AIR PUBLICATION.....
Volume 2.

Section O

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NOTE TO USER:—
Insert relevant A.P. No. at top of page.

(Continued Overleaf)

A.L. No. 25

(Emergency pull off load reduced)

A.P. 4347J, Vol. 2
Leaflet No. 0.1
(Alteration 1)

Hunter F.G.A. Mk. 9 Aircraft - Emergency Oxygen Control Revised

(AB/A/10215. - 29.6.60.)

1. A.P. 4347J, Vol. 2. Leaflet No. 0.1 (Mod. No. Hunter/768) is amended as follows:-

(1) Para. 5 (1) item 20. *Delete*

"26FX/12511 A.25.2.B Bolt 1 C"

(2) 26FX/12528 A.25.1.B Bolt *Amend* quantity "2" to read "3"

A.L. No. 14
(Emergency pull off load reduced)
(A.L. No. 5 cancelled)

A.P. 4347J, Vol. 2
Leaflet No. C.1.
(Leaflet No. Q.1 cancelled)

Hunter F.G.A Mk. 9 Aircraft - Emergency Oxygen Control Revised

(Mod. No. Hunter/768.)

(Class B/2.)

(AB/A/10215. - 15.2.60.)

Note:- This Leaflet supersedes A.P.4347J, Vol. 2, Leaflet No. Q.1 and is the Authority for cancelling A.L. No. 5

1. INTRODUCTION

The control run for the emergency oxygen installation has been revised to reduce the pull off load of the control to approximately 30 lb.

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

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

2. EMBODIMENT

This modification is to be embodied by:-

2nd Line Servicing Units: At the first opportunity (not later than 2 months after receipt of parts.)

3rd Line Servicing Units (R.S.U.s): As detailed in A.P.3158, Vol. 2, Leaflet B.6

4th Line Servicing Units (Repair Depots): Before issue of aircraft

Aircraft Storage Units: In accordance with the Standard of Preparation.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 16 man-hours (8 to strip and re-assemble; 8 to embody).

4. DRAWINGS REQUIRED

The following drawing is required, and is to be demanded in accordance with A.P.3158, Vol. 2, Leaflet No. D.7:-

Drawing No.	*Title*
D.231999	Assy. of Emergency Oxygen Control

5. PARTS AND SPECIAL TOOLS REQUIRED

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts or Materials

The Modification Kit which consists of the following items supplied by the Contractor will be assembled by No. 16 Maintenance Unit under Ref. No. 26FX/100768:-

Ref. No.	*Part No.*	*Nomenclature*	*Qty.*	*Class of Equipment*
26FX/10100	A.232000	Duct (Front)	1	C
26FX/10101	A.232001	Duct (Centre)	1	C
26FX/	A.232002	Rear pulley bracket	1	C
26FX/	A.232064	Packing strip	1	C
26FX/	A.232066	Packing strip	1	C
26FX/	A.232066	Packing strip	1	C
26FX/	A.232067	Packing strip	1	C
26FX/	A.232068	Packing strip	1	C
27FX/10102	F.232003	Duct (Rear)	1	C
26FX/10103	F.232004	Pin	1	C
26FX/	F.232063	Packing	1	C
26FX/	STD.1509/2/063	Distance tube	2	C
28R/13502	AS.111	Pulley	3	B
28R/13494	AS.112	Cover	3	C
28R/13495	AS.113	Cover with spacer	3	C
28D/9744	AS.1248.2.B	Bolt	2	C
28Q/10732	AS.2228/606	Rivet	11	C
28M/10330	AGS.2002.E.1	Nut	2	C
28D/12528	A.25.I.B.	Bolt	2	C
28D/12511	A.25.2.B.	Bolt	1	C
28D/12529	A.25.4.B.	Bolt	2	C
28D/12624	A.25.7.B.	Bolt	2	C
28D/12633	A.25.7.E.	Bolt	2	C
28W/9419486	SP.16.B.	Washer	1	C
28W/9419405	SP.15.E.	Washer	3	C
28P/12431	SP.9.C.6	Split pin	1	C

The above items will be issued to R.A.F. Units at home on issue order - no demands are to be submitted. R.A.F. Units abroad, and all other users, are to demand separately their requirements of kits as listed above in accordance with current regulations.

(2) Special Tools or Test Equipment

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

6. SPARES AFFECTED

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

Ref. No.	*Part No.*	*Nomenclature*	*Qty.*	*Class of Equipment*
26FX/4900	C.203324	Map case and G.G.S. recorder stowage		

Parts required:-

26FX/	A.232064	Packing strip	1	C
26FX/	A.232065	Packing strip	1	C
26FX/	A.232066	Packing strip	1	C
26FX/	A.232067	Packing strip	1	C
26FX/	A.232068	Packing strip	1	C
28Q/10732	AS.2228/606	Rivet	11	C

Spares will be modified by the Stock Holding Unit as directed by the Air Ministry (D.G.E.).

7. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

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

Ref. No.	*Old Part/Assy. No.*	*Nomenclature*	*Ref. No.*	*New Part/Assy. No.*
26FX/4900	C.203324	Map case and G.G.S. recorder stowage	26FX/	C.232062

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

(1) Remove the pilots seat (A.P.4288B, Vol. 1, Sect. 6, refers.). refers.).

(2) Remove the map case and G.G.S. recorder stowage, Part No. C.203324, from the starboard shelf side wall, retaining fixings.

(3) Modify the map case and G.G.S. recorder stowage and fit packing strips, Part Nos. A.232064, A.232065, A.232066, A.232067 and A.232068 using rivets, Part No. AS.2228/606 as shown on Drg. No. D.231999. Re-part No. the map case and G.G.S. recorder stowage as C.232062.

(4) Remove "Mills" pin, Part No. G.P.2 to release the control cable, Part No. F.206144 from the emergency oxygen release knob, Part No. F.189156.

(5) Remove cable ducts, Part Nos. A.206145 and F.189154 together with packing block, Part No. F.189159 from the starboard shelf side wall and pilots floor between frames 10 and 12.

(6) Fit rear pulley bracket, Part No. A.232002, rear duct, Part No. F.232003, centre duct, Part No. A.232001, front duct, Part No. A.232000 and packing, Part No. F.232063 complete with pulley assemblies, as shown on Drg. No. D.231999.

Note:- It may be necessary to clean out the bore of the front duct, Part No. A.232000 to ensure an easy sliding fit over the existing knob tube, Part No. F.189155.

(7) Run the existing control cable, Part No. F.206144 through the ducts and pulleys and connect up to the knob assembly using existing "Mills" pin, Part No. G.P.2.

(8) Replace the modified map case and G.G.S. recorder stowage, Part No. C.232062 as shown on Drg. No. D.231999.

(9) Re-assemble the pilot's seat (A.P.4288B, Vol. 2, Sect. 6 refers.).

9. TESTING AFTER EMBODIMENT

When this modification has been embodied and inspected in accordance with current procedure, the following tests are to be carried out:-

Check the emergency oxygen control to ensure that the pull off load does not exceed 30 lb.

10. RECORDING ACTION

Record on Form 700.

11. DISPOSAL OF REDUNDANT PARTS

The undermentioned parts rendered redundant by the embodiment of this modification are to be disposed of as scrap in accordance with A.P. 830, Vol. 1 (5th Edition), Leaflet No. A.19/1:-

Ref. No.	*Part No.*	*Nomenclature*	*Qty.*	*Class of Equipment*
26FX/5281	A.206145	Cable duct	1	
26FX/2849	F.189154	Cable duct	1	
26FX/2847	F.189159	Packing block	1	

12. EFFECT ON WEIGHT AND C. OF G.

This modification causes change in weight of ±0.5 lb. and a change of moment of - 73 lb. in.

Note:- The substance of this Leaflet was previously published as A.P.43473, Vol. 2, Leaflet No. Q.1.

1
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M193
1

A.L. No. 29
(Regulator, oxygen demand, Mk. 17E)

A.P.4347J, Vol. 2
Leaflet No. 0.2

Hunter F.G.A. Mk. 9 Aircraft—Oxygen System—To introduce Regulator, Oxygen Demand, Mk. 17E (Ref. No. 6D/2294) in place of Mk. 17D (Ref. No. 6D/1966)

(MOD. NO. HUNTER/919.)

(Class B/2, N.C.P., partially superseding Mod. No. 678.)

(AB/A/11537.—9.8.60.)

1. INTRODUCTION

Following withdrawal of approval of the Oxygen Demand Regulator, Mk. 17D (Ref. No. 6D/1966), a Mk. 17E Regulator (Ref. No. 6D/2294) is introduced in its place.

(1) This modification partially supersedes the work called for by Mod. No. Hunter/678 (Oxygen: To make provision for and introduce Type 17D regulator in place of Type 17 *or* 17B).

(2) This modification is essentially connected with Mod. No. Hunter/678 (Oxygen: To make provision for and introduce Type 17D regulator in place of Type 17 *or* 17B) and if that work is not already embodied it must be effected concurrently.

2. EMBODIMENT

This modification is to be embodied by:—

2nd Line Servicing Units: At the first opportunity (not later than 1 month after receipt of parts)

3rd Line Servicing Units (*R.S.U.s*): As detailed in A.P.3158, Vol. 2, Leaflet B.6

4th Line Servicing Units (*Repair Depots*): Before issue of aircraft

Aircraft Storage Units: In accordance with the Standard of Preparation

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

Normal replacement time.

4. SEQUENCE OF OPERATIONS

Remove Oxygen Regulator, Mk. 17D (Ref. No. 6D/1966) and fit Oxygen Regulator, Mk. 17E (Ref. No. 6D/2294).

5. TESTING AFTER EMBODIMENT

Test the oxygen system in accordance with A.P.1275A *or* 1275G, Vol. 1.

6. RECORDING ACTION

Record on Form 700.

7. DISPOSAL OF REDUNDANT PARTS

The undermentioned part rendered redundant by this modification is to be returned to Messrs. Normalair Ltd., Yeovil, Somerset, in accordance with A.M.O. A.169/58:—

Ref. No.	*Part No.*	*Nomenclature*	*Qty.*	*Equipment*
6D/1966	—	Regulator, oxygen demand, Mk. 17D	1	A

8. EFFECT ON WEIGHT AND C. OF G.

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

60.Wt.8219.250.9/60.K.Ltd.1438/1

A.L. No. 106
(Emergency oxygen control)

A.P.4347J, Vol.2
Leaflet No. 0.3

Hunter F.G.A. Mk.9 Aircraft - Emergency Oxygen Control revised to cater for Martin Baker Mo. No. ES.1150.

(Mod. No. Hunter/967.)

(Class B/2 to aircraft not embody Mod. No. 282.)

(AB/A/14473.- 24.4.62.)

1. INTRODUCTION

Martin Baker Mod. No. ES. 1150 repositions the oxygen bottle on the Mk.2H ejection seat. In consequence, the link between the emergency oxygen control assembly has been redesigned to allow connection to the oxygen bottle in the new position.

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

(2) This modification is essentially connected with Mod. No. Martin Baker ES.1150. If that work is not already embodied it must be effected concurrently.

This modification is applicable only if Mod. No. Hunter/282 (Ejection Seat Mk.3H introduced in place of Mk.2H) is not already embodied.

2. EMBODIMENT

This modification is to be embodied by:-

2nd Line Servicing Units: At the first opportunity and not later than one month after receipt of parts.

3rd Line Servicing Units (R.S.U.s): As detailed in A.P.3158, Vol.2, Leaflet B/6.

4th Line Servicing Units (Repair Depots): Before issue of aircraft.

Aircraft Storage Units: In accordance with the Standard of Preparation.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 5 man-hours.

4. DRAWINGS REQUIRED

Drawing No. A.P.4347J/0.3/62 is incorporated in this leaflet.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and/or Materials

The Modification Kit which consists of the following Items supplied by the contractor will be assembled by No. 16 Maintenance Unit under Ref. No. 26FX/100967:-

Ref. No.	*Part No.*	*Nomenclature*	*Qty.*	*Class of Equipment*
26FX/-	F.248510	Link	1	
28P/1202460	SP.9.C.4	Pin, split	1	C

The above items will be issued to R.A.F. Units at home on issue order - no demands are to be submitted. R.A.F. Units abroad, and all other users, are to demand separately their requirements of kits as listed above in accordance with current regulations.

(2) Special Tools and/or Test Equipment

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

6. MODIFICATION OF SPARES AFFECTED

No spares are affected by this modification.

7. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

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

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:-

After embodiment of Martin Baker Mod. ES.1150, re-connect the emergency oxygen control assembly in accordance with the following instructions:-

(1) Remove the existing link, Part No. F.174142, between the emergency control assembly, and the emergency oxygen bottle assembly.

(2) Fit new link, Part No. F.248510, to hook on oxygen bottle assembly, take up slack in control cable, offer up cable to and mark off fixing position on link.

(3) Remove link, Part No. F.248510, and trim link to size about the fixing position, as shown on the drawing.

(4) Fit link to end of control cable, using existing pin with new split pin, Part No. Sp.9.C.4, as shown on the drawing.

(5) Re-connect the link to hook on oxygen bottle assembly, as shown on the drawing.

9. TESTING AFTER EMBODIMENT

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

10. RECORDING ACTION

Record on Form 700.

11. DISPOSAL OF REDUNDANT PARTS

The undermentioned parts rendered redundant by the embodiment of this modification are to be disposed of as scrap in accordance with A.P. 830, Vol.1 (5th edition), Leaflet No. A.19/1:-

Ref. No.	*Part No.*	*Nomenclature*	*Qty.*	*Class of Equipment*
26FX/462	F.174142	Link	1	

12. EFFECT ON WEIGHT AND MOMENT

(1) This modification has no effect on weight or moment.

(2) This modification has no effect on Servicing Schedule.

After embodiment of Martin Baker Mod. ES.1150, re-connect the emergency oxygen control assembly in accordance with the following instructions:-

(1) Remove the existing link, Part No. F.174142, between the emergency control assembly and the emergency oxygen bottle

Operation (2) *delete* and *substitute*

"(2) Fit new link Part No. F.248510 to hook on oxygen bottle assembly, offer up control cable to link leaving just enough slack to allow removal of link from hook and mark off fixing position on link".

AL 226

position, as shown on the drawing.

(4) Fit link to end of control cable, using existing pin with new split pin, Part No. Sp.9.C.4, as shown on the drawing.

(5) Re-connect the link to hook on oxygen bottle assembly, as shown on the drawing.

9. TESTING AFTER EMBODIMENT

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

10. RECORDING ACTION

Record on Form 700.

11. DISPOSAL OF REDUNDANT PARTS

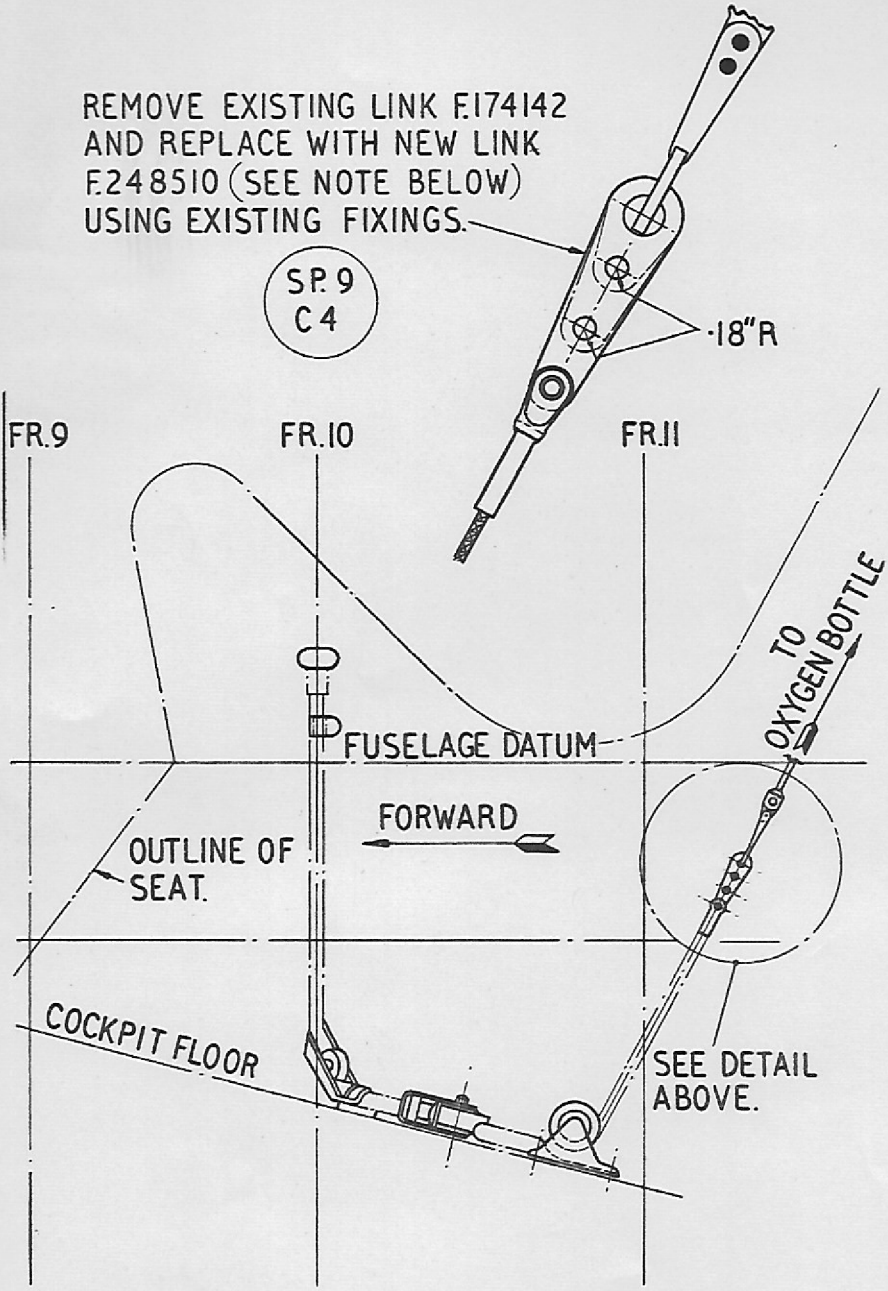
The undermentioned parts rendered redundant by the embodiment of this modification are to be disposed of as scrap in accordance with A.P. 830, Vol.1 (5th edition), Leaflet No. A.19/1:-

Ref. No.	*Part No.*	*Nomenclature*	*Qty.*	*Class of Equipment*
26FX/462	F.174142	Link	1	

12. EFFECT ON WEIGHT AND MOMENT

(1) This modification has no effect on weight or moment.

(2) This modification has no effect on Servicing Schedule.



TO TAKE UP SLACK IN WIRE, ADJUST LENGTH BY PICKING UP APPROPRIATE HOLE IN LINK, AND IF NECESSARY CUT OFF REDUNDANT LENGTH OF LINK.

DRG. NO. AP4347J/03/62

AL No 349
(Oxygen System - Charging Valve)

AP 101B-1307-2
Leaflet No 04

Hunter FGA Mk 9 Aircraft - To make provision for and introduce Type One Charging Valve (Ref No 6D/2244774) in place of Mk 10A Charging Valve (Ref No 6D/2313).

(Mod No Hunter 1418)

(Class B/2)(NCP)

(D/ADSM25/10/20/683 19.11.79)
(ADP No HU141800)

1. INTRODUCTION

Following two reported incidents with the Mk 10A Oxygen Charging Valve, though not involving Hunter Aircraft, it has been decided to replace this item with the Type One Valve. Owing to differences in construction the Type One Valve must be mounted on a packing block to align the pipe connection.

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

(2) This modification is essentially connected with Mod No Hunter 539 (Oxygen System - Valve Mk 10 (Ref No 6D/1872) introduced in place of Mk 8 (Ref No 6D/223)). 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 $9\frac{1}{2}$ manhours.

4. DRAWINGS REQUIRED

The following drawing is required and is to be demanded from British Aerospace, Kingston in accordance with AP 101B-01 Order No 0535:

Drawing No	Title
D.329654	Oxygen Charging Valve Type 1 Introduced - Retro-action

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and Materials.

(a) A modification kit will not be assembled.

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

Ref No	Part No	Nomenclature	Qty	Class of Equipment
6D/2244774	GA3030 Iss No 14	Oxygen Charging Valve Type 1	1	C
5F/9400958	BS2966 Type 3B	Synthetic Resin Bonded Sheet for local manufacture of	2½"x 1" ¾"	C
26FX/-	F329656	Packing	1	
28D/9419397	A25-12C	Bolt	2	C
28W/9419475	SP15-C	Washer	2	C
28M/1012015	AGS2001-C1/66	Nut	2	C
30A/9437135		Locking Wire 22 SWG (DTD189A)	A/R	C
33B/9428868		Varnish Seaplane	A/R	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

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

Ref No	Part No	Nomenclature	Quantity	Class of Equipment
26FX/8080	B.216738	Cover	1	C

Parts required - Nil

Spares will be modified in accordance with Para 8, operation (3) of this Leaflet and Drawing No D329654.

7. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

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

OLD			NEW	
Ref No	Part/Assy No	Nomenclature	Ref No	Part/Assy No
26FX/8080	B.216738	Cover	26FX/13621	B.329655

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations:

Note 1: Before any electrical circuit is disturbed or disconnected all electrical power supplies in, to or from the aircraft are to be disconnected. Power supplies are to be reconnected only when the person responsible for embodying or inspecting the modification is satisfied that all action has been taken to make the aircraft safe for reconnection.

Note 2: No oil or grease must be allowed to come into contact with any part of the oxygen system.

(1) Refer to AP 101B-1307-1, Section 5, Chapter 1 and render the aircraft electrically safe.

(2) Refer to Drawing No D329654 and locally manufacture the Packing Piece, Part No F329656 from Synthetic Resin Bonded Sheet, as shown. Paint the cut surfaces with seaplane varnish.

(3) Locate the Oxygen charging valve situated on the forward, starboard side of Frame 6 and remove the protective, Part No B216738. Modify the slot as shown in detail 'B' of the drawing. Reidentify the cover to read as Part No B329655.

(4) Release the oxygen left in the line. Remove and discard the existing valve Mk 10A, Packing, Part No F227544 and the lug, Part No F198869, together with the Blanking Union and attaching items. Retain the locking Lug Part No STD1231-9B.

(5) Obtain new Type 1 Charging Valve and the packing Part No F.329656 manufactured in operation (2). Mount the valve upon the packing and secure to the structure using bolts Part No A25-12C, washer Part No SP15C and nuts Part No AGS.2001-C1 (2 off each) as shown. Refit the retained locking lug Part No STD1231-9B. Align and tighten pipe union and wire lock.

Note 3: In some aircraft it will be found that the Mk 10A charging valve is mounted upon a base plate adaptor. When fitted, the base plate adaptor and its securing bolts etc are to be removed and discarded. Drill two holes (Morse No 10) as shown in Drg No D.329654 and proceed as in operation (5) above.

Note 4: Where Cmd Mod/Hunter/41 (Repositioning of Oxygen Charging Valve) has been embodied remove and discard base plate, adaptor and packing block and fixings. Refer to Drg No D.329654 and drill two holes (Morse No 10) between existing holes, maintaining angle of valve and proceed as in operation (5) above.

(6) Recharge oxygen system and check for leaks.

(7) Fit the modified valve cover Part No B.329655.

(8) Restore electrical power.

9. SPECIAL TESTS AFTER EMBODIMENT

No special testing is 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 authorised procedure the relevant entries are to be made in the appropriate aircraft records.

11. DISPOSAL OF REDUNDANT PARTS

The undermentioned parts rendered redundant by the embodiment of this modification are to be disposed of as scrap in accordance with AP 830 Vol 1 Pt 2B 7th Edition Leaflet BAG 11/4:

Ref No	Part No	Nomenclature	Quantity	Class of Equipment
6D/2313	Type 10A	Charging Valve	1	C
6D/1892	775 Iss 4	Adaptor Plate	1- when fitted	C
26FX/NIV	F.227544	Packing	1	
26FX/10802	F.198869	Lug	1	C

12. EFFECT ON MASS AND MOMENT

This modification causes a change in the Basic Mass of plus .13lb with a change in the moment of minus 25 lb ins about the aircraft CG datum.

13. EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

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

14. EFFECT ON SERVICING AND ON GROUND SUPPORT EQUIPMENT

(1) Servicing, ground support equipment or simulators are not affected by the embodiment of this modification.

(2) All relevant APs will require amendment to reflect the changes brought by this modification.

569/2587(RO)9924006/200/12/79.

Printed for Her Majesty's Stationery Office by Swift Printers (Sales) Ltd., London.