLENOID COVER WITH 24 SWG COPPER LOCKING WIRE.
- 12) CONNECT UP AND FIRMLY SECURE THE NEW HOSE, PART NO.13 E 25 ND, TO THE PIPE POSITIONED IN OPERATION 3) AND TO THE BANJO ON THE REPOSITIONED B.P.C. UNIT, WITH TWO HOSE CLIPS, PART NOS. AGS 605/00.

3. THE UNDERMENTIONED PARTS ARE REQUIRED PER AIRCRAFT SET :-

PART NO.	NOMENCLATURE.	NO. OFF.
CONTRACTOR'S SUPPLY ITEMS.		
POO 3663A	HOSE ASSEMBLY, FILTER TO PUMP	1
ROO 2605ND	PIPE	1
ROO 2607ND	PIPE	1
13 E 25ND	HOSE	1
DHS 30/2	CLIP	1
DHS 30/4	CLIP	2
DHS 159/B20	HOSE CONNECTION	1
A25/10	BOLT	1
AGS 605/00	HOSE CLIP	4
AGS 904/B	OUTER SLEEVE	1
AGS 1140/B	NIPPLE PLUG	1
AGS 2001/C1	STIFFNUT	1
SP9/C8	SPLIT PIN	1
SP 15/C	WASHER	1
SP 40/A10	GROMMET	1
BP	HELSYN LAVENDER SLEEVE	2
T2/1	TWINLAY MARKER, CODED (SV 2 (E	2 2
TWAP X 1 1/8"	HELSYN LAVENDER SLEEVE	4
	CABLE DUPREN 6, TO SPEC. EL.1470	8FT

ITEMS TO BE FOUND ON SITE.

SHELLAC VARNISH	AS REQD.
STRIP, COPPER, TINNED 1/4" WIDE	AS REQD.
TWINE, WAXED, CORELESS	AS REQD.
WIRE, NICKEL ALLOY, 20 SWG	AS REQD.
WIRE, COPPER LOCKING, 24 SWG	AS REQD.



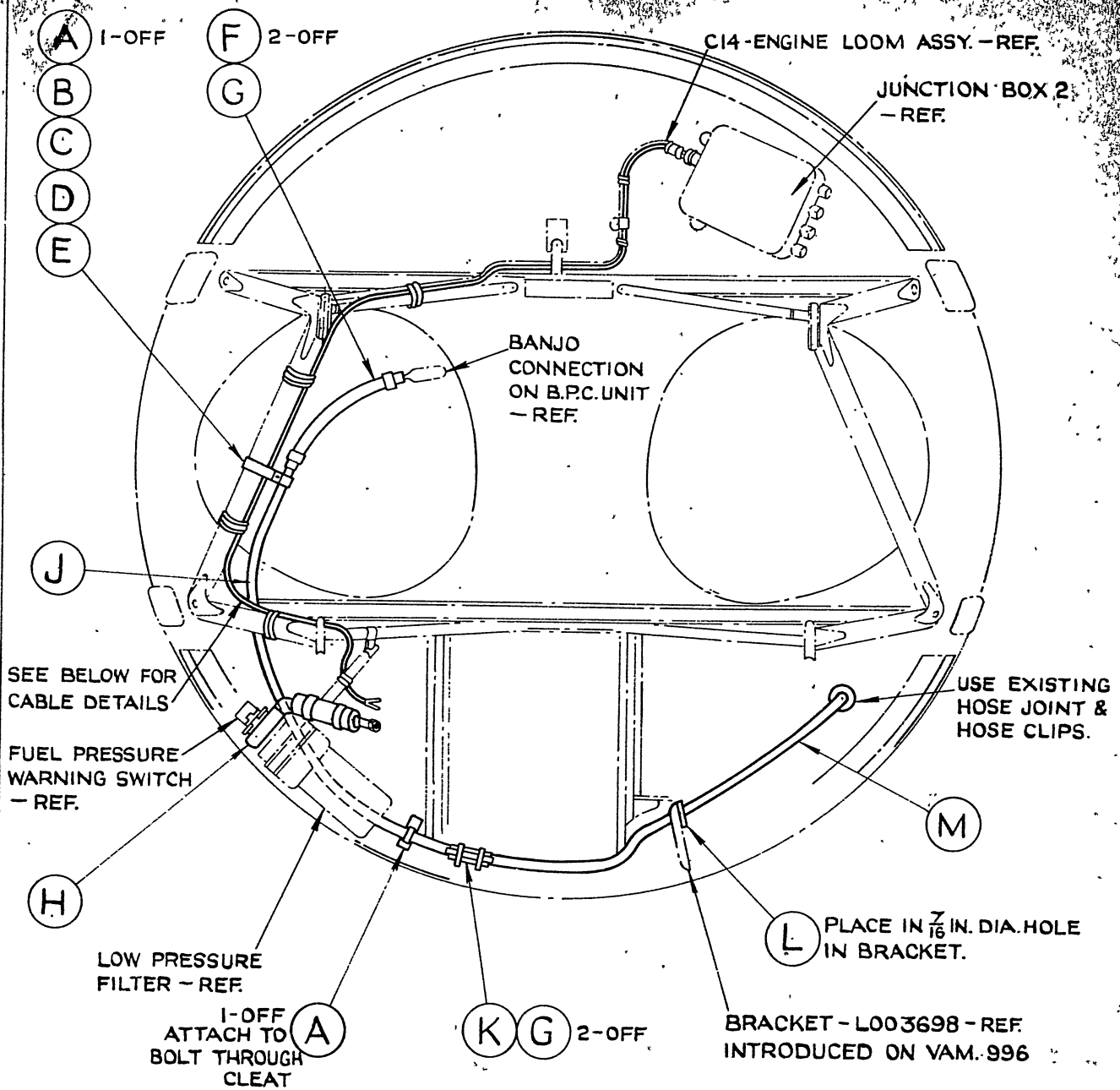
4. THE FOLLOWING ITEMS ARE RENDERED REDUNDANT AND ARE TO BE DISPOSED OF IN ACCORDANCE WITH CURRENT AUTHORIZED PROCEDURE.

PART NO.	NOMENCLATURE.	NO. OFF.
ROO 1427 ND	PIPE	1
POO 2610 A	FUEL PIPE, FILTER TO PORT PUMP	1
POO 2439 A	BANJO ASSEMBLY	1
LOO 2296 A	HOSE ASSEMBLY, STARBOARD PUMP GLAND DRAIN.	1

TECHNICALLY APPROVED FOR THE DE HAVILLAND AIRCRAFT CO. LTD., AIRSPEED DIVISION.

DATE 4/12/52.....

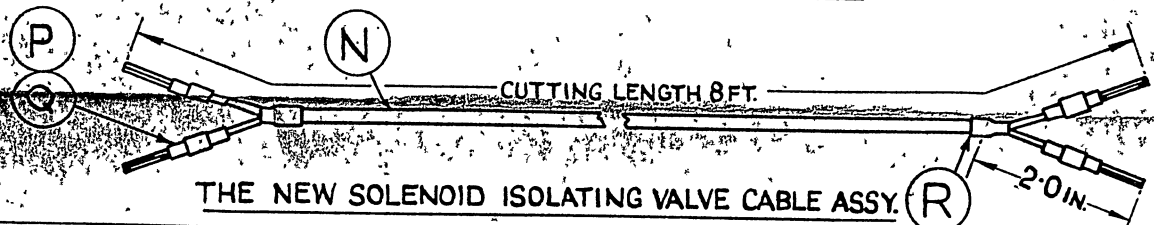
.....*W. Samuel*.....



VIEW LOOKING FORWARD ON FIREPROOF BULKHEAD

REF.	PART N <sup>o</sup>	NOMENCLATURE	N <sup>o</sup> OFF	REF.	PART N <sup>o</sup>	NOMENCLATURE	N <sup>o</sup> OFF
A	DHS 30/4	CLIP	2	K	DHS 159/B20	HOSE	1
B	DHS 30/20	CLIP	1	L	SP40/A10	GROMMET	1
C	A 25/1C	BOLT	1	M	RO02605ND	PIPE	1
D	SP/15C	WASHER	1	N	DUPREN 6	CABLE TO EL.1470	1
E	AGS 200/CI	STIFFNUT	1	P	TWAPX1 <sup>1/8</sup>	HELSYN SLEEVE	4
F	I3E 25ND	HOSE	1	Q	T2/1	TWINLAY MARKER	4
G	AGS 60500	HOSE CLIP	4	R	BP	HELSYN SLEEVE	2
H	PO03663A	HOSE ASSY.	1				
J	RO02607ND	PIPE	1				

NOTE :-  
 1. THE PIPE LINE MUST BE FREE FROM SHARP BENDS & THE INTERNAL SURFACES THOROUGHLY CLEAN.  
 2. BOND PIPES TOGETHER IN APPROVED MANNER WITH 1/4 IN. X 22 S.W.G. TINNED COPPER STRIP.  
 3. BIND PIPES WITH SYSTOFLEX WHERE CLIPS ARE FITTED.



ALTERATIONS TO ACCOMMODATE SINGLE PUMP ENGINE

TECHNICAL NEWS SHEET

SERIES V. No 370.



DATE 20.1.53.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING. 20. MODIFICATIONS.

VAMPIRE TRAINER - MODIFICATION 3164.

The leaflet for the retrospective embodiment of the above modification is at present to issue 2. A further amendment 1 to the issue 2 includes alterations as follows:-

- Para 3 Item 2 - It will be found necessary to remove the L H. portions of the false floor and also to disconnect the electrical lead
- Item 3 - Where the sunken dish is referred to as being spot welded, this may be rivetted on certain aircraft.
- Item 13 - The angle bracket is no longer required.
- Item 18 - The chobert rivets AGS 2046/607 are incorrect. The correct type are solid AS. 2229/406.
- Item 27 - Where the rivets are found too short, use Bolt (A.251.B), Washer (SP.13.B), Nut AGS (2001/B/1).

NOTE.

A new type handle 15.M.113 replaces the old type 15.M.95.

The operating cable may be taped to the guard tube to prevent the pilot's foot fouling it.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V.

No 371



DATE 10.2.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 10 MISCELLANEOUS EQUIPMENT.

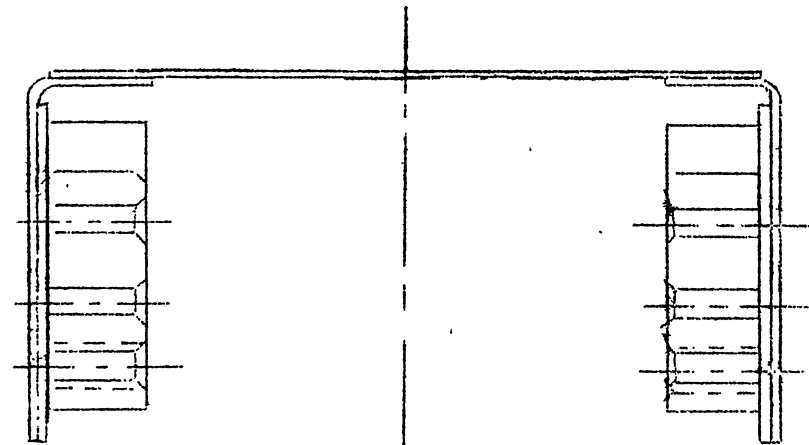
### TRAINER AIRCRAFT - CONTROL LOCKS STORAGE

On certain early issue aircraft it may be found that the control lock stowage in the cockpit is too wide to accept the **control lock**. The attached drawing indicates how the stowage may be modified to suit the locks.

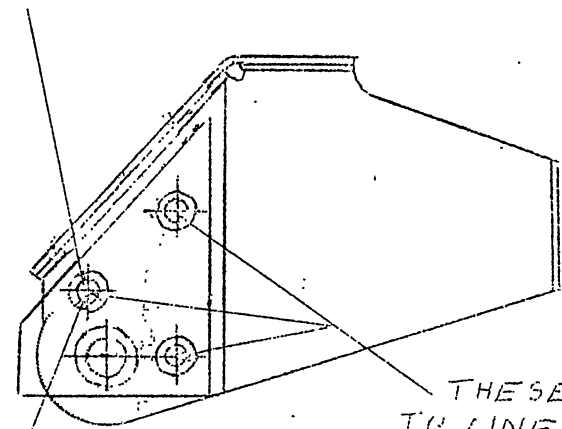
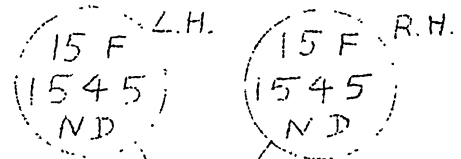
It may also be found that early aircraft will not have the control lock fitted. However arrangements are in hand to issue the missing items direct to the holding unit.

.....

DRILL N° 30 HOLE IN BRACKET AND REINFORCING PLATE TO SUIT HOLE IN PACKING



PACKING DTD 610



THESE 3 HOLES TO LINE UP WITH HOLES IN EXISTING BRACKET AND REINFORCING PLATE. PT NO 15 F 1329A.

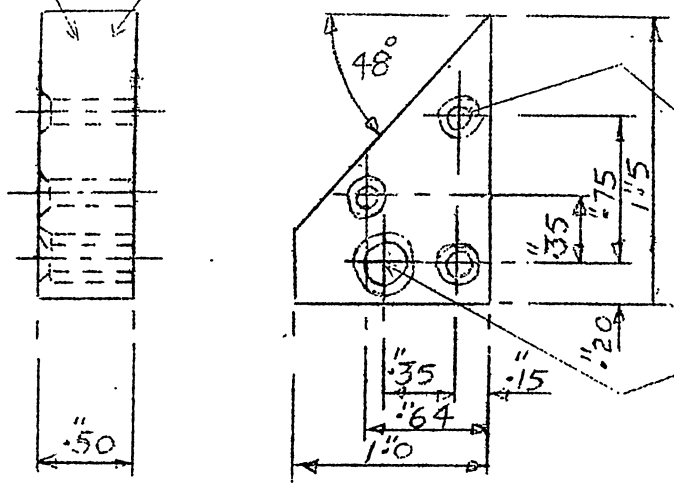
AS 2229 412 1/8" DIAM. C/SK RIVET 6 OFF

NOTE -

EXISTING RIVET IN REINFORCING PLATE TO BE DELETED.

3 N° 30 DRILL HOLES C/SK 90° x .22 DIAM.

LETTER 'F' DRILL HOLE CHAMFERED .32 DIAM. AT 45°



MOD. VAM 3141  
DRAWING FOR RETROSPECTIVE ACTION ONLY

BRACKET - CONTROL LOCK STRUT PT. NO 15Z 813

# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V. \_\_\_\_\_

№372. \_\_\_\_\_



DATE 20.1.53.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 12 FUEL SYSTEM.

- (A) SPECIAL TECHNICAL INSTRUCTION/VAMPIRE/VENOM -  
FUSELAGE FUEL TANKS CRACKING AROUND THE VENT PILLAR  
ADAPTOR BASE.
- (B) Vampire, Venom. All marks.
- (C) Cases have been reported of the fuselage fuel tanks cracking in the vicinity of the ventpillar adaptor. This is considered to be due to the tank skin being strained when the vent pillar adaptor is overtightened to prevent leaks
- (D) Whenever it is necessary to remove the vent pillar adaptor or the fuel transfer pillar adaptor or in the case of a leak from either, proceed as follows:-
2. Vampire. Strip the vent pillar adaptor banjo assembly situated at the top rear face of No. 4 bulkhead and remove the pillar adaptor from the tank. Dispose of the aluminium washers Part No. AGS 568F fitted one on either side of the banjo, and one between the base of the pillar adaptor and the tank and reassemble using bonded rubber seals 3 off Part No. AGS 1186/F.
  3. In a similar manner replace the aluminium washer, Part No. AGS 1138/H, 3 off fitted in the same positions as detailed in 2 on the fuel transfer pillar adaptor with bonded seals 3 off Part No. AGS 1186/H.

Continued.....

4. Venom. As in para's 2 and 3 except that only one washer is employed, that being between the pillar adaptors and the tank. The redundant parts are:- On the fuel transfer pillar adaptor remove washer 1 off DHS. 203/J and insert bonded seal AGS 1186/J. On the vent pillar adaptor remove washer 1 off ref. DHS. 203/K and insert bonded seal AGS 1186/K.

5. When re-assembling the pillar adaptor care should be taken not to overtighten as the bonded seals do not require crushing to effect a seal. Bonded seals should not be used a second time

6. Care should be also taken to ensure that the pillar adaptors pass centrally through the apertures in the bulkhead. After the first flight following a tank replacement it is sometimes necessary to re-tighten the tank straps.

(E) Record on appropriate form.

(F) Nil.

(G) Compliance with this S.T.I. satisfies Venom Mod. 339 and Vampire Mod 3259.

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TECHNICAL NEWS SHEET

SERIES V.

No 373.



DATE 23 rd. December 1952

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION,  
SUB HEADING 14 SERVICES, AIRCRAFT.  
SUB HEADING 23 INSTRUMENTS.

- (A) SPECIAL TECHNICAL INSTRUCTION/INSTRUMENTS/24  
RE-INTRODUCTION OF WIRE LOCKING OF EMERGENCY  
OXYGEN LEVER.
- (B) Oxygen regulators marks 11C, 11D, 11E, 16A, 16B, and 16C.  
Stores Ref. 6D/1275, 1286, 1276, 1277, 1587, 1588 and 1589 installed  
in aircraft.
- (C) Cases have been reported of the oxygen supply being exhausted owing  
to the emergency lever being moved inadvertently to the "on" position.  
It has been decided, therefore, to re-introduce wire locking of the  
lever in the "off" position.
- (D) Not later than the next Primary servicing, the emergency lever is to  
be wired locked in the "off" position, with 28 gauge soft copper wire  
Ref. 30B/573. It is essential that the effort required to operate  
the lever in emergency is kept to a minimum and the lever is to be  
restrained by a single loop of wire.
- NOTE. 28 gauge safety copper wire, Ref 30B/573, only is to be used.
- (E) Record on appropriate form.
- (F) Nil.
- (G) Modification inst. A. 57, AP. 1275A, Vol 2, Leaflet H 20 is being  
cancelled.

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DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

TECHNICAL NEWS SHEET

SERIES V. No 374.



DATE 7.1.53.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 14 - SERVICES.

SPECIAL TECHNICAL NOTICE/MISCELLANEOUS/3  
"LIFING" PROCEDURE - DUNLOP BRAKE RELAY VALVE MK. 2.

An investigation into the reliability of the Mark 2 Brake Relay Valve has been completed by the manufacturers and it has revealed that the main cause of defects in this component has been the deterioration of the rubber stocking which is fitted to the Barrel Regulator Group.

2. As a result of this investigation a "Lifing" procedure is to be adopted in respect of the Barrel Regulator Group and the Stocking Sealing Washer in all Mark 2 Brake Relay Valves.

3. (a) The manufacturers have marked the date of final assembly on all dual relay valve bodies with effect from the 1st. July, 1951, and on the barrel regulator groups from the 1st. October, 1951.

(b) The outside of packages will be similarly marked for ease of reference during storage.

4. The "Lifing" of these components will be in accordance with the following limitations:-

(a) The Barrel Regulator Group and Stocking Sealing Washer are to be given a "shelf life" of one year, whether fitted to a relay valve or held as a spare.

(b) The period of replacement of the Barrel Regulator Group and the Stocking Sealing Washer will be two years, providing the aircraft has been in normal use during this period.

Continued.... ..

(c) Provided that the "shelf life" of a "lifer" item has not exceeded one year the item, when fitted to an aircraft in normal use, will have a further life of two years.

5. Assemblies fitted to aircraft in storage are to lifed at one year from date of valve final assembly with a proviso that assemblies which become "life expired" need not be changed until the aircraft are prepared for issue.

6. The following procedure will be adopted when servicing all Dunlop Mark 2 relay valves:-

(a) The marking of the relay valve body with the date of final assembly at the manufacturers will enable the user to determine when replacement of the regulator barrel group and the sealing washer needs to be done on expiry of life.

(b) Existing unmarked valves may continue to be used until such time as the supply position of dated assemblies enables the undated valves to be serviced. When serviced, and refitted with a regulator barrel group, the date of final assembly is to be marked on the valve body with lacquer opaque yellow, (Stores Ref 33C/809) using a pen or fine brush. As far as is practicable the date should be distinguishable when the component is fitted to the aircraft. Dated relay valves, when serviced, are to be treated in the same manner.

(c) Where date marked valves are fitted to aircraft a record is to be kept of the dates at which assemblies are to be changed as "life expired". In order to prevent the aircraft from being placed unserviceable, on a specific date, solely for valve changes, the replacement of "life expired" valves is to be phased with the nearest convenient periodical servicing.

(d) Form 1022 action is to be taken on all cases of defects before expiry of life of component. The relay valves are to be serviced and re-issued for use where possible, and the "Defective Rubber" parts are to be dealt with under current Form 1022 procedure.

Continued.....

The Form 1022 is to be annotated "Lifed Component" and the following information is to be included:-

- (i) Date of Marking.
- (ii) Date of fitting to aircraft.
- (iii) Date of failure.
- (iv) Whether serviced since initial assembly and what replacements were made.

7. Stocks held in equipment sections and maintenance units will be dealt with as follows:-

(a) Undated components held in equipment sections and M.U.'s will continue to be issued until such time as stocks of dated components are available, either ex manufacturers or as a result of replacement of dated barrel assemblies and seals in existing stocks of undated relay valves.

(b) When relay valves held in stock become "life expired" they are to be serviced by renewal of rubber components and marked with the date of the oldest "lifed" part fitted. The date is also to be marked on the outside of the package if repacked for storage purposes. Where facilities do not exist for the reconditioning and subsequent testing of relay valves they are to be returned to the appropriate M.U. for servicing.

(c) Priority of issue of lifed items is to be given to overseas units for which components must have an unexpired shelf life of at least nine months in order to avoid stock holdings becoming out of date after a short further period of storage

(d) Items are to be issued in date marked Sequence, to minimize loss due to expiry of shelf life, with the exception of items required for servicing of valves which will be returned to stores after assembly. In these instances the most recently dated items should be used to give the valve the maximum possible shelf life after assembly.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V No 375



DATE 10.2.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 12 FUEL SYSTEM.

MAIN FUEL TANK - FITTING OF  
PACITOR UNIT

It has been found that it is possible for the Pacitor unit in the fuselage tank to be fitted in such a manner that the upper end of the Pacitor Unit does not engage with the spigot provided in the tank. Also it may be found that when attempting to engage the unit with the spigot it may be necessary to rotate the spigot relative to the tank to present the spigot at the correct angle.

This applies to spare new tanks. It is possible that an S.T.I. will be issued on these points.

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SUB HEADING 2 BONDING.  
SUB HEADING 11 ELECTRICAL INSTALLATION.

- A. Special Technical Instruction/Vampire/75  
Main Power Cables: Fouling by Bonding Strip.
- B. Vampire Mk T.11
- C. Cases have been reported of the main power cables G.A.2+ between plugs C.16A and main fuse No.54, on the rear face of No.2 bulkhead, being fouled by the bonding strip on the gun bay access door.
- D. 1. At first possible opportunity and not later than the next Primary Servicing locate the above-mentioned portion of the cables as per the attached drawing No.R.15.F.102.  
2. If any of the cables are damaged, replace them with new cables.

Continued.....

- 3. Bind the cables for the portion shown, with P.V.C. tape.
- 4. Remove the clip AS. 3180/13C securing the cables to the breeze plug sealing plate 15N423A.
- 5. Manufacture new saddle clip as shown, bind it with P.V.C. and secure the cables with it to No.2. bulkhead, keeping the cables as flat as possible to the bulkhead.
- E. Record on appropriate form.
- F. Nil.
- G. Modification action is being taken to introduce this method of securing the cables.

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SUB HEADING 20 MODIFICATION.

VAMPIRE N.F. AND TRAINER AIRCRAFT - MODIFICATIONS

A certain amount of confusion exists with regards to the applicability of modifications 3157, 3222, 3192 and 3046.

Originally Mod 3157 was made applicable to NF 10 and T.11 aircraft and certain aircraft log books were entered up accordingly. Later Mod 3222 was issued for the T.11 and the log books of trainer aircraft made after this mod was issued were marked with this mod number.

Also originally Mod 3046 applied to the N.F.10 and T.11 and early aircraft log books were endorsed accordingly. Later Mod 3192 was issued for the T.11 and after that T.11 aircraft log books recorded this.

These two latter modifications are identical except for the run of the total head air line for the B.P.C. unit which on the N.F.10 comes from the port wing but on the trainer comes from the starboard wing.

We understand A.I.D. action is being taken to correct aircraft log books.

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Continued.....



SUB HEADING 11 ELECTRICAL INSTALLATIONSUB HEADING 12 FUEL SYSTEM

- A. Servicing Instruction/Vampire/40  
Battery Deterioration: Effect of Fuel
- B. Vampire all marks.
- C. Cases have been reported of the battery top sealing and vents having deteriorated and permitting acid to leak. The deterioration is considered to be due to fuel, which enters the tank bay through defective filler neck sealing, during refuelling.
- D. 1. As soon as possible and not later than the next primary star servicing, proceed as follows:-
- (i) Inspect the batteries for damage. Defective vents first portray numerous small internal cracks.
  - (ii) Inspect the main tank filler neck sealing. If the rubber seal is displaced or ineffective, at the first convenient opportunity, remove the tank as laid down in the relevant A.P.
  - (iii) Remove the rubber seal and clean off the Bostik from the tank filler neck and the internal face of the filler neck aperture in the fuselage.
  - (iv) Obtain a supply of Bostick No.1410 and if necessary a new rubber seal.
  - (v) Apply a coat of the Bostik to both sides of the seal, the tank filler neck, and the inner face of the filler neck aperture in the fuselage. Allow to set.
  - (vi) Apply a further coat to the tank filler neck and to one side of the rubber seal and firmly position the seal on the tank, allowing to set.
  - (vii) Apply a further coat to the top side of the seal and the filler neck aperture and immediately replace the tank.
  - (viii) Allow to set before refuelling.

Continued...

- D. 2. Repeat inspection and rectification where necessary at each subsequent Minor Servicing.
- E. Record on appropriate form, and enter on Supplementary Record Sheet in Servicing Schedule.
- F. Nil.
- G. Vampire Modification 3249 cancels this S.I.

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SUB HEADING 12 FUEL SYSTEM.

TRAINER AIRCRAFT - MODIFICATION 3209

As a result of trials recently carried out it has been recommended that the above modification be fitted to aircraft as soon as Modification sets become available.

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SUB HEADING 7 FUSELAGE ASSEMBLY

- A. Special Technical Instruction/Vampire/72  
Cockpit Air Drier Unit - Removal of Masking Tape from Open End.
- B. Vampire Mks. 5 and 9. Sea Vampire Mk.20
- C. Two cases of canopies disintegrating in flight. The cockpit was pressurised and the cold air was on. Investigation revealed that the open (Vokes Filter) end of the air drier was covered with masking tape. It is considered that this masking was a contributory cause to the canopy failure. Masking tape is used at aircraft contractors to prevent ingress of moisture and foreign matter into air driers during storage.
- D. At next Primary Servicing inspect to ensure that no masking tape or other blanking media obstruct the open end of air drier units. Note care is to be taken to ensure that all blanking media is removed from air drier open end when installing new replacement units.
- E. Record on appropriate Forms.
- F. Nil.

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Continued.....

SUB HEADING 8 GENERALD.O.R. (A)C.S. (A) Release - Vampire T.mk.11Removal of restriction on the carriage of R.P. (Ref: T.N.S. V. 343)

1. Further to para. 3(d)(1) of Release Notice of even reference dated 19.8.52., the Vampire T.Mk.11 fitted with No.8 Type14 projectors with shortened front struts (Stores Ref.11C/3004) can now be cleared for the carriage of 3" R.P.with 25 lb or 60 lb heads.
2. The following alternative R.P.loads may be carried up to a maximum indicated speed of 455 knots and released in dives up to 45°:-
  - a. 8 R.P's in double tier stowage using No.8 Mk.4 saddles and Mk.3 fins.
  - b. 4 R.P's in single tier stowage using No.5 or No.8 Mk.1 or 2 saddles and mk.3 fins.
3. An 'M' sight setting of 275 yards is recommended.
4. It should be noted that the modification to rocket motors specified in A.P.2802 A/C.1 need not apply to R.P.carried on the above installation.

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SUB HEADING 1 ARMAMENTSUB HEADING 11 ELECTRICAL INSTALLATION

- A. Special Technical Instruction/Vampire/74  
Bus Bars on Armament Services Junction Box: Shorting.
- B. Vampire T.Mark 11 only.
- C. Cases have occurred of shorting across the bus bars to earth on armament Services Junction Box Part No.15N385 situated behind the pupil's seat during servicing operations.
- D. At the next primary servicing, the exposed parts of the bus bars are to be suitably protected. This can be done by using an adhesive insulating tape (Ref.5F/2232) to prevent anyone from making an inadvertent connection between bus bars and junction box casing.

Continued.....

E. Record on appropriate form.

F. Nil.

G. Mod.action is under consideration.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V. No. 393



DATE 25.3.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME GENERAL CIRCULATION  
SUB HEADING 10 MISCELLANEOUS EQUIPMENT  
SUB HEADING 23 INSTRUMENTS

Reference Special Technical Instruction/Instruments/21  
Replacement of Emergency Supply Rubber Tubing in  
Oxygen Mask Tube Assemblies

Further to this Headquarter's Postagram Instruments/R.D.A.Defects/  
71B dated 8th October, 1952, the following amendment is to be made:

Para.G. Delete in toto and substitute -

"Para(G) Mod No. INSTA/190 Class C/2 has been approved for  
all Mask Tube Assemblies not embodying this S.T.I. Embodiment  
of this Modification renders further compliance with this  
S.T.I. no longer necessary".

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TECHNICAL NEWS SHEET

SERIES V. No 397  DATE 2.4.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME GENERAL CIRCULATION.  
SUB HEADING 7 FUSELAGE ASSEMBLY

Special Technical Instruction/Ejection Seat/1  
(Cancelling and Superseding Special Technical Instruction/  
Miscellaneous/186

Ejection Seats - Ejection and Drogue Firing Guns - Incorrect  
Lubrication

B. Martin Baker Ejection Seats, all Marks - Ejection and Drogue Firing Guns, installed in aircraft or held as spares.

C. It has been reported that firing pin assemblies of both drogue guns and ejector guns have been supplied incorrectly lubricated on assembly with grease type XG290. This grease can interfere with the action of the firing pin by forming a hydraulic cushion in the firing pin assembly.

D.1. At earliest opportunity and not later than next Minor Servicing the following action is to be taken:-

(i) Remove the firing body from the ejection gun as described in A.P.4288A, Section 2, Chapter 2, Para.9 and remove the firing pin from the firing body as described in A.P.4288A, Section 2, Chapter 2, Para.13.

Using paraffin, wash all grease from the firing pin and the interior of the firing body.

Lightly lubricate the firing pin and firing body with oil type D.T.D.44D. Stores Ref.34B/43, reassemble as described in A.P.4288A, Section 2, Chapter 2, Para 13, and replace the firing body as described in Para 10.

(ii) Remove the drogue gun body as described in A.P.4288A, Section 2, Chapter 2, Para.27 and remove the firing pin from the gun body.

Using paraffin, wash all grease from the firing pin and the interior of the firing body.

Continued.....

Lightly lubricate the firing pin and gun body with oil type D.T.D.44D, Stores Ref.34B/43, reassemble as described in A.P.4288A, Section 2, Chapter 2, Para.29 and replace in the drogue gun.

2. Action in accordance with Para.(D)1 is to be taken on all assemblies held as spares, before issue.

E. Record on Appropriate Form and label assemblies held as spares "STI/Ejection Seat/1 satisfied".

F. Nil.

G. Satisfaction of Special Technical Instruction/Miscellaneous/136 renders compliance with this S.T.I.unnecessary.

SUB HEADING 7 FU SELAGE ASSEMBLY.

Special Technical Notice /Ejection Seat/?  
Martin Baker Ejection Seats - All Marks: Locking

A case has been reported recently of the failure of an Ejection Seat Top Latch(Though apparently locked) to engage correctly, due to the seat not being fully down the guide rail. The seat was obstructed by the F.9 cable group from TB10 to Bulkhead Plug F9 which had been incorrectly routed on a Meteor Mark 8 aircraft, and the top latch had consequently not been brought into engagement with the gun.

2. Although appearing to be fully locked, with the red paint not visible, the latch had, in act, engaged ABOVE and not underneath, the locating collar on the ejection gun, thus allowing the seat to be free to move up the guide rail.

3. It is recommended, therefore that during servicing the following check be made to ensure that the seat is properly located:-

With the Top Latch correctly engaged UNDERNEATH the locating collar the top cylinder of the ejection gun should protrude above the face of the top beam by approximately  $\frac{1}{4}$ ".

4. The embodiment of modification 95 Class B.2. "To introduce a Safety Pin for the Top Latch" should be a further safeguard against a repetition of such an incident as that above.

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# DE HAVILLAND SERVICE

HATFIELD, HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SÉRIES V. No 399



DATE 7.4.53.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME GENERAL CIRCULATION.  
SUB HEADING 15 TAIL UNIT ASSEMBLY.

TRAINER AIRCRAFT - TAIL PLANE

When embodying Modification Vampire 3095 introduction of Venom type tail plane - it will be found necessary to alter the "Acorn" fairing to pick up the new line of fairing attachment holes on the tail plane.

This alteration may be carried out to the attached drawing R.15.T.1 using either method specified.

DRAWING NO. R.15.T.1 ATTACHED HERETO.

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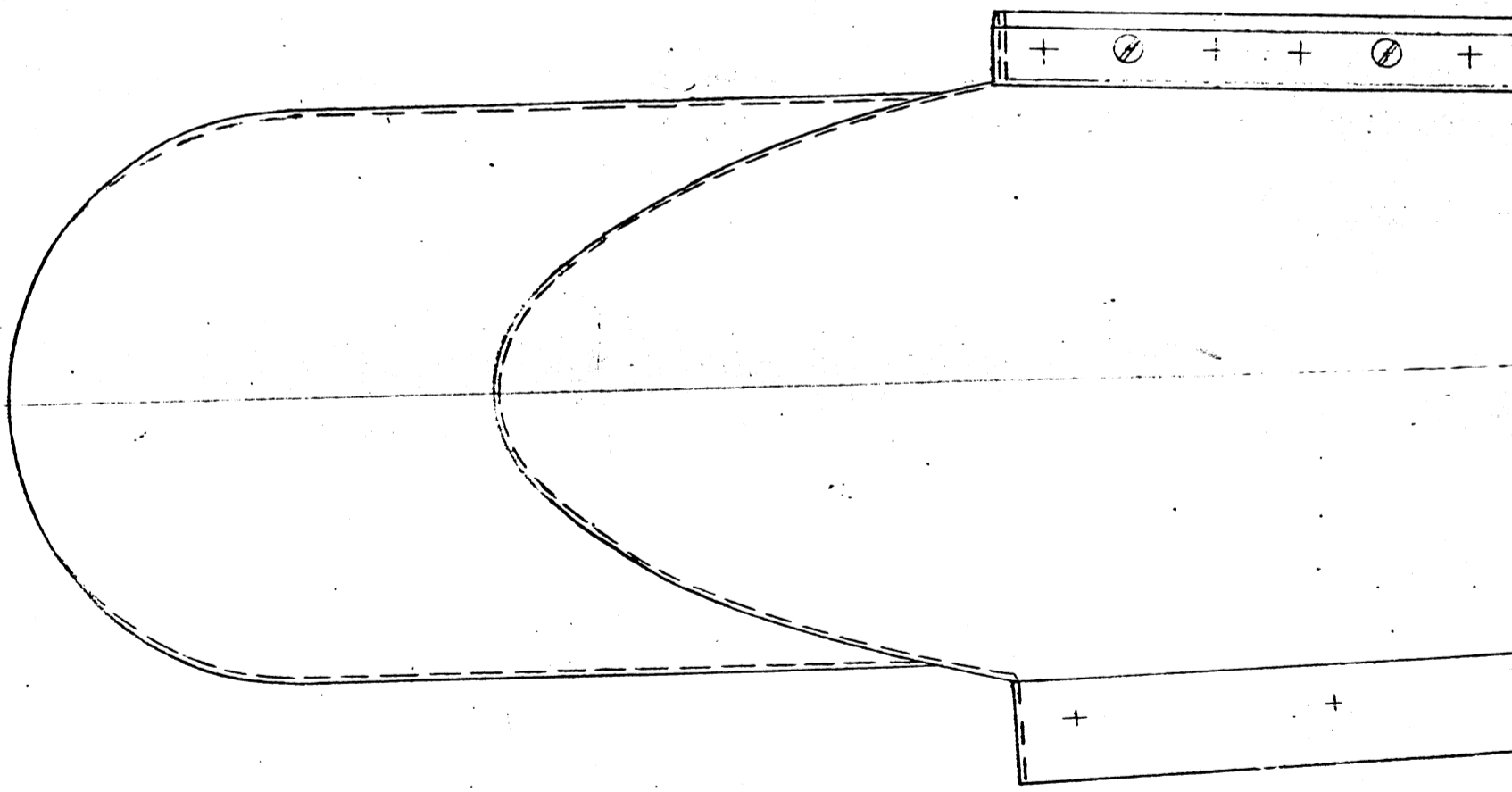
J

H

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F

TACK RIVETS TO BE EQUALLY SPACED BETWEEN  
 NEW PLATE THICKNESSES  
 (TOP AND BOTTOM PLATE THICKNESSES)



6" FLANGE (REF ONLY)

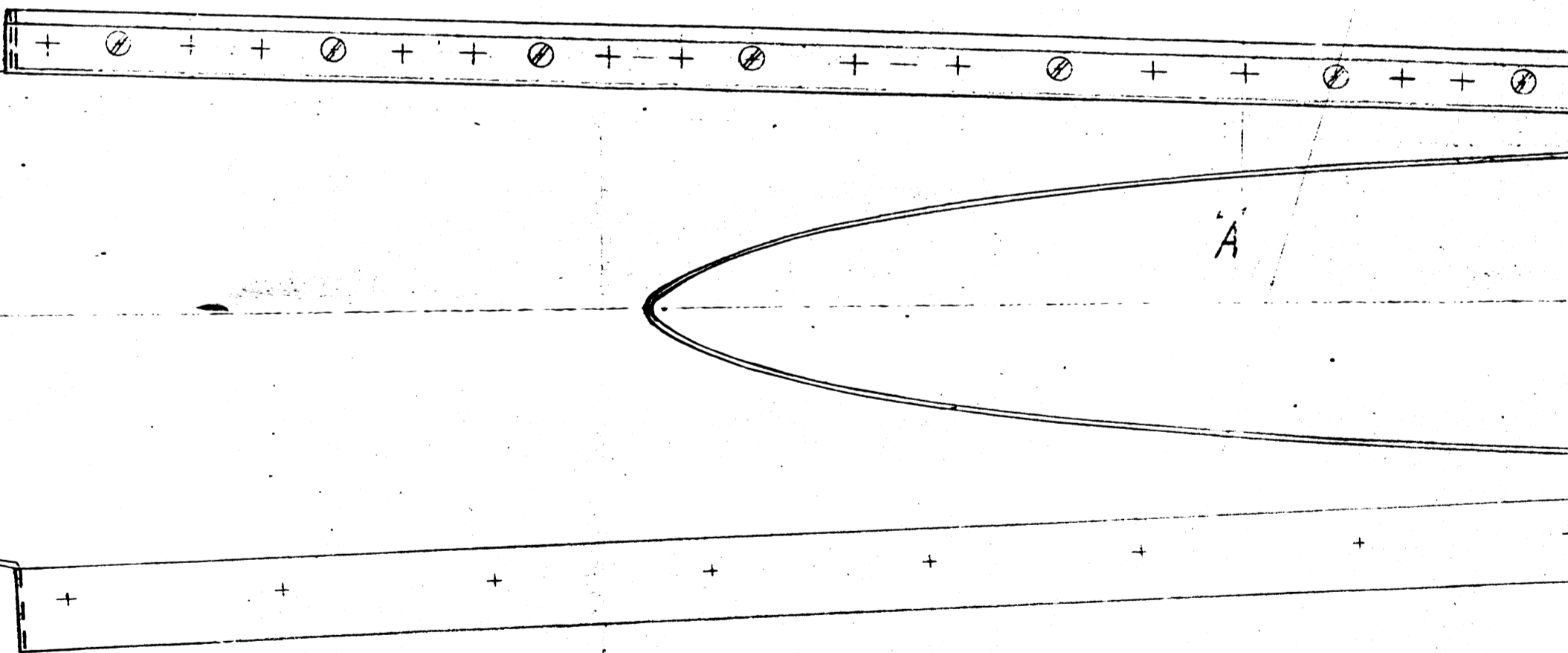
40

BE EQUALLY SPACED BETWEEN  
NEAR BUT NOT  
ENDS OF TOP FLANGES,

INBOARD

A

A



50" FLANGE (REF ONLY)

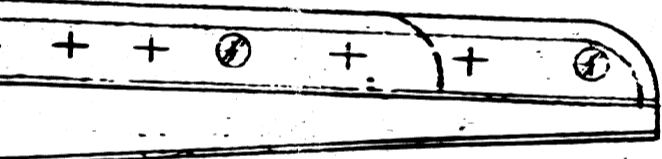
.20" CHAMFER

.40

20  
S.M.S

LT ALLOY STRIP, SPEC  
(OR ALUM. D  
STRIP TO BE A SNU  
OR

DRAWINGS MUST BE REPORTED TO THE DRAWING OFFICE



FIN AND FAIRING.

STRIP, SPEC. DTD 610.

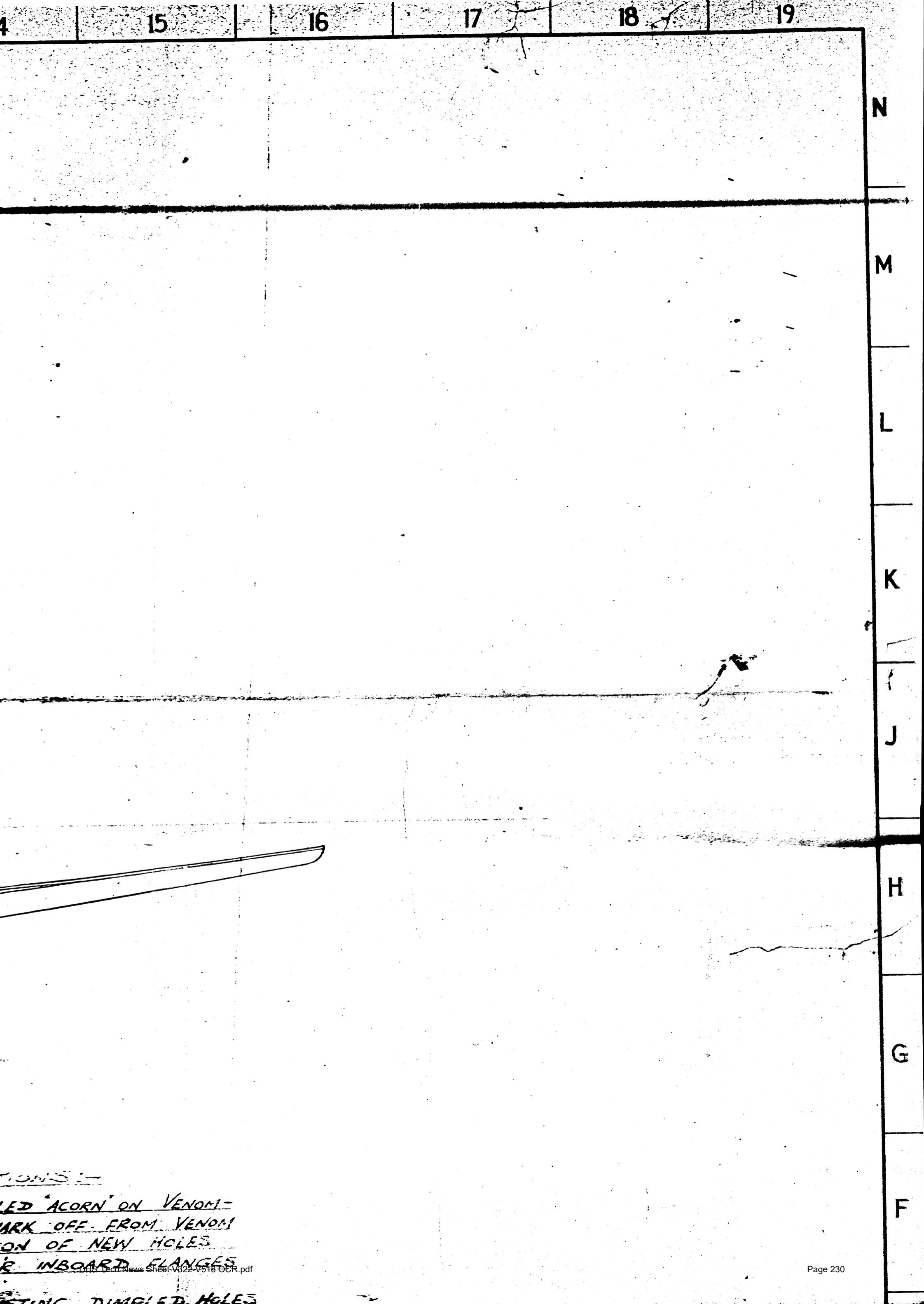
STRIP, SPEC. DTD 213.

BE A SMOOTH FIT IN RADIUS.

OR

SEQUENCE OF OPERATIONS:-

PLACE EXISTING DRILLED 'ACORN' ON  
 -TYPE TAILPLANE AND MARK OFF FROM  
 TAILPLANE THE POSITION OF NEW  
 IN UPPER AND LOWER INBOARD  
 OF FAIRING.  
 WHERE REQUIRED BY EXISTING DRAWING

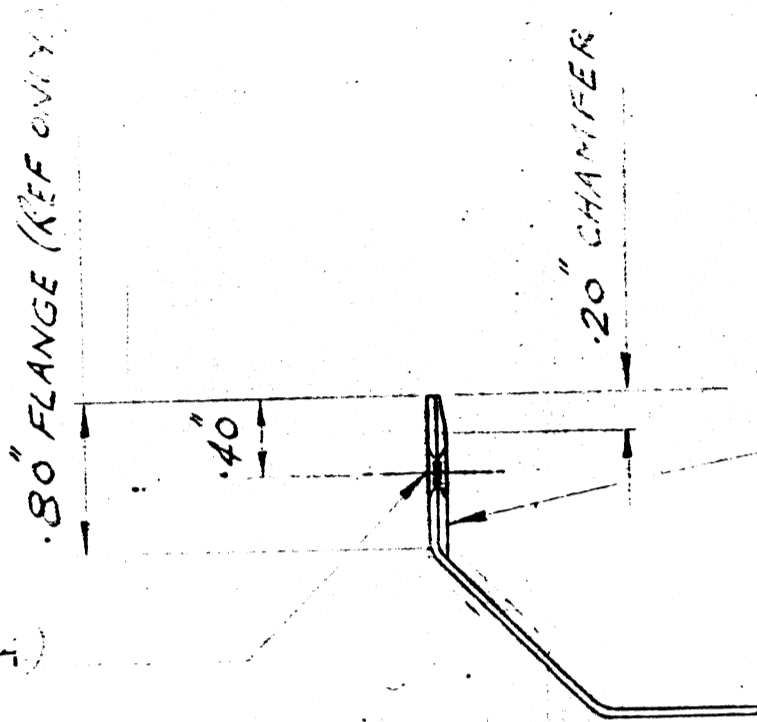
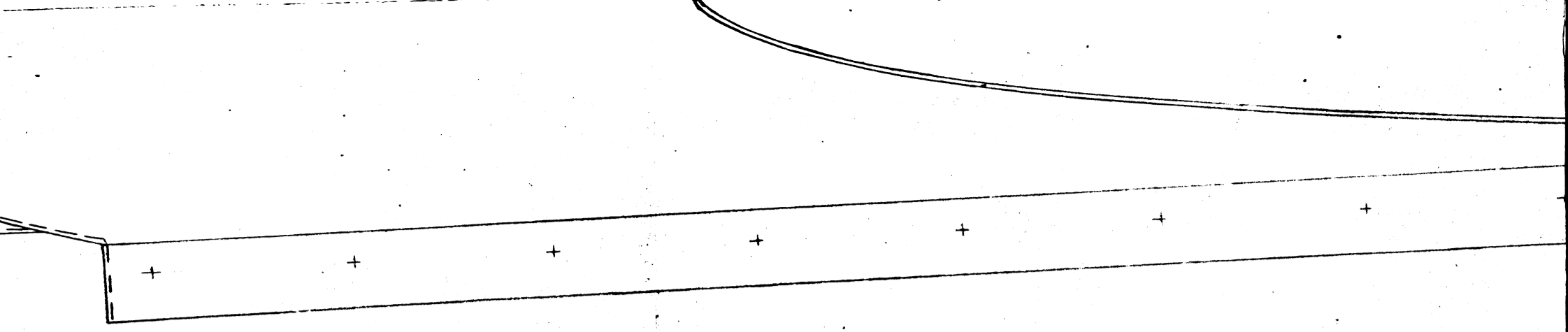


NOTES:

1. FILED 'ACORN' ON VENOM-  
MARK OFF FROM VENOM  
ON OF NEW HOLES  
IN INBOARD FLANGES

2. MARKING DIMPLED HOLES





20  
IN. DIA.

LT ALLOY STRIP, SPEC. (OR ALUM. D) STRIP TO BE A SNUG OR CUT AWAY EXISTING WELD. NEW .80" FLANGE

BE CUT C'S.K. SIZES AS SHOWN FOR THE RIVETS.

HALF SECTION 'AA'

(20 IN. DIA. STRIP TO BE CUT AWAY AROUND COMPLETE LENGTH OF UPPER AND LOWER FLANGES OF EXISTING TAILPLANE)

THIS REPAIR HAS BEEN PREPARED TO COVER THE RE-FITMENT OF VAMPIRE TAIL PLANE ACCORDING TO MOD. 3005 WHEN CHANGING THE TAILPLANE UNDER MOD. 3005 FROM TRAINER TYPE TAILPLANE TO VENOM TAILPLANE.



STRIP, SPEC. DTD 619.  
(OR ALUM. DTD 213)  
BE A SNUG FIT IN RADIUS.

OR

Y EXISTING .80" FLANGE AND  
NEW .80" FLANGE. (ALUM. DTD 213.)

COVER  
ACORN  
AND BOLT  
TAILPLANE

SECTION OF OPERATIONS:-

PLACE EXISTING DRILLED 'ACORN' ON  
-TYPE TAILPLANE AND MARK OFF FROM  
TAILPLANE THE POSITION OF NEW  
IN UPPER AND LOWER INBOARD  
OF FAIRING.

WHERE REDUNDANT, EXISTING DIMPLE  
IN FAIRING ARE TO BE DRESSED  
NEW UNDRILLED STRIP IS TO BE  
POSITION AND NEW HOLES FOR 2  
MARKED OFF, DRILLED NO 11 (.101  
AND DIMPLED FOR 90° C'S'K.-HD.  
ACORN TO BE REMOVED AND NEW  
DIMPLED TO MATCH STRIP.

STRIP TO BE TACK-RIVETTED TO  
RIVETS TO BE EQUI-SPACED AS  
BOLTS AS SHOWN ON DRG.

NOTE! THE C'S'K. BOLT HOLES IN  
WHICH REMAIN EXPOSED AFTER  
FAIRING IS FITTED, ARE TO BE  
WITH C'S'K.-HD. BOLTS.

WHEN MODIFYING N.D. PARTS  
TO N.D. LIST, AS THE PARTS  
USED ON OTHER ASSEMBL



# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD, 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V. No. 400



DATE 7.14.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN.

### VAMPIRE AIRFRAME GENERAL CIRCULATION.

#### SUB HEADING 14 SERVICES AIRCRAFT.

#### SUB HEADING 18 WING ASSEMBLY

A. Special Technical Instruction/Vampire/Chafing of main undercarriage downline, flexible pipe.

B. Vampire all marks with clips Part No. G001737-8 fitted. (For Mk. 1, 3, and 5 this clip was fitted under Mod. 785.)

C. It has been reported that the main undercarriage down line, flexible hose, Part No. AIR. 34492 has been chafing on the nuts and threads of the bolts illustrated at "A" on attached drawing ROOG.40 securing the top reinforcing angle on Rib No. 3.

D. When convenient, and not later than the next primary star servicing, the following action is to be taken.

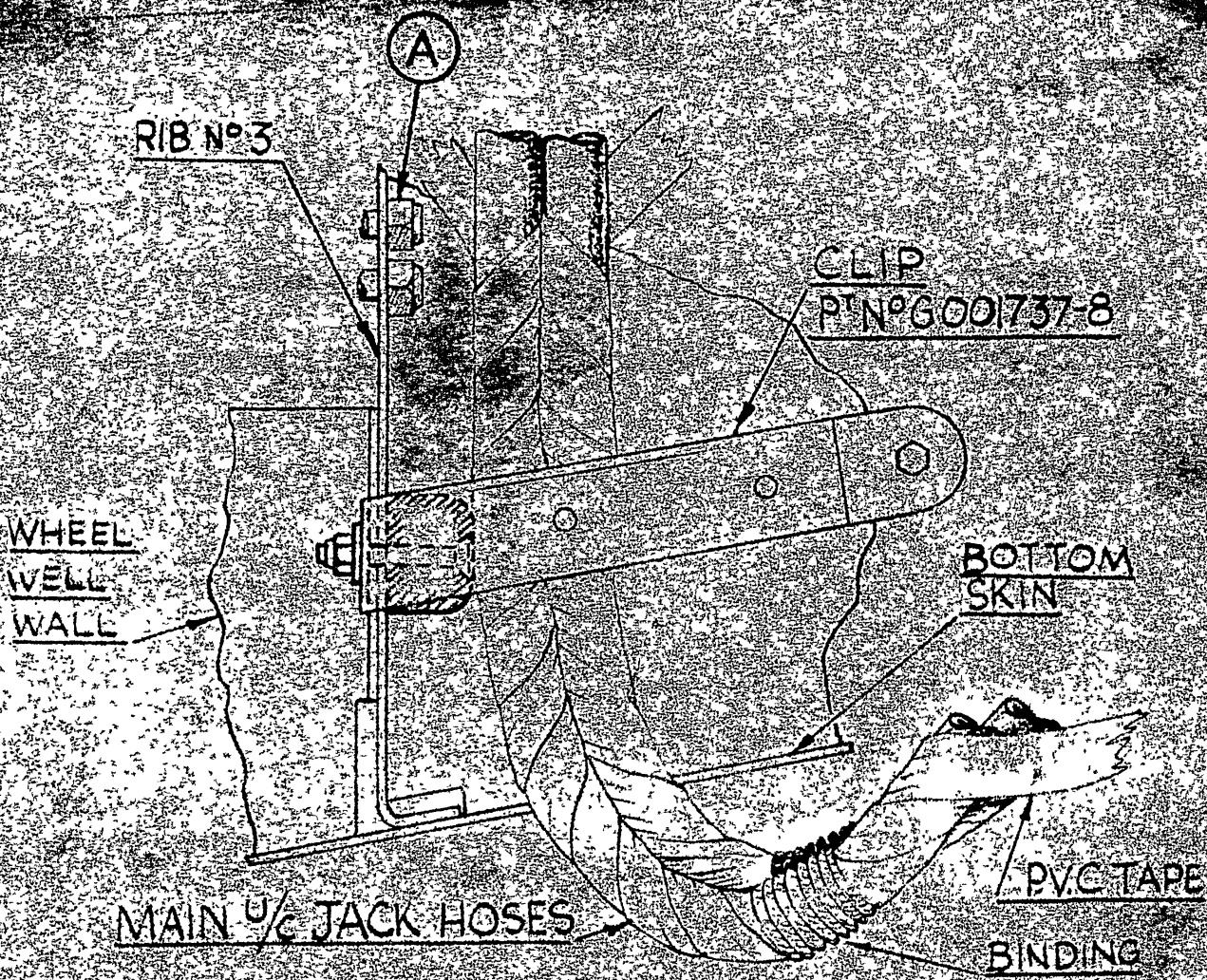
1. Make up a packing block of Tufnol or Fibre to the dimension given on drawing ROOG.40.
2. Remove the 4 BA nut and bolt at the wheel well end of the existing clip Part No. G00.1737-8; fit the block in position and drill the block through the bolt hole.
3. Remove the block again and countersink as illustrated.
4. Fit the packing block with the new M.S. bolt AS.12426B.
5. Inspect P.V.C. tape and hydraulic hose for any sign of damage and replace if necessary

E. Record on appropriate form.

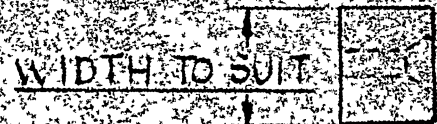
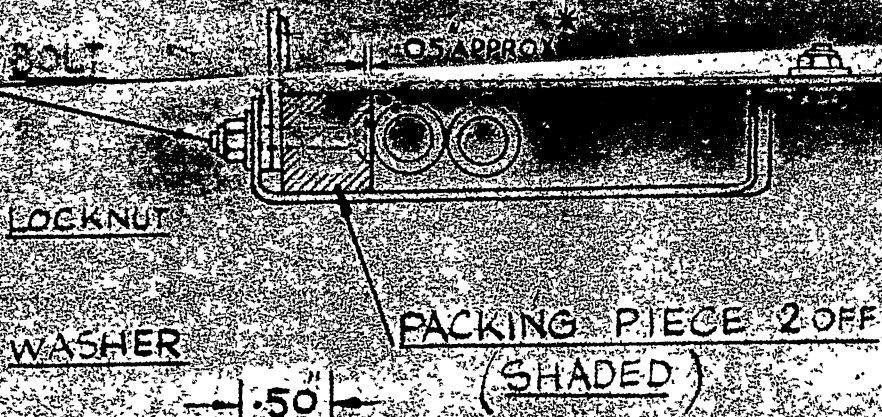
F. Nil.

G. Future production will embody this additional packing.

DRAWING NO. ROOG.40. ATTACHED HERETO.



- AS 1242 BOLT
- AGS 200/BI LOCKNUT
- SP 15B WASHER



\* ENSURE THAT C/SINK ALLOWS BOLT HEAD TO SIT BELOW SURFACE OF BLOCK

PACKING CHANNEL FOR MAIN 1/2 HOSES CLIP W/1/2 TROOG 40

# DE HAVILLAND SERVICE

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## TECHNICAL NEWS SHEET

SERIES V. No 401



DATE 7.4.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME GENERAL CIRCULATION. SUB HEADING 18 WING ASSEMBLY

A. Servicing Instruction/Vampire/41  
Main Undercarriage Door Lock Plunger:  
Security and Adjustment.

B. Vampire all marks.

C. Cases have been reported of the undercarriage door lock plunger lock nut being loose resulting in an incorrect undercarriage sequence. Further contributory causes of mal-functioning are incorrect adjustment procedure and restricted movement of the teleflex in its conduit.

D.1. At the first convenient opportunity and not later than the next Intermediate Servicing proceed as follows:-

(1) Remove the door lock plunger guides (A) and inspect the lock nuts (b) shown on drawing ROOG.39 for security.

(2) If the locknut is insecure, re-tighten and check operation as laid down in the relevant A.P.

(3) If mal-functioning is experienced with the locknut secure, remove the radius rod access door on the top of the wing and observe the teleflex cable on the radius rod assembly during a retraction test. Any tendency for the teleflex to displace itself from its accommodating grooves on the radius rod indicates a restriction in its conduit. Its cause should be sought and rectified before proceeding.

(4) Adjustment Mark a pencil line on the structure level with the end of the plunger guide (A) as shown in Fig.1. Disconnect the undercarriage door and remove the wheel.

(5) Retract the undercarriage and remove the guide (A) and plunger (C)

Continued.....

V. 401 continued.

Sheet 2.

(6) With the teleflex pulled out to its full extent, adjust the position of the spring (E) so that when the plunger is replaced against the spring, the groove on the plunger is approximately 1/32" in advance of the pencil line.

(7) Holding the plunger stationary, screw up the plunger sleeve (d) tight and secure the locknut. This should compress the spring and hold the teleflex firm in the plunger, the groove on it should now be level with the pencil line as in Fig.4.

(8) Replace the guide and perform a retraction test. In the retracted position the groove on the plunger should be level with the end of the guide.

(9) Replace the wheel, reconnect the door, and repeat the retraction test.

2. Repeat the above at each intermediate Servicing.

E. Record on appropriate form and enter on the Supplementary Record Sheet of the Servicing Schedule.

F. Nil.

G. Nil.

.....

DRAWING NO. ROOG.39 ATTACHED HERETO.

PENCIL LINE DRAWN ON WALL IN LINE WITH THE END OF THE GUIDE



Fig 1

U/C DOOR UP LOCK GUIDE (A)

TELEFLEX

SPRING (E)

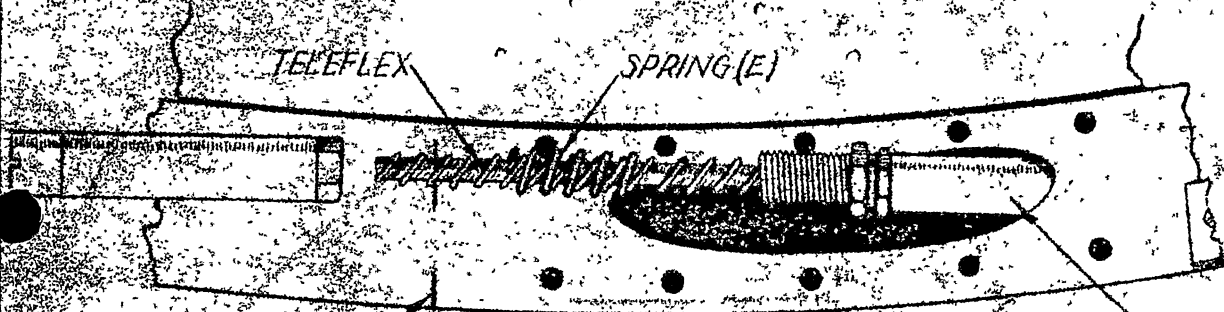


Fig 2 PENCIL LINE

PLUNGER SLLEEVE (D)

LOCKNUT (B)

TIGHTENING UP IS DONE ONLY ON THE PLUNGER-SLEEVE

PENCIL LINE

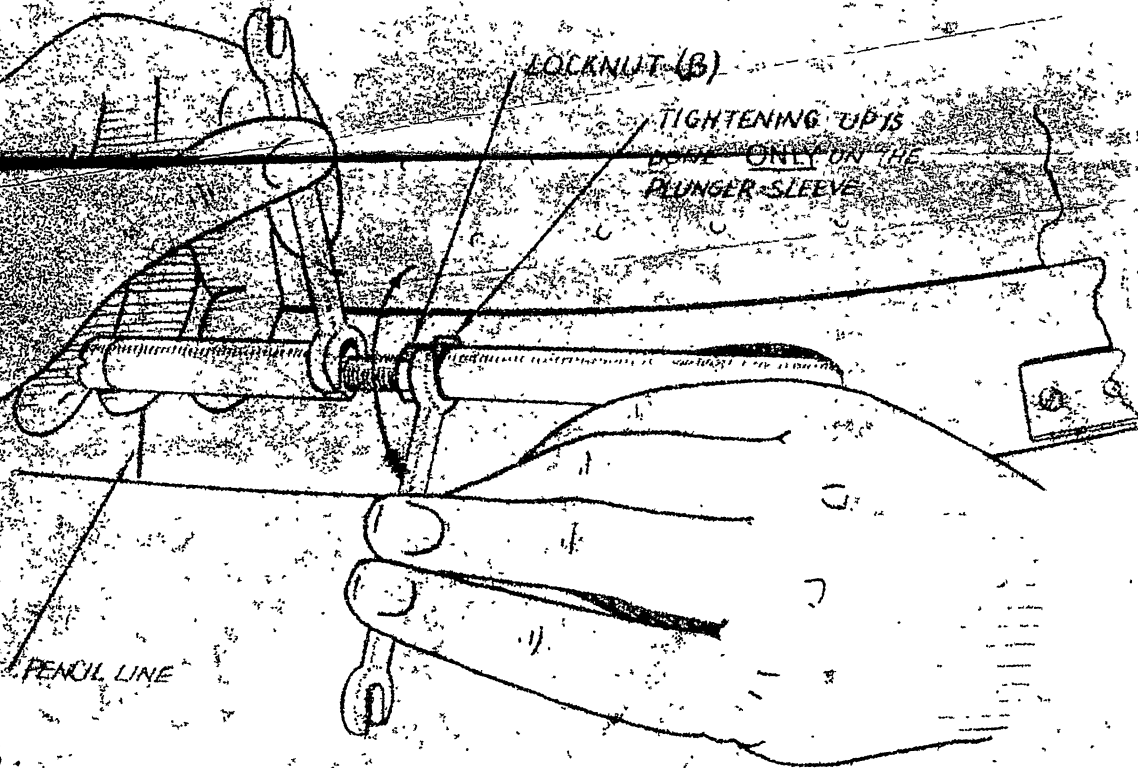


Fig 3

1/4 BSF

O.8A

1.8A

PLUNGER (C)

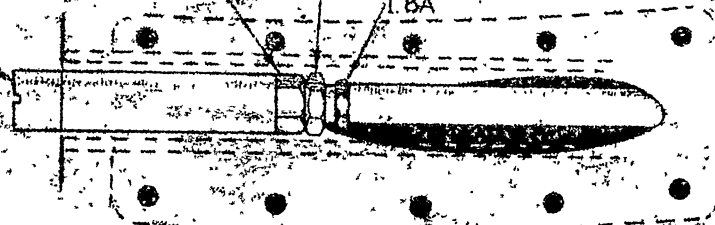


Fig 4

U/C DOOR UP LOCK SETTING & ADJUSTMENT DIAGRAM

ROOG 39





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1 AD. G 2 Gen. and Mod section

101E/130

TECHNICAL NEWS SHEET

SERIES V No 402



DATE 17.4.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION  
SUB. HEADING 12, FUEL SYSTEM

Vampire Mk. 3,5,9

RELIEF VALVE IN FUEL SYSTEM VENT LINE - INTRODUCTION.

Class C/3 on removal of engine to  
aircraft with Mod. 3045 fully embodied.

Mod No. Vampire 3044

This modification has been necessitated by panting of the wing fuel tanks and makes provision for the introduction of 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 Vampire Mod. No. 3045 and can most conveniently be embodied concurrently with, but not prior to, Vampire Mod. No. 996.

SUB. HEADING 12, FUEL SYSTEM

Vampire Mk. 3,5,9

RELIEF VALVE IN FUEL SYSTEM VENT LINE - INTRODUCTION

Class C/3 on removal of engine to air-  
craft with Mod. 3045 fully embodied.

Mod. No. Vampire 3044

Amd. No. 1

Further to the above, herewith Amendment No. 1 to Mod. Vampire 3044.

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Continued...

SUB. HEADING 7, FUSELAGE ASSEMBLY Vampire Mk. T.11

TO INTRODUCE IMPROVEMENTS TO JETTISON ARRANGEMENTS FOR EXISTING TYPE CANOPIES

Class B/2 by a pool of hatches

Mod. No. Vampire 3126

This modification has been necessitated as a result of jettison trials in the Boscombe Tunnel and makes provision for the introduction of improved jettison arrangements.

SUB. HEADING 7, FUSELAGE ASSEMBLY

Vampire Mk. T.11

TO INTRODUCE IMPROVEMENTS TO JETTISON ARRANGEMENTS FOR EXISTING TYPE CANOPIES

Class B/2 by a pool of hatches.

Mod. No. Vampire 3126  
Amd. No.1

Further to the above, herewith Amendment No. 1 for Vampire Mod. 3126

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SUB. HEADING 3, CONTROLS, ENGINE  
SUB. HEADING 7, FUSELAGE ASSEMBLY

Vampire Mk. T.11

TO SET ANGLE OF THROTTLE GRIPS AT 35 DEG.  
TO CLEAR PILOT'S KNEE AND TO REPOSITION  
UNDERCARRIAGE LOCKING OVER-RIDE SWITCH.

Class C/3

Mod. No. Vampire 3188  
Issue 2

This modification has been necessitated by the inadequate clearance between the throttle grips and the pilot's knee, and between the G.G.S. control unit of the first pilot's throttle lever and the port side of the fuselage, and

Continued.....

also the need to improve the accessibility of the undercarriage locking over-ride switch. Provision is therefore made to introduce new throttle levers, to arrange clearance for the G.G.S. control unit and to position the over-ride switch on a new bracket.

SUB. HEADING 1. ARMAMENTSUB. HEADING 7. FUSELAGE ASSEMBLYVampire Mk. 10, 11LINK CHUTE EXTENSIONS - INTRODUCTIONclass B/2Mod. No. Vampire 3235

This modification has been necessitated by a Ministry of Supply request and makes provision for the introduction of link chute extensions on the cannon doors in order to carry the links away from the aircraft without damaging the undersurfaces.

SUB. HEADING 7. FUSELAGE ASSEMBLYSUB. HEADING 16. UNDERCARRIAGEVampire Mk. 10 & 11POSITIVE MECHANISM FOR NOSEWHEEL DOOR OPERATION - INTRODUCTION.Class B/3Mod. No. Vampire 3236

This modification has been necessitated by Service Defect Reports which state that with the present nosewheel door retraction mechanism, there is a tendency for the door to partially close during yawed flight, resulting in the wheel fouling the door if the undercarriage is retracted under these conditions. Provision is therefore made for the introduction of new linkage to obviate this defect.

SUB. HEADING 12. FUEL SYSTEMVampire Mk. 3, 5, 9, 10, 11SEALING GASKET AT No. 4 TANK FILLER NECK - INTRODUCTIONClass C/3Mod. No. Vampire 3247

Continued.....

This modification is necessitated by the leakage of fuel into the wings when the tanks are overfilled and makes provision for a sealing ring between the filler cap mounting and the wing to prevent this.

SUB. HEADING 12. FUEL SYSTEM

Sea Vampire F20, F21

SEALING GASKET AT No. 4 TANK -  
FILLER NECK - INTRODUCTION

Class C/3

Mod. No. Sea Vampire 3247

This modification has been necessitated by the leakage of fuel into the wings when the tanks are overfilled and makes provision for a sealing ring between the filler cap mounting and the wing to prevent this.

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Leaflets for the following modifications are attached herewith:

Vampire Mods. 3044; 3044 Amd. 1; 3126; 3126 Amd. 1; 3188 issue 2; 3235; 3236; 3247 and Sea Vampire Mod. 3247.

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## TECHNICAL NEWS SHEET

SERIES V No 406



DATE 18.4.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME. GENERAL CIRCULATION  
SUB. HEADING 6. ENGINE INSTALLATION

FIREGUARDS AND ADDITIONAL FLAME SWITCHES  
AT WING ROOT RIBS IN ENGINE BAY - INTRODUCTION  
Sea Vampire F.20, F.21

Class B/2

Mod. No. Sea Vampire 844  
Issue 2, Amd. 2

Further to Technical News Sheet No. V.335, herewith Amd. No. 2 to Sea Vampire Modification No. 844.

Please note that although there is no mention on the leaflet of it being issue 2, it should be regarded as such.

Leaflet attached.

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SUB. HEADING 6. ENGINE INSTALLATION

TO REPOSITION THE SPRAY RING FROM  
IMPELLER CASING TO ACCESSORY COMPARTMENT  
Vampire Mk. 1,3,5,9

Class B/2

Mod. No. Vampire 851 Amd.1

Further to Technical News Sheet V.280, herewith Amendment No. 1 to the above mentioned modification.

Leaflet attached.

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Continued.....

SUB. HEADING 6, ENGINE INSTALLATION

TC REPOSITION THE SPRAY RING FROM IMPELLER  
CASING TO ACCESSORY COMPARTMENT.  
Sea Vampire Mks. 20,21

Class B/2

Mod. No. Sea Vampire 851, Amd.1

Further To Technical News Sheet No. V.285, herewith amendment No. 1 to the above mentioned modification.

Leaflet attached

SUB. HEADING 11, ELECTRICAL INSTALLATION  
SUB. HEADING 23, INSTRUMENTS

TO INTRODUCE AUTOMATIC CHANGE OVER  
RELAY REF 5C/4102 AND TURN AND SLIP  
INDICATOR Mk. 2 REF: 6A/2945 IN LIEU  
OF Mk. 1 REF: 6A/2672  
Vampire Mk. 5,9

Class B/2

Mod. No. Vampire 954.  
Issue 2.

This modification is necessitated by a Ministry of Supply request and makes provision for the fitment of a Type Q automatic relay in the Turn and Slip Indicator circuit for emergency operation, and segregates this circuit from that of the G4F compass.

This modification is applicable only to aircraft with Mod. 668 embodied.

Leaflet attached

SUB. HEADING 14, SERVICES AIRCRAFT

TO REPOSITION SELF-SEALING COUPLINGS IN  
HYDRAULIC PUMP CIRCUIT AT ENGINE.  
Vampire Mks. 3,5,9,10,& 11.

Class C/3 on removal of engine

Mod. No. Vampire 996

Continued.....

This modification has been necessitated by the inaccessibility, in the existing position, of the couplings, and the Service personnel's consequent inability to use them when changing an engine and makes provision for them to be re-positioned.

Leaflet attached

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SUB. HEADING 11, ELECTRICAL INSTALLATION

JUNCTION BOX TYPE 148 (Ref. 10D/17676)  
TO REPLACE TYPE 103 (Ref. 10A/15353)  
Sea Vampire Mk. F20, F21.

Class C/3 N.C.P.

Mod. No. Sea Vampire 1034  
Amd. 1

Further to Technical News Sheet No. 300, herewith Amendment No. 1 to the above mentioned modification.

Leaflet attached

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SUB. HEADING 12, FUEL SYSTEM

THINNER SELF SEALING COVERING LOCALLY ON  
FUSELAGE FUEL TANK AND TO INCORPORATE  
HANDLING STRAPS FOR REMOVAL - INTRODUCTION  
Vampire NF.10 & T. Mk. 11

Class C/3 on removal of tank

Mod. No. Vampire 3110

This modification has been necessitated by the difficulty experienced in removing the main fuel tank and makes provision for thinner self-sealing in the vicinity of the central cannon door hinge, a handling strap to facilitate removal, and the repositioning of hydraulic pipes to improve access.

Leaflet attached

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Continued....

SUB. HEADING 23. INSTRUMENTS

FUEL CONTENTS GAUGE (CAPACITOR TYPE),  
TO INTRODUCE AN IMPROVED POWER UNIT  
TYPE GP. 512/001/9 OR GP. 512/001/5B/1.  
(STORES REF. 6A/1998)  
Vampire lks. 5,9,10 and 11.

Class C/3 N.C.P. on replacement

Mod. No. Vampire 3147

This modification has been necessitated by defects experienced in Service and makes provision for the introduction of an improved standard of power unit.

This modification is applicable in the case of the F.B. Mk. 5 only to aircraft embodying Vampire Mod. 568.

This modification supersedes S.T.I./Instruments/14.

This modification is essentially connected with Mod. No. INST/4/159.

Leaflet Attached

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SUB. HEADING 7. FUSELAGE ASSEMBLY

TO BRING CANOPY JETTISON HANDLE WITHIN  
REACH OF PILOT WHEN FULLY STRAPPED IN.  
Vampire lks. 10

Class B/2

Mod. No. Vampire 3160 Issue 2

This modification has been necessitated by the difficulty experienced by pilots in reaching the canopy jettison handle when they were fully strapped in, and makes provision for the raising of the jettison handle by approximately 5 in. from its existing station.

NOTE: This modification is only applicable to aircraft without Mod. Vampire 3150 embodied.

Leaflet attached.

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Continued.



SUB. HEADING 6; ENGINE INSTALLATION  
SUB. HEADING 7, FUSELAGE ASSEMBLY

TO EXTEND FRONT JET PIPE DRAIN AND FIREGUARD  
DRAIN THROUGH COWLING TO ATMOSPHERE.  
Vampire Mk. 1,3,5,9,10, 11.

Class B/2

Mod. No. Vampire 3161

This modification has been necessitated by the risk of fire, when starting on the ground, due to excess fuel being trapped inside the engine cowling, and makes provision for the extension of both the jet pipe drain and the fireguard drain through the cowling to the atmosphere.

Leaflet attached

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SUB. HEADING 7, FUSELAGE ASSEMBLY

TO BRING CANOPY JETTISON HANDLE WITHIN  
REACH OF PILOT WHEN FULLY STRAPPED IN.  
Vampire Mk. T.11

Class B/2

Mod. No. Vampire 3164,  
Issue 2, Amd. 2

Further to Technical News Sheet No. V.367, herewith Amendment No. 2, to issue 2 of the above mentioned modification.

Leaflet attached

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SUB. HEADING 11, ELECTRICAL INSTALLATION

CONNECTORS TYPE 3347/5, 3 TORES REF.10HA/  
11256, TO ENABLE GEE AERIAL CABLE TO  
BE USED WITH TYPE 51 LOADING UNIT -  
INTRODUCTION  
Vampire NF.10

Class B/2 N.C.P.

Mod. No. Vampire 3168 Amd.1

Further to Technical News Sheet V. 350, herewith Amendment No. 1 to the above mentioned modification.

Leaflet attached.

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Continued.....

SUB. HEADING 14, SERVICES AIRCRAFT.

SPECIAL ADAPTOR IN PNEUMATIC SYSTEM AT  
FIREPROOF BULKHEAD TO FACILITATE  
INSTALLATION OF HYDRAULIC R.V.10 VALVE -  
INTRODUCTION  
Vampire Mk. 10 & 11

Class C/3 on replacement of valve,  
or on removal of fuel tank.

Mod. No. Vampire 3183.

This modification has been necessitated by the extreme difficulties experienced in removing the hydraulic valve and makes provision for the introduction of an adaptor which will obviate such difficulties.

Leaflet attached.

SUB. HEADING 7, FUSELAGE ASSEMBLY

TO RE-RIG AND IMPROVE ENGAGEMENT  
OF CANOPY WINDING HANDLE  
Sea Vampire Mk. 20,21

Class C/3 N.C.P.

Mod. No. Sea Vampire 3211,  
Amd. No.1

Further to Technical News Sheet No. V.362, herewith Amendment No. 1 to the above mentioned modification.

Leaflet attached.

SUB. HEADING 18, WING ASSEMBLY

TO INCREASE GAUGE OF AIR DUCT  
AT HEAT EXCHANGER  
Vampire Mk. 5 & 9

Class C/3 on replacement

Mod. No. Vampire 3237

This modification is necessitated due to the cracking of the present type air duct and makes provision for the installation of a duct manufactured from heavier gauge metal to overcome this. On the F.B.5 aircraft this modification applies only where Vampire 784 is embodied.

Leaflet attached.

Continued.....

# DE HAVILLAND SERVICE

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## TECHNICAL NEWS SHEET

SERIES V No 407



DATE 20.4.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION SUB. HEADING 7, FUSELAGE ASSEMBLY

- (A) Special Technical Instruction/Ejection Seat/2  
(Cancelling and Superseding Special Technical Instruction/Miscellaneous/  
197 and 197A)  
Ejection Seats - Firing Bodies of Ejection and Drogue Gun - Defective  
Springs
- (B) Martin Baker Ejection Seats - All Marks. Firing Bodies 27L/7 (B/1301) fitted in Ejection Gun 27L/2 (E.1340) and Drogue Gun 27L/3 (E./1410) assemblies installed in aircraft or held as spares.
- (C) It has been reported that springs in the firing bodies of ejection guns and drogue guns may have experienced a slight permanent set, which may prevent the proper firing of the cartridge.
- (D) Before the next flight or in case of spares, before issue, the following action is to be taken:
- (i) The firing body must be removed from the ejection gun (AP.4288A, Vol. 1, Section 7, Chapter 5, para. 2) and the compression of the spring must be tested as in AP.4288A, Vol. 1, Section 7, Chapter 5, Para. 10.
  - (ii) A similar test must be carried out on the drogue gun (AP.4288A, Volume 1, Section 7, Chapter 5, Para. 14 and AP.4288A, Vol. 1 Chapter 5, Para. 15).
  - (iii) Before applying the spring balance test the spring should be compressed solid twice.

Continued.....

- (iv) Springs which fail to pass this test must be replaced immediately by replacing the firing body, and a signal should be sent to R.D.A. Defects, M. of S. quoting the aircraft and seat number.
- (E) Record on the appropriate Form and label items held as spares STI/Ejec. Seat/2 "Satisfied".
- (F) Nil.
- (G) Mod. No. 102 which introduces stronger springs or satisfaction of Special Technical Instruction/Miscellaneous/197, will render compliance with this S.T.I. no longer necessary.

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SUB. HEADING 7. FUSELAGE ASSEMBLY

- (A) Special Technical Instruction/Ejection Seat/3.  
(Cancelling and Superseding Special Technical Instruction/Miscellaneous/201)  
Ejection Seats - Jamming of Seat on Guide Rails - due to ingress of loose Mandrel Heads
- (B) Martin Baker Ejection Seats All Marks.
- (C) Cases have been reported of loose mandrels (from the pop rivetting of the seat pan and parachute container) having become jammed between the rollers and guide rails of ejection seats, thus preventing easy removal of the seat.
- (D) 1. At the next Daily Inspection, seal off, with adhesive tape, (preferably waterproof) any holes in seat pan and parachute container to prevent any loose mandrels from falling out from the interior of the components.
2. At the next removal of the seat and/or not later than the next Minor Inspection, examine guide rails, seat pan and parachute container, and remove and/or punch out mandrels still retained by the rivets, Re-taping will not be necessary.
- (E) Record on appropriate Form.
- (F) Nil.
- (G) Action now taken by Contractor to remove all loose mandrels on production.

Continued....

Embodiment of Mod. 113 or satisfaction of Special Technical Instruction/Miscellaneous/201 renders compliance with this S.T.I. unnecessary.

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SIB. HEADING 7. FUSELAGE ASSEMBLY

- (A) Servicing Instruction/Ejection Seat/2  
Martin Baker Ejection Seats: Static Line Container Assembly: Lubrication.
- (B) All Martin Baker Ejection Seats Mk. 1 and Mk. 1 variant.
- (C) Inadvertent firing of the drogue gun has been reported. This was ascribed to the application of an increased load to the static line during withdrawal caused by the hardening and partial seizure of the neoprene grommet on the container with the static line.
- (D) 1. As soon as possible and not later than the next Minor Servicing, lubricate the bearing surfaces of the non-return spigot and neoprene grommet at the neck of the static line container. Grease XG.271. (Ref. 34B/208), which is suitable for application to neoprene materials, is to be used.
2. Re-lubricate during each subsequent Minor Servicing and whenever the static line has been re-wound and replaced in its container.
- (E) Record on the appropriate Form and enter on the Supplementary Record Sheet of Servicing Schedule.
- (F) Nil.
- (G) Nil.

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## TECHNICAL NEWS SHEET

SERIES \_\_\_\_\_ V. No. 412



DATE 18.5 53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME GENERAL CIRCULATION. SUB HEADING 12 FUEL SYSTEM.

TI D 73 (2)

- A. Special Technical Instruction/Vampire/76A  
(Cancelling and Superseding Special Technical Instruction/  
Vampire/76)  
Drain Pipe at Main Fuel Tank Filler No. : Damaged by Refuelling  
nozzle.
- NB. Drawing No. ROOP104 attached to STI/Vampire/76 is to be transferred to this S.T.I.
- B. Vampire aircraft, All Marks, and main fuel tanks held in stock.
- C. Damage and fracturing of the main fuel tank filler neck drain pipe by the refuelling nozzle has been reported.
- D.1. As soon as possible but not later than the next Primary Star Servicing the following action is to be taken:-
1. Remove the tank filler cap, insert a refueller nozzle and tilt it to the extreme angle most likely to damage the drain pipe.
  2. Run the fingers down the drain pipe and feel for scars which may have been caused by the refueller nozzle.
  3. Check the alignment of the cover plate of all tanks where the drain pipe is scarred to ascertain whether a blanking plug could be fitted in accordance with drawing No. ROOP104 attached.
  4. Blank off the drain pipe in accordance with "Scheme A" below where a blanking plug could be fitted.
  5. Blank off in accordance with "Scheme B" below where it is not possible to fit a blanking plug.

Continued.....

6. Scheme A (Drawing No.ROOP104 refers)

1. Manufacture from local resources an aluminium plug as shown on Drawing No.ROOp104.
2. Open out the hole in the filler neck cover plate, immediately above the drain pipe, to  $3/8$ " dia. This can be effected without removing the cover plate, but care should be taken not to damage the drain pipe, and to clear out any swarf.
3. Amply cover the plug with jointing compound and tap it into the drain pipe, leaving  $1/4$ " proud of the pipe.
4. Disconnect the external drainpipe at the base of the tank rear wall, and blank off the union on the tank and the drain pipe as shown on Drawing No.ROOP.104.

7. Scheme B.(Drawing No.ROOP106 refers)

1. Locate the two cover plate holding studs nuts and cup washers, one on either side of the drain hole.
2. Pack up with langite to the height of the cup washer approx  $3/16$ ". This packing must extend from the periphery of one washer across the drain hole to the periphery of the adjacent washer; in width it must be adequate to seal off the drain hole, as shown on drawing ROOP.106.
3. If the langite packing is made up of thin laminations, the faces between each strip are to be coated with approved jointing compound (such as Bostik 1410).
4. Seal the langite to the cover plate with jointing compound and clamp in position with a strip of 18 S.W.G.light alloy DTD.610 bridged across the two studs mentioned in 1. above and held in position by the two nuts. The edges of the clamping strip should be turned down to ensure that no movement of the langite packing is possible. The clamping strip may be made to any suitable shape, in plan view, to suit the varying fuselage cut out contours and tank positions of individual aircraft.
5. Disconnect the external drainpipe at the base of the tank rear wall and blank off the union on the tank and the drainpipe as shown on Drawing ROOP106.

Continued.....



2. Main fuel tanks held in stock are to be checked, and rectified where necessary, prior to issue.

E. Record on the appropriate Form and mark spare tanks with "STI/VAMPIRE/76"

F. Nil.

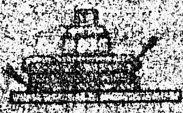
G. Nil.

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DRAWING NO. ROOP106 ATTACHED HERETO.

ANY ERRORS ON DRAWING MUST BE REPORTED TO THE DRAWING OFFICE

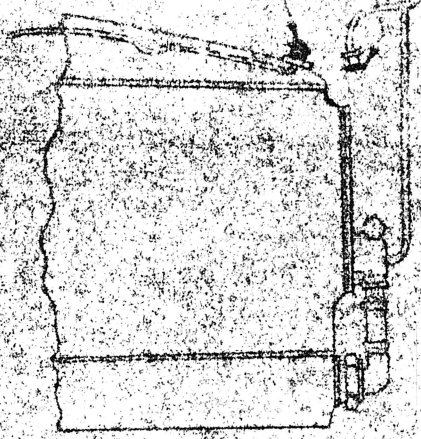
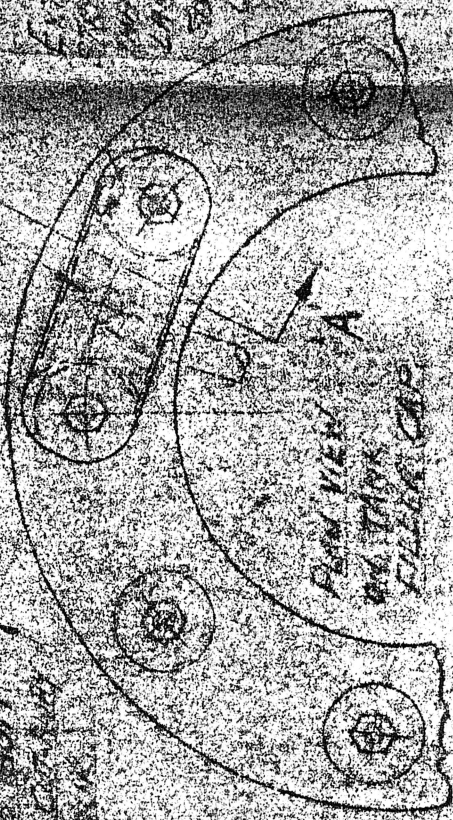
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VIEW SHOWING  
 BLANKING OF  
 DRAWING AT  
 BOTTOM OF  
 TANK

AGS QUOTE SLAVE  
 1000  
 AGS QUOTE SLAVE  
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 AGS QUOTE SLAVE  
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ISSUE NO		ASSEMBLY NO		SCHEDULE NO		N° OFF	
MOD NO		THE DE HAVILLAND AIRCRAFT CO LTD		HAYFIELD, HERTS			
ALTERATION EMBODIED							
CHECKED							
DATE OF MOD.							
SHEETS APPROVAL							
FINISH							
MATERIAL							
SPEC.							
DESCRIPTION		BURNING MOUNT		TANK FLANGE		R200 100	
DRAWN		APPROVED		DATE		TRACED BY	

This drawing is private and confidential and is supplied on the express condition that it is not to be used for any purpose or copied or communicated to any other person without the permission of the DE HAVILLAND AIRCRAFT CO. LTD.

AMENDMENTS EMBODIED

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TECHNICAL NEWS SHEET

SERIES V. No. 416



DATE 5.6.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.

SUB HEADING 8 GENERAL

SUB HEADING 20 MODIFICATIONS.

RE: TECHNICAL NEWS SHEET V.406

We have been advised that certain recipients of V. Series Technical News Sheets did not receive all modification leaflets referred to in T.N.S. V.406 dated 18.4.53 the leaflets are as follows:

- Sea Vampire 844 Issue 2, Amd.2,
- Vampire 851 Amd.1.
- Sea Vampire 851 Amd.1.
- Vampire 954 Issue 2.
- Vampire 996
- Sea Vampire 1034 Amd.1.
- Vampire 3110
- Vampire 3147
- Vampire 3160 Issue 2
- Vampire 3161
- Vampire 3164 Issue 2, Amd.2.
- Vampire 3168 Amd.1.
- Vampire 3183
- Sea Vampire 3211 Amd.No.1.
- Vampire 3237.
- Vampire 3255
- Vampire 3258
- Vampire 842

Continued.....

Those operators who have not received the above leaflets are advised to apply for the missing leaflets from the Service Department Hatfield.

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TECHNICAL NEWS SHEET

SERIES V. No. 417



DATE 8.6.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 12 FUEL SYSTEM.

SEALING GASKET AT NO. 1 TANK FILLER  
NECK - INTRODUCTION. F3, FB5, FB9, NF10  
T.11.

CLASS C/3

MOD NO. VAMPIRE 3246

This modification is necessitated by the leakage of fuel into the wings when the tanks are overfilled and makes provision for a sealing ring between the filler cap mounting and the wing to prevent this.

This modification is applicable only to aircraft not embodying Vam. Mod. 3041.

SUB HEADING 1 ARMAMENT  
SUB HEADING 11 ELECTRICAL INSTALLATION.

TO REVISE CODING ON CABLES PART NOS  
15N407 AND 409 IN R.P. AND BOMB CIR-  
CUITS IN FUSELAGE. MK. T.11.

CLASS C/3

MOD NO. VAMPIRE 3234

It has been found that the two cables running from junction box 2 on bulkhead 4 to the Port and Starboard wing root are incorrectly coded. This modification makes provision for the recoding of these cables to conform with standard practice.

This modification is only to be embodied upon disconnection of the cables concerned.

Continued....

SUB HEADING 12 FUEL SYSTEM.

TO REPLACE FUEL BOOST PUMP TYPE FB.6  
REF 5U/4986 BY TYPE BP.1 REF 5U/4828  
- INTRODUCTION. MK. F. 3, FB. 5, FB. 9 NF. 10  
T. 11.

CLASS B/2 N.C.P. FOR VAMPIRE MK. F. 3.  
AND FB. 5 EMBODYING MOD 228 AND CON-  
CURRENTLY WITH GOBLIN MOD 724.

CLASS B/2 N.C.P. FOR VAMPIRE MK. FB. 9      MOD NO. VAMPIRE 3216  
CONCURRENTLY WITH GOBLIN MOD. 724.

CLASS B/2 N.C.P. FOR VAMPIRE MK. NF. 10  
AND T. 11 ON CHANGEOVER TO AVTAG.

This modification is necessitated by the type FB.6 fuel booster pump, introduced as an alternative under Mod 228, being found unsatisfactory on the introduction of Goblin Mod 724, resulting in low pressure in the pipe and the consequent operation of the fuel pressure light, and makes provision for the fitting of type BP.1 fuel booster pump.

SUB HEADING 7 FUSELAGE ASSEMBLY  
SUB HEADING 11 ELECTRICAL INSTALLATION.

TO IMPROVE ACCESS TO TERMINAL BLOCK FOR G.G.S  
MK. 5 ELECTRICS TO ENABLE TEST SET TO BE USED.

CLASS C/3

MOD NO. VAMPIRE 3176

This modification has been necessitated by the inaccessibility of the GGS Mk5 control terminal blocks and makes provision for their repositioning to enable test set to be used.

SUB HEADING 6 ENGINE INSTALLATION.  
SUB HEADING 7 FUSELAGE ASSEMBLY

TO MAKE PROVISION FOR OVERBOARD DRAIN PIPE  
AT REAR OF ENGINE JET PIPE F. MK. 1. F. MK 3.  
FB. MK. 5, FB. MK. 9 NF. MK 10. T. MK. 11 Aircraft.

CLASS B/2

MOD NO. VAMPIRE 3163

This modification makes provision for an overboard drain

Continued.....

pipe at the rear of the engine jet pipe to reduce the risk of fire by the re-lighting of trapped fuel in the cowling. The modification must be embodied prior to or concurrently with Goblin Mod 903.

SUB HEADING 11 ELECTRICAL INSTALLATION

TO REPLACE CABLES USED FOR FIRE WARNING AND EXTINGUISHER CIRCUITS BY "PRENMET" AND REPLACE CEL AND VIN CABLES ENDING IN UNDERCARRIAGE AND ENGINE BAYS AND TAIL CONE BY PREN.

CLASS B/2

MOD NO. VAMPIRE 934 ISSUE 2.

This modification introduces prenet type cable in fire warning and fire extinguisher circuits running aft from the firewall in conjunction with Mod. 965 (which introduces a fire resisting type of cable in place of unirubber from inside the engine bay forwards) and ensures the proper functioning of the fire warning and extinguisher systems, since the unsuitable dunet cable has been fitted on some aircraft. The modification also introduces prenet type cables in the undercarriage and engine bays and tail cone, to replace vin or cel type cables which have their ends exposed in these locations. It has been found that these cable ends deteriorate rapidly when subjected to heat, weather and kerosene soakage. Modification 934 supersedes and cancels STI/Vampire/35A and SFI No. TF. 540. The fuse covering the downward identification lights removed under the latter instruction must be replaced. Modifications 934 and 965 supersede and cancel STI/Vampire/36C. Vampire Mod 921 must be embodied prior to or concurrently with this modification.

NOTE: Where Vampire Mod 921 has been embodied retrospectively reference must be made to operations 7 and 8.

SUB HEADING 13 RADIO.

TYPE "W" PLUGS AND SOCKETS IN LIEU OF EXISTING TYPE "WT" PLUGS AND SOCKETS FITTED IN A. C. TEST SOCKET POSITION - INTRODUCTION. MK. 10.

CLASS C/3

MOD NO. VAMPIRE 3087

This modification is necessitated by a Ministry of Supply request for the alternator test sockets to mate with service trolleys, and makes

Continued.....

provision for the introduction of new plugs and sockets at the alternator test point to effect this.

SUB HEADING 13 RADIO.

TYPE "W" PLUGS AND SOCKETS IN LIEU  
OF EXISTING TYPE "WW" PLUGS AND SOCKETS  
FITTED IN A.C. TEST SOCKET POSITION -  
INTRODUCTION. MK.10.

CLASS C/3

MOD NO. VAMPIRE 3087 Amd.1.

Further to this Technical News Sheet and the above Modification herewith amendment No.1.

SUB HEADING 1 ARMAMENT

SUB HEADING 7 FUSELAGE ASSEMBLY

MODIFIED MARTIN BAKER BLAST TUBE -  
INTRODUCTION NF.10 T.11

CLASS B/2

MOD NO. VAMPIRE 3256

This modification is necessitated by the deformation of the front cone due to lateral displacement and hammering against the rear end of the cannon spout, and makes provision for the fitting of a modified nose ring on the blast tube assembly.

SUB HEADING 11 ELECTRICAL INSTALLATION.

GUARD ON BOOSTER PUMP SWITCH - INTRODUCTION.

CLASS C/3 N.C.P.

MOD NO. VAMPIRE 3240

This modification is necessitated by the accidental switching off of the booster pump during flight, when operating other switches and makes provision for the fitting of a guard over the switch to prevent this.

continued.....



SUB HEADING 12 FUEL SYSTEM.

TO REPLACE FUEL BOOST PUMP TYPE FB, 6  
REF. 5U/4986 BY TYPE BP.1 REF. 5U/4828 -  
INTRODUCTION. MK. F,20, F,21.

Class B/2 N.C.P. To aircraft embodying  
Mod 228, and concurrently with Goblin  
Mod 724.

SEA  
MOD NO/VAMPIRE 3216.

This modification is necessitated by the type FB 6 fuel booster pump, introduced as an alternative under Mod 228 being found unsatisfactory on the introduction of Goblin Mod 724. Resulting in low pressure in the pipe and the consequent operation of the fuel pressure light, and makes provision for the fitting of Type BP.1 Fuel Booster Pump.

SUB HEADING 12 FUEL SYSTEM.

RELIEF VALVE IN FUEL SYSTEM VENT LINE -  
INTRODUCTION.

N.F.MK.10 & T.MK.11.

Class C/3 on removal of engine to  
aircraft with Mod 3045 fully  
embodied.

MOD NO. VAMPIRE 3209

This modification has been necessitated by painting of the wing fuel tanks and makes provision for the introduction of 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 Vampire Mod.No. 3045 and can most conveniently be embodied concurrently with, but not prior to Vampire Mod No. 996.

SUB HEADING 12 FUEL SYSTEM.

MOD NO. VAMPIRE 3209 Amd.1.

Further to the above Technical News Sheet herewith  
 Amendment No.1.

SUB HEADING 1 ARMAMENT  
SUB HEADING 11 ELECTRICAL INSTALLATION.

TO INTRODUCE PROVISION FOR TESTING CAMERA  
GUN CIRCUIT WITHOUT INTERFERENCE WITH  
GUN FIRING SAFETY CIRCUIT, T.MK.11.

Continued.....

Class C/3MOD NO. VAMPIRE 3186

This modification introduces a double pole spring switch in the camera gun circuit to enable the camera to be tested without releasing the gun firing safety switch, and obviating the possibility of accidental firing of the guns during camera tests.

SUB HEADING 7 FUSELAGE ASSEMBLY.SUB HEADING 13 RADIOZINC SPRAYED PATTERN ON AL. MK. 10 RADOMES - INTRODUCTION.CLASS C/3MOD NO. VAMPIRE 3231

This modification introduces an electrically conductive surface on the inner side of Al MK 10 Radome. This is achieved by the fitment of zinc sprayed madapollam patches of standard size and contour.

SUB HEADING 12 FUEL SYSTEM.SUB HEADING 7 FUSELAGE ASSEMBLY.

TO INTRODUCE IMPROVED SEALING AT FUSELAGE FUEL TANK FILLER NECK F. MK. 1, F. MK. 3, FB. MK. 5, FB. MK. 9 NF. MK. 10 AND T. MK. 11 AIRCRAFT.

CLASS C/3 ON REMOVAL OF FUSELAGE FUEL TANK.MOD NO. VAMPIRE 3249

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.

SUB HEADING 7 FUSELAGE ASSEMBLYSUB HEADING 12 FUEL SYSTEM.

TO INTRODUCE IMPROVED SEALING AT FUSELAGE FUEL TANK FILLER NECK, F. MK. 20 and F. MK. 21 aircraft.

CLASS C/3 ON REMOVAL OF FUSELAGE FUEL TANK FILLER NECK.MOD NO. SEA VAMPIRE 3249

Continued.....

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.

SUB HEADING 1 ARMAMENT

SUB HEADING 18 WING ASSEMBLY

CAMERA GUN MOUNTING - INTRODUCTION.

CLASS C/3

MOD NO. VAMPIRE 3014 Amd.1.

Further to Technical News Sheet V. 342 herewith amendment No.1.

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VAMPIRE MOD LEAFLETS:- 3246, 3234, 3216, 3176, 3163, 934, Issue 2,  
3087, 3087 Amd.1., 3256, 3240, Sea Vampire 3216, 3209, 3209 Amd.1.  
3186, 3231, 3249, Sea Vampire 3249, 3014 Amd.1. ATTACHED HERETO.



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## TECHNICAL NEWS SHEET

SERIES V.

NO 422



DATE 18.6.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
 OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 12 FUEL SYSTEM.

TO REPLACE 6F7 HOSE BY D.T.D. 625  
IN FUEL SYSTEM.

Class C/4

Mod No. Vampire 816

This modification makes provision for the fitment of hose joints conforming to Spec D.T.D. 629 in the fuel vent pressure and transfer lines, as it has been found that the type 6F7 hose joints, which are at present being used, are not suitable and form a possible fire risk.

SUB HEADING 11 ELECTRICAL INSTALLATION.

MICRO SWITCH (METAL CASED)  
5C/4098 IN LIEU OF 5C/1789 AND  
5C/2126 AND ALSO 5C/4099 IN LIEU  
OF 5C/1975 AT MAIN UNDERCARRIAGE  
INTRODUCTION

Class 3B

Mod No. Vampire 810

This modification introduces new metal cased micro switches for the main undercarriage at the leg, up, and door lock positions due to the non-availability of the existing type.

SUB HEADING 14 SERVICES AIRCRAFT.  
SUB HEADING 16 UNDERCARRIAGE.

TO INTRODUCE IMPROVED WHEELS DUNLOP A.H. 9139 IN LIEU OF  
A.H. 8218 AND WHEEL BRAKES DUNLOP A.H. 9140 IN LIEU OF A.H. 8902

Mod No. Vampire 842.

This modification makes provision for the introduction of improved wheels and brakes.

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TECHNICAL NEWS SHEET

SERIES V. No 426



DATE 53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 18 WING ASSEMBLY

TWO BOLT PLATES IN LIEU OF TWO CAP  
NUTS. AGS 2023/BL, TO SUPPORT CABLES  
ON ENGINE SIDE OF BULKHEAD - INTRO.  
MK. F.20, F21.

CLASS C/3 - ON REMOVAL OF NO. 1. MOD NO. SEA VAMPIRE 3263 ✓  
FUEL TANK (PORT)

This modification has been 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.

SUB HEADING 18 WING ASSEMBLY

TWO BOLT PLATES IN LIEU OF TWO CAP  
NUTS AGS 2023/BL. TO SUPPORT CABLES  
ON ENGINE SIDE OF BULKHEAD - INTRO.  
MKS. F1, F3, FB5, FB9, NF10, T11

CLASS C/3 ON REMOVAL OF NO. 1. MOD NO. VAMPIRE 3263 ✓  
FUEL TANK (PORT)

This modification has been 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.

Continued.....

SUB HEADING 7 FUSELAGE ASSEMBLY.

TO IMPROVE LOCKING OF AMMUNITION DOORS.  
PART A - STRENGTHENED VENOM DOORS PLUS VENOM  
LOCKS. PART B - STRENGTHENED VENOM LOCKS.

CLASS B/2

MOD NO. VAMPIRE 926 Part A. ✓

This modification is necessitated by reports of doors being lost in flight due to lock failures, and makes provision for the fitting of a redesigned Venom type door with stronger locks.

SUB HEADING 11 ELECTRICAL INSTALLATION.

TO REVISE WIRING FOR U/C WARNING LIGHTS  
WITH THE ADDITION OF THESE MICRO SWITCHES  
(STORES REF. 5C/498) TO PREVENT GREEN  
LIGHTS BEING SHOWN WITHOUT UNDERCARRIAGE  
BEING LOCKED DOWN. F.MK. 1, F.MK. 3, FB.MK. 5 & FB.MK. 9.

CLASS C/3

MOD NO. VAMPIRE 908 ISSUE 2. ✓

This modification introduces an additional 'Down Lock' micro switch at each undercarriage leg (Port and Starboard main and nosewheel) and suitably revised the wiring following reports that, should a micro switch fail to operate correctly in the existing circuit, a Green (in lieu of red) indication can be obtained before the U/C is fully locked down. It is to be noted that concurrent embodiment of Vampire Mods. 809 and 810 is desirable.

SUB HEADING 12 FUEL SYSTEM.

REDESIGNED INSULATING PACKING RING  
AT FILLER NECK ON NO.1 FUEL TANK - INTRO.

CLASS C/3 TO AIRCRAFT WITH MOD 3041  
EMBODIED

MOD NO. VAMPIRE 3248 ✓

Cases have occurred where, due to overfilling of the No.1 fuel tank, fuel has seeped through the existing split insulating ring at the filler neck. To prevent this leakage and to avoid consequent tank cover deterioration, this modification introduces a one-piece rubber insulating ring in place of the existing two-piece L. F. S. Ring.

Continued.....



SUB HEADING 12 FUEL SYSTEM.

REDESIGNED INSULATING PACKING RING AT  
FILLER NECK ON NO.1 FUEL TANK. INTRO.

CLASS C/3 TO AIRCRAFT WITH MOD  
3041 EMBODIED.

MOD NO. SEA VAMPIRE 3248 ✓

Cases have occurred where, due to overfilling of the No.1 fuel tank, fuel has seeped through the existing split insulating ring at the filler neck. To prevent this leakage and to avoid consequent tank cover deterioration, this modification introduces a one-piece rubber insulating ring in place of the existing two piece L.F.S. Ring.

SUB HEADING 7 FUSELAGE ASSEMBLY.

IMPROVEMENTS TO JETTISON ARRANGEMENTS FOR  
EXISTING TYPE CANOPIES - INTRODUCTION.

CLASS B/2 BY A POOL OF HATCHES.

MOD NO. VAMPIRE 3126 Amd 2. ✓

Further to Technical News Sheet V.402 herewith Amendment No.2.

SUB HEADING 7 FUSELAGE ASSEMBLY

TO FACILITATE REMOVAL OF INSTRUMENT PANEL.

CLASS C/3

MOD NO. VAMPIRE 3218 AMD.1. ✓

Further to Technical News Sheet V.362 herewith amendment No.1.

SUB HEADING 12 FUEL SYSTEM.

TO ALTER FUEL IDENTIFICATION MARKINGS  
AT FILLER CAPS. MK. S 6, 50, 52, 52A, 54 and 55

mod. 3178 ✓

This modification which is complementary to Goblin Mod. 724 for Goblin 2 Engines and Goblin Mods, 700 and 731 for Goblin 3 Engines, has been necessitated to provide an indication for the use of AVTAG Fuel.

Continued.....

SUB HEADING 23 INSTRUMENTS

AUTOMATIC CHANGE-OVER RELAX REF.  
5C/4102 FOR TURN AND SLIP  
INDICATOR, INTRO, MKS. 6, 50, 52, 52A

Class B/2.

MOD NO. VAMPIRE 954. ✓

This modification makes provision for the fitment of a type Q Automatic relay in the run and slip indicator circuit for emergency use, and segregates this circuit from that of the G4F compass.

SUB HEADING 12 FUEL SYSTEM.

TO REPLACE FUEL BOOST PUMP TYPE FB. 6  
REF. 5U/4986 BY TYPE BP.1 REF.  
5U/4828 - INTRODUCTION. MKS. F.3,  
FB5, FB.9 NF.10, T.11

CLASS B/2 N.C.P. FOR VAMPIRE MK. F.3.AND FB.5 EMBODYING MOD 228 ANDCONCURRENTLY WITH GOBLIN MOD 724.CLASS B/2 N.C.P. FOR VAMPIRE MK. FB.9CONCURRENTLY WITH GOBLIN MOD 724.CLASS B/2 N.C.P. FOR VAMPIRE MK. N.10AND T.11 ON CHANGEOVER TO AVTAG.

MOD NO. VAMPIRE 3216 ✓

This modification is necessitated by the type FB.6 fuel booster pump, introduced as an alternative under Mod 228, being found un-satisfactory on the introduction of Goblin Mod 724, resulting in low pressure in the pipe and the consequent operation of the fuel pressure light, and makes provision for the fitting of Type BP 1 Fuel Booster Pump.

SUB HEADING 12 FUEL SYSTEM.

PRESSURE REDUCING VALVE, ACO 4798 IN LIEU  
OF ACO 3477 in drop tank pressure venting  
line - introduction.

V.426 Contd...

Sheet 5.

CLASS 3BMOD NO. VAMPIRE 882. ✓

This modification introduces an improved pressure reducing valve with paraffin resisting sealing to minimise the danger of seal failure due to the fuel hunting back through the air venting lines and attacking the valve sealing.

SUB HEADING 12 FUEL SYSTEM

TECALEMIT FUEL FILTER TYPE FD.2159  
IN LIEU OF TYPE FD.2151/MOD 6 -  
INTRODUCTION. MK. 52

MOD NO. VAMPIRE 872 ✓

This modification introduces a redesigned filter bowl with a central spindle in place of the existing bayonet type lock. The element is common to both new and old types. This modification supersedes Vampire Mod.441.

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TECHNICAL NEWS SHEET

SERIES V. No. 431



DATE 10.7.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 13 RADIO.

*N/A - P/A*

A. Special Technical Instruction/Radio (Airborne Assembly)/40  
Transmitter-Receiver TR.1934 and TR.1935 - Faulty Channel  
Re-selection.

B. Transmitter-Receiver TR.1934 (10D/17693) and TR.1935 (10D/17694) in use or held in Store, made by E.K.Cole Ltd., despatched between 17.9.52 and 27.2.53 under Contract No. 6/WI/14321/CB14c, and bearing the undermentioned Serial Numbers, are suspect:-

Repaired	TR.1934	-	Serial Nos. 101 to 366
Repaired	TR.1935	-	Serial Nos. 109 to 346
New Issues	(TR.1934	-	Serial Nos. 1213 to 1723
	(TR.1934A	-	Serial Nos. 832 to 1813
	(TR.1935	-	Serial Nos. 949 to 1121

C. An investigation at No.14 M.U. has revealed a defect in the locking of the channel selecting cams on the tuning spindles of the channel selecting mechanisms associated with the equipment at para. (B) above. Channel No.10 is inherently subject to less friction than any of the other channels and any reduction in the applied pressure will normally be apparent on this channel.

D.1. As soon as possible and not later than the next Bay Servicing, all items referred to at para. (B) are to be checked to confirm that the locking of channel 10 cam is efficient.

2. Any equipment found to be defective because of faulty channel re-selection, either on the initial or subsequent checks, is to be made the subject of the following action:-

Continued.....

a. Service Units and M.of S. Establishments.

Forms 1022G are to be raised and the equipment held pending the receipt of disposal instructions from R.A.E. Farnborough.

b. Aircraft Contractors Equipment found to be defective is to be consigned direct to:-

Messrs. E.K.Cole Ltd.,  
Malmesbury,  
Wilts.

marked "For the attention of Inspector in Charge, A I. D.,  
faulty channel re-section, returned for free rectification.  
STI/Radio(A.A.)/40 refers."

The equipment after correction will be returned to the aircraft contractor, direct.

NOTE:

All equipment which is returned to the makers for correction under this STI must be complete (including all sub-assemblies) to permit fianl testing when the tuning unit defect has been corrected.

E. Record on appropriate forms.

F. Reports to be rendered in accordance with Para. D.2.

G. Modification action for embodiment on production line is in course of preparation.

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## TECHNICAL NEWS SHEET

SERIES V. No. 432



DATE 10.7.53.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION SUB HEADING 14 SERVICES, AIRCRAFT

- A. Special Technical Instruction/Vampire/92  
Hatch Jettison Line Non-Return Valve-Incorrect Assembly.
- B. Vampire Mk.10 and 11 aircraft.
- C. Cases have been reported of the hydraulic non-return valve in canopy hatch jettison return lines being inoperative due to its spring having been bent on assembly. This permitted a leak back in the reverse direction to its normal operation and caused the hatch jettison jack to creep in flight.
- D. Before the next Primary Servicing proceed as follows:-
1. Locate the non-return valve, Part No. UMC/703/3, which is mounted on the small lower diaphragm which forms the rear wall of the nosewheel bay.
  2. Remove the inspection panel on the underside and to the rear of the diaphragm to facilitate access to the rear half of the valve. Remove the valve.
  3. If the valve details are undamaged, re-assemble the valve to the diaphragm. Ensure that the spring remains parallel during assembly by inserting a clean length of thin welding rod through the rear portion of the valve and placing the spring over it. After assembly withdraw the rod through the rear connection hole.
  4. Reconnect the pipe lines and replace the lower inspection panel.
- E. Record on the appropriate form.
- F. Nil.

.....





# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V

No 433



DATE 16.7.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.

SUB HEADING 24 REPAIR SCHEMES.

SUB HEADING 18 WING ASSEMBLY

WING SKIN DISTORTION - RE-ISSUE OF DATA.

Further to Technical News Sheet V.308 dated 12.2.1952 on which was issued the original wing distortion guidance data, and further to Technical News Sheet V.334 dated 14.8.52 which drew attention to its cancellation, the attached data is issued to guide operators as and when cases of this occur.

.....

VAMPIRE WING DISTORTION

ROOD, 324 - Issue 2

As a guide in assessing Wing Skin Distortions on Vampire aircraft, the following notes have been compiled.

The distortions may take several forms and must not be confused with discrepancies in the construction of the wings.

WING DISTORTION - Built in during construction

Discrepancies in Construction are usually of two forms, one which we will call Type I, will show as a depression running along the wing, while the other will show up as a difference of contour at rib stations - this we will call Type II.

Type I - Description

This type of distortion invariably occurs in the region of the main spars or at any of the stringers, and takes the form of a depression where the skin has been pulled down due to the interior structure being below profile.

For example, cases are known of a depression appearing immediately forward of the main spar and running parallel thereto usually starting at Rib 1 and running out at Rib 4, with its maximum just outboard of Rib 2. Cases are also known of the depression extending to the wing tip.

It is agreed that .05" discrepancy in Contour would be acceptable from Rib 2 to Rib 5 in the area of the main spar and extending to the third stringer forward. (This can be measured by placing a spline in a chordwise position on the wing - See Fig I.)

Type II - Description

This type of distortion generally takes the form of discrepancies above or below a true mean line along the wing. Normally it is not so obvious as the distortion described as Type I as the contour sections may be of a fair line, and light reflections may not expose them so obviously. A high class finished wing will accentuate any local variations in contour.

They are usually to be found in the portion of the wing forward of the spar between Ribs 2 and 6, but may show up elsewhere.

The following method is to be used in assessing their magnitude.

A six inch straight edge is to be laid over the distortion, and must be placed in a spanwise direction as near as possible, parallel to the nearest stringer. The depth of the depression is then measured with feelers (See Fig 2).

On all new wing construction prior to the application of any finish, depressions measured as above must not exceed .02". (This maximum is fixed to reduce the likelihood of depressions exceeding .035" after application of flight loads).

DRG. NO. ROOD. 324.

ISSUE NO 2

SHEET. 1.

WING DISTORTION - Due to Application of Flight Loads, usually takes one or more of the following forms.

1. Movement of Stringer Attachments

In the present construction of the wing, the stringers are attached to the Ribs by angle brackets - (See Fig. 3).

The Bracket is attached to the Stringer and to the Rib web by 2 - 4 B.A. bolts in normal clearance holes, and 2 -  $\frac{1}{8}$ " rivets.

The Air Load (Suction) on the skin is transmitted to the Ribs via these brackets, and in some cases where the tolerance of the holes permit, the air load can force the bracket to move until the tolerance is used up.

The resultant deformation shows in the form of local bumps at the stringer rib intersections which gives the appearance of depressions along the rib flange between the stringers. These can be as high as .035" measured as shown in Fig. 2. without affecting the strength of the complete wing.

Where the depression exceeds .035" repairs to the wing are to be carried out in accordance with ROOD.383 for Rib 5. For similar depressions other than at Rib 5 repair in accordance with ROOD.040 in addition to which the existing stringer brackets in the affected area may be replaced by similar brackets but made from 16 swg. DTD.610 and secured to the stringer and frame by 5/32" dia. solid rivets in place of the existing 1/8" dia rivets and 2 B.A. close tolerance bolts in lieu of the existing 4 B.A. bolts. (Reference should be made to ROOD.383 for guidance).

2. Top Leading Edge Skin Buckles Outboard of Rib 2.

Should the aircraft be subjected to loadings higher than 7.5G, the deformation of this skin may become permanent. This invariably shows up as distortions which run diagonally outboard between Ribs 2 and 3, with maximum intensity occurring at the leading edge outboard of Rib 2.

When this distortion carries from one panel into another, a check should be made of the rest of the wing. It is usually accompanied by apparent movement of stringer attachments to ribs.

The distortions between Ribs 2 and 3 should be checked for magnitude in two directions. Firstly by placing a 6" rule along a constant percentage line with the inboard end of the rule on the buckle crest and measuring the depression with a feeler gauge. This depression should not exceed .10". Secondly, a 6" rule is placed at right angles to and across the buckle and the maximum depression should not exceed .05".

Where the buckles do not exceed the limits stated above, the affected skin may be replaced in accordance with ROOD.10, and under these circumstances a close check should be made of the local structure, especially straightness of stringers and where they exceed the limits as laid down in the manual, they should be repaired accordingly.

When distortions exceed the above limits, the complete aircraft should be categorised to allow it's return to a repair factory for assessment and if possible, repair. When this action is required, close examination should be made of the bottom cross tube for signs of incipient shear of the plug end fixing bolts.

DRG. No. ROOD.324.

ISSUE No. 2.

SHEET 2.

3. Failure of Tank Arches, Ribs 6, 8 and 9 (A/c without Mod. Vam. 3075 only).

Prolonged spinning can produce this failure and any aircraft that is known to have been spun should be examined as detailed below:-

- (a) Remove outer tank doors and tanks and examine the tank arches at Ribs 6, 8 and 9. Also examine the rivets attaching Rib 7 to the top skin.
- (b) The tank arches should be checked for incipient buckles or cracks, particularly at the stringer cut-outs, also the rivets used in the arch construction should be checked for movement. The rivets at Rib 7 should be examined for signs of pulling through the skin.
- (c) A careful check should also be made of the aileron shrouds for signs of buckling.

Rectification of all faulty rivets can be made by replacing existing rivets with 5/32" dia. solid Dural rivets or by 5/32" dia. steel Chebert or Pop rivets. Failure of the arches or buckles in the shrouds should be categorised to allow the wings to return to the repair factory for assessment and, if possible, repair.

Repairs and Defects Drawing Office,  
Christchurch.

  
G. Matthews

13th July, 1953.

DRG. No. RODD. 324.  
ISSUE No. 2.

SHEET 3.

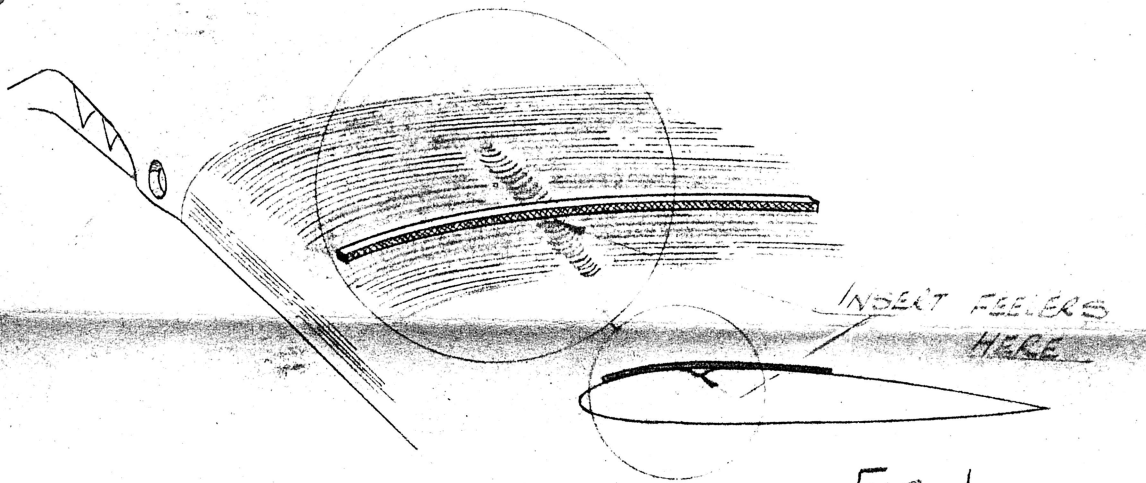
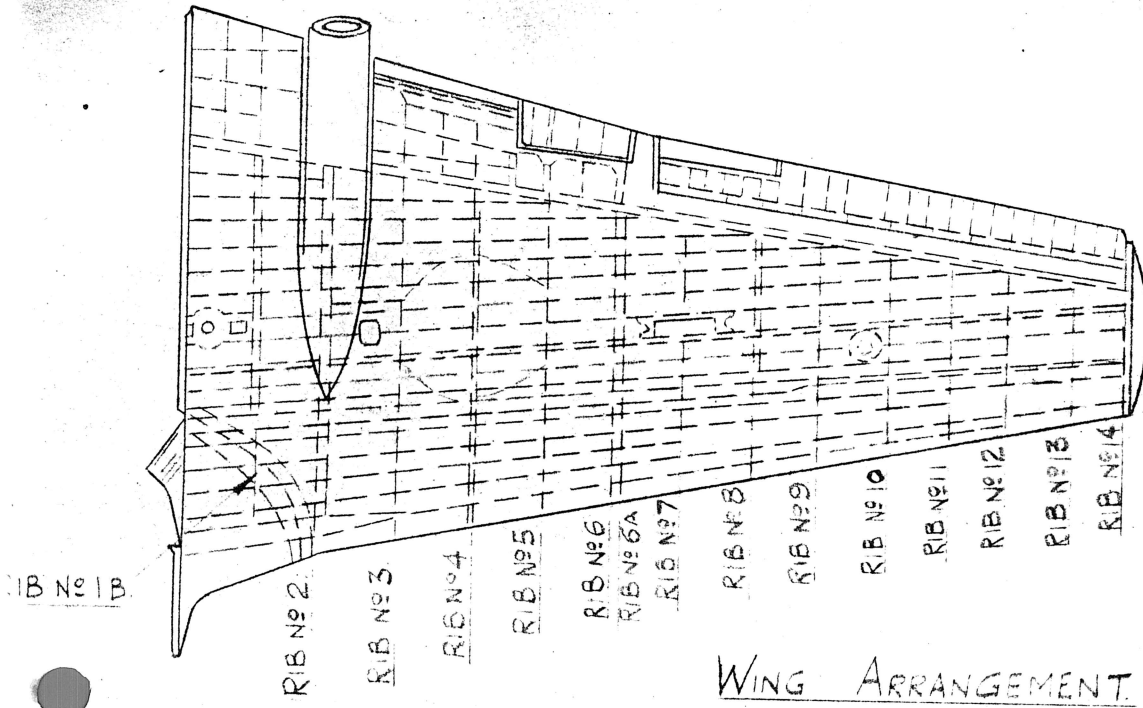


FIG. 1.

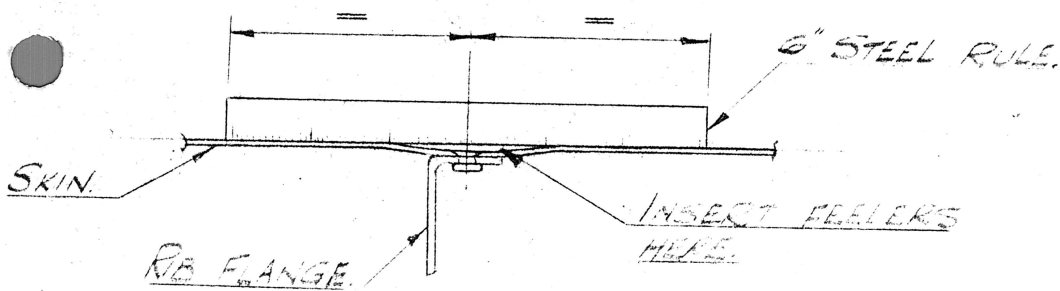


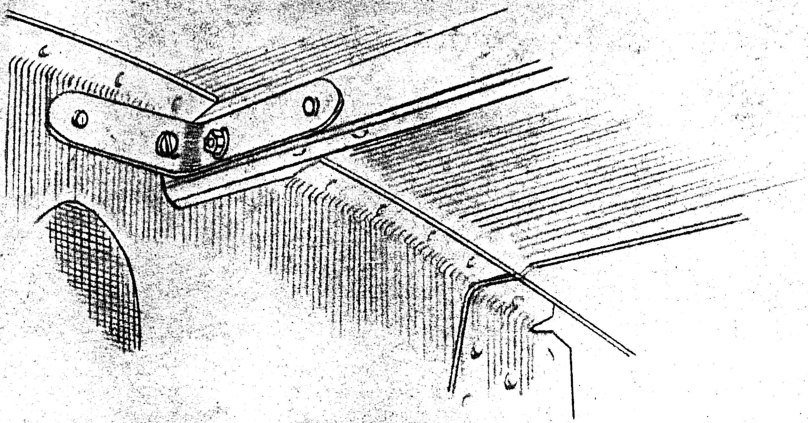
FIG. 2.

DRG NO R00D 324

REV. 2

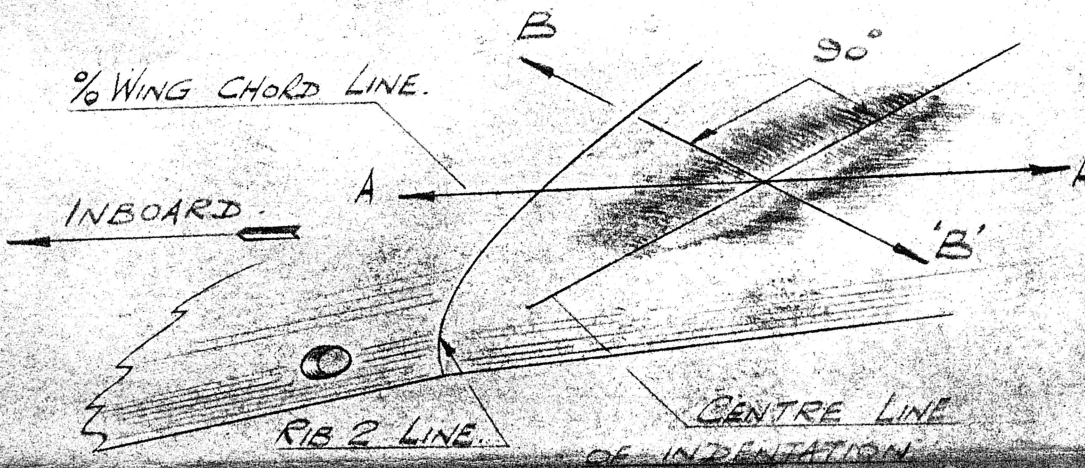
DEC 15 1955

4



ANGLE BKT. ATTACHMENT.

FIG. 3.



VIEW SHOWING MEASURING LINES  
OF DIAGONAL BUCKLE OUTBOARD OF RIB 2.

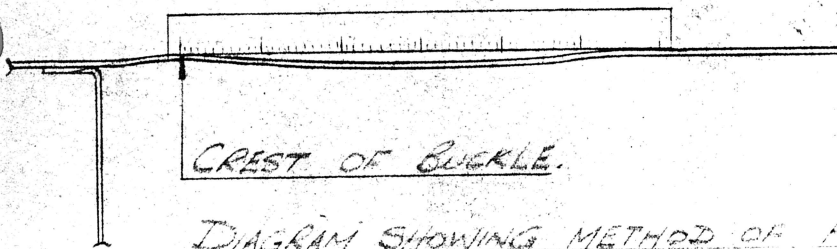


DIAGRAM SHOWING METHOD OF POSITIONING  
STRAIGHT-EDGE FOR MEASURING ALONG  
LINES 'AA' AND 'BB'

FIG. 4.

DRG No. ROOD. 324.

ISSUE No. 2.

666 13-7-53.

SHEET 5.

## TECHNICAL NEWS SHEET

SERIES VNo 433DATE 16.7.53ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETINVAMPIRE AIRFRAME, GENERAL CIRCULATION.SUB HEADING 24 REPAIR SCHEMES.SUB HEADING 18 WING ASSEMBLYWING SKIN DISTORTION - RE-ISSUE OF DATA.

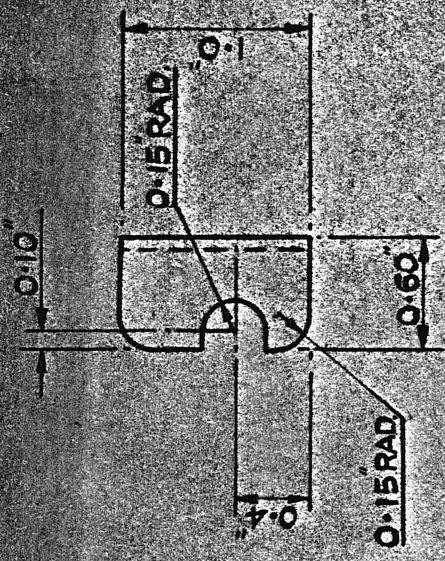
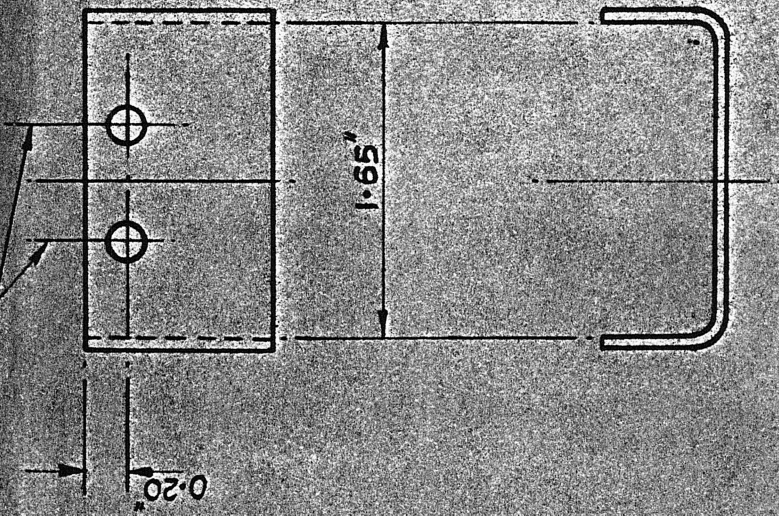
Further to Technical News Sheet V.308 dated 12.2.1952 on which was issued the original wing distortion guidance data, and further to Technical News Sheet V.334 dated 14.8.52 which drew attention to its cancellation, the attached data is issued to guide operators as and when cases of this occur.

Note : The drawings supplied with this News Sheet have since been cancelled by Technical News Sheet Series V No. 457 dated 16/11/53, and are therefore now omitted.

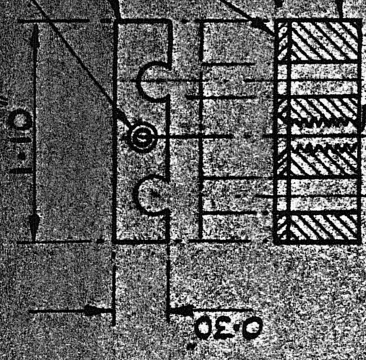
THE DE HAVILLAND AIRCRAFT CO. OF S.A. (PTY.) LTD.  
P.O. BOX 7105, JOHANNESBURG.

2.5 IN. SPACING HOLES

THESE HOLES ARE POSITIONED ON ASSEMBLY



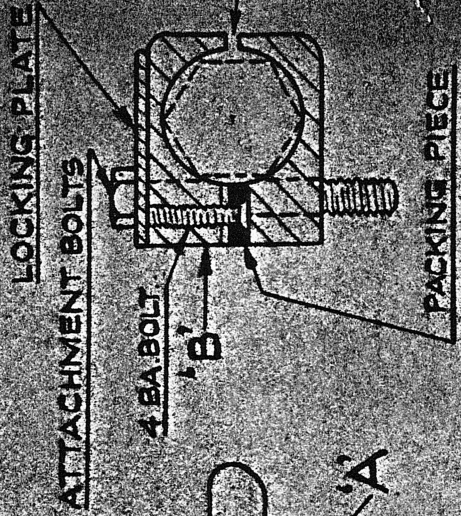
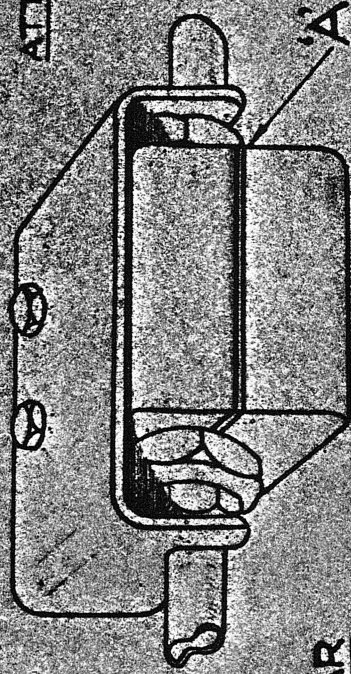
DRILL AND  
TAP 4 BA  
C 5 K BOLT  
16 S.W.G  
DTD 610  
2-OFF



CLAMP BLOCK  
FILE OFF  
PROTRUDING  
BOLT

CLAMP BLOCK  
PACKING PIECE

USE 'DURALAC' JOINTING  
COMPOUND BETWEEN DISSIMILAR  
METALS.



MATERIAL : 16 S.W.G. MS. SPEC. 53.

SHEET 1

TELEFLEX CONNECTOR  
LOCKING PLATE.

M/C TYPE  
VAMPIRE

M/C REG. NO.  
ALL MKS.

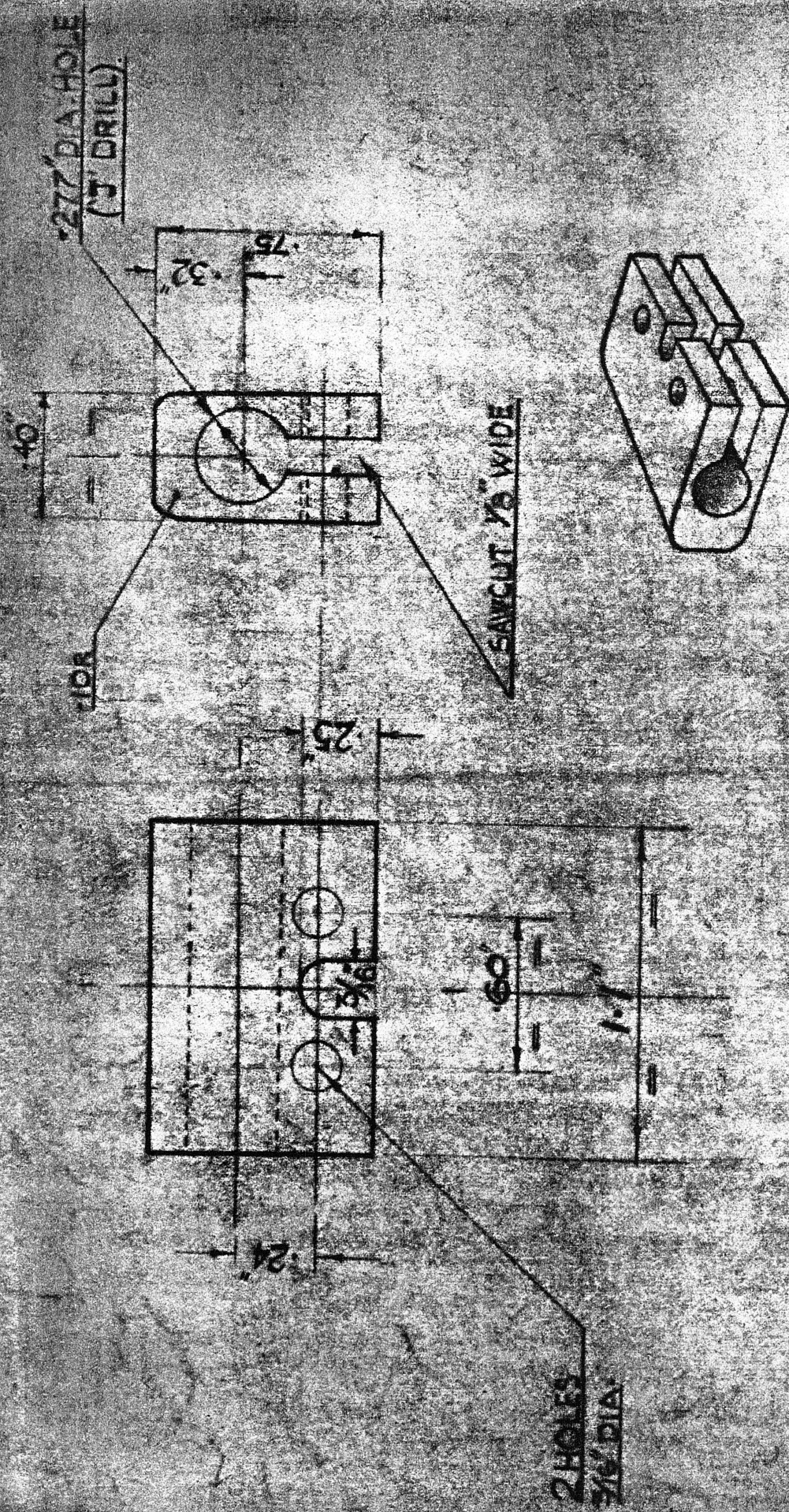
DR. BY  
A.I.C.

APP. BY

R.00643

ISSUE





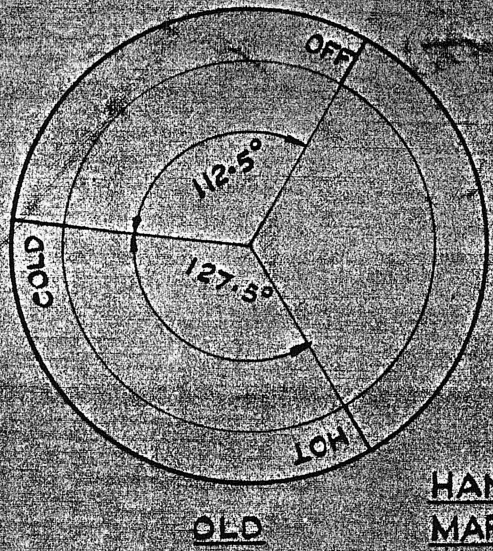
MATERIAL: MS. SPEC. S 92

THIS PART IS IDENTICAL TO G00 1779 EXCEPT FOR MATERIAL

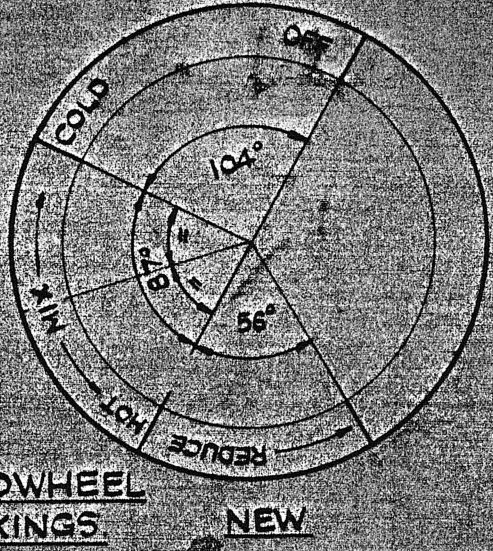
SHEET 2

DATE	BY	ART. NO.	ROOM
	A.I.C.		43
VAMPIRE ALLMS.		TELEFLEX CONDUIT CLAMP	

DUE TO INCORRECT MARKING OF THE COCKPIT TEMPERATURE CONTROL HANDWHEEL 15 CE 497A ANGULAR MOVEMENT ON CAMS DOES NOT PRODUCE CORRECT TEMPERATURE CONTROL AS THERE IS NO PERIOD OF MIX (COLD & HOT) OR REDUCE (FROM HOT TO OFF). THE HANDWHEEL SHOULD NOW BE RE-MARKED AND CAMS SHOULD BE RE-SET AS ILLUSTRATED BELOW.



OLD



HANDWHEEL MARKINGS

NEW



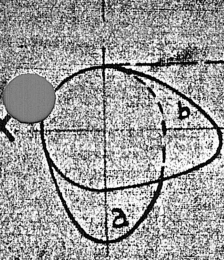
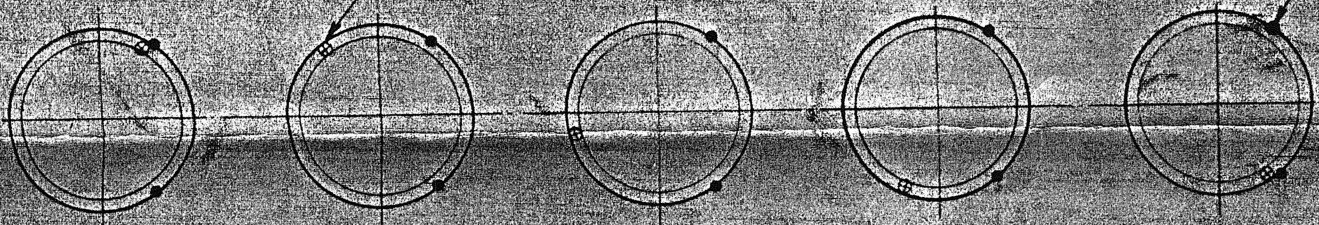
'B' COLD CAM



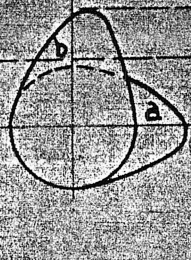
'A' HOT CAM

STOP ON HANDWHEEL RIM

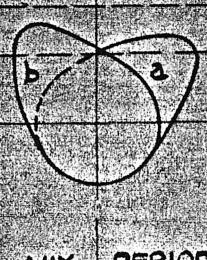
STOP ON HANDWHEEL MOUNTING



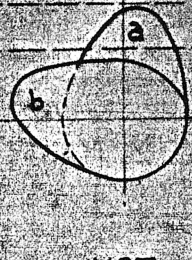
OFF



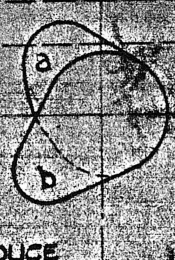
COLD



MIX PERIOD



HOT



REDUCE PERIOD

21.5.53	RE - SETTING of COCKPIT AIR TEMP CONTROL	R. 15 V. 101.
A.I.C.		

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THE DE HAVILLAND AIRCRAFT COMPANY OF SOUTH AFRICA (PTY) LTD.

# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES \_\_\_\_\_ V. No. 450



DATE 12.11.53

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION. SUB HEADING 7 FUSELAGE ASSEMBLY

- A. Special Technical Instruction/Vampire/100  
Bolts, No.1 Bulkhead Ring: Insecurity.
- B. Vampire T.11 aircraft.
- C. Cases have been reported where the 2 B.A. bolts situated at the top of No.1 Bulkhead ring insecure, causing unsatisfactory cabin pressurisation when carrying out normal ground tests. Failure occurred when the bolts were assembled with their heads on the forward face of the bulkhead and nuts were not fitted.
- D. At or before the next Primary Star Servicing proceed as follows:
1. Lift the nose access cowl and check the suspect bolt assemblies. These bolts are located as follows:-
    - a. The two bolts attached through the top of each extreme outboard vertical channel which is situated on the forward face of the bulkhead.
    - b. The two bolts immediately inboard of these two channels.
  2. If the bolt heads are on the forward face, check for the absence of nuts at the rear face of the bulkhead ring. This can be done by raising the gyro gun sights to the action position, releasing the main instrument panel attachments and using a torch and mirror. Fit nuts and washers where necessary. The nuts may be obscured by sealing compound.

Continued.....

NOTE: The complete bolt assembly consists of the following: Bolt Part No. A26/12C, Penny washer Part No. SP.18C - this should be situated against the bulkhead ring rear face. Two shrinkage washers Part No. DHS.33/1 - fitted between the penny washer and nut. Nut Part No. AGS.2002/C2.

3. Refit the main instrument panel and retract the gyro gun sights.

E. Record on the appropriate form.

F. Nil.

G. Nil.

SUB HEADING 14 SERVICES AIRCRAFT.

SUB HEADING 23 INSTRUMENTS.

A. Special Technical Instruction/Vampire/98.Oxygen Valves:Correct Installation

B. All Vampire Aircraft.

C. Cases have been reported of the manually operated valves in the oxygen system being fitted in the reverse direction to that given in A.P.1275 Vol.1 Section 8 Chap.1. This states that the lower connection of the valve should always be connected to the line of continuous high pressure which is the line connected to the oxygen bottles. On these Mk.VIII valves the lower connection is the one nearest the base of the valve. Single seat aircraft have one such valve fitted which also has the external charging connection integral with it. Two seat aircraft have an additional line valve located between the oxygen bottles and the pilot's regulator.

D. As soon as possible and not later than the next Intermediate Servicing check that the valve or valves are fitted in accordance with the explanation given in Para.C. If it is necessary to rectify the fitting of the valves release all the oxygen contents and correctly assemble. Re-charge the system to full and carry out a pressure test.

E. Record on appropriate form.

F. Nil.

G. Nil.

Continued.....

SUB HEADING 11 ELECTRICAL INSTALLATION.

- A. Special Technical Instruction/Vampire/99  
Battery Security
- B. Vampire NF Mk.10 aircraft, with Mod 3009 embodied.
- C. Cases have been reported where the lower bands of the battery cradle are being distorted by the tension of the outboard carrier claw bolts. This may result in a reduction of battery security.
- D. At or before the next Intermediate Servicing proceed as follows:-
1. Remove the battery stowage complete.
  2. Remove the batteries and fit a standard 40 amp/hr battery handle to the outboard end of each battery. Note that the outboard end of each battery is +VE.
  3. Remove the three claw bolts from the carrier and dispense with the two outboard bolts, retaining the wing nuts.
  4. Remove the battery tray which is secured to the carrier by two 2 B.A. bolts.
  5. Refer to the attached Drawing R.12.N.105 and carry out the following work -

Note: Work to be carried out on the battery tray applies identically to both sides.

- a. File off the raised portions of the battery tray which surround the claw bolt holes.
- b. Make up the two laminated fibre packing pieces. Drill in conjunction with the battery tray, position and rivet to the tray.
- c. Run back the  $\frac{3}{8}$  B.S.F. thread on the centre claw bolt to the drawing requirements and screw on a plain nut to the base of the thread. Fit on a plain washer.

Continued.....

- d. Manufacture the mild steel distance piece and the alclad washer.
  - e. Make up the two 5/16" B.S.F. bolt assemblies, i.e. bolt spring washer and tab washer. These assemblies replace the original port and starboard outboard claw bolts.
6. Treat all new parts with acid resisting paint B.S.X.19.
  7. Refit the battery tray to the carrier.
  8. Position on the centre bolt to the carrier, the plain nut and plain washer on the top side of the battery tray, the alclad washer between the tray and the carrier box structure and the distance piece inside the carrier box structure as shown on the drawing. Screw on the wing nut.
  9. Fit the batteries and secure them at the centre of the carrier by the claw bolt. Tighten the wing nut and adjust the plain nut on the top of the tray to prevent over-tightening and distorting.
  10. Secure the outboard ends of the batteries by the two new 5/16" bolt assemblies and battery securing feet, ensuring that the new tab washers are fitted over the handles. Tighten the bolts with the existing wing nuts.
- E. Record on the appropriate form.
  - F. Nil.
  - G. Mod. 3290, when embodied, will render compliance with this S.T.I. unnecessary.

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# DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

## TECHNICAL NEWS SHEET

SERIES V No 452



DATE 12.11.53.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME. GENERAL CIRCULATION.  
SUB HEADING 10 MISCELLANEOUS. EQUIPMENT

VAMPIRE MK. F3, FB5, FB9, NF10, T11 - TO CHANGE  
LABEL ON INTRODUCTION OF METHYL BROMIDE BOTTLE  
STORES REF. 27N/105 IN LIEU OF REF. 27N/67

CLASS B/3 - ON FITMENT OF BOTTLE 27N/105. MOD. NO. VAMPIRE 932.

A high pressure methyl bromide fire bottle is being introduced to give improved coverage in the engine bay. This modification makes provision for altering the label on the bottle mounting bracket.

This modification must be embodied concurrently with Air Ministry Modification FE/4 which introduces the new bottle.

SUB HEADING 10. MISCELLANEOUS EQUIPMENT.

SEA VAMPIRE MKS. F20, F21, T22 - TO CHANGE  
LABEL ON INTRODUCTION OF METHYL BROMIDE BOTTLE  
STORES REF. 27N/105 IN LIEU OF REF. 27N/67

CLASS B/3 ON FITMENT OF BOTTLE 27N/105. MOD NO. SEA VAMPIRE 932

A high pressure methyl bromide fire bottle is being introduced to give improved coverage in the engine bay. This modification makes provision for altering the label on the bottle mounting bracket.

This modification must be embodied concurrently with Air Ministry Modification FE/4 which introduces the new bottle.

SUB HEADING 23. INSTRUMENTS

VAMPIRE MK. T11 AIRCRAFT - FLEXIBLE HOSES AT REAR  
OF INSTRUMENT PANEL FOR A.S.I. LINES TO SPEC.  
D.T.D. 251 IN LIEU OF D.T.D. 373 - INTRODUCTION

Contra.....

CLASS C/3 N.C.P. MOD. NO. VAMPIRE 3065.

Cases have occurred of the existing flexible hoses kinking, thus affecting the accuracy of the A.S.I. lines. This risk is minimised by the fitting of new hoses of a material of better anti-kinking qualities.

SUB HEADING 12. FUEL SYSTEM.

SEA VAMPIRE MKS. 20,21 -22 AIRCRAFT - NEW PRESSURE REDUCING VALVE, REF. DUNLOP PART NO. ACM/16314 INCORPORATING RE-DESIGNED BLOW OFF VALVE IN LIEU OF EXISTING REDUCING VALVE REF 27G/2153 PART NO. ACQ/4798 IN AIR SUPPLY LINE TO DROP TANKS-INTRODUCTION

CLASS C/3 N.C.P. MOD NO. SEA VAMPIRE 3068

This modification has been made necessary because the existing blow off valve was unsatisfactory since it could not be set correctly, resulting in excessive blow off pressure, with possible damage to the drop tanks.

SUB HEADING 6 ENGINE INSTALLATION  
SUB HEADING 7 FUSELAGE ASSEMBLY.

VAMPIRE F. MK.3, F.B. MK.5 and F.B. MK.9 AIRCRAFT- REVISED PIPE RUN FOR TOTAL HEAD AIR SUPPLY TO BAROSTAT - INTRODUCTION

CLASS C/3 FOR MKS. 3 AND 5. MOD. NO. VAMPIRE 3098  
B/2 for Mk.9.

It has been found that with the existing total head air supply from the generator cooling inlet duct, the air flow is disturbed, resulting in fluctuating barostat pressure. This modification introduces a new pipe run from the nose of the aircraft to obviate this.

SUB HEADING 6 ENGINE INSTALLATION.  
SUB HEADING 7 FUSELAGE ASSEMBLY.

SEA VAMPIRE F. MK.20, F.MK.21 AIRCRAFT - REVISED PIPE RUN FOR TOTAL HEAD AIR SUPPLY TO BAROSTAT - INTRODUCTION.

CLASS C/3 MOD. NO. SEA VAMPIRE 3098

It has been found that with the existing total head air supply from the generator cooling inlet duct, the airflow is disturbed, resulting in fluctuating barostat pressure. This modification introduces a new pipe run from the nose of the aircraft to obviate this.

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A.P.S.

DE HAVILLAND SERVICE

HATFIELD HERTFORDSHIRE ENGLAND

TELEPHONE HATFIELD 2345  
TELEGRAMS HAVILLAND TELEX HATFIELD

TECHNICAL NEWS SHEET

SERIES V No. 453



DATE 13.11.53.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES.  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAMES - GENERAL CIRCULATION  
SUB HEADING 23 INSTRUMENTS

SEA VAMPIRE T. MK. 22 AIRCRAFT - MAGNETIC SHIELD,  
STORES RFF 6B/538 FOR G4B COMPASS GYRO UNITS.  
INTRODUCTION.

CLASS C/3 N.C.P.

MOD NO. SEA VAMPIRE 3159.

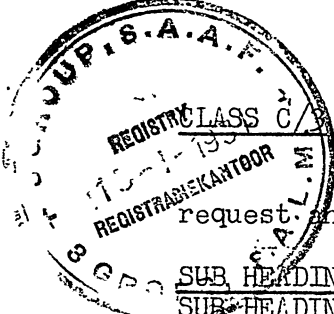
This modification has been necessitated by excessive magnetic interference between the emergency compass and the gyro unit, of the G4B compass. This is overcome by the fitment of a magnetic screen to the gyro units of the G4B compass.

SUB HEADING 10 MISCELLANEOUS EQUIPMENT.

VAMPIRE MK. T 11 AIRCRAFT - STOWAGE FOR PILOT'S  
NOTES - INTRODUCTION.

MOD NO. VAMPIRE 3175 ISSUE 2.

This modification has been necessitated by a Ministry of Supply request and makes provision for a stowage for the pilot's notes.



SUB HEADING 7 FUSELAGE ASSEMBLY.  
SUB HEADING 10 MISCELLANEOUS EQUIPMENT.

SEA VAMPIRE MK. T.22 AIRCRAFT - STOWAGE FOR PILOT'S  
NOTES - INTRODUCTION.

CLASS C/3

MOD NO. SEA VAMPIRE 3175.

This modification has been necessitated by a Ministry of Supply request and makes provision for a stowage for the pilot's notes.

..... Contd.....

SUB HEADING 11 ELECTRICAL INSTALLATION.

VAMPIRE MK. T11 AIRCRAFT - TO REVISE COCKPIT LIGHTING.

CLASS B/2.

MOD NO. VAMPIRE 3177 - ISSUE 2.

This modification has been necessitated by a Ministry of Supply request and makes provision for: the introduction of two new cockpit lamps, one on the engine control box and the other on the starboard control column; the replacement of three lamp screens; and the repositioning of two existing lamps, one on the main instrument panel shroud and one on the starboard side of the cockpit.

SUB HEADING 7 FUSELAGE ASSEMBLY.

SUB HEADING 16 UNDERCARRAGE.

SEA VAMPIRE T MARK 22 AIRCRAFT - POSITIVE MECHANISM FOR NOSE WHEEL DOOR- INTRODUCTION

CLASS B/2

MOD NO. SEA VAMPIRE 3236

This modification has been necessitated by service defect reports which state that with the present nose wheel door retraction mechanism, there is a tendency for the door to close partially during yawed flight, resulting in the wheel fouling the door if the undercarriage is retracted under these conditions. Provision is therefore made for the introduction of new linkage to abviate this defect.

SUB HEADING 1 ARMAMENT.

SUB HEADING 7 FUSELAGE ASSEMBLY.

SEA VAMPIRE T MK. 22 AIRCRAFT - MODIFIED MARTIN BAKER BLAST TUBE - INTRODUCTION.

CLASS B/2

MOD NO. SEA VAMPIRE 3256.

This modification is necessitated by the deformation of the front cone due to lateral displacement and hammering against the rear end of the cannon spout and makes provision for the fitting of a modified nose ring on the blast tube assembly.

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TECHNICAL NEWS SHEET

SERIES V No 454  DATE 13.11.53.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME GENERAL CIRCULATION  
SUB HEADING 12 FUEL SYSTEM.

VAMPIRE MKS. F.1, F.3, F.B.9, N.F.10, T.11  
AIRCRAFT - DOWTY SEALS AT FUEL TANK VENT AND  
FUEL TRANSFER CONNECTIONS - INTRODUCTION.

CLASS C/4 ON REPLACEMENT.

MOD. NO. VAMPIRE 3259.

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. To overcome this, this modification provides for the fitting of metal and rubber bonded sealing washers in lieu of aluminium.

SUB HEADING 12 FUEL SYSTEM.

SEA VAMPIRE MK. T. 22 AIRCRAFT - DOWTY SEALS PART  
NO. SP. 837 AT FUEL TANK VENT AND FUEL TRANSFER  
CONNECTIONS - INTRODUCTION.

CLASS C/3 ON REMOVAL OF SEAL

MOD NO. SEA VAMPIRE 3259.

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. To overcome this, this modification provides for the fitting of metal and rubber bonded sealing washers in lieu of aluminium.

SUB HEADING 6 ENGINE INSTALLATION.  
SUB HEADING 7 FUSELAGE ASSEMBLY.

VAMPIRE F. MK. 1 F.MK.3, F.B.MK.5, F.B. MK.9, N.F.  
MK. 10, T.MK.11, - FEROBESTOS BN4 FIRE RESISTANT  
RUBBING TAPE IN LIEU OF BONREST TAPE AT ENGINE BAY  
- INTRODUCTION.

Contd.....

CLASS C4 ON REPLACEMENT.MOD NO. VAMPIRE 3262.

It has been found, as a result of fire tests carried out by Rolls Royce, that the existing "Bomrest" tape used at the fireproof bulkhead, engine cowl ring and rear cone is not fully fire resistant. This modification is introduced to overcome the fire hazard thus discovered. Full embodiment of this modification will take approximately 20 man hours.

SUB HEADING 17 VENTILATION AND CABIN HEATING.

VAMPIRE F.B. MK. 5, F.B. MK 9, T. MK. 11 -  
MISCELLANEOUS IMPROVEMENTS TO PREVENT ENTRY OF  
SAND AND GRIT INTO OIL SUPPLY FOR COLD AIR UNIT  
INTRODUCTION.

CLASS B. 3 FOR MKS 9 AND 11,  
AND MK. 5 WITH MOD.784 EMBODIED.

MOD NO. VAMPIRE 3265.

This modification is necessitated by damage to the cold air unit bearings being caused by the entry of sand and grit into the unit oil supply. The condition is also aggravated by grit thrown up during formation take off. Provision is therefore made to introduce a filter into the oil tank inlet neck and to reduce the air vent hole diameters.

SUB HEADING 17 VENTILATION.

SEA VAMPIRE T.MK. 22 - FILTER IN OIL INLET NECK  
OF OIL SUPPLY FOR COLD AIR UNIT - INTRODUCTION.

CLASS B2.MOD NO. SEA VAMPIRE 3265.

This modification is necessitated by damage to the cold air unit bearings being caused by the entry of sand and grit into the unit oil supply. The condition is also aggravated by grit thrown up during formation take off. Provision is therefore made to introduce a filter into the oil tank inlet neck and to reduce the air vent hole diameters.

SUB HEADING 12 FUEL SYSTEM.

VAMPIRE MKS. F.B.5, F.B.9, N.F. 10. T.11. AIRCRAFT  
FIREPROOFED RUBBER ELBOWS IN FUEL VENTING SYSTEM AT  
ENGINE BAY. - INTRODUCTION.

Contd.....

Prior to this modification, fire tests have proved that the existing rubber elbows are inadequate for requirements. This modification provides for the fitting fireproofed elbows in lieu of the existing type.

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SERIES V No 455



DATE 16.11.53.

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VAMPIRE AIRFRAME GENERAL CIRCULATION.  
SUB HEADING 12 FUEL SYSTEM.

SEA VAMPIRE MKS. F.20, F.21,  
T.22, AIRCRAFT - FIREPROOFED  
RUBBER ELBOWS IN FUEL VENTING  
SYSTEM AT ENGINE BAY - INTRODUCTION

CLASS B/3

MOD. NO. SEA VAMPIRE 3275.

Prior to this modification, for test have proved that the existing rubber elbows are inadequate for requirements. This modification provides for the fitting of fireproofed elbows in lieu of the existing types.

VAMPIRE AIRFRAME GENERAL CIRCULATION.  
SUB HEADING 12 FUEL SYSTEM.

VAMPIRE MKS. F.3, FB.9, NF.10,  
T.11 AIRCRAFT - IMPROVED SEALING  
OF NON-RETURN VALVES IN BASE OF  
MAIN FUEL TANK - INTRODUCTION.

CLASS C/3.

MOD. NO. VAMPIRE 3277.

Cases have occurred of fuel seeping back past the non-return valves in fuselage tank, thus causing over-filling of the wing fuel tanks and vents. To prevent this leakage, this modification introduces avtag.resisting sealing rings, in lieu of the existing sealing, to the non-return valves, the work will take approximately 4 man hours per aircraft.

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 12 FUEL SYSTEM

SEA VAMPIRE MKS. F.20, F.21,  
T.22, AIRCRAFT - IMPROVED SEALING  
OF NON-RETURN VALVES IN BASE  
OF MAIN FUEL TANK - INTRODUCTION.



CLASS C/3

MOD. NO. VAMPIRE 3285.

This modification is necessitated by a ministry of supply requested for the fitment of a standard type crowbar. This is provided by the fitting of a redesigned stowage, and the standard type crowbar, in lieu of the short type crowbar. The work will take approximately 2 man hours per aircraft.

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## TECHNICAL NEWS SHEET

SERIES V

No 456



DATE 2.12.53.

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OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME. GENERAL CIRCULATION  
SUB HEADING 12 FUEL SYSTEM.

SEA VAMPIRE F. MK. 20, F. MK. 21 AIRCRAFT  
DOWTY SEALS, PART NO. SP.837, AT FUEL  
TANK AND FUEL TRANSFER CONNECTIONS -  
INTRODUCTION.

CLASS C/3 ON REMOVAL OF SEAL .

MOD NO. SEA VAMPIRE 1055

Cases have occurred of the fuselage fuel tank fracturing in the vicinity of the fuel vent connections due to the effort required to tighten down on the aluminium washer. To overcome this, this modification provides for the fitting of metal and rubber sealing washers in lieu of aluminium.

SUB HEADING 10 MISCELLANEOUS EQUIPMENT.  
SUB HEADING 18 WING ASSEMBLY.

VAMPIRE N.F. MK. 10, T. MK. 11, - TO  
REPOSITION FIRE DETECTORS INTRODUCED.  
ON MOD 844. AT RIB 1.

CLASS C/3 ON FITMENT OF ENGINES WITH  
GOBLIN MOD 820 EMBODIED.

MOD NO. VAMPIRE 3245.

Owing to the reduced clearance existing between the fire detectors and the Goblin type 4 combustion chambers, a number of service defects have been reported of false fire warnings. To overcome this fault a redesigned mounting strip is introduced, to provide a greater clearance, superseding STI/VAM/

SUB HEADING 10 MISCELLANEOUS EQUIPMENT.  
SUB HEADING 18 WING ASSEMBLY.

SEA VAMPIRE T. MK. 22 - TO REPOSITION  
FIRE DETECTORS INTRODUCED ON MOD 844  
AT RIB 1.

Contd.....

CLASS C/3 ON FITMENT OF ENGINES WITH  
GOBLIN MOD 820. EMBODIED.

MOD NO. SEA VAMPIRE 3245

Owing to the reduced clearance existing between the fire detectors and the Goblin type 4 combustion chambers, a number of service defects have been reported of false fire warnings. To overcome this fault a redesigned mounting strip is introduced to provide a greater clearance.

SUB HEADING 11 ELECTRICAL INSTALLATION.  
SUB HEADING 23 INSTRUMENTS.

VAMPIRE MK. T.11 - TO DELETE REAR  
BEARING TEMPERATURE INDICATOR AND  
INTRODUCE TERMINAL BLOCKS, REF.5C/431  
IN LIEU OF REF.5C/430 AT RIB 1 AND  
BREEZE PLUG AT BULKHEAD 2 FOR JET PIPE  
THERMO LEADS.

CLASS C3.

MOD NO. VAMPIRE 3267.

It is considered that due to the proven reliability of the rear engine bearing, a temperature indicator is now unnecessary. It has also been found that defects in the jet pipe thermo circuit breeze plug have resulted in the unnecessary removal of serviceable engines. Similarly the terminal block carrying the thermo leads on Rib 1 has been found to be inadequate. This modification makes provision for the removal of the redundant thermometer and the defective breeze plug, and the introduction of a larger terminal block.

SUB HEADING 11 ELECTRICAL INSTALLATION.  
SUB HEADING 23 INSTRUMENTS.

SEA VAMPIRE MK. T.22 - TO DELETE REAR  
BEARING TEMPERATURE INDICATOR AND  
INTRODUCE TERMINAL BLOCKS, REF.5C/431  
IN LIEU OF REF.5C/430 AT RIB. 1, AND  
BREEZE PLUG AT BULKHEAD 2 FOR JET PIPE  
THERMO LEADS.

CLASS C3.

MOD NO. SEA VAMPIRE 3267.

It is considered that due to the proven reliability of the rear engine bearing, a temperature indicator is now unnecessary. It has also been found that defects in the jet pipe thermo circuit breeze plug have resulted in the unnecessary removal of serviceable engines. Similarly the terminal block carrying the thermo leads on Rib 1 has been found to be inadequate. The modification makes provision for the removal of the redundant thermometer and the defective breeze plug and the introduction of a larger terminal block.

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## TECHNICAL NEWS SHEET

SERIES V. No 458



DATE 16.11.53.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMBVAMPIRE AIRFRAME GENERAL CIRCULATION.  
SUB HEADING. 8 GENERAL.

C.S. (A) Release - Sea Vampire T. MK. 22.

Issue No. 1.  
September. 1953.

1. General.

The Sea Vampire T. Mk. 22 is a side by side dual training aircraft powered by a Goblin Mk. 3 engine.

2. Release Conditions.

2.1. Type of Release.

World wide operation from land aerodromes for jet conversion and operational flying training including aerodrome dummy deck landing circuit in-struction.

2.2. Operational Restrictions.

(a) Loading.

- (i) Maximum weight for normal take-off and all forms of flying.....11,710 lb.
- (ii) Maximum weight for overload take-off with drop tanks and gentle manoeuvres only.....13,480 lb.
- (iii) Maximum weight for normal landing with external stores including empty drop tanks.....13,140 lb.

Contd.....

- (iv) Maximum weight for emergency landing with full drop tanks.....13,480 lb.

The C.G. position is limited to the range 2.80 inches forward of datum to 4.40 inches aft of datum with undercarriage down.

For ferrying only an aft limit of 4.80 inches is permissible.

(b) Speeds and Mach Number.

- (i) Maximum permissible speed, aircraft in the "clean" condition.....455 Knots IAS.

- (ii) When drop tanks are carried, full or empty, flying is limited to gentle manoeuvres only, and the maximum permissible speed and Mach number (strength and handling limitations) are:-

Below 15,000 ft.....390 Knots IAS.

Above 15,000 ft.....0.76 I.M.N.

(iii) Mach Number Characteristics.

Above 20,000 ft.

Compressibility effects first become evident at 0.74 to 0.78 I.M.N. They vary from aircraft to aircraft, but some or all of the following effects occur:-

- (a) Slight rocking which develops into intermittent wing dropping and then into a wing drop in either direction requiring increasing aileron displacement to hold.
- (b) Porpoising - alternate nose up and nose down change of trim - which becomes more marked as Mach number increases.
- (c) General airframe buffet.

Contd.....



Recovery should be effected when the steady wing drop develops or when the porpoising becomes severe. Recovery is straightforward on throttling back and easing the control column back.

Below 20.00 ft.

The characteristics are similar to those described above but aileron effects are less marked at the lower altitudes and porpoising is more marked. The porpoising may, with little warning, at about 0.83 I.I.N. develop into a sharp nose up change of trim which cannot be restrained immediately by use of elevator: in a dive steeper than  $25^{\circ}$  it is likely that the maximum permissible normal acceleration of the aircraft would be exceeded.

2.3. Handling

- (i) Drop tanks are to be jettisoned only in straight and level flight and at speeds not exceeding 260 Knots IAS.
- (ii) Landing with full drop tanks is to be regarded as an emergency condition and is to be at as low a rate of descent as possible on contact, in view of undercarriage strength.
- (iii) Intentional spinning is prohibited when drop tanks or external stores are carried.
- (iv) Practice spins up to four turns are permitted in either direction with the aircraft in the "clean" condition.

2.4. Armament

(a) Rockets

Carriage of 3" R.P.s. with 25 lb. or 60 lb. heads is permitted with No. 8 Type 14 projectors with shortened front struts (Stores Reference 11C/3004).

The following R.P. loads may be carried up to a maximum speed of 455 Knots I.A.S. and release in dives up to  $45^{\circ}$  :-

'CONTD.....

8 R.Ps in double tier stowage using No. 8 MK. 4  
 Saddles and Mk. 3 fins.  
 4R.P's in single tier stowage using No. 5 or No. 8  
 Mk's 1 or 2 Saddles and Mk. 3 fins.  
 An "M" Sight Setting of 275 yards is recommended.

(b) Bombs

Pending investigation, the carriage of bombs is not permitted.

(c) Guns

The use of guns is permitted.  
 Tests to clear the Mk. 5 G.G.S. installation have not yet  
 been completed.  
 Until further notice, the removable blast tubes should be  
 examined for damage whenever the guns are fired at speeds  
 exceeding 400 Knobs I.A.S. below 5,000 ft.

2.5. Radio.

Radio trials are proceeding.  
 Pending completion provisional clearance is given for the use  
 of the V.H.F./T.R.1936 and Z.B.X.

2.6. Engine

The normal fuel is to Specification D.Eng.RD/2482/avtur.  
 The aircraft may be operated on fuel to Specification D.Eng.RD/  
 2486/AVTAG but no tests have yet been made to ascertain the  
 evaporative losses in tropical conditions.

3. Warnings

A fire hazard exists when any attempt is made to relight the engine in  
 flight and reference should be made to S.F.I.RN.223. Unrestricted relighting  
 may be permitted when airframe Mods. 1052, 1054, 3163, 3245 and Goblin Mods.  
 903, 820, 830 are embodied.

Strength of the undercarriage does not permit full Standard A.D.D.L's

4.

Pilots Notes and Loading Data.

Until Pilots Notes are available, reference should be made to A.P.  
 4099 J-P.N., Vampire T. Mk. 11 for guidance.

Loading data is given in A.P.4269C Vol. 1.

Contd.....

5.           Essential Modifications.

Essential modifications are incorporated in the conversion from the T. MK. II.

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## TECHNICAL NEWS SHEET

SERIES \_\_\_\_\_ V. No. 461DATE 29.12.53.ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETINVAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 8 GENERALSpecial Flying Instruction TF/594  
Vampire Aircraft: Engine Bay Fires

Pilots are warned that fire in engine bay of Vampire aircraft may render flying controls and pressure instruments useless, necessitating immediate abandoning of aircraft.

SUB HEADING 17 VENTILATION AND CABIN HEATING.Special Flying Instruction TF/574  
Vampire T.11 Aircraft.

"1. The cold air unit fitted to the Vampire T.11 aircraft will overheat if the unit is used when the aircraft is on the ground. The air conditioning control must therefore always be OFF when the aircraft is on the ground.

2, Pilots Notes will be amended."

SUB HEADING 14 SERVICES, AIRCRAFT.

A. Special Technical Instruction/Vampire/105.  
Hydraulic Hand Pump/Radar Unit: Fouling.

B. Vampire Mk.10 aircraft.

C. Cases have been reported where the hydraulic hand pump handle fouls the observer's radar control unit box. The foul occurs when the radar unit is adjusted to its lowest position.

D. As soon as possible and not later than the next primary Star Servicing proceed as follows:-

Continued.....

1. Adjust the radar control unit to its lowest position by operating the winding handle situated on its inboard side. Check for clearance by operating the hand pump handle.
2. Where fouling occurs the following work is to be carried out.
3. Mark off the handle the amount of material necessary to be removed to clear the radar unit by  $\frac{1}{8}$ " with the wooden plug fitted.
4. Dismantle the handle from the pump by removing the two 2 B.A. securing bolts.
5. Drill out the  $\frac{1}{8}$ " rivet securing the wooden plug in the end of the handle.
6. Cut off the necessary amount from the handle. Re-drill the handle .3" from the end with a No.30 drill to secure the wooden plug. Countersink both No.30 holes and secure the plug with a rivet Part No. AS.460/416.
- 7 Refit the handle to the hand pump.

E. Record on appropriate form.

F. Nil.

G. Nil.

SUB HEADING 14 SERVICES AIRCRAFT.

- A. Special Technical Instruction/Vampire/104.  
Hydraulic Pressure Pipe: Chafing.
- B. Vampire T.11 aircraft NOT embodying Mod 3110.
- C. Cases have been reported where the hydraulic engine pump pressure pipe running along the port side of the cannon bay has been chafed by the 2 B.A. bolt which secures the fibre blocks to a pipe support bracket situated approx.  $4\frac{3}{4}$ " forward of the gun bay door centre hinge.
- D. As soon as convenient and not later than the next Primary Star Servicing proceed as follows:-

Continued.....

ADVANCE COPY

V.461 Contd.,..

Sheet 3.

1. Refer to attached drawing number R15S.107 and examine the hydraulic pipe for damage and clearance in the area detailed on the drawing (Note: the pipe run varies on different aircraft). Replace any damaged pipe with pipe Part No.13S.1079AND, referring to procedure as detailed in AP.4099 Vol.1, Section 3, Chapter 6.
2. Where the pipe is not damaged refer to drawing R.15S.107 and replace existing nut with thin nut Part No. AGS.2002/C and file off bolt to clear the pipe.
- E. Record on the appropriate form.
- F. Nil.
- G. Mod 3110 where embodied will render compliance with this STI unnecessary.

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SERIES V No. 464.



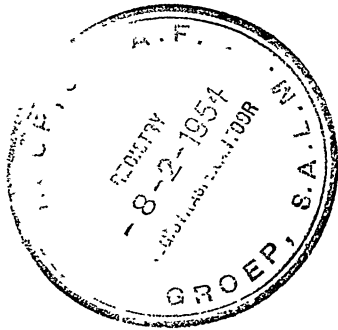
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VAMPIRE AIRFRAME GENERAL CIRCULATION.  
SUB HEADING 1 ARMAMENT

AMENDMENT TO T.N.S. V.455.

Please insert - "Mod No. Sea Vampire 3283" against the title - "Anchor Nuts on forward Flange of Cannon front inner mounting casting - Intro", on sheet 2 of T.N.S. V.455.





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TECHNICAL NEWS SHEET

SERIES V No 468



DATE 8.1.54.

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VAMPIRE AIRFRAME. GENERAL CIRCULATION.  
SUB HEADING 23 INSTRUMENTS

VAMPIRE MKS. FB5, FB9 - AUTOMATIC CHANGE - OVER RELAY  
REF. 5C/4102 FOR TURN AND SLIP INDICATOR - INTRODUCTION

CLASS B/2

MOD NO. VAMPIRE 954. ISSUE 2. AMENDMENT No.1

Further to Technical News Sheet V.426 herewith amendment No. 1.

SUB HEADING 23 INSTRUMENTS.

VAMPIRE MKS. FB5, FB9 AIRCRAFT - AUTOMATIC CHANGE-  
OVER RELAY, REF 5C/4102 FOR TURN AND SLIP INDICATOR -  
INTRODUCTION.

CLASS B/2

MOD NO. VAMPIRE 954. ISSUE 2. AMENDMENT NO.2

Further to Technical News Sheet V. 426 herewith amendment No. 2.

SUB HEADING 1 ARMAMENT  
SUB HEADING 18 WING ASSEMBLY.

VAMPIRE N.F. MK. 10 AIRCRAFT - CAMERA GUN MOUNTING -  
INTRODUCTION.

CLASS C/3

MOD NO. VAMPIRE 3014 AMENDMENT NO. 2.

Further to Technical News Sheet V.342 herewith amendment No. 2.

SUB HEADING 12 FUEL SYSTEM.

VAMPIRE F.MK.3. F.B. MK.5, F.B. MK.9 - RELIEF VALVE IN  
FUEL SYSTEM VENT LINE - INTRODUCTION.

Contd.....



V.468. CONTD.....

SHEET. 3.

SUB HEADING 7. FUSELAGE ASSEMBLY.

SUB HEADING 16. UNDERCARRIAGE.

VAMPIRE N.F. MK.10, T. MK.11 AIRCRAFT - POSITIVE  
MECHANISM FOR NOSEWHEEL DOOR OPERATION - INTRODUCTION.

CLASS B/3

MOD NO VAMPIRE 3236 AMENDMENT NO. 1.

Further to Technical News Sheet V. 402 herewith amendment No. 1.

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# REPAIR INSTRUCTION

**THE DE HAVILLAND AIRCRAFT CO., LTD**  
AIRSPEED DIVISION  
CHRISTCHURCH, HANTS.

R.I.S. No. **6**

**REPAIR & DEFECTS SECTION**

Sheet No. **Introduction**

No. of Sheets **3**

TYPE OF AIRCRAFT	COMPONENT	COMPONENT DRG. No.		
Aircraft <b>Vampire All Marks</b>	<b>Main Undercarriage</b>			
Reg. No. ....				
Mk No. ....				
DESCRIPTION OF DAMAGE		CAUSE OF DAMAGE		
<p>A revised sequence of main undercarriage adjustments, consequent upon investigation into various forms of undercarriage failures.</p>				
Requested by	Compiled by	Approved by	Stress Approved	Work carried out by
<b>Service Dept.</b>	<b>G. S. Marle</b>	<b>G. Matthews</b>	-	-
Interchangeability <input checked="" type="checkbox"/> affected			Adjustment to Mass Balance <input checked="" type="checkbox"/> <del>not</del>	

METHOD OF REPAIR AND MATERIAL REQUIRED

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A revised sequence of undercarriage adjustments.

In carrying out the investigation which led to the issue of Vampire S.T.I.101, it became evident that certain other operations in the undercarriage assembly needed special care to prevent attendant defects. It was also considered that the instructions given in the A.P. could profitably be revised to contain special emphasis on certain points.

The following is a resume of the relative defects and their correction given in assembly sequence. This embraces all current S.T.I.s and S.I.s on the subject but does not contradict any of them. Drawing No. ROOG.46 will assist in identifying items mentioned in this instruction.  
Radius Rod Assembly.

Cases have been reported of the radius rod mounting brackets Part No. G00.79 being found with two or three threads stripped aft of the counterbore. This is attributed to the holes in the end fittings Part No. G00.1055, G00.1056, G00.1057 not lining up with those in the radius rod mounting brackets on assembly.

If difficulty is experienced in fitting the radius rod attachment bolts Part No. G00.726ND, unlock the end fitting lock bolt Part No. A1-6E, adjust the end fitting to enable alignment of the bolt holes with those in the mounting bracket, tighten up lock-nut, lower the assembly and re-lock lock bolts. Re-assemble.

Where the thread in the mounting bracket Part No. G00.79 has been damaged or found tight, the tapping out of the thread in situ is to be discouraged as a tap is likely to 'cut in' on a cross thread in view of the counter bore being tight. A bracket with a damaged thread should be changed.

Reports have been received of the radius rod being incorrectly rigged, and therefore causing an unnecessary load to be exerted on the radius rod vertical attachment bolts Part No. G00.726ND with the undercarriage in the retracted position. The correct procedure for rigging is as follows:-

1. With the undercarriage compression leg fitted, secure the radius rod assemblies by the four vertical attachment bolts Part No. G00.726ND.
2. To ensure that the leg attachment eyebolt Part No. G00.1015A, which is fitted to the radius rod assembly, lines up centrally with its pick-up castings Part No. G00.1003 and 4 on the leg, it may be found necessary to shim the radius rod, between the end fitting and the radius rod mounting bracket, with laminated brass shim Part No. G00.1503. A maximum of .062" is permitted under one fitting only as required. In order to ascertain the amount of shim necessary to line up the eyebolt with the pick-up casting, take hold of the eyebolt and "Work" the radius rod by hand to check its maximum travel fore and aft. Having done this, shim as described above so that the centre lines of the eye bolt and pick-up casting correspond. At no time should the radius rod eyebolt be permitted to foul the side of the pick-up casting on the undercarriage leg on final assembly.

Main undercarriage adjustment - Radius Rod.

The following sequence of operations are to be strictly adhered to when carrying out undercarriage adjustments. The relevant A.P.s will be brought in line with these recommendations in due course.

**NOTE:** Before carrying out Para. 2 below, it is essential that the leg attachment adjustable eyebolt is screwed in sufficiently for the initial retraction, to ensure that the axle does not strike rib 4 during the adjustment of the eyebolt. If the axle is permitted to strike rib 4 at any time, the radius rod attachment bolts Part No. G00.726ND may be loosened due to the strain imposed upon them in this condition, through the radius rod assembly being out of adjustment and forming a 'gog leg'. Also ensure that the compression leg is fully extended. The radius rod assembly adjustment sequence is as follows:-

1. Radius Rod.

The stop bolt between the upper link and the lock link of the radius rod should be adjusted with the lock plate in the locked position. Ensure that the roller moves freely within the slot when the stop faces are in contact. After this adjustment the stop bolt must be wire locked. The lock plate micro switch, which is wired in series with both the 'up' and 'down' lock micro switches, should now be adjusted so that the striker operates the switch plunger when the roller is  $\frac{3}{4}$ " in from the locked position.

2. Retracting Mechanism.

With the wheel and leg fairing removed and 'D' door disconnected, proceed to adjust the leg attachment eyebolt in order to obtain a gap of  $1/16$  -  $1/8$ " between the wheel axle and rib 4. Lock the eyebolt. At the same time adjust the striker of the 'UP' micro switch so that the switch is just operated when the undercarriage is in the 'UP' position. Then extend the striker three complete turns and lock.

3. Hydraulic retraction jack.

The length of the jack is critical for the satisfactory operation of the undercarriage and it should be adjusted for the main undercarriage in the 'UP' position. With the jack ram fully extended, adjust the fork-end so that the lock plate roller is between  $1/16$ " and  $3/32$ " from the end of the kidney slot. The best method of checking this clearance is to partially raise the undercarriage with the hand pump. When the lock has broken, affix a small piece of plasticine to the inboard or upper extremity of the slot. Now raise the undercarriage to the 'UP' locked position to obtain an impression on the plasticine. Lower the undercarriage about half way to remove and measure the plasticine. When the jack has been correctly adjusted check that the fork-end of the ram is in safety before securing the lock-nuts.

NOTE: If after having rigged the kidney slot adjustment, the leg attachment eyebolt is altered, it is essential that the kidney slot be readjusted.

Wheel door and leg fairing adjustments.

1. Refit the undercarriage wheel and connect up the 'D' door adjustable radius rods.

By means of their radius rods, the wheel doors can now be adjusted so that when the undercarriage is fully retracted, the doors are a tight fit against the two door stops in the wheel well. It should require a load of approximately 50 lb applied at each corner of the door to pull it down onto the lock plungers. The gap between the lock plunger and door catches should be .060 inch to .10 inch, this clearance is most important in order to obviate the door catches fouling the Teleflex plunger during the actual operation of locking in the up position.

2. Disconnect the 'D' door adjustable radius rods and fit the leg fairing.

With the undercarriage locked in the up position, and the straps securing the leg fairing tight, ensure that the fairing has an all round clearance of .050" to .15" with the underside of the wing. A flush fit is effected by the addition or removal of the packing washers on the strap attachment fittings, and by moving the fairing about the leg. At the same time ensure a clearance of .05" to .2" between the leg fairing and 'D' door, this does not refer to the leg fairing shroud which overlaps the 'D' door.

When a good fit has been obtained, lower the undercarriage and with the compression leg fully deflated and compressed ensure that the torque links do not foul the leg fairing.

3. Reconnect the 'D' door adjustable radius rods and carry out retraction tests with a hydraulic rig. Make a final plasticine check of the axle and kidney slot clearance with the 'D' door connected, ensuring that the kidney slot has not altered, and that the axle clearance has only increased a minimum amount.



Teleflex Cable Installation.

Numerous undercarriage failures can be attributed to teleflex cable plungers remaining in the locked position for varying reasons.

The following points are to be observed when installing the undercarriage teleflex system.

Reports have been received of the 4 B.A. clamp bolt fitted through the wrapped box securing the two conduits, having been tapped into position. As the conduits obstruct the bolt hole, this causes the collapse of the conduits, and in some cases fracturing of the teleflex cable. This is due to the 4 B.A. hole not being cleared by a No. 27 drill prior to the assembly of the bolt.

1. With the two conduits assembled in the wrapped box, and prior to the fitting of the 4 B.A. clamp bolt, a No. 27 drill is to be passed through the hole.
2. On assembly of the two main lengths of conduits, fore and aft, it is essential that they are adjusted so that they abutt  $\frac{1}{3}$ . If this adjustment is not observed, there is a possibility that the conduit will "bottom" inside the slide tube, causing the teleflex to fracture.

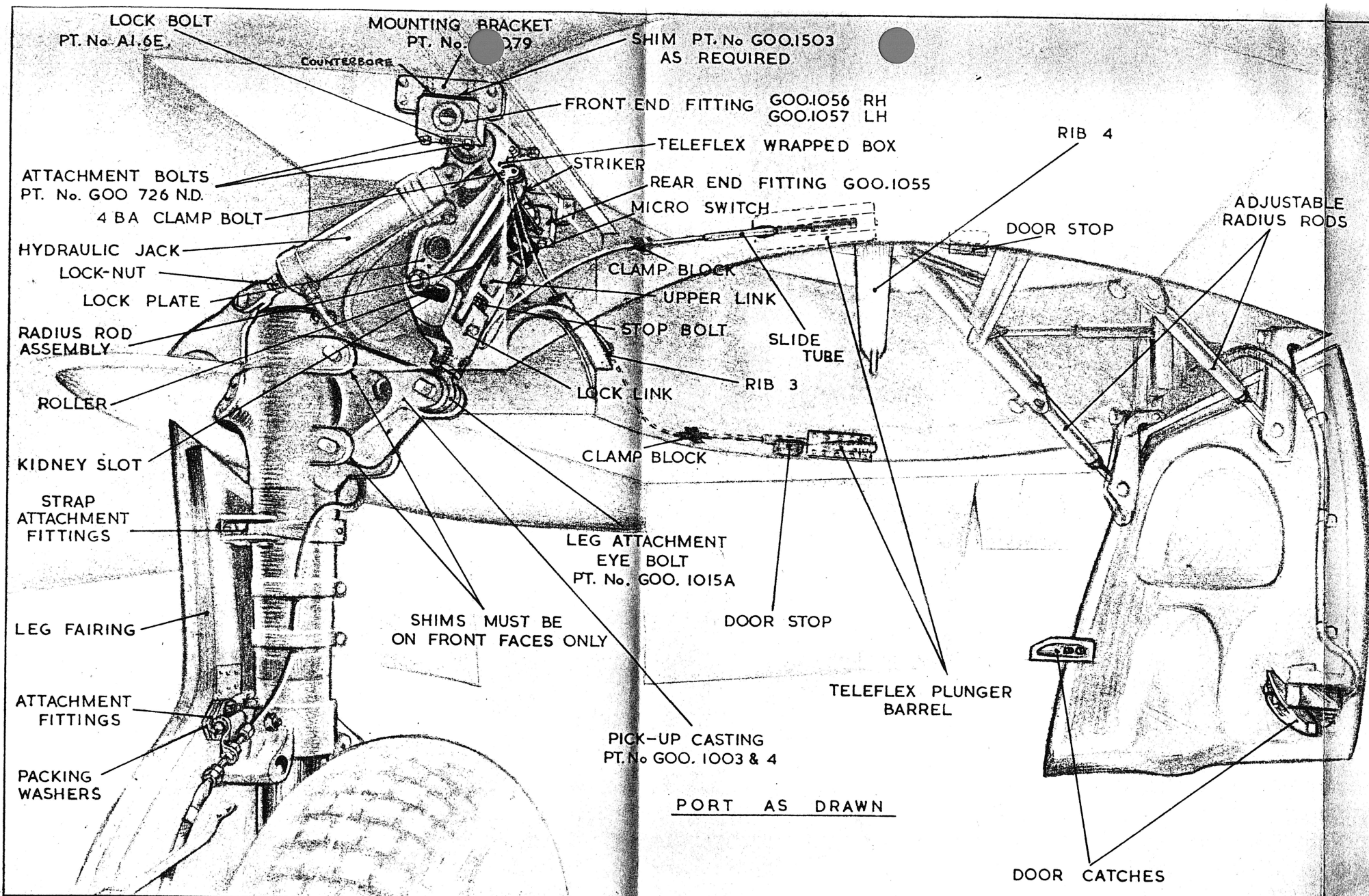
Undercarriage failures have also been caused by the slide tube fouling the clamp block when the undercarriage is in approx. the  $\frac{1}{3}$  retracted position, this is considered due to poor lock plunger adjustments. S.I. Vampire 41 refers.

It is recommended that prior to the assembly of the lock plunger and slide tube, that the slide tube is slid over the conduit, and the conduit is marked in the "bottom" position to give a guide on final adjustment of the plunger and slide tube, this mark should be clearly seen with the clamp block in position and the undercarriage approx.  $\frac{1}{3}$  retracted.

NOTE: On retraction of the undercarriage this slide tube will travel inboard approx. 1.2 inches until the undercarriage is almost  $\frac{1}{3}$  up and the tube will then reverse and travel outboard to the locked up position.

3. As a result of conduits being found bent and in a semi-seized condition, special attention is drawn to S. I. Vampire 32 headed "Breakage of undercarriage door lock teleflex cables".

*P. C. M. L.*



UNDERCARRIAGE ADJUSTMENTS VAMPIRE ALL MKS

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TECHNICAL NEWS SHEET

SERIES V. No 497.



DATE 2. 6. 54.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 10, MISCELLANEOUS EQUIPMENT.

VAMPIRE MK.F.3, FB.5, FB.9, NF.10, T.11 AIRCRAFT  
TO INTRODUCE METHYL BROMIDE BOTTLE, STORES REF.  
27N/105, IN LIEU OF 27N/67 AND TO CHANGE THE LABEL  
ON THE AIRCRAFT.

CLASS E/3.N.C.P.

MOD.NO. VAM. 932 Iss.2

1. This modification introduces a high pressure methyl bromide fire bottle to give improved coverage in the engine bay, and also makes provision for altering the reference numbers on the label attached to the bottle mounting bracket.

SUB HEADING 10. MISCELLANEOUS EQUIPMENT.

SEA VAMPIRE MK.F.20, F.21, T.22 AIRCRAFT -  
TO INTRODUCE METHYL BROMIDE BOTTLE, STORES REF.  
27N/105, IN LIEU OF 27N/67 AND TO CHANGE THE  
LABEL ON THE AIRCRAFT.

CLASS B/3.

MOD.NO.S.VAM.932 Iss.2.

1. This modification introduces a high pressure methyl bromide fire bottle to give improved coverage in the engine bay, and also makes provision for altering the reference numbers on the label attached to the bottle mounting bracket.

SUB HEADING 13, RADIO.

SEA VAMPIRE MK. T.22 AIRCRAFT - AMPLIFIER A.1271 AND SERIAL  
- TYPE 62 - DELETION.

CLASS C/3. N.C.P.

MOD.NO.S.VAM.1057.

1. Introduction.

The above equipment is withdrawn from this mark of aircraft in accordance with naval requirement and is to be removed from all aircraft in which it is installed.

continued.....

SUB HEADING 1, ARMAMENT.

SUB HEADING 18, WING ASSEMBLY.

VAMPIRE MK. N.F.10. - CAMERA GUN MOUNTING - INTRODUCTION.

CLASS C/3.

MOD.NO. V.M.3014.AMD. NO.3.

Further to Technical News Sheets No's V.342, V 417, and V.468 herewith Amendment No.3.

SUB HEADING 7, VENTILATION AND CABIN HEATING.

VAMPIRE F.MK.3; F.B.MK.5; F.B.MK.9; AIRCRAFT - CABIN PRESSURE CONTROL - COARSE MESH INTAKE GUARD ON INTRODUCTION OF VALVE MK.11 (REF.27KD/19) EMBODYING NORMAL AIR MODS 41 AND 42 IN LIEU OF UNMODIFIED MK.11 OR MK.9 (REF. 27KD/41) VALVES - INTRODUCTION.

CLASS C/4.

MOD.NO. V.M. 3212 Iss.2.

1. Introduction.

Cabin over-pressurisation 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 1/4 in. perforated grid plate which permits small particles to be discharged through the valve.

SUB HEADING 7, VENTILATION AND CABIN HEATING.

SEA VAMPIRE F.MK.20, F.MK.21 AIRCRAFT - COARSE MESH INTAKE GUARD ON INTRODUCTION OF CABIN PRESSURE CONTROL VALVE STORES REF. 27KD/19 EMBODYING NORMAL AIR MODS. 41 AND 42 - INTRODUCTION.

CLASS C/3.

MOD.NO.S.V.M. 3212 Iss. 2.

L. Introduction.

Cabin over-pressurisation 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 1/4 in., perforated grid plate which permits small particles to be discharged through the valve.

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## TECHNICAL NEWS SHEET

SERIES V.

No. 498.



DATE 3. 6. 54.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

### VAMPIRE AIRFRAME, GENERAL CIRCULATION. SUB HEADING 10, MISCELLANEOUS EQUIPMENT.

#### SEA VAMPIRE MK.T.22 AIRCRAFT - ADDITIONAL FIRE DETECTORS IN ENGINE BAY AND TO REVISE WIRING FOR THE ELIMINATION OF TERMINAL BLOCKS IN FIRE WARNING AND FIRE EX- TINGUISHER CIRCUITS - INTRODUCTION.

CLASS C/3 on removal of Engine.

MOD.NO.S.VAM.3238.

#### 1. Introduction.

To improve the present system of fire detection in the engine bay, this modification makes provision for the fitment of additional fire detectors at the engine bearers and in the tail cone. At the same time a revised method of wiring is used, eliminating the three existing terminal blocks and also giving a greater operating efficiency.

### SUB HEADING 7, FUSELAGE ASSEMBLY.

#### SEA VAMPIRE MK.T.22 AIRCRAFT - REDESIGNED CANOPY JETTISON CONTROL - INTRODUCTION.

CLASS B/2 concurrently with  
mod.No.Sea Vampire 3151.

MOD.NO. S.VAM.3251AMD No.1.

No.1. Further to Technical News Sheet No. V 481 herewith amendment

### SUB HEADING 11, ELECTRICAL INSTALLATION.

#### SUB HEADING 23, INSTRUMENTS.

#### VAMPIRE MK.N.F.10 AIRCRAFT - TO DELETE REAR BEARING TEMPERATURE GAUGE.

CLASS C/3 N.C.P.

MOD.NO. VAM.3261.

#### 1. Introduction.

Experience has shown that the rear bearing is such that the temperature indicator can be safely deleted. This modification covers the removal of the gauge. The thermocouple will remain on the engine so that the temperature may be checked at any time by the ground crew.

SUB HEADING 7, FUSELAGE ASSEMBLY.

VAMPIRE MK.F.3, F.B.5, F.B.9 AIRCRAFT -  
FUSELAGE - CANOPY WINDING GEAR - INTRODUCTION  
OF SAFETY LANYARD TO HANDLE.

CLASS C/3 N.C.P.

MOD.NO.VAM.3307 AMD.NO.1.

Further to Technical News Sheet No.476 herewith amendment No.1.

SUB HEADING 7, FUSELAGE ASSEMBLY.

SEA VAMPIRE MK.F.20, F.21 AIRCRAFT  
- FUSELAGE - CANOPY WINDING GEAR -  
INTRODUCTION OF SAFETY LANYARD TO  
HANDLE.

CLASS C/3 N.C.P.

MOD.NO. S.V.M.3307 AMD.NO.1.

Further to Technical News Sheet No. 476 herewith Amendment No.1.

SUB HEADING 11, SERVICES AIRCRAFT.

VAMPIRE F3, FB5, FB9, N.F.10 AIRCRAFT  
- OXYGEN SYSTEM - DELETION OF NON-  
RETURN VALVE (REF.6D/427) AT 5-WAY  
PIECE (REF.6D/756).

CLASS C/3 N.C.P.

MOD NO. V.M.3309.

1. Introduction.

Failure of the oxygen system may be experienced due to the splitting of the non-return valve, resulting from its incorrect engagement with the 5-way piece. This is due to the possible variation of the seating angles on the non-return valve and five way piece. This modification deletes the non-return valve.

SUB HEADING 11, SERVICES AIRCRAFT.

SEA VAMPIRE F.20, F.21, AIRCRAFT - OXYGEN SYSTEM -  
DELETION OF NON-RETURN VALVE (REF. 6D/427)

CLASS C/3 N.C.P. on replacement.

MOD.NO. S.V.M. 3309.

1. Introduction.

Failure of the oxygen system may be experienced due to the splitting of the non-return valve, resulting from its incorrect engagement with the 5-way piece. This is due to the possible variation of the seating angles on the non-return valve and five way piece. This modification deletes the non-return valve.

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SERIES V No 500



DATE 21.6.54.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 11 ELECTRICAL INSTALLATION.

VAMPIRE N.F. MK.10 AIRCRAFT -  
FUSELAGE - TO IMPROVE ATTACHMENT  
OF BATTERIES TO CRADLE.

CLASS C/3 N.C.P.

MOD NO. VAMPIRE 3290.

Due to over tightening of the claw attachment bolts, securing the batteries to the cradle, the battery carrier side plants may tend to distort, with consequent damage to the batteries. This modification introduces improved attachments to obviate this defect.

This modification was satisfied by and now supersedes the work called for by S.T.I. No.Vam.99.

This modification is applicable only if Mod. No. Vampire 3009 (to introduce 40 amp/hour batteries, stores ref 5J/3253 in lieu of existing 25 amp/hour battery, stores Ref. 5J/3254) is already embodied.

SUB HEADING 12 FUEL SYSTEM.

VAMPIRE MKS.F3, FB5, FB9,NF.10, T.11-  
REDESIGNED INSULATING PACKING RING  
AT FILLER NECK ON NO.1 FUEL TANK  
- INTRODUCTION.

CLASS C/3 TO AIRCRAFT WITH MOD.3041 EMBODIED.

MOD NO. VAMPIRE 3248.  
AMENDMENT NO. 1.

Further to Technical News Sheet No. V.426 herewith amendment No. 1.

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TECHNICAL NEWS SHEET

SERIES V No 502.



DATE 5.7.54.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME GENERAL CIRCULATION.  
SUB HEADING 6 ENGINE INSTALLATION.  
SUB HEADING 11 ELECTRICAL INSTALLATION.

ELECTRICAL - PROVISION FOR HIGH ENERGY  
IGNITION EQUIPMENT - INTRODUCTION.

VAMPIRE MKS. 50, 52 & 52A.

CLASS B/2 CONCURRENTLY WITH GOBLIN MOD.NO.984. MOD NO. VAMPIRE 963.

This modification is necessiated by the fitment of engines with high energy ignition equipment. This modification, therefore, makes the necessary changes to the electrical installation, and provides for the fitting of a re-light switch, in the cockpit. Provision is also made for contact to the booster coils for use when engines are fitted without high energy equipment. This Modification must be embodied concurrently with the fitment of engines embodying Goblin Mod.984. Mod.No. Vampire 3076 must be embodied prior to this modification.

SUB HEADING 11 ELECTRICAL INSTALLATION.

VAMPIRE N.F. MK.10 AIRCRAFT - ELECTRICAL  
STRENGTHENED ACCUMULATOR LUGS - INTRODUCTION.

CLASS B/2.

MOD NO. VAMPIRE 3330.

The existing accumulator lugs have been found to fracture easily if dropped during servicing and subsequently, when refitted, creating a fire risk. To obviate this possibility, stronger lugs are herewith introduced. This Modification is only applicalbe to aircraft with Mod.No. Vampire 3009 embodied.

SUB HEADING 8 GENERAL.

Continued.....

VAMPIRE TRAINER T.MK.55 - LOADING AND  
C.G. DATA (AW/115/110:ISSUE NO.7)

Loading data issued under the de Havilland Ref No. AW/115/110 Issue 6 are cancelled by the revised data of same Ref, No. issue 7, attached hereto, and recipients are requested to destroy data bearing the old issue No.

The data given in V.M.R. - 1-115 does not include the effect of various recent modifications (Redesigned Canopy, Ejection Seats etc. etc).

This re-issue of AW/115/110 Issue 7 gives advance information regarding these modifications and will be cancelled when the revised data appear in V.M.R.-1-115.

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TECHNICAL NEWS SHEET

SERIES V. No. 518



DATE 12.11.54.

ISSUED FOR THE GENERAL GUIDANCE OF OPERATORS OF DE HAVILLAND AIRCRAFT AND ENGINES  
OFFICIAL INSTRUCTIONS TAKE PRECEDENCE OVER ANYTHING CONTAINED IN THIS BULLETIN

VAMPIRE AIRFRAME, GENERAL CIRCULATION.  
SUB HEADING 14 SERVICES AIRCRAFT.

VAMPIRE F.B.MK.5, F.B.MK.9, N.F.MK.10,  
MK.11 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.

CLASS C/3

MOD NO. VAMPIRE 3370.

Cases have occurred 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.

SUB HEADING 7 FUSELAGE ASSEMBLY.

VAMPIRE MK. F.3, F.B.5, F.B.9 AIRCRAFT -  
FUSELAGE - CANOPY WINDING GEAR - INTRODUCTION  
OF SAFETY LANYARD TO HANDLE.

CLASS C/3 N.C.P.

MOD NO. VAMPIRE 3307,  
AMENDMENT NO.2.

Further to Technical News Sheets No's V.476 and 498 herewith amendment No.2.

SUB HEADING 14 SERVICES AIRCRAFT.

VAMPIRE F. MK. 3, F.B. MK.5, F.B. MK.9,  
N.F. MK.10 AIRCRAFT - OXYGEN SYSTEM -  
DELETION OF NON-RETURN VALVE (REF.6D/427)  
AT 5-WAY PIECE (REF.6D/756).

CLASS C/3 N.C.P.

MOD NO. VAMPIRE 3309.  
AMENDMENT NO. 1.

Further to Technical News Sheet No.V. 498 herewith amendment No.1.

Continued.....

V. No. 518 Cont'd.....

Sheet 2.

SUB HEADING 7 FUSELAGE ASSEMBLY.

SEA VAMPIRE MK. F.20, F.21, AIRCRAFT -  
FUSELAGE - CANOPY WINDING GEAR -  
INTRODUCTION OF SAFETY LANYARD TO HANDLE.

CLASS C/3 N.C.P.

MOD NO. SEA VAMPIRE 3307,  
AMENDMENT NO.2.

Further to Technical News Sheets No's V.476 and 498 herewith amendment No.2.

SUB HEADING 14 SERVICES AIRCRAFT.

SEA VAMPIRE F. MK.20, F. MK.21 AIRCRAFT -  
OXYGEN SYSTEM - DELETION OF NON RETURN  
VALVE, (REF. 6D/427).

CLASS C/3 N.C.P. ON REPLACEMENT OF  
OXYGEN BOTTLES.

MOD NO. SEA VAMPIRE 3309  
AMENDMENT NO.1.

Further to Technical News Sheet No. V.498 herewith amendment No.1.