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OXYGEN HOSE ASSEMBLIES

GENERAL AND TECHNICAL INFORMATION

GENERAL ORDERS AND MODIFICATIONS

BY COMMAND OF THE DEFENCE COUNCIL

Oliver Whitmore.

Ministry of Defence

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Changes of technical import to this publication are indicated by the symbols
 ► ◀ outside the type area.



LIST OF RELATED PUBLICATIONS

| <u>Equipment</u> | <u>AP No</u> |
|---|---|
| Personal equipment connectors (Martin-Baker type) | AP 109G-0101-1 |
| Personal equipment connector (Phantom and Harrier aircraft) | AP 109G-0102-1 |
| Personal equipment connector (Type 9B ejection seats) | AP 109G-0103-13A |
| Personal equipment connector (Type 10B ejection seats) | AP 109G-0104-123A |
| Personal equipment connector (Martin-Baker) | FAP 109G-0105-1 |
| Anti-g connectors and AVS connectors | AP 108F- ⁰⁴⁰³ ₀₅₀₃ -1 |
| Miniature man-mounted oxygen regulator assemblies | AP 107D-0205-12 |
| Flying clothing test cabinets Mk 1 and 4 | AP 108T-0101-12 |
| General information on aircraft oxygen equipment | AP 107D-0001-1 |
| Flying clothing and associated equipment | AP 108F-0001-5F(R) |
| Flying clothing and associated equipment | AP 108F-0001-5F(N) |
| Oxygen unions, connections, couplings and personal equipment connectors | AP 107D-0400C-12 |



TOPIC 1
GENERAL AND TECHNICAL INFORMATION



MODIFICATION RECORD

The following record confirms that Topic 1 of this publication incorporates all technical changes necessitated by the modifications listed below. Further information on modification titles, classification, categories and Mark applicabilities may be found in Topic 2.

| Mod No | Brief details | Class |
|---------|---|---------|
| MX 98 | Oxygen mask hose assembly Mk 7. To replace QR oxygen connector and by conversion becomes Oxygen Mask Hose Assembly Mk 11. | B/2 |
| PE 38 | To ease fitting and removal. | B/2 |
| PE 42 | Oxygen hose assembly Mk 2. Re-introduction of oxygen hose assembly. | B/0 |
| PE 37 | To introduce oxygen hose assemblies 6D/2246258, 6D/2246255, 6D/2246257. | B/2 |
| PE 47 | To introduce a new valve stem support collar. | B/2 |
| PE 48 | Introduction of longer tele-mic cable assembly | B/2 |
| PE 49 | Replacing the noise attenuated hose with standard anti-kink hose. | B/2 |
| PE 51 | To introduce Heat Shrink Sleeves on the Oxygen Hose ends to prevent chafing. | C/3 |
| PE 53 | To introduce an improved anti-drowning valve. | B/0 |
| ▶ PE 55 | To introduce a single locating pin | B/3 RTC |
| PE 58 | To introduce redesigned lanyard and handle | C/3 ◀ |



Chapter 1

GENERALINTRODUCTION

1 Oxygen mask hose assemblies, low pressure, and high pressure hose assemblies are designed to enable an ejection seat occupant to connect and disconnect the personal services to and from the aircraft supplies by a single action. They incorporate the man portion of a personal equipment connector (PEC) and the requisite lengths of oxygen hose and mic/tel leads to suit the systems installed in the aircraft. On man/seat separation after ejection, the hose assemblies are released from the seat portion of the PEC either by a lanyard attached to a release handle and to the seat occupant's life preserver or by the ejection seat release mechanism.

2 The oxygen mask hose assembly Mk 11 described in Chapter 1-3 is a low altitude assembly used by rear crew members of Vulcan and Victor aircraft. It differs from other marks of low pressure assemblies by not being equipped with a man portion PEC.



Chapter 1-1

LOW PRESSURE HOSE ASSEMBLIES

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- DESCRIPTION
- 2 General
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| 5 | Oxygen mask hose assembly Mk 13 | ... | ... | ... | ... | ... | 7 | |

INTRODUCTION

1 The oxygen mask hose assemblies described in this Chapter are used in Lightning, Canberra PR9, Victor and Vulcan (pilots), Buccaneer, Tornado, Hawk and Sea Harrier aircraft. The assemblies are used only in low altitude flight up to 50 000 ft. The oxygen hoses connect to the oxygen mask tube.

DESCRIPTION

GENERAL

2 The PEC man portion consists of a plate suitably drilled to accommodate the various personal services connectors i.e. oxygen, anti-g, air ventilated suit (AVS) and mic/tel.

3 The oxygen connector comprises a hose connector and a spring-loaded valve. The valve closes when the man portion is separated from the seat portion to prevent the ingress of water if the wearer should alight in water. Opening of the valve occurs when it contacts the valve in the seat portion when the man portion is fitted to the seat portion.

4 The anti-g and AVS connectors consist of externally threaded bushes to which are attached the tube connectors of the anti-g trousers and AVS.

5 A length of anti-kink hose is attached to the oxygen connector and the other end of the hose is fitted with a quick-disconnect half coupling which mates with the oxygen plug connector Mk 7 on the oxygen mask tube. Attached to the half coupling is a dog clip which connects to a D-ring on the life preserver. The oxygen hoses are of lengths between 20 and 23 inches but may be shortened on initial fitting to suit the individual wearer.

6 The mic/tel cable assembly consists of six or seven electrical contacts moulded into a plug which is fitted into the PEC man portion. Each contact is connected to one wire of a six or seven cored cable which terminates in a socket. The plug is attached to the man portion by a cap secured by four screws and the cable is secured by a gland nut screwed on to the cap. The cable is secured to the oxygen hose by rubber straps.

7 The man portion is locked to the PEC seat portion by a spring-loaded plunger on the seat portion which engages over a lug at the rear of the man portion. An operating handle at the rear of the man portion contains a thumb button which, when depressed, and the handle raised moves the spring-loaded plunger away from the lug to free the man portion from the seat portion.

8 Rubber sealing rings are fitted around each of the connectors on the under-surface of the man portions. A protective rubber sheath is provided to fit over the PEC man portion to afford protection to the valves, rubber sealing rings and mic/tel contacts.

OXYGEN MASK HOSE ASSEMBLY Mk 1A (Fig 1)

9 The oxygen mask hose assembly Mk 1A is used by the occupants of ejection seats fitted to Lightning, Canberra PR9 and the pilot positions in Victor aircraft. The assembly consists of a PEC man portion with three connectors and a mic/tel lead. The rear connector is fitted with a length of oxygen hose, the next connector is for the AVS hose and the third connector for the anti-g trouser hose. The mic/tel cable assembly is fitted at the forward end of the man portion, the cable is cleated to the man portion and secured to the oxygen hose by four rubber straps. The cable contains six cores and terminates in a Type 626 socket.

OXYGEN MASK HOSE ASSEMBLY Mk 2A (Fig 2)

10 The oxygen mask hose assembly Mk 2A is used by the pilots of Vulcan aircraft. The assembly is similar to the Mk 1A assembly but has no anti-g threaded bush and the mic/tel cable is not cleated to the PEC man portion.

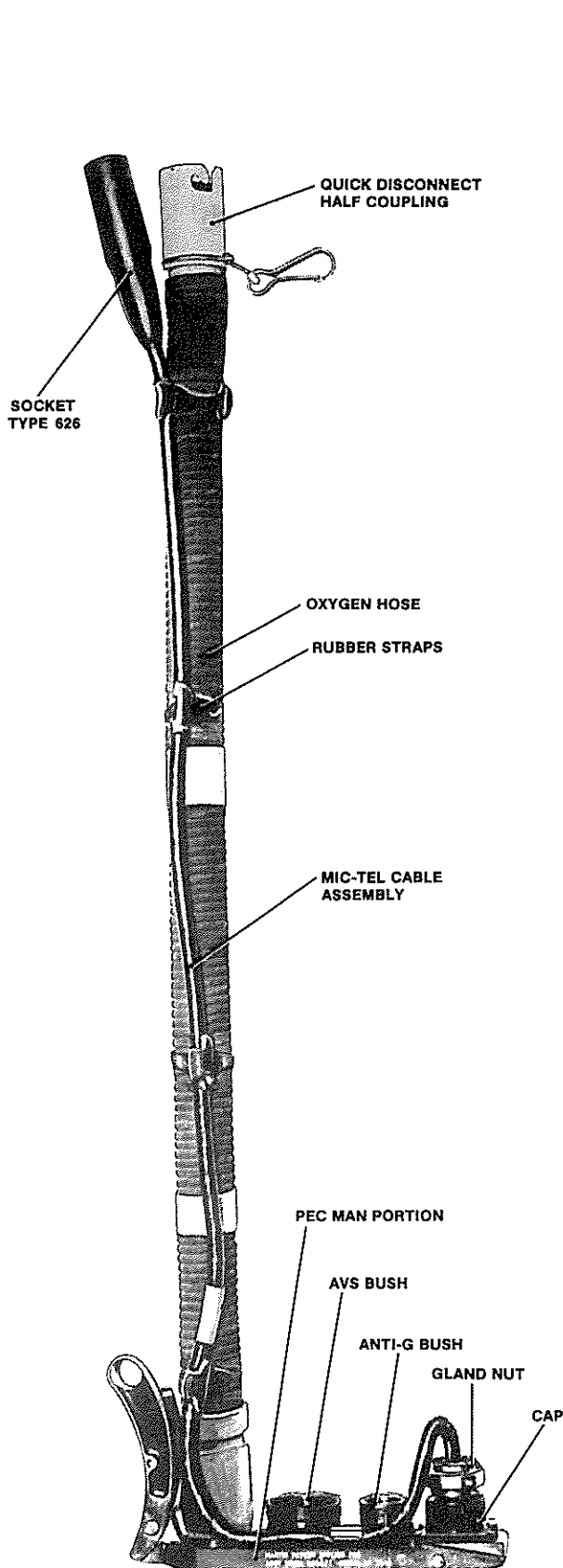


Fig 1 Oxygen mask hose assembly Mk 1A

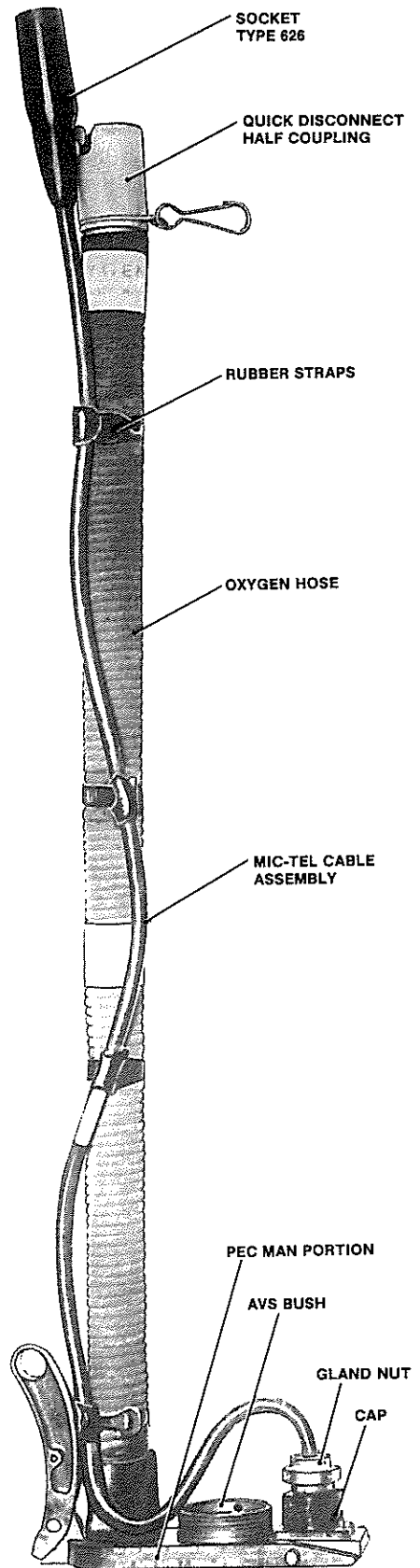


Fig 2 Oxygen mask hose assembly Mk 2A

► OXYGEN MASK HOSE ASSEMBLY Mk 9A (Fig 3) (Mod PE 58 incorporated) ◀

11 The oxygen mask hose assembly Mk 9A is used by the occupants of Buccaneer aircraft ejection seats. The assembly is similar to the Mk 1A assembly but the AVS threaded bush connector is fitted with a blanking cap as the AVS system is not required in Buccaneer aircraft, and an attachment cleat is fitted to the half coupling to engage the life preserver closure plate. Also, a lanyard with two legs is attached to the PEC man portion release handle, one leg being attached to the assembly oxygen hose and the other leg to the life preserver.

OXYGEN MASK HOSE ASSEMBLY Mk 12 (Fig 4)

12 The oxygen mask hose assembly Mk 12 is used by the ejection seat occupants of Tornado aircraft. The assembly is similar to the Mk 9A assembly but the oxygen hose connector is at the front of the man portion followed by the mic/tel cable assembly and an anti-g threaded bush connector. The mic/tel cable has seven cores and terminates in a Lemo connector instead of a Type 626 socket, and the man portion release handle has no trigger.

OXYGEN MASK HOSE ASSEMBLY Mk 13 (Fig 5)

13 The oxygen hose assembly Mk 13 is used by the occupants of the ejection seats in Hawk and Sea Harrier aircraft. The assembly is similar to the assemblies described earlier although the man portion is a different shape. At the front of the man portion is fitted the AVS threaded bush connector, then the mic/tel assembly and finally the oxygen connector and hose.

TABLE 1 OXYGEN MASK HOSE ASSEMBLIES

| Mk | Ref No 6D/ | Man portion Part No MBEU | Applicability |
|-----|---------------|--------------------------------|--|
| (1) | (2) | (3) | (4) |
| 1A | 2253045 | 55744 | Lightning, Canberra PR 9, Victor (pilots) |
| 2A | 4582 | 55748 | Vulcan (pilots) |
| 9A | 2253044 | 55745 | Buccaneer |
| 12 | 6545484 | 60062-101 | Tornado |
| 13 | 2253341 | 72396 | Hawk, Sea Harrier |

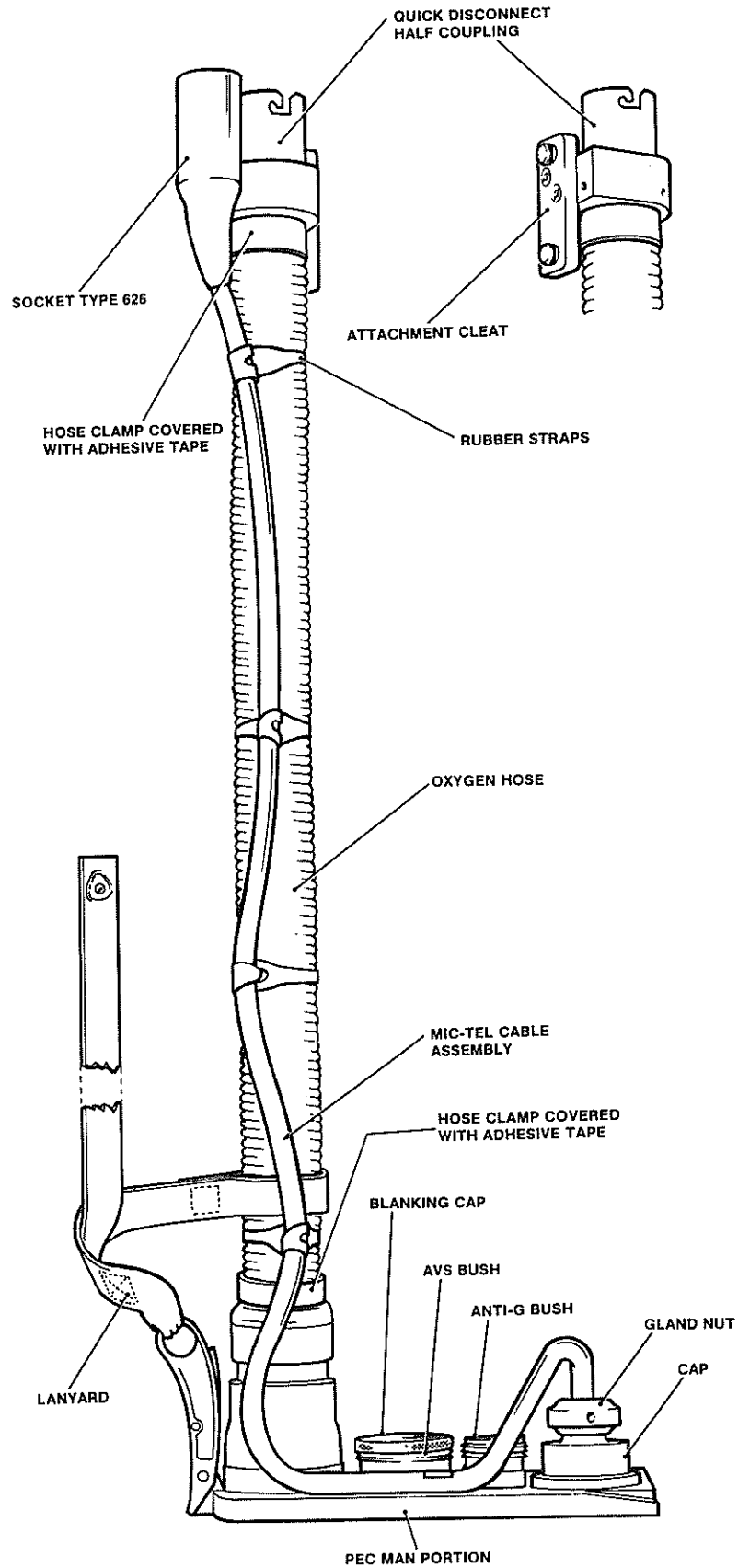


Fig 3 Oxygen mask hose assembly Mk 9A
(Mod PE58 incorporated)

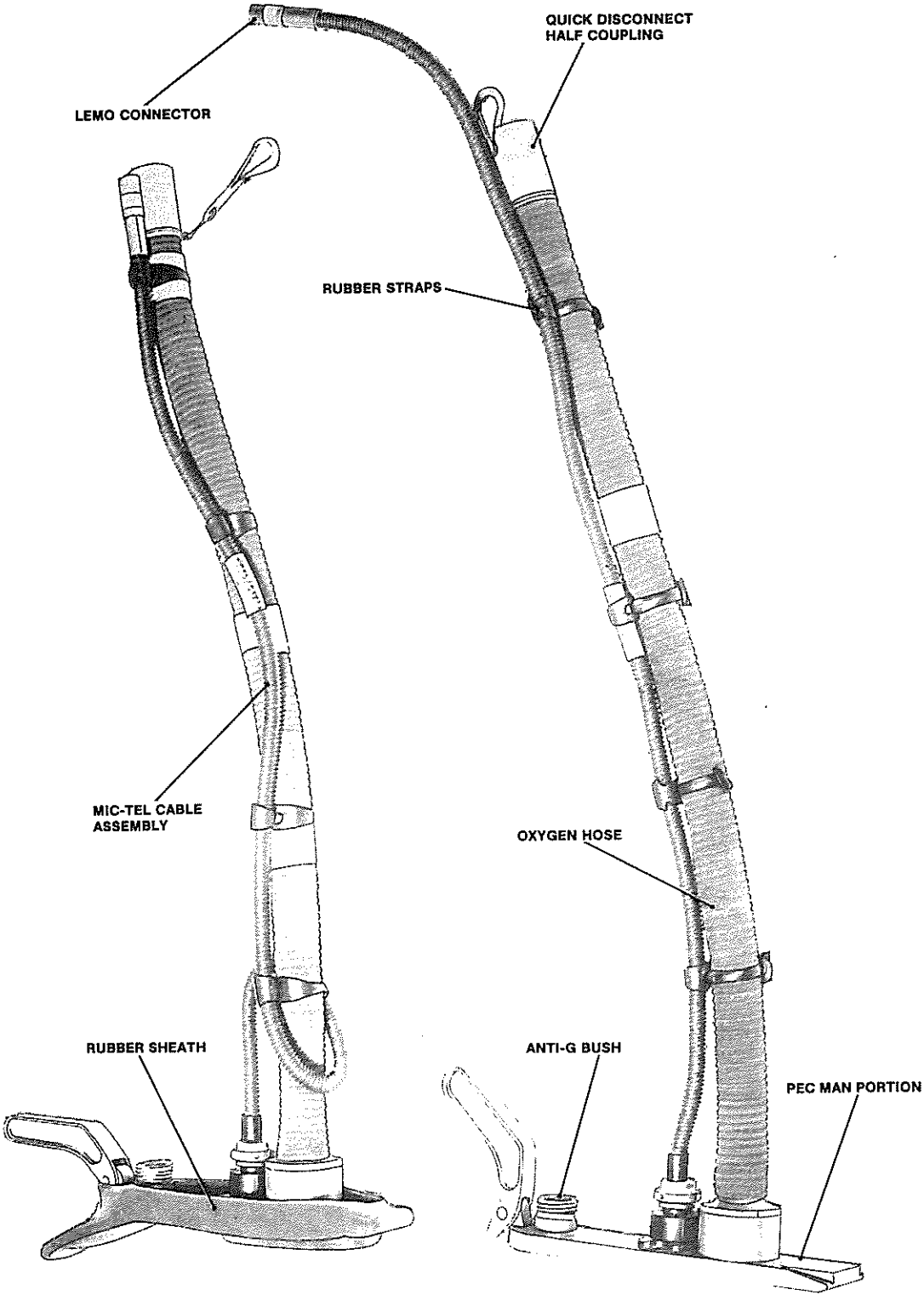


Fig 4 Oxygen mask hose assembly Mk 12 (showing approved method of shortening the mic-tel cable assembly)

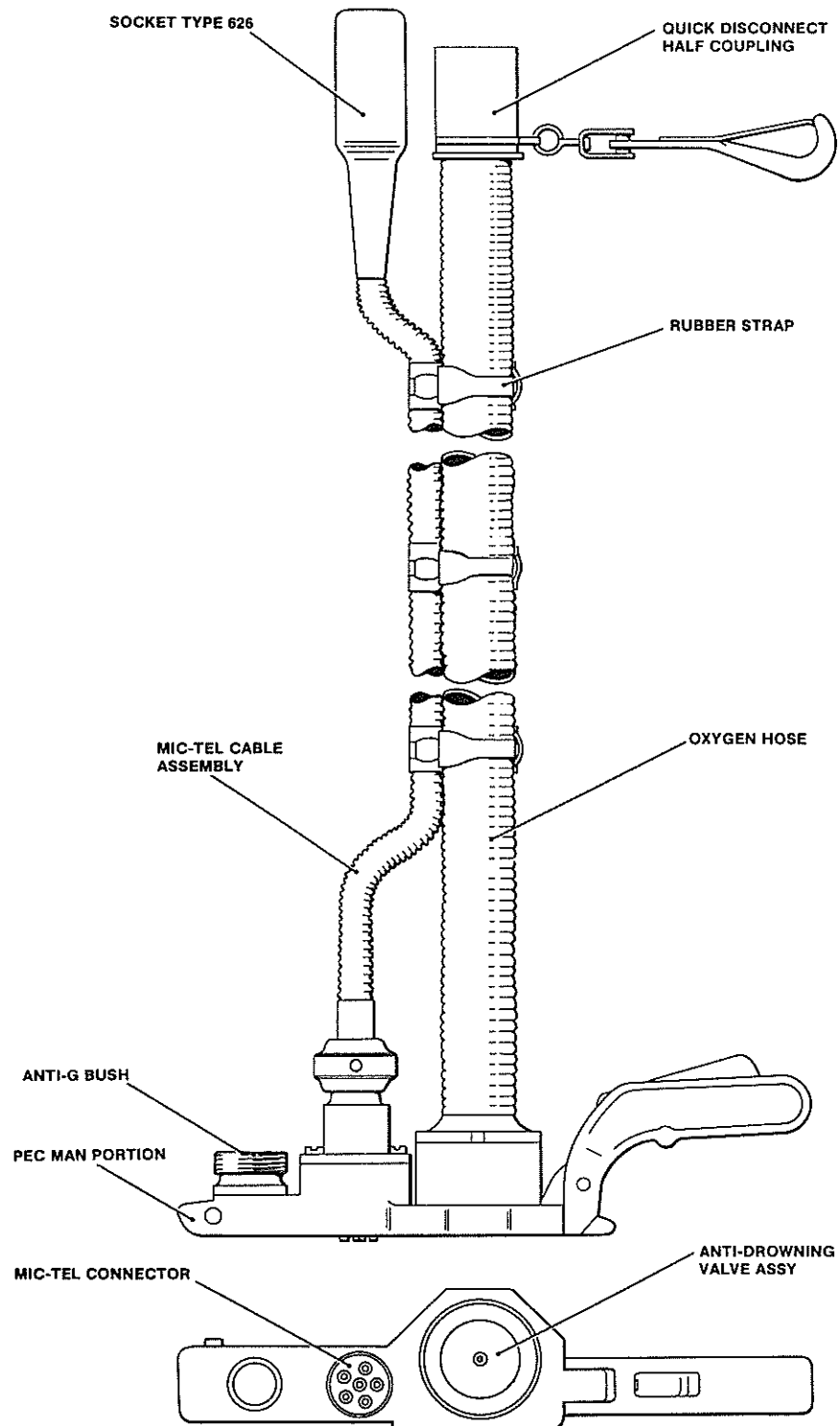


Fig 5 Oxygen mask hose assembly Mk 13



Chapter 1-2

HIGH PRESSURE HOSE ASSEMBLIES

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DESCRIPTION
- 2 General
- 11 Hose assembly, high pressure Mk 1
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| 2 | Hose assembly, high pressure Mk 2 | 5 |
| 3 | Hose assembly, high pressure Mk 3 | 5 |

INTRODUCTION

1 High pressure hose assemblies are used in conjunction with the miniaturised man-mounted oxygen regulators used by aircrew members of Phantom, Harrier and Jaguar aircraft.

DESCRIPTIONGENERAL

2 The three hose assemblies are similar and consist of the man portion of the PEC which comprises of a plate suitably drilled to accommodate the personal services connectors, i.e. high pressure oxygen, anti-g air ventilated suit (AVS) and mic/tel.

3 The oxygen connector is secured in the aperture at the rear of the PEC man portion by four screws. An 'O' seal is fitted between the connector and the man portion body. Below the connector a steel pin is fitted longitudinally to open the valve in the PEC seat portion when the man portion is fitted.

4 The high pressure oxygen hose connects the main and emergency oxygen supplies from the PEC to the miniaturised man-mounted oxygen regulator which is attached to the life preserver closure plate and then into the oxygen mask tube. The hose is $\frac{1}{2}$ in outside diameter approximately 20 in long with a coupling nut on each end. The larger coupling nut screws on to the connector on the PEC man portion and the smaller nut screws on to the miniaturised oxygen regulator.

5 The mic/tel cable assembly is fitted in the aperture forward of the oxygen connector. The cable assembly consists of six electrical contacts moulded into a plug which is fitted into the PEC man portion. Each contact is connected to one wire of a six cored cable. The plug is attached to the man portion by a cap secured by four screws and the cable is secured by a gland nut screwed on to the cap. The cable is secured to the oxygen hose by three rubber straps, and the free end terminates in a Type 626 socket.

6 The anti-g connector consists of a housing fixed to the man portion to which the anti-g trouser hose connector is fitted. The housing contains a silicone 'O' seal which ensures an airtight seal between the housing and the hose connector and three equally spaced ball bearings which engage in a groove in the hose connector body to lock the hose connector to the housing.

7 An AVS connector provided on the Mk 1 assembly is similar to the anti-g connector but is fitted with a prong which protrudes below the bottom of the man portion to open a valve in the PEC seat portion when the man portion is fitted.

8 The PEC man portion is locked to the seat portion by a spring-loaded plunger on the seat portion which engages over a lug containing a roller at the rear of the man portion. A pivoting operating handle at the rear of the man portion, when raised, moves the spring loaded plunger clear of the roller to free the man portion from the seat portion.

9 Rubber sealing rings are fitted around each of the connectors on the under-side of the man portion, and a protective rubber sheath is provided to fit over the PEC man portion to afford protection to the rubber sealing rings, mic/tel contacts and to prevent extraneous matter entering the connectors.

10 The Mk 1 and 3 oxygen hose assemblies have a fixed length lanyard attached to the release handle which is connected to the seat occupant's life preserver. The Mk 2 assembly release handle is connected to a lanyard on the life preserver. The lanyards serve as a pull-off to disconnect the man portion from the seat portion on man/seat separation. The length of the lanyard on the Mk 1 assembly is critical and has to be determined by trial with the crew member strapped in the ejection seat. The Mk 2 and 3 assemblies are released automatically but the lanyards must be adjusted for length by trial. After the correct length has been established the hose assembly becomes a personal item exclusive to that crew member whilst operating on that particular type of aircraft.

HOSE ASSEMBLY, HIGH PRESSURE Mk 1 (Fig 1)

11 The hose assembly, high pressure Mk 1 is designed for use by the ejection seat occupants of Phantom aircraft. In addition to the high pressure oxygen hose and mic/tel cable assembly the man portion is equipped with an AVS connector forward of the mic/tel connector and an anti-g connector. A nylon lanyard, attached to the release handle, terminates in a metal ring which engages with a spring hook on a lanyard on the life preserver. When seat/man separation occurs after ejection, the pull of the lanyard lifts the release handle to free the man portion from the PEC seat portion.

HOSE ASSEMBLY, HIGH PRESSURE Mk 2 (Fig 2)

12 The hose assembly, high pressure Mk 2 is designed for use by the ejection seat occupants of Harrier aircraft. It is similar to the Mk 1 assembly but the front AVS connector has been removed, the hole in the man portion has been plugged and the remaining connector is for the anti-g system. A zipped gaiter is fitted to surround the connectors and is secured by nylon cord through eyelets and around the mic/tel connector. The zip fastener permits the anti-g trouser hose connector to be attached when donning flying clothing. A lanyard on the life preserver is connected to the release handle of the man portion by a nut and bolt.

HOSE ASSEMBLY, HIGH PRESSURE Mk 3 (Fig 3)

13 The hose assembly, high pressure Mk 3 is designed for use by the ejection seat occupants of Jaguar aircraft. It is similar to the Mk 2 assembly but it has a lanyard permanently attached to the man portion operating handle and has no gaiter. The lanyard contains a loop on the free end through which is passed the strap on the life preserver before the strap is connected to the personal survival pack lowering line.

TABLE 1 HIGH PRESSURE HOSE ASSEMBLIES

| Mk | Ref No 6D/ | Man portion Part No MBEU | Applicability |
|-----|---------------|--------------------------------|---------------|
| (1) | (2) | (3) | (4) |
| 1 | 2243793 | 35880 | Phantom |
| 2 | 2244017 | 35878 | Harrier |
| 3 | 6254255 | 42184 | Jaguar |

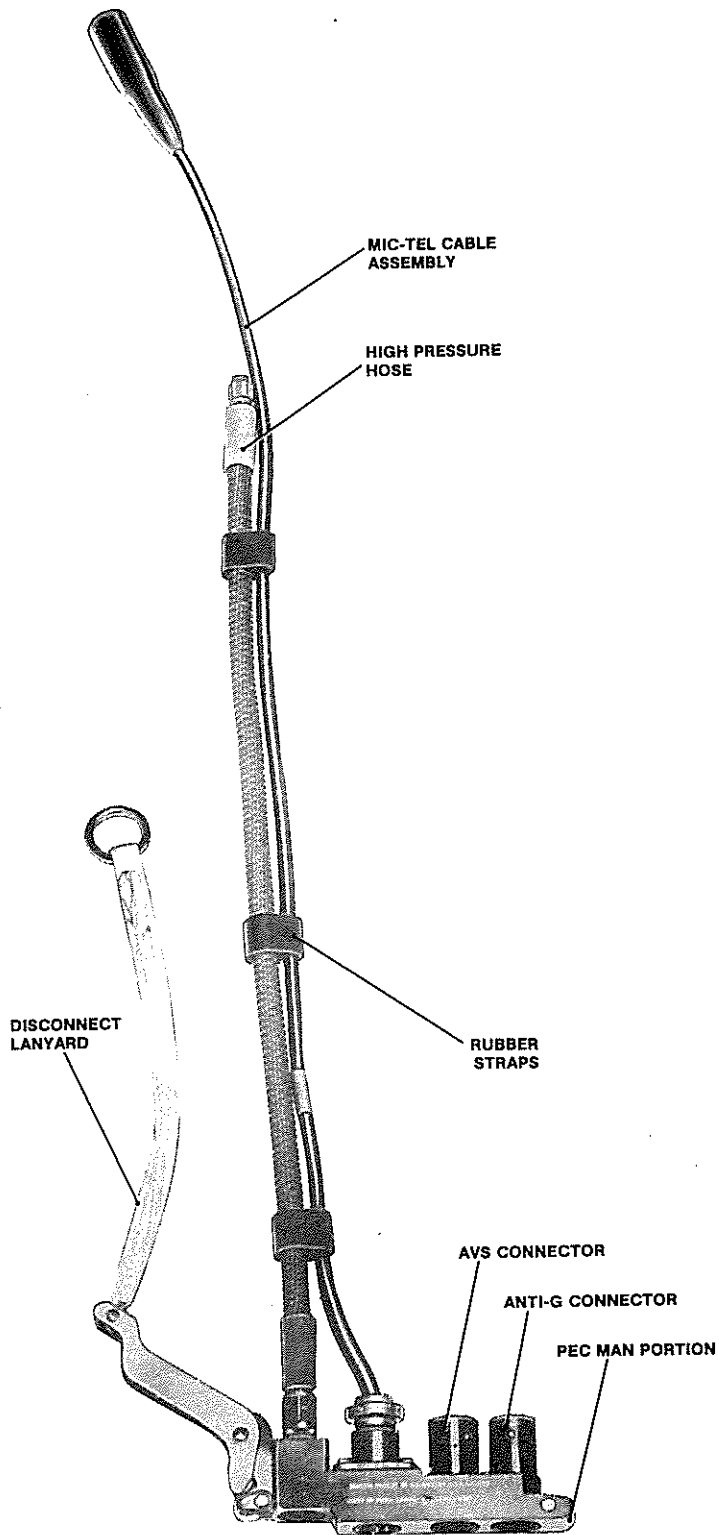


Fig 1 Hose assembly, high pressure Mk 1

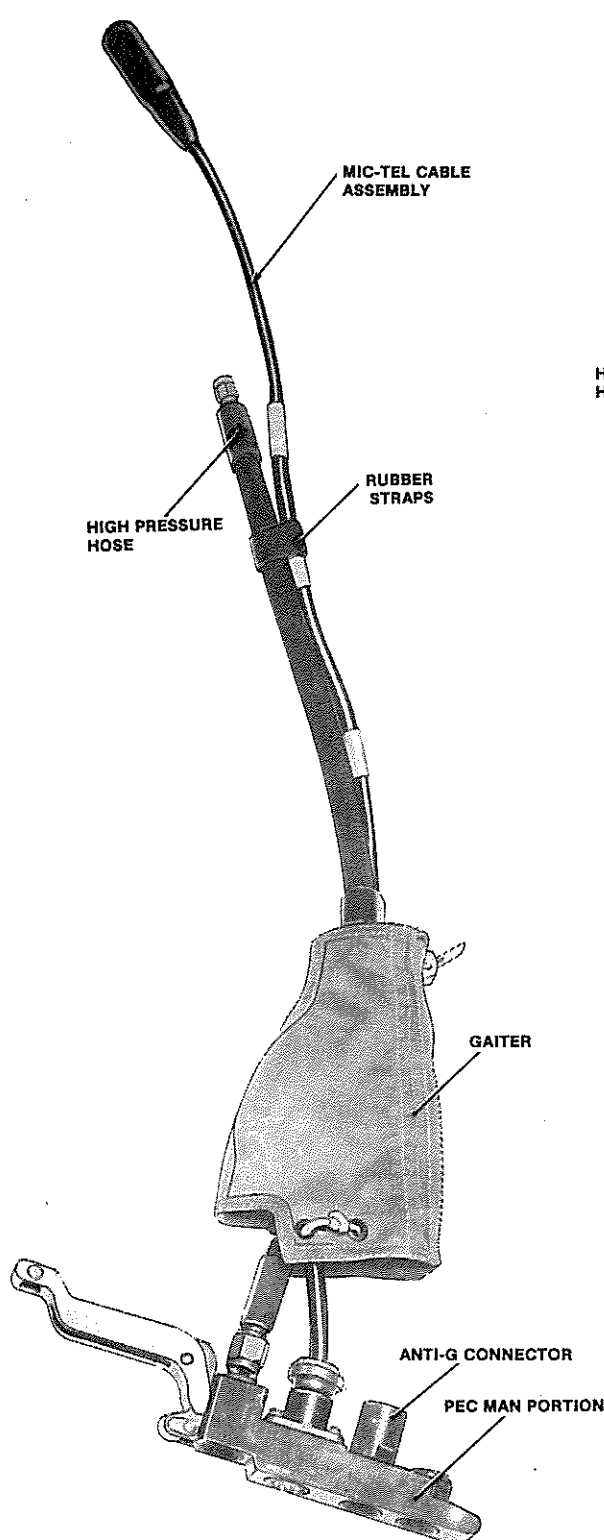


Fig 2 Hose assembly, high pressure Mk 2

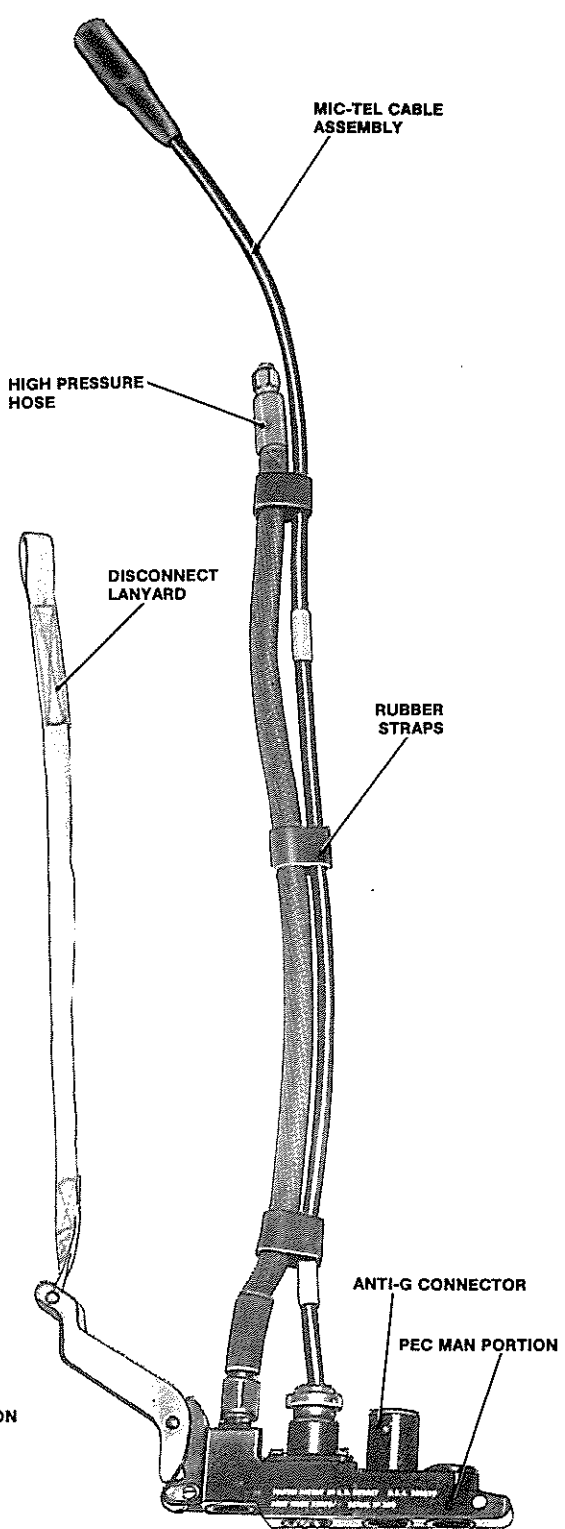


Fig 3 Hose assembly, high pressure Mk 3



Chapter 1-3

LOW PRESSURE HOSE ASSEMBLY, REAR CREW MEMBERS

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Para

- 1 Introduction
2 DESCRIPTION

Fig

- 1 Oxygen mask hose assembly Mk 11

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INTRODUCTION

1 The oxygen mask hose assembly Mk 11 is a low altitude assembly used by rear crew members of Vulcan and Victor aircraft. It is designed to replace the oxygen mask hose assembly Mk 7 by the embodiment of Modification MX 98 which introduced the personal hose assembly coupling Mk 2 in lieu of the quick release oxygen connector. The assembly permits high altitude bail-out without loss of the pressure breathing facility from the emergency oxygen system.

DESCRIPTION

2 The hose assembly consists of a length of $\frac{3}{4}$ in anti-kink hose with a personal hose assembly coupling Mk 2 attached to one end. An anchor clip assembly is fitted above the coupling. The coupling is the main portion of the integrated oxygen coupling described in AP 107D-0400C-1. The aircraft portion of the coupling is fitted to the aircraft oxygen wander lead at rear crew stations in the two 'V' aircraft. The other end of the anti-kink hose is attached to a demand emergency oxygen shut-off assembly. A short length of anti-kink hose is also attached to the shut-off assembly, the other end of the hose being attached to a quick-disconnect half coupling.

3 A mic/tel connector assembly is secured to the oxygen hose by three rubber straps and is equipped with a Type 626 socket at the upper end and a Type 671 plug at the lower end.

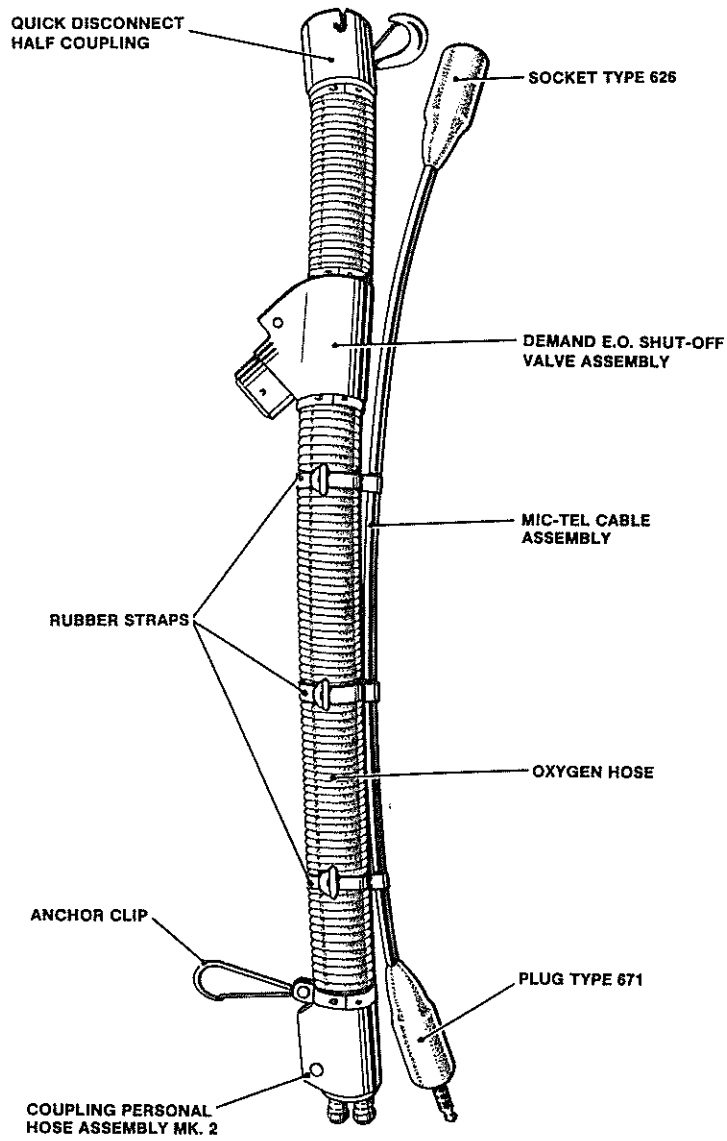


Fig 1 Oxygen mask hose assembly Mk 11

Chapter 2

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(RAF)

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Chapter 2

SUPPLEMENTARY SERVICING SHEET
(FOR RAF USE ONLY)

S E FITT

LOW AND HIGH PRESSURE OXYGEN HOSE

ASSEMBLIES

Item No

Item

Operation

Applicability



SAFETY AND SERVICING NOTES

- ▶ (1) AP 108F-0001-5F(R), Safety and Servicing Notes, the Supplementary Servicing Sheet and other general safety //servicing requirements appropriate to this equipment or the main equipment are to be complied with where relevant, throughout the work detailed in this chapter. ◀
- (2) Oxygen hose assemblies are to be serviced in a servicing bay that satisfies the standard of cleanliness specified in AP 107D-0001-1.
- (3) Cleaning and degreasing of oxygen equipment components shall be done strictly in accordance with the instructions contained in AP 107D-0001-1.
- (4) Information concerning the use of non-metallic materials with oxygen equipment is contained in AP 107D-0001-1.
- (5) At all times when a component is not in use, protective caps shall be fitted and the components kept in a sealed or tied polythene bag so that foreign matter is excluded.

WARNING...

MANY MATERIALS, PARTICULARLY OIL AND GREASE, ARE SUBJECT TO SPONTANEOUS COMBUSTION WHEN EXPOSED TO UNDILUTED OXYGEN UNDER PRESSURE. PRECAUTIONS MUST BE TAKEN THEREFORE TO EXCLUDE OIL, GREASE, DUST AND METAL PARTICLES FROM THE EQUIPMENT

TABLE 1 LIST OF TOOLS AND MATERIALS

| Nomenclature (1) | Ref No (2) | Specification (3) |
|-------------------------------------|---------------|----------------------|
| Torque wrench 5-150lbf in | 1C/0208628 | |
| Torque wrench adapter OE 7/16in A/F | 1C/0208656 | |
| Torque wrench adapter OE 5/8in A/F | 1C/1301990 | |
| Hose, anti-kink 3/4in dia | 32C/4669355 | |
| Cloths, cleaning | 32B/1250393 | |
| Loctite grade 221 | 33H/2248425 | DTD900/4588 |
| Araldite adhesive MY 753 | 33H/2242662 | DTD900/4365 |
| Hardener HY 951 | 33H/2242667 | DTD900/4440 |
| Sulphuric acid SP 1.84 | 33C/2200827 | SG 1.84 |
| Methylated spirit | 33D/2200985 | BS 3591 |
| Araldite adhesive AY 103 | 33H/2242659 | DTD900/4065 |
| ▶ Tape, adhesive white | 32B/2202350 | DEF STAN 75-2 ◀ |

ROUTINE BAY SERVICING

1 Stage 1 and 2 Routine Bay Servicing is to be applied at the periods detailed in AP 108F-0001-5F(R).

2 New low and high pressure assemblies are to be tested before issue for Service use.

PREPARATION

3 Safety and Servicing Notes Read

DISMANTLING

CAUTION...

When disconnecting hose assembly and regulator inlet from oxygen mask assembly, both must be supported by spanners to prevent excessive stress being applied to the inlet attachment screws.

4

4.1 High pressure hose coupling nut. Remove from miniature man mounted oxygen regulator

DISPOSAL

5

5.1 Man-mounted oxygen regulator (if applicable) Check if Routine Test is due. If so, convey to oxygen bay for maintenance (AP 107D series)

CLEANING

6 Refer to Safety and Servicing Notes

EXAMINATIONLow pressure oxygen hose assemblies

7

7.1 Quick-disconnect half coupling (bayonet socket) Examine, and particularly for insecurity of attachment.

- | | |
|--|--|
| 8.5 Sheath (if fitted) | Examine |
| 8.6 Personal equipment connector (man portion) | Examine, and particularly insecurity of attachment and deterioration of seals. |
| 8.7 Roller pin retaining screw | Examine, and particularly for insecurity of attachment. |

Note...

Mod PE 55 introduces a single locating pin to high pressure oxygen hose assemblies Part No MBEU 35878 and MBEU 35880.

- | | |
|-------------------------------------|---|
| 8.8 Locating pin(s) | Examine, and particularly for insecurity of attachment. |
| 8.9 Lanyard attachment nut and bolt | Examine, and particularly for correct peening. |
| 8.10 Oxygen hose | Examine, and particularly for deterioration. |

ASSEMBLINGCAUTION...

When connecting hose assembly and regulator inlet to oxygen mask assembly, both must be supported by spanners to prevent excessive stress being applied to the inlet attachment screws.

9

- | | |
|--|--|
| 9.1 Miniature man-mounted oxygen regulator | Attach high pressure hose, torque tightening coupling nut to 155.75Nm (35 lbf in). |
|--|--|

TESTING

10 On completion of servicing the low and high pressure oxygen mask hose assemblies are to be tested using the universal test cabinet Mk 4.

COMPLETION

Note...

Para 11 is to be certified by the Supervisory NCO.

- | | |
|------------------|----------|
| 11 Documentation | Complete |
|------------------|----------|

REPAIRGENERAL

12 Repair of the hose assemblies is restricted to:

- 12.1 Replacement of the oxygen hose.
- 12.2 Replacement of the mic/tel cable assembly.
- 12.3 Replacement of sealing rings .
- 12.4 Repair of the operating handle.

13 When an oxygen hose has been removed from its connection it may only be used again subject to the following conditions:

- 13.1 The hose remains serviceable.
- 13.2 The end used for the original connection has one inch cut off.
- 13.3 After having been shortened, the hose remains long enough for its purpose.

CONTINUED ON PAGE 9



REPLACING THE LOW PRESSURE HOSE

14

14.1 Remove the sleeves or straps securing the mic/tel lead to the oxygen hose.

▶ 14.2 Remove the adhesive tape from clamps (where applicable) and remove the hose from the man portion connector and from the quick-disconnect half coupling.

14.3 Immerse the ends of the replacement hose in water at between 75°C and 85°C for 3 seconds, then fit to the quick-disconnect half coupling and to the man portion connector.

14.4 Refit hose clamps (where applicable) to ends of hose with clamps set back 2mm from ends and securing screws at 90° to operating handle. Apply Loctite 221 to threads and tighten clamp screws. Cover the hose clamps with an overlapping turn of tape, white adhesive, to prevent chafing of the mic/tel lead.

14.5 Refit the straps to secure the mic/tel lead to the hose. ◀

REPLACING THE HIGH PRESSURE HOSE

15

15.1 On the Mk 2 high pressure hose assembly, remove the gaiter by opening the zip fastener and untying the nylon cord.

15.2 Remove the straps securing the mic/tel lead to the hose.

15.3 Unscrew the hose coupling nut from the man portion connector and remove the hose.

15.4 Screw the replacement hose on to the man portion connector and torque tighten the coupling nut to between 332.75Nm (75lbf in) and 556.25Nm (125lbf in).

15.5 Refit the straps to secure the mic/tel lead to the oxygen hose.

15.6 Fit the gaiter to the Mk 2 high pressure hose assembly and secure as detailed in para 23.

REPLACING MIC/TEL CABLE ASSEMBLIES

16

16.1 Separate the mic/tel lead from the oxygen hose (para 14.1 and 15.2)

16.2 Remove the four screws securing the mic/tel cable cap to the PEC man portion.

16.3 Using a hot air blower apply heat to the mic/tel plug to loosen the Araldite. Remove the mic/tel cable assembly by driving the mic/tel plug from the man portion using a hardwood drift.

16.4 Apply a thin coating of Araldite MY 753 with hardener HY 951 to the mic/tel plug, and press the plug into the man portion.

16.5 Apply Loctite 221 to the threads of the four screws and secure the mic/tel cap to the man portion.

16.6 Secure the mic/tel lead to the oxygen hose (para 14.4 and 15.5). Refit the gaiter on the Mk 2 high pressure hose assembly (para 15.6).

REPLACING RUBBER SEALING RINGS

Removing sealing rings

17

17.1 Scrape out and clear away all traces of the ring and adhesive.

Note...

Do not touch the sealing ring bearing surface after it has been cleaned.

17.2 Clean the surface on which the new ring is to be fitted, with methylated spirit.

Preparing new sealing rings

18

18.1 Pour a thin film of sulphuric acid, SG 1.84 on to a piece of plate glass.

18.2 Place the flat surface of the ring in the acid, taking care that the level of the acid is not allowed above the bottom inner ridge of the flat surface.

18.3 Leave the ring in the acid for 2 minutes.

Note...

Do not touch the sealing ring by hand.

18.4 Using tweezers, remove the ring from the acid and wash thoroughly in warm (40 - 50°C), flowing water.

18.5 Immerse in cold (5 to 10°C) water for 24 hours and allow to dry thoroughly.

Fitting new sealing rings

19

19.1 Apply a thin coating of Araldite MY 753 with hardener HY 951 to the sealing ring bearing surface.

19.2 Using tweezers, place the sealing ring on the bearing surface. Press down firmly and evenly on the sealing ring at the same time rotating the ring. Place the man portion so that its weight maintains pressure on the rings and allow 24 h for the joint to cure.

19.3 Ensure that surplus Araldite is not left under the sealing lip of the sealing ring.

REPAIR OF OPERATING HANDLE

20 The following dismantling and assembling of the PEC man portion operating handle is to enable defective parts to be replaced and is applicable to oxygen mask hose assemblies Mk 1A, 2A, 9A and 13.

Dismantling

21

21.1 Drive out the operating handle axis pin using a 1/8 in dia punch applied from the peened over end of the pin. Remove the handle from the man portion.

21.2 Drive out the thumb button fulcrum pin using a 1/8 in dia punch.

21.3 Remove the thumb button complete with plunger, spring and latch plunger.

21.4 Remove the plunger and spring from the thumb button.

21.5 Push out the pin connecting the latch plunger to the thumb button and remove the plunger.

Assembling

22

22.1 Position the latch plunger on the thumb button with the chamfered end facing downwards. Insert the connecting pin through the thumb button and the latch plunger.

- 22.2 Fit the spring and plunger in the recess in the thumb button.
- 22.3 Position the thumb button assembly in the operating handle and insert the fulcrum pin through the holes in the handle and button.
- 22.4 Peen the ends of the fulcrum pin by clamping between two $\frac{1}{4}$ in dia ball bearings.
- 22.5 Ensure that the fulcrum pin is secure and that the thumb button operates freely.
- 22.6 Fit the operating handle to the man portion and insert the securing pin through the handle and the man portion from the side opposite to that fitted with the locating pin.
- 22.7 Peen the end of the securing pin by clamping the operating handle and pin between the jaws of a vice.
- 22.8 Ensure that the securing pin is correctly peened and that the handle operates correctly.

REFITTING GAITER ON HIGH PRESSURE HOSE ASSEMBLY Mk 2 (Fig 1 and 2)

23

- 23.1 Position the gaiter around the PEC man portion to enclose the oxygen hose, mic/tel connector and cable and the anti-g connector.
- 23.2 Pass both ends of a length of nylon cord through the two holes in the port side of the gaiter. Cross the cord ends, pass the cord around the mic/tel connector below the gland nut, cross the cords again and pass the ends through the holes in the starboard side of the gaiter (Fig 1).
- 23.3 Tie the ends of the cord tightly in a reef knot, cut off the ends to a suitable length (Fig 2).
- 23.4 Seal the ends of the cord using Calaton sealing compound.
- 23.5 Close the zip fastener.

REPLACING AVS AND ANTI-G BUSHES

24

24.1 Using a hot air, blower apply heat to the AVS or anti-g bush to loosen the Araldite.

24.2 Using a hardwood drift, drive the bush from the man portion.

24.3 Remove all traces of Araldite from the contact surfaces.

24.4 Score a pattern of crosses around the contact surface of the bush and man portion recess.

24.5 Apply a thin coating of Araldite AY 103 with hardener HY 951 to both contact surfaces and press the bush into the man portion.

► SECURING OF ROLLER PIN RETAINING SCREW (A205-B6)

25 Refit loose panhead screw 6-32 UNC, A205-B6 using "LOCTITE 241" in accordance with AP 119A-0504-1: ◀

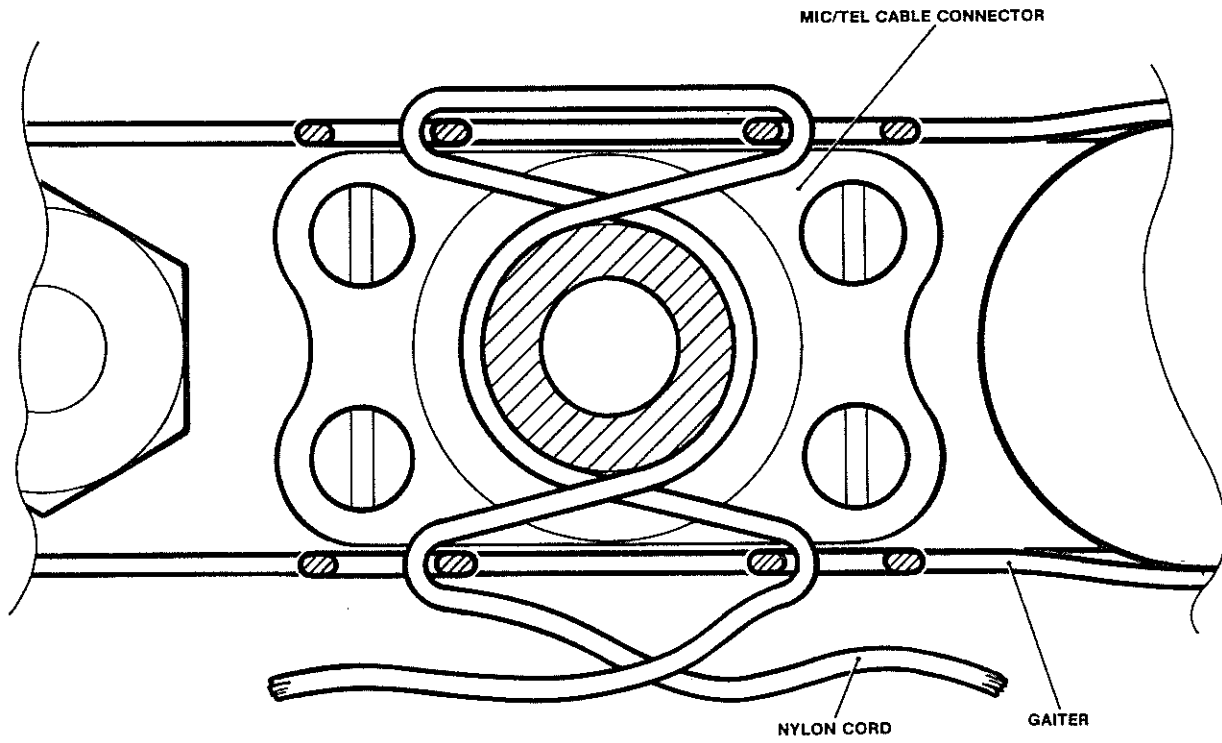


Fig 1 Lacing the gaiter cord

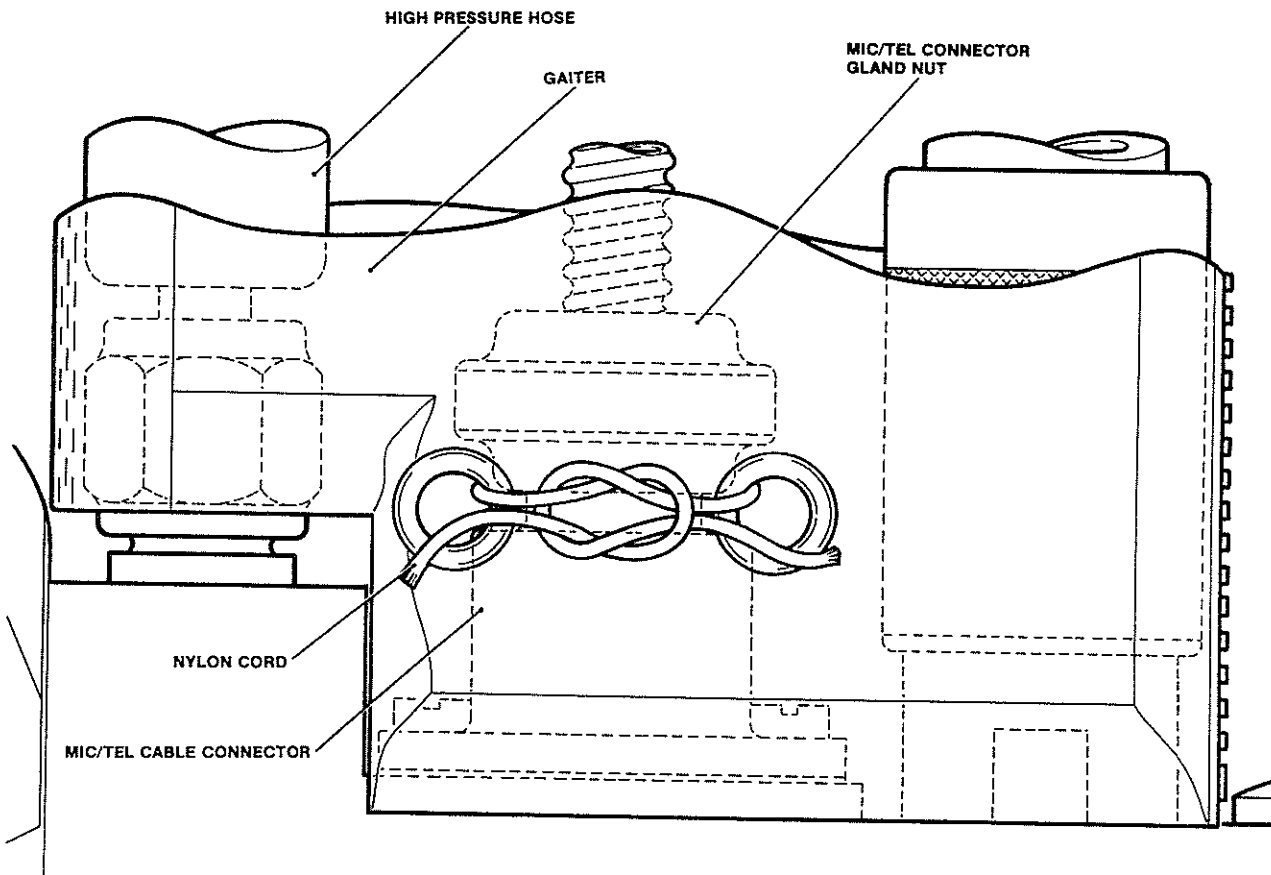


Fig 2 Tying off the gaiter cord

Chapter 2-1
MAINTENANCE
 (RN)

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SAFETY AND SERVICING NOTES

- 1 AP 108F-0001-5F(N), Safety and Servicing Notes and other general safety/servicing requirements appropriate to this equipment or the main equipment are to be complied with, where relevant, throughout the work detailed in this Chapter. Personnel in charge of the maintenance of Survival Equipment and Flying Clothing are responsible for ensuring that adequate safety precautions are taken during Bay Servicing and associated work. NAMM Chap 41 details the precautions to be taken to avoid accidents to personnel and damage to materials.
- 2 Oxygen hose assemblies are to be serviced in a servicing bay that satisfies the standard of cleanliness specified in AP 107D-0001-1.
- 3 Cleaning and degreasing of oxygen equipment components shall be done strictly in accordance with the instructions contained in AP 107D-0001-1.
- 4 Information concerning the use of non-metallic materials with oxygen equipment is contained in AP 107D-0001-1.
- 5 At all times when a component is not in use, protective caps shall be fitted and the components kept in a sealed or tied polythene bag so that foreign matter is excluded.

WARNING...

MANY MATERIALS, PARTICULARLY OIL AND GREASE, ARE SUBJECT TO SPONTANEOUS COMBUSTION WHEN EXPOSED TO UNDILUTED OXYGEN UNDER PRESSURE. PRECAUTIONS MUST BE TAKEN THEREFORE TO EXCLUDE OIL, GREASE, DUST AND METAL PARTICLES FROM THE EQUIPMENT.

▶ CAUTION...

When disconnecting or connecting the union between a high pressure hose and a man mounted oxygen regulator inlet, both must be supported by spanners to prevent excessive stress being applied to the inlet attachment screws.

TABLE 1 LIST OF SPECIAL TOOLS

| Nomenclature | Ref No |
|--|------------|
| Torque wrench 5-150 lbf in | 1C/0208628 |
| Adapter, torque wrench, OE 7/16 in. AF | 1C/0208656 |
| Adapter, torque wrench, OE 5/8 in. AF | 1C/1301990 |

TABLE 2 LIST OF MATERIALS

| Nomenclature | Ref No | Specification |
|--------------------------|-------------|---------------|
| Cloths, cleaning | 32B/1250398 | |
| Loctite grade 221 | 33H/2248425 | DTD 900/4588 |
| Araldite adhesive MY 753 | 33H/2242662 | DTD 900/4365 |
| Hardener HY 951 | 33H/2242667 | DTD 900/4440 |
| Sulphuric acid SP 1.84 | 33C/2200827 | SG 1.84 |
| Methylated spirit | 34D/2200985 | BS 3591 |

ROUTINE BAY SERVICING

1 Routine Bay Servicing is to be applied at the periods detailed in AP 108F-0001-5F(N).

PREPARATION

2 Safety and Servicing notes Read

DISMANTLING

3

▶ 3.1 Hose assembly LP Mk 13. Nil

3.2 Hose assembly HP Mk 2. Remove the miniature oxygen regulator if fitted, referring to the CAUTION in Safety and Servicing Notes.

CLEANING

4 Refer to Safety and Servicing Notes.

EXAMINATION

▶ Low pressure oxygen hose assemblies

5

5.1 Examine the quick-disconnect half coupling for cracks, fractures, distortion, wear and in particular for insecurity of attachment.

5.2 Examine the dog clip assembly for faulty or broken locking devices and in particular for insecurity of attachment.

5.3 Examine the mic-tel connector assembly, ensuring that it is securely attached to the oxygen hose, that there are no loose straps or signs of deterioration, chafing, fraying or wear.

5.4 Examine the oxygen hose for insecurity of attachment, contamination, distortion, chafing, fraying, wear, faulty or broken locking devices and in particular for deterioration.

► 5.5 Remove the protective cover and examine the PEC man portion and particularly:

5.5.1 for cracks and fractures and insecurity of attachments.

5.5.2 sole plate for wear and handling damage at:

a) Nose profile.

b) Heel projection.

c) Handle mounting projection where the thumb button latch plunger engages.

d) Operating handle lower projection.

5.5.3 Replace PEC operating handle and axis pins as necessary.

5.5.4 Examine all seals for insecurity and signs of deterioration. Replace as necessary.

5.5.5 Examine tip of main oxygen valve for damage and wear. Operate valve and ensure that it moves freely.

5.6 On completion of servicing refit the protective cover. ◀

High pressure oxygen hose assemblies

6

6.1 Examine hose and coupling nuts.

6.2 Examine mic,tel leads and retaining sleeves.

6.3 Examine disconnect lanyard attachment nut and bolt.

6.4 Remove sheath and examine seals and mic,tel connector assembly.

6.5 Examine body and handle. Ensure that the roller is free to rotate and that the roller pin retaining screw is secure.

TESTINGLow pressure assemblies (embarked)

7

7.1 Carry out the test procedure detailed in AP 108F-0902-1, Chap 3, pages 3 to 8, using Test Cabinet Type 63K/20.

7.2 Alternatively, to test the hose assembly without the associated oxygen mask, carry out the test detailed in AP 108F-0902-1, Chap 3 as far as sub para 7.8 and continue as follows:

7.2.1 Blank the end of the hose. A bayonet connector, Ref No 6D/2053 can be locally modified for this purpose by securing a nylon blank, obtained from a new oxygen hose for P/Q type masks, in the open end of the connector using Araldite.

7.2.2 Operate the oxygen regulator 'press to test' button. With the button depressed verify that the dolls eye remains black and the needle of the gauge (AP 108F-0902-1, Chap 3, fig 1, item 4) remains steady, indicating no leakage of oxygen. Release the 'press to test' button.

CONTINUED ON PAGE 5



7.2.3 Connect a serviceable headset and microphone and test in accordance with AP 117L-0403-1.

7.2.4 Disconnect headset from the PEC.

7.2.5 Close the storage cylinder valve, the oxygen controller and the oxygen valve. (Items 1, 3 and 5).

Low pressure assemblies (disembarked)

8

8.1 On the PEC test adaptor (13D/200) ensure the white indicator on the movable retainer is aligned with the figures 2 and 5, and that the tufnol contact plate is the correct type i.e. with sets of contacts marked 3 and 5. Rotate the spring loaded spindle until the jaws at the end of the spring loaded arm are downwards.

8.2 Connect the hose assembly to the test adaptor and connect a serviceable headset and microphone to the hose assembly mic/tel lead.

8.3 Connect the test adaptor lead to a test set type EDL 2835 and test in accordance with AP 117L-0403-1, or to a test set type 376 and test in accordance with AP 108T-0101-12, Chap 2, para 13 to 20.

8.4 Disconnect the hose assembly from the test adaptor and the headset.

8.5 At the Mk 4 Test Cabinet, Panel D, ensure the man portion dust cover is fitted to the seat portion of the Harrier T4 PEC.

8.6 Remove the aircraft portion dust cover from the seat portion of the Harrier T4 PEC. The dust cover, if left on, will prevent correct operation to the oxygen non-return valve on the seat portion.

8.7 Blank off the hose using a modified bayonet connector.
Para 7.2.1. refers.

8.8 Connect the hose assembly to the Sea Harrier PEC seat portion. Set the regulator selector lever to 100%.

8.9 Open the storage cylinder valves.

8.10 Close the oxygen Direct Supply Valve on Panel D of the test cabinet. Connect the cabinet to the mains electrical supply.

8.11 Open the Oxygen Supply Valve on Panel D. The doll's eye will indicate white, the flowmeter will register and the pressure gauge should read 70 lbf/in². Within several seconds of reaching this pressure, the doll's eye should be black and the flowmeter should read zero. It should be noted that the doll's eye is not a reliable indicator of minor leaks, whereas the flowmeter will give an indication.

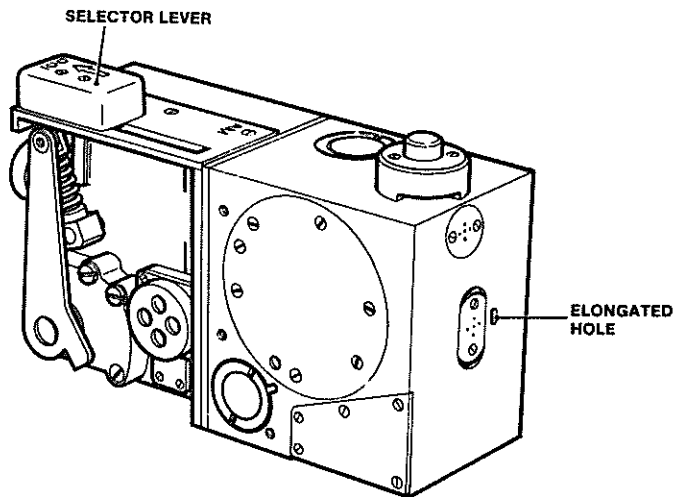


Fig 1 Type 517 Oxygen regulator

8.12 With a finger, blank the elongated hole on the regulator (fig 1) to increase the pressure in the hose of the man portion. The flowmeter indicator will rise about 1 mm and the doll's eye should remain black. Uncover the elongated hole.

8.13 Turn off all three supply valves. Remove the blank from the hose assembly. When the pressure gauge on Panel D reads zero, disconnect the hose assembly from the seat portion and refit all dust covers.

High pressure assemblies (disembarked)

9

9.1 On the PEC Test Adaptor (13D/200) ensure the white indicator on the movable retainer is aligned with the figure 4 and that the tufnol plate has sets of contacts marked 1, 2 and 4 and that the arms at the end of the spring-loaded spindle are uppermost.

9.2 Connect the hose assembly to the test adaptor and connect a serviceable headset and microphone to the hose assembly mic/tel lead.

9.3 Connect the test adaptor lead to a test set Type EDL 2835 and test in accordance with AP 117L-0403-1, or to a Test Set Type 376 and test in accordance with AP 108T-0101-12 Chap 2, para 13 to 20.

- ▶ 9.4 Disconnect the hose assembly from the Test Adaptor and from the headset.
- 9.5 At the Mk 4 Test Cabinet, Panel D, remove the man portion dust cover from the seat portion of the Sea Harrier PEC.
- 9.6 Remove both dust covers from the seat portion of the Harrier T4 PEC.
- 9.7 Connect the hose assembly to the Harrier T4 PEC seat portion.
- 9.8 Fit a blank to the coupling nut at the end of the high pressure hose. The nylon blank supplied with the new items is suitable.
- 9.9 Connect the test cabinet to the mains electrical supply.
- 9.10 Open the storage cylinder valves.
- 9.11 Ensure the direct supply valve on Panel D is closed, then open the oxygen supply valve. The doll's eye will indicate white, the flowmeter will register and the pressure gauge should read 70 lbf/in². Within several seconds of reaching this pressure the doll's eye should change to black and the flowmeter should read zero. It should be noted that the doll's eye is not a reliable indicator of minor leaks, whereas the flowmeter will give an indication.
- 9.12 Close all three supply valves. With the Sea Harrier Regulator Selector lever on 100%, depress the nylon oxygen valve on the seat portion of the Sea Harrier PEC until the pressure gauge reads zero. Remove the hose assembly and remove the blank from the end of the hose. Refit all dust covers.
- 9.13 Refer to the CAUTION in Safety and Servicing Notes and refit miniature oxygen regulator if required for immediate use.

COMPLETION

10

Note...

The following item is to be certified by the Supervisory Rating

- 10.1 Complete/sign MOD Forms 715 and 720 series

REPAIR

11

- 11.1 All repairs other than replacement of fabric gaiter or high and low pressure hoses are to be carried out in the Armament Bay.
- 11.2 Repairs are to be carried out in accordance with the instructions in Chap 2, para 12 to 24.
- 11.3 After any repair, a full Bay Service is to be carried out. ◀



Chapter 2-2

PARTS LIST

Introduction

1 This chapter lists the approved spare parts for low and high pressure oxygen mask hose assemblies.

2 Replacement of items during repair must be limited to the items listed in this chapter.

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TABLE 1 LIST OF SPARES FOR LOW PRESSURE OXYGEN MASK
HOSE ASSEMBLY Mk 1A

| Item No | Nomenclature | Part No | Ref No | Qty |
|---------|--------------------------|------------|------------|-----|
| 1 | Operating handle | MBEU 15002 | 6D/7166084 | 1 |
| 2 | Operating handle pin | MBEU 8379 | 6D/1029568 | 1 |
| 3 | Thumb button | MBEU 8427 | 6D/7150149 | 1 |
| 4 | Latch plunger | MBEU 20851 | 6D/7150781 | 1 |
| 5 | Spring plunger | MBEU 8426 | 6D/7150148 | 1 |
| 6 | Spring | MBEU 9135 | 6D/7152788 | 1 |
| 7 | Fulcrum pin | MBEU 8432 | 6D/7152786 | 1 |
| 8 | Connecting pin | MBEU 8428 | 6D/7152785 | 1 |
| 9 | Oxygen hose | MBEU 51359 | | 1 |
| 10 | Mic/tel cable assembly | MBEU 9349 | 6D/2243786 | 1 |
| 11 | Rubber seal | MBEU 13547 | 6D/2243772 | 1 |
| 12 | Rubber seal | MBEU 13546 | 6D/2243773 | 1 |
| 13 | Rubber seal | MBEU 13549 | 6D/2243774 | 1 |
| 14 | Bayonet, union socket 7A | | 6D/2203120 | 1 |



TABLE 2 LIST OF SPARES FOR LOW PRESSURE OXYGEN MASK
HOSE ASSEMBLY Mk 2A

| Item No | Nomenclature | Part No | Ref No | Qty |
|---------|------------------------|------------|------------|-----|
| 1 | Operating handle | MBEU 15002 | 6D/7166084 | 1 |
| 2 | Operating handle pin | MBEU 8379 | 6D/1029568 | 1 |
| 3 | Thumb button | MBEU 8427 | 6D/7150149 | 1 |
| 4 | Latch plunger | MBEU 20851 | 6D/7150781 | 1 |
| 5 | Spring plunger | MBEU 8426 | 6D/7150148 | 1 |
| 6 | Spring | MBEU 9135 | 6D/7152788 | 1 |
| 7 | Fulcrum pin | MBEU 8432 | 6D/7152786 | 1 |
| 8 | Connecting pin | MBEU 8428 | 6D/7152785 | 1 |
| 9 | Oxygen hose | MBEU 51357 | | 1 |
| 10 | Mic/tel cable assembly | MBEU 9349 | 6D/2243786 | 1 |
| 11 | Dunlop sealing ring | MBEU 13547 | | 1 |



TABLE 3 LIST OF SPARES FOR LOW PRESSURE OXYGEN MASK
HOSE ASSEMBLY Mk 9A

| Item No | Nomenclature | Part No | Ref No | Qty |
|---------|------------------------|--------------|------------|-----|
| 1 | Operating handle | MBEU 15002 | 6D/7166084 | 1 |
| 2 | Operating handle pin | MBEU 8379 | 6D/1029568 | 1 |
| 3 | Thumb button | MBEU 8427 | 6D/7150149 | 1 |
| 4 | Latch plunger | MBEU 20851 | 6D/7150781 | 1 |
| 5 | Spring plunger | MBEU 8426 | 6D/7150148 | 1 |
| 6 | Spring | MBEU 9135 | 6D/7152788 | 1 |
| 7 | Fulcrum pin | MBEU 8432 | 6D/7152786 | 1 |
| 8 | Connecting pin | MBEU 8428 | 6D/7152785 | 1 |
| 9 | Oxygen hose | MBEU 51358 | 6D/2250339 | 1 |
| 10 | Mic/tel cable assembly | MBEU 39174 | 6D/2250340 | 1 |
| 11 | Dunlop sealing ring | MBEU 13547 | 6D/2243772 | 1 |
| 12 | Dunlop sealing ring | MBEU 13546 | 6D/2243773 | 1 |
| 13 | Dunlop sealing ring | MBEU 13549 | 6D/2243774 | 1 |
| ▶ 14 | Clamp, hose | MX 2468-433A | 6D/2243904 | 2 |



8



TABLE 4 LIST OF SPARES FOR LOW PRESSURE OXYGEN MASK
HOSE ASSEMBLY Mk 12

| Item No | Nomenclature | Part No | Ref No | Qty |
|---------|------------------------|---------------|-----------------|-----|
| 1 | Operating handle | MBEU 64394 | 1680-99-6456058 | 1 |
| 2 | Operating handle pin | MBEU 8379 | 6D/1029568 | 1 |
| 3 | Thumb button | MBEU 8427 | 6D/7150149 | 1 |
| 4 | Oxygen hose | DAS/5231/F/60 | 32C/4669355 | 1 |
| 5 | Mic/tel cable assembly | MBEU 71621 | | 1 |



TABLE 5 LIST OF SPARES FOR LOW PRESSURE OXYGEN MASK
HOSE ASSEMBLY Mk 13

| Item No | Nomenclature | Part No | Ref No | Qty |
|---------|-----------------------------------|------------|--------------|-----|
| 1 | Operating handle | MBEU 63149 | | 1 |
| 2 | Operating handle pin | MBEU 8379 | 6D/1029568 | 1 |
| 3 | Thumb button | MBEU 60201 | 27MA/6452623 | 1 |
| 4 | Latch plunger | MBEU 20851 | 6D/7150781 | 1 |
| 5 | Spring plunger | MBEU 8426 | 6D/7150148 | 1 |
| 6 | Spring | MBEU 9135 | 6D/7152788 | 1 |
| 7 | Fulcrum pin | MBEU 8432 | 6D/7152786 | 1 |
| 8 | Connecting pin | MBEU 8428 | 6D/7152785 | 1 |
| 9 | Oxygen hose | MBEU 70061 | 6D/2253013 | 1 |
| 10 | Mic/tel cable assembly | MBEU 70911 | 6D/2253014 | 1 |
| 11 | Rubber seal | MBEU 34320 | 27L/1445224 | 1 |
| 12 | Tubing, PTFE, mic/tel assembly | MBEU 64419 | 6D/4337 | A/R |
| 13 | Tubing, heat shrink 2 in Black | D/R 25 | 5F/6420422 | 3 |
| 14 | Bayonet, union socket 7A | | 6D/2203120 | 1 |
| 15 | Sheath protective | MBEU 64291 | 6D/4339 | 1 |



TABLE 6 LIST OF SPARES FOR HIGH PRESSURE OXYGEN MASK
HOSE ASSEMBLY Mk 1

| Item No | Nomenclature | Part No | Ref No | Qty |
|---------|------------------------|------------|------------|-----|
| 1 | Operating handle | MBEU 35886 | | 1 |
| 2 | Operating handle pin | MBEU 35909 | | 1 |
| 3 | Oxygen hose | MBEU 56741 | 6D/4824 | 1 |
| 4 | Mic/tel cable assembly | MBEU 51333 | 6D/2250337 | 1 |



TABLE 7 LIST OF SPARES FOR HIGH PRESSURE OXYGEN MASK
HOSE ASSEMBLY Mk 2

| Item No | Nomenclature | Part No | Ref No | Qty |
|---------|------------------------|------------|------------|-----|
| 1 | Operating handle | MBEU 42507 | | 1 |
| 2 | Operating handle pin | MBEU 35909 | | 1 |
| 3 | Oxygen hose | MBEU 56741 | 6D/4824 | 1 |
| 4 | Mic/tel cable assembly | MBEU 42508 | 6D/2250338 | 1 |



TABLE 8 LIST OF SPARES FOR HIGH PRESSURE OXYGEN MASK
HOSE ASSEMBLY Mk 3

| Item No | Nomenclature | Part No | Ref No | Qty |
|---------|------------------------|------------|------------|-----|
| 1 | Operating handle | MBEU 43210 | | 1 |
| 2 | Operating handle pin | MBEU 35909 | | 1 |
| 3 | Oxygen hose | MBEU 56741 | 6D/4824 | 1 |
| 4 | Mic/tel cable assembly | MBEU 42181 | 6D/2250028 | 1 |



GENERAL ORDERS AND MODIFICATIONS

PREFACE

1 Material issued for inclusion in this Topic 2 should be filed in the following order:

1.1 Preface (this page)

1.2 General orders. These leaflets are identified by the letters 'GO' and should be filed in numerical order.

1.3 Equipment modification list. This list shows all MOD-approved modifications affecting the subject of this Topic 2, including those for which leaflets will not be issued. The list will be reissued periodically. As modification leaflets are inserted, suitable entries should be recorded in the applicable columns of this list.

1.4 Modification leaflets. Leaflets bear numbers allotted in sequence as the leaflets are sent to press and should be filed in numerical order.

2 When a complete leaflet or individual leaf is reissued in amended form the alterations are indicated by triangles thus ► ----- ◄ to show where text has been changed.

EQUIPMENT MODIFICATION LIST
LOW AND HIGH PRESSURE OXYGEN HOSE ASSEMBLIES

| Contractor's or Service Mod No | Mod Plate Strike No | Title and Purpose | Class | Remarks | Leaflet No |
|--------------------------------------|------------------------|---|-------|---------|------------|
| PE 38 | None | Oxygen hose assembly Mk 2 (Ref No 6D/3696) (MBEU 35878), oxygen hose high pressure Mk 1 (Ref No 6D/3563) (MBEU 35880). To ease fitting and removal. | B/2 | None | 1 |
| MX 98 | None | Oxygen mask hose assembly Mk 7 (MX2468-266C) (6D/2854). To replace QR oxygen connector (MX2468-135C) (6D/1660-99-224-8249) and to introduce an anchor clip assembly. This modified hose assembly becomes oxygen mask hose Mk 11 (MX2468-738C) (6D/1660-99-224-8247) | B/2 | None | 2 |
| PE 42 | None | Hose assembly oxygen Mk 2 (6D/NIV) (MBEU 43685). To re-introduce oxygen hose assembly Mk 2 (6D/2244017) (MBEU 35878) in lieu of MBEU 43685 introduced by Modification PE 40. | B/0 | None | 3 |

EQUIPMENT MODIFICATION LIST
LOW AND HIGH PRESSURE OXYGEN HOSE ASSEMBLIES (cont'd)

| Contractor's or Service Mod No | Mod Plate Strike No | Title and Purpose | Class | Remarks | Leaflet No |
|--------------------------------------|------------------------|---|-------|---------|------------|
| PE 37 | None | Oxygen Hose Assemblies Mk 1 Ref 6D/2073, Mk 2 Ref 6D/2169, Mk 9 Ref 6D/2242289 and Pressure Jerkin Hose Assemblies Mk 6 MBEU 13899 (6D/2228), Mk 3 MBEU 13551 (6D/2168): To introduce Oxygen Hose Assemblies Pt Nos MBEU 51351 (6D/2246258), MBEU 51353 (6D/2246255) and MBEU 51355 (6D/2246257) in lieu and by conversion of Hose Assemblies Pt Nos MBEU 8908, MBEU 13550 and MBEU 39142 respectively, and to introduce Pressure Jerkin Hose Assemblies, Pt Nos MBEU 53860 (6D/TBA) and MBEU 53861 (6D/TBA) in lieu and by conversion of Jerkin Hose Assemblies, Pt Nos MBEU 13551 and MBEU 13899 respectively, by the introduction of a non-return valve Pt No MBEU 36038, (6D/2246256). | B/2 | None | 4 |

EQUIPMENT MODIFICATION LIST
 LOW AND HIGH PRESSURE OXYGEN HOSE ASSEMBLIES (cont'd)

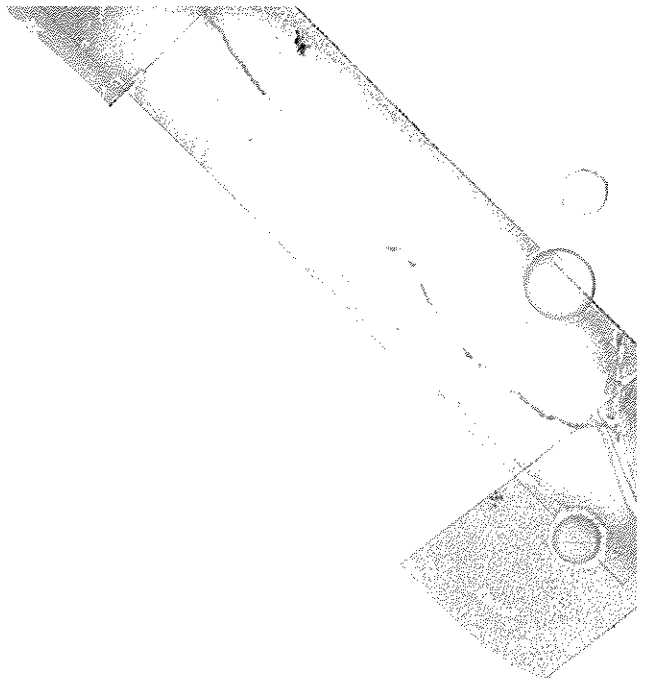
| Contractor's or Service Mod No | Mod Plate Strike No | Title and Purpose | Class | Remarks | Leaflet No |
|--------------------------------------|------------------------|---|------------|---------|------------|
| PE 47 | None | Oxygen Hose Assembly Mk 1 Part No MBEU 51351 (6D/2246258), Oxygen Hose Assembly Mk 9 Part No MBEU 51355 (6D/2246257), Pressure Jerkin Hose Assembly Mk 3 Part No MBEU 53860 (6D/3659), Pressure Jerkin Hose Assembly Mk 6 Part No MBEU 53861 (6D/3960). To introduce Oxygen Hose Assembly Mk 1A Part No MBEU 55744 stores Ref 6D/2253045, Oxygen Hose Assembly Mk 9A Part No MBEU 55745 Stores Ref 6D/2253044, Pressure Jerkin Hose Assembly Mk 3A Part No MBEU 55747, Stores Ref 6D/2253047 and Pressure Jerkin Hose Assembly Mk 6A Part No MBEU 56071 Stores Ref 6D/2253050 in lieu and by conversion of Part Nos MBEU 51351, 51355, 53860 and MBEU 53861 respectively, by the introduction of a new valve stem support collar, re-identified valve becomes Part No MBEU 55742. | B/2 RTC | None | 5 |

EQUIPMENT MODIFICATION LIST
 LOW AND HIGH PRESSURE OXYGEN HOSE ASSEMBLIES (cont'd)

| Contractor's or Service Mod No | Mod Plate Strike No | Title and Purpose | Class | Remarks | Leaflet No |
|--------------------------------------|------------------------|--|---------------------------------|---------|------------|
| PE 51 | None | Oxygen Hose Assemblies MBEU 35880 (Ref No 6D/2243793), MBEU 35878 (Ref No 6D/2244017) and MBEU 42184 (Ref No 6D/6254255) - To introduce heat shrink sleeving on the oxygen hose ends to prevent chafing. | C/3 | None | 6 |
| PE 49 | None | Oxygen Hose Assembly Mk 10, Part No MBEU 60238 (Ref No 1660-99-2246970): To introduce Oxygen Hose Assembly Mk 13, 6D/4692 Part No MBEU 67739 in lieu and by conversion of Part No MBEU 60238 (Ref No 1660-99-2246970) by the introduction of Oxygen Hose, Part No MBEU 70061 (Ref No 6D/2253013) in lieu of Part No 1659WOOO 6D/1660-99-2246963: To introduce a new oxygen hose to obviate a foul. | B/2 (RN) B/4 (RAF) | None | 7 |
| PE 48 | None | Oxygen Hose Assembly Mk 10, Part No MBEU 60238 (Ref No 1660-99-2246970): To introduce Tele-mic Lead Assembly, Part No MBEU 70911 (Ref No 6D/4737) in lieu of Part No MBEU 64418 (Ref No 6D/4336). | B/2 | None | 8 |

EQUIPMENT MODIFICATION LIST
LOW AND HIGH PRESSURE OXYGEN HOSE ASSEMBLIES

| Contractor's or Service Mod No | Mod Plate Strike No | Title and Purpose | Class | Remarks | Leaflet No |
|--------------------------------------|------------------------|---|--|---------|------------|
| M 313 | None | To introduce improved Micro Switch Arming Pin Part No IAC-B-11224, in place of Arming Pin Part No IAC 3372 at present fitted | B/2 | None | 9 |
| PE55 | None | To introduce locating pin Part No MBEU 44421 (1 off) in lieu of pin Part No MBEU 34325 (2 off). | D/4 RTC | None | 10 |
| PE58 | None | To introduce a redesigned lanyard and handle assembly with restraint attachment Part No MBEU 57737 in lieu of restraint attachment Part No MBEU 39148 by the introduction of lanyard assembly Part No MBEU 57733 (Ref No 6D/5070) in lieu of lanyard Part No MBEU 39172 (Ref No 27L/2250341). | C/3 satisfied by STI/Survival Equipment (Aircraft/ Clothing/379 | None | 11 |
| PE53 | None | To introduce Oxygen Hose Assy Mk 14(Ref No 6D/4971)MBEU 72396 by the conversion of Pt No MBEU 67739 by the introduction of an improved anti-drowning valve. | B/O | None | 12 |



Oxygen Hose Assembly Mk 2 (Ref No 6D/3696) (MBEU 35878), Oxygen Hose High Pressure Mk 1 (Ref No 6D/3563) (MBEU 35880).

(Mod No PE 38)

(Class B/2 RTC)

(File Ref ADSM25/D/8348)

(ADP No XSE00380)

1 INTRODUCTION

Following incidents where the PEC man portion has failed to separate cleanly from the seat portion during seat/man separation, this modification is a Contractor's Design Change which obviates the defect by removing 0.093 in from the end of the PEC man portion whilst also increasing the radii on the leading edge, so as to ease the man portion's fitment and removal.

Where Mod No PE 35 has not already been embodied on the Mk 1 High Pressure Oxygen Hose Assembly Part No MBEU 35880 (Ref No 6D/3563) it will be embodied concurrently with this modification.

(1) This modification does not supersede, partially supersede or satisfy the work called for by any other Modifications, Command or Naval Service Modifications, STI, NTI or SRIM.

2 EMBODIMENT

This modification is to be embodied by returning to contractor, Messrs. Martin Baker Aircraft Co. Ltd., and as directed by the Flag Officer, Naval Air Command.



Oxygen Mask Hose Assembly Mk 7 (MX2468-266C) (6D/2854). To replace QR Oxygen Connector (MX2468-135C) (6D/2947) with Coupling, Personal Hose Assembly Mk 2 (MX2468-650C) (6D/1660-99-224-8249) and to introduce an anchor clip assembly. The modified hose assembly becomes Oxygen Mask Hose Assembly Mk 11 (MX2468-738C) (6D/1660-99-224-8247).

(Mod No MX98)

(Class B/2 essentially
connected with Victor Mod 4736
and Vulcan Mod 2393)

(ADSM 25/D/26572)

(ADP No YFZ90980)

1 INTRODUCTION

An Integrated quick release Disconnect system has been developed permitting high altitude 'bale out' without loss of pressure breathing from the emergency oxygen system.

This QR Disconnect is in two parts, one of which (the Aircraft Portion) (currently being introduced by Airframe modification action) is fitted to the aircraft oxygen wander lead at all rear crew stations in 'V' aircraft. The mating Man Portion, introduced by this modification, is fitted to the Oxygen Mask Hose Assembly used in Victor K Mk 2 and Vulcan B Mk 2 fitted with Mk 17 series Oxygen regulators.

Additionally, Anchor Clip Assembly (MX2468-698A) is introduced, providing improved restraint from flailing of the Hose Assembly (thus superseding Command Mod BC/Flying Clothing/015).

(1) This modification supersedes the work called for by Command Mod BC/Flying Clothing/015.

(2) This modification is essentially connected with Victor Mod No 4736 and Vulcan Mod 2393. If that work is not already embodied it must be effected concurrently.

2 EMBODIMENT

This modification is to be embodied as directed by Command Headquarters.

3 APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 1 man hour.

4 DRAWINGS REQUIRED

(1) No drawings are required for the embodiment of this modification.

5 PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Kit which consists of the following items supplied by the Contractor will be assembled by No 14 Maintenance Unit under Ref No 6D/3881.

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|---------------------|----------------|---|------------|---------------------------|
| 6D/1660-99-224-8249 | MX2468-650C | Coupling, Personal Hose Assembly Mk 2 | 1 off | |
| 6D/1660-99-224-8250 | MX2468-698A | Anchor Clip Assembly $\frac{3}{4}$ in Anti-Kink Hose | 1 off | |
| | | DAS5231F x 11.40 in long | 1 off | |

All the above items will be issued to RAF Units at home on issue order; no demands are to be submitted. RAF Units abroad and all other users, are to demand separately their requirements of kits as listed in sub-para (a) above, in accordance with current regulations.

(b) The following materials are to be provided under Unit arrangements:

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|---------------|----------------|------------------------------|------------|---------------------------|
| 34B/9100519 | | Silicone Grease XG315(DC 33) | As Reqd | |
| 33C/2202572 | | Loctite Grade C | As Reqd | |
| 32B/1013668 | | Tape Adhesive Transparent | As Reqd | |

(2) Special Tools and Test Equipment

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

6 MODIFICATION OF SPARES

No spares are affected by this modification.

7 CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

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

| <u>Ref No</u> | <u>Part/Assy No</u> | <u>Nomenclature</u> | <u>Ref No</u> | <u>Part/Assy No</u> | <u>Nomenclature</u> |
|---------------|---------------------|--------------------------------------|-----------------------------|---------------------|---------------------------------------|
| 6D/2854 | MX2468-266C | Oxygen Mask Hose Assembly Mk 7 | 6D/1660- 99-224- 8247 | MX2468-738C | Oxygen Mask Hose Assembly Mk 11 |

8 SEQUENCE OF OPERATIONS

The following is the sequence of operations:

- (1) Release the three rubber clips (27L/745) securing the Mic-Tel Personal Service Lead (JC1669-177B) to the $\frac{3}{4}$ " Anti-Kink Flex Hose connecting the Demand EO Shut-Off Valve (6D/2568) to the existing QR Oxygen Connection (MX 2468-135C) (6D/2947).
- (2) Unscrew the lock screws and release the $\frac{3}{4}$ " Hose Clamp Assy (MX2468-433A) securing the Anti-Kink Flex Hose to the Demand EO Shut-Off Valve. Remove the Hose and QR Oxygen Connector complete from the Demand EO Shut-Off Valve.
- (3) Remove the two Hose Clamp Assemblies from the Anti-Kink Flex Hose removed in operation (2).
- (4) Fit one of the Hose Clamp Assemblies (removed in operation 3) together with the Anchor Clip Assembly MX2468-628A on one end of the new $\frac{3}{4}$ " x 11.40 in Anti-Kink Hose DAS5231F.
- (5) Apply Silicone Grease XG315 (DC.33) (34B/9100519) to the fitting on the new Coupling, personal hose assembly Mk 2 (MX2468-650C) (6D/1660-99-224-8249) and assemble the fitting in the Anti-Kink Hose. Ensure that the ends of each Hose closely abuts its end fitting and that the Hose Clamps are set back 1/16th" approx from the ends of the Hoses.
- (6) Apply Loctite Grade 'C' to the threads of the clamp screws and tighten to secure the hose to the coupling.

(7) Fit the remaining Hose Clamp Assembly on the free end of the $\frac{3}{4}$ " x 11.40 in Anti-Kink Hose DAS5231F. Apply Silicone Grease XG315 (DC 33) (34B/9100519) to the fitting on the Demand EO Shut-Off Valve and fit the hose. Apply Loctite Grade 'C' to the threads of the clamp screws and tighten to secure the hose to the Demand EO Shut-Off Valve. Ensure that the ends of each Hose closely abuts its end fitting and that the Hose clamps are set back 1/16th" approx from the ends of the Hoses.

(8) Replace the three rubber clips (27L/745) to secure the Mic-Tel Personal Service Lead to the new hose assembly.

(9) Remove the existing identification label from the Oxygen Mask Hose Assembly. Make up a new identification label bearing the following information: (MX2468-738C), (6D/1660-99-224-8247), MLE (Serial No of hose)/MX98. Position and secure the new label to the hose assembly using Tape Adhesive Transparent (32B/1013668).

9 SPECIAL TESTS AFTER EMBODIMENT

When this modification has been embodied and inspected, carry out functional tests of all systems which have been disturbed for the purpose of embodying this modification, in accordance with current testing instructions.

10 RECORDING ACTION

Record on F720C and F4652A.

11 DISPOSAL OF REDUNDANT PARTS

The undermentioned parts rendered redundant by the embodiment of this modification are to be disposed of as scrap:

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|---------------|----------------|--------------------------------|------------|---------------------------|
| 6D/2947 | MX2468-135C | QR Oxygen Connector | 1 off | C |
| | | $\frac{3}{4}$ " Anti-Kink Hose | 1 off | C |

12 EFFECT ON WEIGHT AND MOMENT

This modification has no effect on weight.

13 EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

This modification does not affect the operation or handling of the aircraft or equipment.

14 EFFECT ON SERVICING AND SERVICING SCHEDULE

This modification does not affect the servicing schedule.

Hose Assembly Oxygen Mk 2 (6D/NIV) (MBEU 43685). To re-introduce Oxygen Hose Assembly Mk 2 (6D/2244017) (MBEU 35878) in lieu of MBEU 43685 introduced by Modification PE 40.

(Mod No PE 42)

(Class B/0 Cancelling Mod PE 40)

(ADSM 2E/D/27371)

(ADP No XSE00420)

Note...

This leaflet is issued for informatory purposes only.

1 INTRODUCTION

It is a Ministry of Defence Air Staff Requirement subsequent to recommendations by MOD/Ops OS MOD/Ops 36, MOD/Ops/ESR and the IAM to retain a pull-off lanyard for the Oxygen Hose Assembly on Type 9A, 9D1/2 Mk 2 ejection seats.

In order to satisfy the requirement, this modification re-introduces the Mk 2 Oxygen Hose Assembly originally called as being redundant by the requirements of Mod No PE 40. With the introduction of this modification it should be noted that Mod No PE 40 is hereby cancelled and that Mod No PE 42 is to be recorded on the Oxygen Hose Assembly (MBEU 35878) and relevant documentation.

(1) This modification cancels the work called for by Mod No PE 40 (To introduce Oxygen Hose Assembly Mk TBA Ref No 6D/NIV Part No MBEU 43685 in lieu and by conversion of Oxygen Hose Assembly Mk 2 (Ref 6D 2244017 Part No MBEU 35878) but does not supersede, partially supersede or satisfy the work called for by any other Modifications, STI, SI or SRIM.

2 RECORDING ACTION

(1) Visually check that the Oxygen Hose Assembly being used in conjunction with Type 9A, 9D1/2 Mk 2 ejection seats is that of drawing No MBEU 35878 (Ref No 6D/2244017).

(2) Subsequent to the check, record Mod No PE 42 on the assembly and the appropriate Servicing Records.



Oxygen Hose Assemblies Mk 1 Ref 6D/2073, Mk 2 Ref 6D/2169, Mk 9 Ref 6D/2242289 and Pressure Jerkin Hose Assemblies Mk 6 MBEU 13899 (6D/2228), Mk 3 MBEU 13551 (6D/2168). To introduce Oxygen Hose Assemblies Part Nos MBEU 51351 (6D/2246258), MBEU 51353 (6D/2246255) and MBEU 51355 (6D/2246257) in lieu and by conversion of Hose Assemblies Part Nos MBEU 8908, MBEU 13550 and MBEU 39142 respectively, and to introduce Pressure Jerkin Hose Assemblies, Part Nos MBEU 53860 (6D/TBA) and MBEU 53861 (6D/TBA) in lieu and by conversion of Jerkin Hose Assemblies, Part Nos MBEU 13551 and MBEU 13899 respectively, by the introduction of a non-return valve Part No MBEU 36038, (6D/2246256).

(Mod No PE 37)

(Class - B/2 RTC)

(ADSM25/D/8292)

(ADP No ZSE00370)

Note...

This leaflet is issued for informatory purposes only.

1 INTRODUCTION

In order to satisfy the Ministry of Defence Air Staff Requirement and to prevent the ingress of water into the oxygen hose assembly should the seat occupant become involved with a water hazard in a crash or ejection case, this modification introduces a new oxygen hose connector to the PEC man portion which incorporates a non-return valve that automatically seals off the man portion when the man portion is disconnected and the flow of oxygen ceases.

(1) This modification does not supersede, partially supersede or satisfy the work called for by any other Modifications, Command Modifications, STI, SI or SRIM.

(2) This modification is essentially connected with Mods Nos MO 128 (Mask type P), MO 211 (Masks type Q1 & Q2 and MO 212 (Mask type Q8); if that work is not already embodied it must be effected concurrently.

2 EMBODIMENT

This modification is to be embodied by: Return to Contractor.

3 EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

This modification will assist the survival of an unconscious man on entry into water (when in conjunction with an anti-suffocation valve in the oxygen mask and with the automatic inflation of the life preserver) by preventing inhalation of water through the PEC.

Under ordinary circumstances aircrew will probably wish to remove their mask during parachute descent and this drill will still be taught.

This modification in association with the modification to the "P" and "Q" series masks, also affects the breathing resistance after separation from the seat. On ejection from the aircraft, oxygen is supplied to the mask from the seat mounted emergency oxygen set through the PEC. On separation from the seat the new valve in the man portion of the PEC shuts off the air supply. Air is inhaled against a slight resistance, through the new anti-suffocation valve in the right hand side of the oxygen mask. Aircrew must ensure that they do not use a modified PEC unless their oxygen mask is also modified with its new anti-suffocation valve.

Oxygen Hose Assembly Mk 1 Part No MBEU 51351 (6D/2246258)
Oxygen Hose Assembly Mk 9 Part No MBEU 51355 (6D/2246257)
Pressure Jerkin Hose Assembly Mk 3 Part No MBEU 53860 (6D/3959)
Pressure Jerkin Hose Assembly Mk 6 Part No MBEU 53861 (6D/3960)
To introduce Oxygen Hose Assembly Mk 1A Part No MBEU 55744 stores Ref
6D/2253045 Oxygen Hose Assembly Mk 9A Part No MBEU 55745 Stores Ref
6D/2253044. Pressure Jerkin Hose Assembly Mk 3A Part No MBEU 55747
Stores Ref 6D/2253047 and Pressure Jerkin Hose Assembly Mk 6A Part No
MBEU 56071 Stores Ref 6D/2253050 in lieu and by conversion of Part Nos
MBEU 51351, 51355, 53860 and MBEU 53861 respectively, by the introduction of a
new valve stem support collar, re-identified valve becomes Part No MBEU 55742.

(Mod No PE 47)

(Class - B/2 RTC)

(D/ADSM 25/10/23/698)

(ADP No XSE00470)

Note...

This leaflet is issued for informatory purposes only.

1 INTRODUCTION

Service experience has shown that damage to the oxygen valve support collar is being caused by the extended protrusion of the oxygen valve being inadvertently knocked during ground handling.

As this damage could lead to a leak in the anti-drowning valve, it is a Contractors Design Improvement to transfer the extended valve from the PEC man portion to the PEC seat portion by this and other concurrent modifications which together with a strengthened support collar will effectively obviate the problem.

(1) This modification does not supersede, partially supersede, or satisfy the work called for by any other Modifications, Command Modifications, STI's, SI's or SRIM's.

(2) This modification is essentially connected with Modification numbers ES 3702 (To introduce new Oxygen Inner Valve) and OT 27 (To introduce new Oxygen Inner Valve); if that work is not already embodied it must be effected concurrently.

2 EMBODIMENT

This modification is to be embodied by return to Contractor. Units are to demand new items as listed in Para 3 below as required, and are to return redundant items to MARTIN-BAKER A/C CO LTD, HIGHER DENHAM, NR UXBRIDGE, MIDDX on contract loan terms to contract A6 B/3004.

3 CHANGE OF NOMENCLATURE REFERENCE, PART AND ASSEMBLY NUMBERS

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

| <u>Ref No</u> | <u>OLD</u> <u>Part/Assy</u> <u>No</u> | <u>Nomenclature</u> | <u>Ref No</u> | <u>NEW</u> <u>Part/Assy</u> <u>No</u> | <u>Nomenclature</u> |
|---------------|---|--|---------------|---|---|
| 6D/2246258 | MBEU 51351 | Oxygen Hose Assembly Mk 1 | 6D/4581 | MBEU 55744 | Oxygen Hose Assembly Mk 1A |
| 6D/2246257 | MBEU 51355 | Oxygen Hose Assembly Mk 9 | 6D/4583 | MBEU 55745 | Oxygen Hose Assembly Mk 9A |
| 6D/3959 | MBEU 53860 | Pressure Jer- kin Hose Assembly Mk 3 | 6D/4585 | MBEU 55747 | Pressure Jerkin Hose Assembly Mk 3A |
| 6D/3960 | MBEU 53861 | Pressure Jer- kin Hose Assembly Mk 6 | 6D/4586 | MBEU 56071 | Pressure Jerkin Hose Assembly Mk 6A |

Oxygen Hose Assemblies MBEU 35880 (Ref No 6D/2243793), MBEU 35878 (Ref No 6D/2244017) and MBEU 42184 (Ref No 6D/6254255). To introduce heat shrink sleeving on the oxygen hose ends to prevent chafing.

(Mod No PE 51)

(Class C/3)

(D/ADSM 25/10/23/1005)

(ADP No XSE00510)

1 INTRODUCTION

Experience in foreign services has shown that the oxygen hose can become badly chafed where it connects to the chest mounted oxygen regulator, due to the close proximity of the various harness fittings and webbing of the simplified combined harness.

Tests carried out by the Contractor showed that apart from redesigning or re-positioning the various fittings involved, the simplest way to overcome the defect was to provide some additional means of protection to the affected area of the oxygen hose.

This modification is a Contractor's Design Change which precludes the possible defect on those seats in the British Services by introducing heat shrink tubing to the affected areas of the oxygen hose.

(1) This modification does not supersede, partially supersede or satisfy the work called for by any other Modification, Service Engineered Modification, STI, SI or SRIM.

2 EMBODIMENT

This modification is to be embodied as directed by Command Headquarters.

3 APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately $\frac{3}{4}$ of a manhour.

4 DRAWINGS REQUIRED

Drawing No AP 108F-0904-2/8/81 is incorporated in this leaflet.

5 PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) RAF: A Modification Set will not be assembled, but the following Service Supply item is required and is to be provided under Unit arrangements:

| <u>Ref No</u> | <u>Specn No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|---------------|-----------------|---|------------|---------------------------|
| 6D/4726 | RT876 | Sleeve, "Raychem" 1 in dia x 6 in long (Black) | 1 | C |

(b) RN: The Service Supply item mentioned in Sub-Paragraph (a) is required and if not available is to be demanded on RN Store Depot, Llangennech.

(2) Special Tools and Test Equipment

The following tools are required for use with this modification and are to be provided under units own arrangements.

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|---------------|----------------|----------------------|------------|---------------------------|
| 4A/2141427 | MODEL 1511 | Thermogun, "Raychem" | 1 | A |
| 4A/4217 | PR24 | Reflector | 1 | C |

6 MODIFICATION OF SPARES

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

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|---------------|----------------|---------------------|------------|---------------------------|
| 6D/2243793 | MBEU 35880 | Hose, Assy Oxygen | 1 | A |
| 6D/2244017 | MBEU 35878 | Hose, Assy Oxygen | 1 | A |
| 6D/6254255 | MBEU 42184 | Hose, Assy Oxygen | 1 | A |
| 6D/220-3834 | MBEU 34361 | Hose, Oxygen | 1 | B |

Materials required:

Are as listed in Sub-Paragraph (1)(a) of Paragraph 5 of this leaflet. Spares will be modified by user units.

7 CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

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

| <u>OLD</u> | | | <u>NEW</u> | |
|---------------|---------------------|---------------------|---------------|---------------------|
| <u>Ref No</u> | <u>Part/Assy No</u> | <u>Nomenclature</u> | <u>Ref No</u> | <u>Part/Assy No</u> |
| 6D/220-3834 | MBEU 34361 | Hose, Oxygen | 6D/4824 | MBEU 56741 |

8 SEQUENCE OF OPERATIONS

The following is the sequence of operations:

- (1) From the oxygen hose assembly, identify and remove the oxygen hose, Part No MBEU 34361 by undoing its connecting nut.
- (2) Refer to the drawing, and position the two pieces of sleeving, Specn No RT876, one over each end of the oxygen hose, Part No MBEU 34361 as shown. Using the Model 1511 "Raychem" Thermogun and Reflector, Part No PR24, shrink the sleeving in position. The oxygen hose now becomes Part No MBEU 56741.

Note...

After shrinking the Raychem sleeving ensure that the Part No MBEU 56741 is readable.

- (3) Re-connect the modified oxygen hose, Part No MBEU 56741 to the oxygen hose assembly.

9 SPECIAL TESTS AFTER EMBODIMENT

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

10 RECORDING ACTION

When this modification has been embodied and inspected in accordance with current procedure, the modification number as given at the heading of this leaflet is to be recorded on the oxygen hose assembly and the appropriate Servicing Records.

11 DISPOSAL OF REDUNDANT PARTS

No parts are rendered redundant by the embodiment of this modification.

12 EFFECT ON WEIGHT

This modification has no effect on weight.

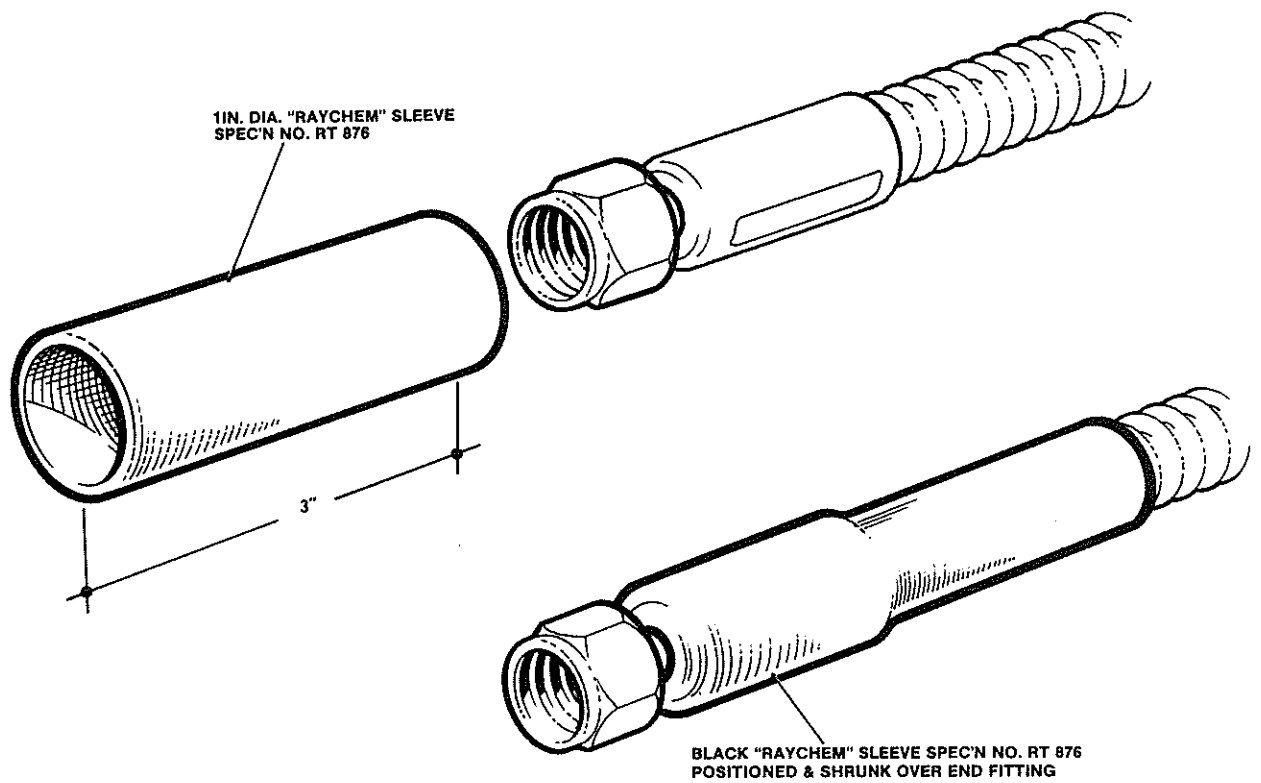
13 EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

This modification does not affect the operation or handling of the aircraft or equipment.

14 EFFECT ON SERVICING AND SERVICING SCHEDULE

- (1) This modification does not affect servicing or the servicing schedule.
- (2) This modification does not affect Flight Simulators.
- (3) All relevant APs will be considered for amendment action to take account of the changes introduced by this modification.

VIEW SHOWING FITMENT OF PROTECTIVE SLEEVING TO OXYGEN HOSE



Drg No AP 108F-0904-2/8/81



Oxygen Hose Assembly Mk 10, Part No MBEU 60238 (Ref No 1660-99-2246970).
To introduce Oxygen Hose Assembly Mk 13, 6D/4692 Part No MBEU 67739 in lieu and
by conversion of Part No MBEU 60238 (Ref No 1660-99-2246970) by the introduction
of Oxygen Hose, Part No MBEU 70061 Ref No 6D/2253013 in lieu of Part No
1659W000 6D/1660-99-2246963.

(Mod No PE 49)

(Class B/2 - RN
B/4 - RAF)

(D/ADSM25/10/23/880)

(ADP No XSE00490)

1 INTRODUCTION

This modification introduces a new anti-kink oxygen hose in lieu of the existing noise attenuated hose. The existing hose causes a foul on the Sea Harrier aircraft.

(1) This modification does not supersede, partially supersede or satisfy the work called for by any other Modifications, Service Engineer Modifications, Naval Service Modifications, SRIMs or Special Instructions (Technical).

(2) It is recommended but not essential, that this modification is carried out concurrently with Mod No PE48 (To introduce Tele-Mic Lead Assembly, Part Number MBEU 70911 in lieu of Part Number MBEU 64418).

2 EMBODIMENT

RAF: This modification will only be embodied by the manufacturer in new equipment or on items returned for repair and reconditioning.

RN: This modification is to be embodied in accordance with the procedure for Class 2 modifications laid down in NAMM AP 100N-0140 Chapter 10.

3 APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately $\frac{3}{4}$ of a manhour.

4 DRAWINGS REQUIRED

No drawings are required for the embodiment of this modification.

5 PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The Modification Set which consists of the following Contractor's Supply items will be held by No 14 MU under Reference No 6D/4682:

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|------------------------|----------------|---|------------|---------------------------|
| 6D/2253013 | MBEU 70061 | Hose, Oxygen | 1 | |
| 5F/5970-99- 6420422 | Thermofit DR25 | Sleeving Heat Shrink DR25 2 in dia x 1 in long | 3 | |

RN units are to demand separately their requirements of MOD sets as listed above in accordance with current regulations.

(b) The following Service Supply item may also be required and is to be provided under Unit arrangements (See Note at Para 8, Op 6):

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|-------------------------|----------------|---------------------|------------|---------------------------|
| 27L/5340-99- 7150823 | MBEU 699DH | Strap, Rubber | 3 | C |

(c) The following material is also required and is to be provided under Unit arrangements:

| <u>Part No</u> | <u>Nomenclature</u> | <u>Quantity</u> |
|----------------|--|-----------------|
| | Compound, Sealing Oxygen (Rectoseal) MIL-T-5542 (NATO Code S717) | As reqd |

(2) Special Tools and Test Equipment

The following tools are required for use with this modification and are to be provided under unit's own arrangements:

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Quantity</u> |
|---------------|----------------|----------------------|-----------------|
| 4A/4332 | MODEL 1511 | Thermogun, 'Raychem' | 1 |
| 4A/4217 | PR24 No 991964 | Reflector | 1 |

6 MODIFICATION OF SPARES

The following list shows the spare affected by this modification and the parts required to modify it:

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|------------------------|----------------|----------------------------|------------|---------------------------|
| 6D/1660-99- 2246970 | MBEU 60238 | Oxygen Hose Assembly Mk 10 | 1 | A |

Parts required:

Are as listed in Sub-Para (1)(a), (b) and (c) of Paragraph 5 of this leaflet.

Spares will be modified under unit arrangements (RN) and during repair in industry (RAF).

7 CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

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

| <u>OLD</u> | | | <u>NEW</u> | | |
|------------------------|---------------------|---------------------------|---------------|---------------------|---------------------------|
| <u>Ref No</u> | <u>Part/Assy No</u> | <u>Nomenclature</u> | <u>Ref No</u> | <u>Part/Assy No</u> | <u>Nomenclature</u> |
| 6D/1660-99- 2246970 | MBEU60238 | Oxygen Hose Assy Mk 10 | 6D/2253341 | MBEU67739 | Oxygen Hose Assy Mk 13 |

8 SEQUENCE OF OPERATIONS

The following is the sequence of operations:

- (1) On the Mk 10 Oxygen Hose, Part No MBEU 60238 separate the Tele-Mic lead from the Oxygen Hose by carefully cutting the three pieces of 'Raychem' Thermofit tubing attaching them together.
- (2) Identify and remove the bayonet connector (Ref No 6D/4730-99-2203120) from the oxygen hose, and retain for re-assembly.
- (3) Remove the oxygen hose, Part No 1659W000 from its connector on the PEC man portion.
- (4) Using "Rectoseal" oxygen sealing compound, Specification No MIL-T-5542 assemble the new oxygen hose, Part No MBEU 70061 to its connector on the PEC man portion.

(5) Using "Rectoseal" oxygen sealing compound, Specification No MIL-T-5542 assemble the retained bayonet connector (Ref No 6D/2203120) to the oxygen hose.

Note...

The following operation shows the Contractor's preferred method of securing the Tele-Mic cable to the oxygen hose; if for any reason it is considered impracticable in service, it is permissible to use the rubber straps, Part No MBEU 699DH for the attachment.

(6) Position the three pieces of Thermofit tubing, Specification No DR25 equidistant over the Tele-Mic cable and Oxygen Hose and after ensuring that there is a minimum of five (5) inches between the end of the Tele-Mic cable and the bottom of the oxygen hose bayonet connector, shrink the tubing to secure the items together using the heat gun, Model 1511 and reflector, Part No 991964. The modified unit now becomes, Part No MBEU 67739.

(7) Using a suitable method carefully erase the existing assembly number MBEU 60238 and substitute with the new assembly number MBEU 67739 issue 1

(8) Carry out all the 'Functional' checks on the modified Oxygen Hose Assembly in accordance with relevant servicing schedules.

9 SPECIAL TESTS AFTER EMBODIMENT

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

10 RECORDING ACTION

When this modification has been embodied and inspected in accordance with current procedure, the modification number as given at the heading of this leaflet is to be recorded on the Oxygen Hose Assembly and the appropriate Servicing Records.

11 DISPOSAL OF REDUNDANT PARTS

The undermentioned item rendered redundant by the embodiment of this modification is to be returned to 14 MU:

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Quantity</u> | <u>Class of Equipment</u> |
|------------------------|----------------|---------------------|-----------------|---------------------------|
| 6D/1660-99- 2246963 | 1659W000 | Hose, Oxygen | 1 | C |

12 EFFECT ON MASS

This modification has no appreciable effect on mass.

13 EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

This modification does not affect the operation or handling of the aircraft or equipment.

14 EFFECT ON SERVICING AND SERVICING SCHEDULE

(1) This modification does not affect Servicing or Ground Support Equipment.

(2) All relevant publications will be amended to include the new part number introduced by this modification.



Oxygen Hose Assembly Mk 10, Part No MBEU 60238 (Ref No 1660-99-2246970).
To introduce Tele-Mic Lead Assembly, Part No MBEU 70911 (Ref No 6D/4737) in
lieu of Part No MBEU 64418 (Ref No 6D/4336).

(Mod No PE 48)

(Class B/2)

(D/ADSM25/10/23/834)
(ADP No XSE00480)

1 INTRODUCTION

In order to prevent the inadvertent disconnection of the Tele-Mic Cable Assembly on the Oxygen Hose Assembly and thereby satisfy the Ministry of Defence Air Staff Requirement, this modification introduces a new longer Tele-Mic Cable Assembly.

(1) This modification does not supersede, partially supersede or satisfy the work called for by any other Modification, Naval Service Modification, Service Engineered Modifications, SRIM or Special Instruction (Technical).

(2) It is recommended but not essential, that this modification is carried out concurrently with Mod No PE49 (To introduce Oxygen Hose Assembly Mk 11, Part No MBEU 67739 in lieu and by conversion of Part No MBEU 60238, by the introduction of Oxygen Hose, Part No MBEU 70061 in lieu of Part No 1659W000).

2 EMBODIMENT

RAF: This modification is to be embodied at the next bay servicing after receipt of Mod Kits.

RN: This modification is to be embodied in accordance with the procedure for Class 2 modifications laid down in NAMM AP 100N-0149 Chapter 10.

3 APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately $\frac{3}{4}$ of a manhour. (This does not include the time required for curing the "Araldite" Adhesive used on the replacement Tele-Mic Cable Assembly).

4 DRAWINGS REQUIRED

No drawings are required for the embodiment of this modification.

5 PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and/or Materials

(a) The Modification Set which consists of the following Contractor's Supply items will be held by No 14 MU under Ref No 6D/4603:

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Quantity</u> |
|------------------------|-----------------|---|-----------------|
| 6D/4737 | MBEU 70911 | Cable, Assembly, Tele-Mic | 1 |
| 5F/5970-99- 6420422 | Thermofit DR 25 | Sleeving Heat Shrink DR 25 2 inch dia x 1 inch | 3 |

The above items will be issued on Issue Order to RAF Units at home and those overseas units on direct re-supply; no demands are to be submitted. Other RAF Units abroad and all other users are to demand separately their requirements of Sets as listed above in accordance with current regulations.

(b) The following Service Supply item may also be required and is to be provided under Unit arrangements: (See Note at para 8, Op 3):

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Quantity</u> | <u>Class of Equipment</u> |
|-------------------------|----------------|---------------------|-----------------|-------------------------------|
| 27L/5340-99- 7150823 | MBEU 699DH | Strap, Rubber | 3 | C |

(2) Special Tools and Test Equipment

The following tools are required for use with this modification and are to be provided under users own arrangements:

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Quantity</u> |
|---------------|--------------------|---------------------|-----------------|
| 4A/4332 | MODEL 1511 | Thermogun, Raychem | 1 |
| 4A/4217 | PR 24 No 991964 | Reflector | 1 |

6 MODIFICATION OF SPARES

The following list shows the spare affected by this modification and the parts required to modify it.

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Quantity</u> | <u>Class of Equipment</u> |
|-----------------|----------------|-------------------------------|-----------------|---------------------------|
| 1660-99-2246970 | MBEU 60238 | Oxygen Hose Assembly Mk 10 | 1 | A |

Parts required:

Are as listed in Sub-Para (1)(a) and (b) of Paragraph 5 of this leaflet.

Spares will be modified under Unit arrangements.

7 CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

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

8 SEQUENCE OF OPERATIONS

The following is the sequence of operations:

(1) On the Mk 10 Oxygen Hose Part No MBEU 60238 separate the Tele-Mic lead from the Oxygen Hose by carefully cutting the three pieces of "Raychem" Thermofit Tubing attaching them together.

(2) Remove the existing Tele-Mic cable assembly, Part No MBEU 64418 from the Mk 10 Oxygen Hose Assembly, Part No MBEU 60238 in accordance with relevant servicing schedules, and substitute with the new Tele-Mic cable assembly, Part No MBEU 70911.

Note...

The following operation shows the Contractor's preferred method of securing the Tele-Mic cable to the oxygen hose; if for any reason it is considered impracticable in service it is permissible to use the rubber straps, Part No MBEU 699DH for the attachment.

(3) Position the three pieces of Thermofit tubing, Specification No DR25 equidistant over the Tele-Mic cable and Oxygen Hose, and after ensuring that there is a minimum of five (5) inches between the end of the Tele-Mic cable and the bottom of oxygen hose bayonet connector, shrink the tubing to secure the items together using the heat gun, Model 1511 and reflector, Part No 991964.

(4) Carry out all the "Functional" checks on the modified Oxygen Hose Assembly in accordance with relevant servicing schedules.

9 SPECIAL TESTS AFTER EMBODIMENT

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

10 RECORDING ACTION

When this modification has been embodied and inspected in accordance with current procedure, the modification number as given at the heading of this leaflet is to be recorded on the Oxygen Hose Assembly and the appropriate Servicing Records.

11 DISPOSAL OF REDUNDANT PARTS

The undermentioned item rendered redundant by the embodiment of this modification is to be returned to 14 MU:

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Quantity</u> | <u>Class of Equipment</u> |
|---------------|----------------|--------------------------|-----------------|---------------------------|
| 6D/4336 | MBEU 64418 | Cable, Assembly Tele-Mic | 1 | C |

12 EFFECT ON MASS

This modification has no appreciable effect on mass.

13 EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

This modification does not affect the operation or handling of the aircraft or equipment.

14 EFFECT ON SERVICING AND SERVICING SCHEDULE

(1) (a) This modification does not affect servicing or ground support equipment.

(b) All relevant APs will be considered for amendment action to take account of changes introduced by this modification.

Intro of improved Micro
Switching Arming Pin

AP 108F-0904-2 (2nd Edn)
Leaflet No 9

Combined Static Line/Oxygen Hose/MIC.TEL. Assemblies for all types of Victor and Vulcan B Mk 2 Aircraft. To introduce improved Micro Switch Arming Pin Part No IAC-B-11224, in place of Arming Pin Part No IAC 3372 at present fitted.

(Mod No Para M.313)

(Class B/2)

(ADSM25/D/8458)

(ADP No XPM03130)

1. INTRODUCTION

This modification is a design improvement resulting from service experience. Incidents have been reported wherein the soldered arming pin wire attachments have cracked whilst in service use. This modification introduces a solid one piece welded pin which is completely interchangeable with the existing pin in all respects.

(1) This modification supersedes STI/FC/85A

2. EMBODIMENT

This modification is to be embodied as directed by Command Headquarters.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately $1\frac{1}{4}$ man hours.

4. DRAWINGS REQUIRED

Drawing No AP 108F-0904-2 (2nd Edn)/9/83 is incorporated in this leaflet.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials

(a) The modification kit which consists of the following items will be assembled by No 16 MU under Ref No 26DE/23622.

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|---------------|----------------|-------------------------|------------|---------------------------|
| 26DE/23622 | IAC-B-11224 | Micro Switch Arming Pin | 1 | C |

RAF units at home and abroad and all other users are to demand separately their requirements of kits as listed in sub-paragraph (a) above in accordance with current regulations.

(b) The following materials are to be supplied under unit arrangements:-

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|-----------------|-----------------------|------------------------|------------|---------------------------|
| 15D/ 4111619 | BSF 120/NT4/5(a) (ii) | Nylon Thread Blue Grey | QR | C |

(2) Special Tools and Test Equipment

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

6. MODIFICATION OF SPARES

No spares are affected by this modification.

7. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

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

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Refer to drawing attached.

(2) Remove the existing arming pin IAC.3372 by carefully unpicking the stitching securing the pin to the static line.

(3) Discard the pin.

(4) Position the new pin IAC-B-11224 and using Nylon Thread Blue Grey BSF.120/NT6/5a (ii) secure it to the static line by making good the stitching which was unpicked to release the old pin.

9. SPECIAL TESTS AFTER EMBODIMENT

No special tests are required after the embodiment of this modification, but any other appropriate and associated testing is to be carried out.

10. RECORDING ACTION

When this modification has been embodied and inspected in accordance with current procedure, the relevant entries are to be made in the appropriate servicing records.

11. DISPOSAL OF REDUNDANT PARTS

The following parts are made redundant by the embodiment of this modification and are to be disposed of in accordance with current regulations.

| <u>Ref No</u> | <u>Part No</u> | <u>Nomenclature</u> | <u>Qty</u> | <u>Class of Equipment</u> |
|---------------|----------------|-------------------------|------------|---------------------------|
| | IAC.3372 | Micro Switch Arming Pin | 1 | C |

12. EFFECT ON WEIGHT AND MOMENT

This modification has no effect on weight or moment.

13. EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

This modification does not affect the operation or handling of the aircraft or equipment.

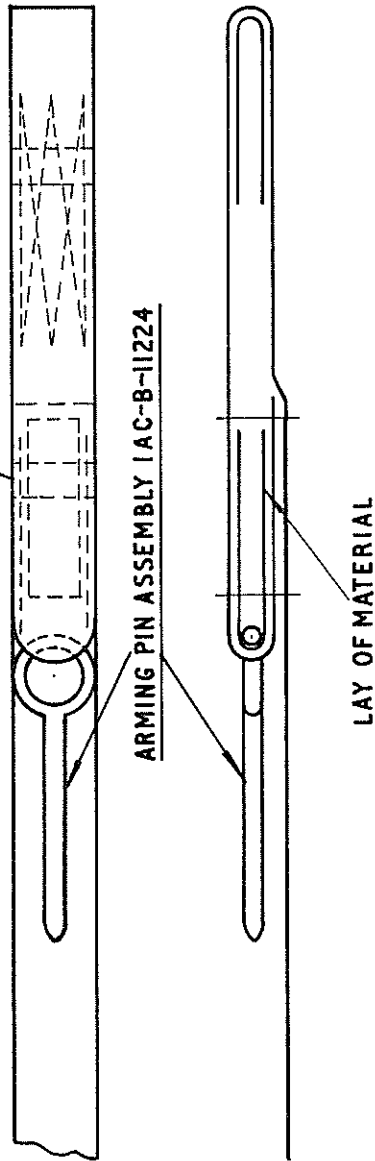
14. EFFECT ON SERVICING AND ON GROUND SUPPORT EQUIPMENT

This modification does not affect servicing or ground support equipment.

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- 1 - CUT CAREFULLY & UNPICK STITCHING, SECURING THE ARMING PIN IAC-3372 TO THE STATIC LINE
- 2 - REMOVE THE ARMING PIN IAC-3372
- 3 - POSITION THE ARMING PIN ASSEMBLY IAC-B-11224. MAKE GOOD THE STITCHING UNPICKED TO REMOVE THE ORIGINAL PIN USING THREAD NYLON BS120/NT6/5a; BLUE/GREY



METHOD OF ATTACHING ARMING PIN IAC-B11224 TO STATIC LINE



Introduction of
locating pin.

AP 108F-0904-2
Leaflet No 10

Oxygen Hose Assemblies Part No MBEU 35878
(Ref No 6D/2244017), Part No MBEU 35880
(Ref No 6D/2243793), Part No MBEU 55844
(Ref No 6D/2250852), Part No MBEU 43944
(Ref No 6D/2250850), Part No MBEU 43945
(Ref No 6D/2250851), To introduce locating pin
Part No MBEU 44421 (1 off) in lieu of pin Part No
MBEU 34325 (2 off).

(Mod No PE 55)

(Class D/4 RTC)

(D/SM 25/10/23/1654)

(ADP No XSE 00550)

Note: This leaflet is issued for informatory purposes only.

1. INTRODUCTION

Service experience has shown that the two short spigots located on each side of the base plate of the P.E.C. Hose Assembly are becoming loose and falling out. To overcome this problem a single longer straight through pin is introduced which when pressed in position through the base plate, protrudes from each side to form the same spigot protrusion as with the original spigots pressed into the base plate from each side. The one piece longer pin will ensure secure fitment thereby obviating the problem of the two short spigots falling out.

(1) This modification does not supersede, partially supersede or satisfy the work called for by any other modifications, Service Engineering Modifications, STI's, SI's or SRIM's.

2. EFFECT ON WEIGHT

This modification has no effect on weight.

3. EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

This modification does not affect the operation or handling of the aircraft or equipment.

4. EFFECT ON SERVICING AND SERVICING SCHEDULE

(1) This modification does not affect servicing or the servicing schedule.

(2) This modification does not affect Flight Simulators.

(3) All relevant A.P.'s will be considered for amendment action to take account of changes introduced by this modification.

Jul 83 (Amdt 2)

Page 1

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Introduction of a redesigned
Lanyard and handle assembly

AP 108F-0904-2
Leaflet No 11

Oxygen Hose Assembly Mk 9A Part No MBEU55745 (6D/2253044). Personal Hose Assembly NBC Mk 4 Part No MBEU55846 (Ref No 6D/225-0853) - To introduce a redesigned lanyard and handle assembly with restraint attachment Part No MBEU 57737 in lieu of restraint attachment Part No MBEU39148 by the introduction of lanyard assembly Part No MBEU57733 (Ref No 6D/5070) in lieu of lanyard Part No MBEU39172 (Ref No 27L/2250341)

(Mod No PE 58)

(Class: C/3)

(D/SM25/10/23/1740)

(ADP No XSE00580)

Note: This leaflet is issued for information purposes only.

1. INTRODUCTION

With the introduction of the simplified combined harness it has been found that the existing lanyard used with the torso harness allows the oxygen hose and PEC man portion to hang down between the wearers legs creating a snagging hazard on ladders and the ejection seat firing handle during cockpit entry and exit. To overcome this problem a new lanyard with a restraint attachment which loops around the oxygen hose, is introduced, effectively restraining the hose assembly.

(1) This modification is satisfied by STI/Survival Equipment (Aircrew/Clothing)/379, but does not supersede, partially supersede or satisfy the work called for by any other Modifications, Service Engineered Modifications, STIs, SIs or SRIMs.

2. EFFECT ON WEIGHT

This modification has no effect on weight.

3. EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

This modification does not affect the operation or handling of the aircraft or equipment.

4. EFFECT ON SERVICING AND SERVICING SCHEDULE

(1) This modification does not affect servicing or the servicing schedule.

(2) This modification does not affect Flight Simulators.

(3) All relevant APs will be considered for amendment action to take account of changes introduced by this modification.

PEC - Intro Oxygen
Hose Assembly MBEU72396

AP108F-0904-2
Leaflet No 12

Oxygen Hose Assembly Mk 13, Pt. No MBEU67739 (Ref No 6D/2253341) - To introduce Oxygen Hose Assy Mk 14 Pt. No MBEU72396 (Ref No 6D/4971) in lieu and by conversion of Pt. No MBEU67739 by the introduction of an improved anti-drowning valve.

(Mod No PE 53)

(Class B/O)

(D/SM 25/10/23/1713)

(ADP No XSE 00530)

Amendment Instructions: Insert this leaflet (1 leaf) in correct sequence. Update the Section/Sub-section/Equipment Modification List. Sign the Amendment Record Sheet.

NOTE:- This leaflet is issued for informatory Purposes Only.

1. INTRODUCTION

Defect Reports state that the anti-drowning valve of the Oxygen Hose Assembly (PEC Man Portion) can become dislodged, and because of an interaction between the constituent components, can be left in the open position.

It is a Contractor's Design Change to obviate the defect by introducing a completely new valve by this modification which incorporates an improved stem and stronger spring.

(1) This modification does not supersede, partially supersede or satisfy the work called for by any other Modifications, Service Engineered Modification, Naval Service Modification, SRIM or Special Instruction (Technical)

2. EMBODIMENT

(1) This modification is to be embodied solely by the contractor.

3. CHANGE OF REFERENCE PART AND ASSEMBLY NUMBERS

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

| <u>Ref No</u> | <u>Old Part/Assy No</u> | <u>Nomenclature</u> | <u>Ref No</u> | <u>New Part/Assy No</u> |
|---------------|-------------------------|--|---------------|-------------------------|
| 2253341 | MBEU67739 | Oxygen Hose Assy Mk 13 Oxygen Hose Assy Mk 14 | 6D/4971 | MBEU72396 |

4. EFFECT ON MASS MOMENT

This modification has no effect on mass.

5. EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING.

This modification does not affect the operation or handling of the aircraft or equipment;

6. EFFECT ON SERVICING AND GROUND SUPPORT EQUIPMENT.

(a) This modification has no effect on servicing

(b) All relevant APs will be considered for amendment action to take account of changes introduced by this modification.

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