



FLASS
AP109B - 0131 - 5F

April 1989
Superseding Topic 5F of
AP109B-0131-15F

EJECTION SEATS TYPE 4HA AND 4HA (N) SERIES (HUNTER AIRCRAFT)

BAY MAINTENANCE SCHEDULE

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AP(N)140 Chap 1 Annex A (RN)

AP100B - 01 Order 0561 (RAF)

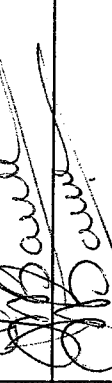
WP60

BAY MAINTENANCE SCHEDULE
EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES

AP109B-0131-5F

AMENDMENT RECORD

Amendments are to be inserted in numerical sequence except where non-availability slips have been issued.

Amdt No.	MONTH AND YEAR OF ISSUE	AMENDMENT INCORPORATED SIGNATURE	DATE OF INCORPORATION	Amdt No.	MONTH AND YEAR OF ISSUE	AMENDMENT INCORPORATED SIGNATURE	DATE OF INCORPORATION
1	June 1990		24 - 8 - 90	12			
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7				18			
8				19			
9				20			
10				21			
11				22			

WP60A

Amdt No.	MONTH AND YEAR OF ISSUE	AMENDMENT INCORPORATED SIGNATURE	DATE OF INCORPORATION	Amdt No.	MONTH AND YEAR OF ISSUE	AMENDMENT INCORPORATED SIGNATURE	DATE OF INCORPORATION
23				39			
24				40			
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BAY MAINTENANCE SCHEDULE
EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES

AP109B-0131-5F

INTRODUCTION

1. This Topic 5F is the Bay Maintenance Schedule for the Ejection Seat Type 4HA and 4HA(N) Series. It details the maintenance operations to be carried out at the annual bay maintenance. The purpose of this schedule is to provide work cards, in the form of RAF 2988 Maintenance Record Cards, for reproduction by user units as consumable work cards.

2. Glossary. The terms defined within this schedule are based on AP100A-01 Leaflet 156, JSP 110 (1984) and British Standard (BS) 3811.

<u>Term</u> (a)	<u>Definition</u> (b)	<u>Amplifying Notes</u> (c)
(1) <u>Examine</u>	Undertake a comprehensive scrutiny, supplemented by measurement and physical testing as necessary, to determine the condition of the item.	The item is to be cleaned as necessary prior to examination. Physical testing is a manual activity and is to be carried out without the use of test equipment. Any faults identified are to be reported to the supervisor; remedial action is not to be taken unless directed.
(2) <u>Examine as far as possible</u>	Within the physical constraints of the location of the item, carry out an examination to determine the condition of the item without removing or disconnecting equipment.	This term acknowledges that a detailed examination is not possible due to limited access. The item is to be cleaned as necessary prior to examination. Any faults identified are to be reported to the supervisor; remedial action is not to be taken unless directed.
(3) <u>Inspect</u>	Measure, examine, test, gauge or otherwise compare the item with the applicable requirements.	This is a quality control activity and is normally to be undertaken by a supervisor who is to determine that any work has been performed properly in accordance with the relevant authorized procedures and that the assessed condition of the item is correct. Implicit in this term is that good trade practice must be seen to have been applied to the item.
(4) <u>Check</u>	Compare the item with the specified standard.	If the item does not meet the specified standard, the supervisor is to be informed. No remedial action is to be taken unless directed.

(a)

(5) Ensure

Make certain that the specified conditions are correct.

(b)

(c)

If the item does not meet the specified conditions, remedial action is to be taken to restore the item to meet the specified conditions. However, such remedial action is only to be undertaken if it is within the capability of the individual concerned by virtue of his rank, trade, training, physical ability and, where appropriate, certification. If it is not within his capability, his supervisor is to be informed.

(6) Test

Undertake, using the appropriate test equipment, a critical trial or examination of one or more properties or characteristics of the item or system to make certain that it is serviceable and operates correctly.

If the item or system is found to be unserviceable or to operate incorrectly, the supervisor is to be informed. No remedial action is to be taken unless directed.

(7) Function

Check, as far as can be determined without the use of test equipment or reference to measurements, that the item or system is serviceable and operates correctly.

If the item or system is found to be unserviceable or to operate incorrectly, the supervisor is to be informed. No remedial action is to be taken unless directed. The term 'Function' is the preferred term for this usage but the term 'Operate' still appears in schedules and has the same definition. During amendment, the term 'Operate', where it appears, will be replaced by 'Function'.

(8) Fit

Correctly attach the item to another.

This task is to be performed in accordance with authorized procedures and trade practices.

(9) Refit

Fit the item which has been previously removed.

This task is to be performed in accordance with authorized procedures and trade practices.

(10) Replace

Remove the item and fit a new and/or serviceable item.

This task is to be performed in accordance with authorized procedures and trade practices.

(11) Remove

Correctly disconnect and detach the item from its mounting or position.

This task is to be performed in accordance with authorized procedures and trade practices.

2. Glossary (Contd)

(a)

(b)

(c)

(12) Disconnect

Uncouple or detach cables, pipelines or controls from the item.

This task is to be performed in accordance with authorized procedures and trade practices.

(13) Reconnect

Recouple or reattach cables, pipelines or controls previously disconnected from the item.

This task is to be performed in accordance with authorized procedures and trade practices.

(14) NB

A mandatory instruction.

(15) Note:

Advice.

3. Additional Maintenance. The instructions contained in all parts of this schedule do not absolve personnel from responsibility for acting upon circumstances which may come to their notice indicating the need for additional maintenance.

4. Amendments. New or amended matter will be indicated by triangles (▶ ◀) to show the extent of the amendment. Amendment procedure is detailed in AP100B-01 Order 0561.

BAY MAINTENANCE SCHEDULE

AP109B-0131-5F

EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES

LETHAL WARNINGS

1. Aircraft assisted escape systems and their associated jettison mechanisms are a potential source of danger, and inadvertent operation can cause serious and possible fatal injuries. Safety devices are provided in the form of safety pins, levers and switches.

EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES

SAFETY PRECAUTIONS

1. Ejection Seats. When it is necessary for ejection seat bay maintenance personnel to enter a cockpit or cabin to maintain any part of the assisted escape system, they are to read Safety and Maintenance notes applicable to that particular mark of Hunter aircraft.
2. Cartridge Operated Components. Before the ejection seat, or any cartridge operated component is taken into the maintenance bay it is to be disarmed in the designated area or building.
3. Oxygen System Contamination. The oxygen system together with all tools and equipment used during its maintenance are to be kept free from contamination by grease or oil. Whenever painting, doping or sealing operations are being carried out in the vicinity of low pressure oxygen hoses, the hoses are to be removed and the regulator outlets temporarily sealed until the work area has been adequately ventilated and the paint, dope or sealing compound has dried.
4. Electrical Connections. Disconnection or reconnection of electrically operated components or assemblies to facilitate other maintenance is to be carried out only by the specialist tradesmen responsible for the component or assembly. All electrical circuits affected by disconnection of plugs and sockets are to be functionally checked after plugs and sockets have been reconnected.
5. Anti Corrosive and Protective Treatments. Anti corrosive and protective treatments are to be applied in accordance with AP109A-0100-6 Leaflet A1.
6. Trichloroethane (Inhibisol). Trichloroethane also known as Inhibisol, Genklene and Chlorothene, has a strong degreasing action on the skin and gives off a toxic vapour. The following general health precautions are the minimum to be observed.
 - a. All unnecessary exposure to the vapour is to be avoided.
 - b. The work area is to be well ventilated, suitable respirators are to be worn and control of filter cartridges maintained in accordance with AP119A-0512-1.
 - c. Smoking, eating and drinking in the work area is prohibited.

d. Care is to be taken to prevent splashing when handling the fluid. Goggles or eye shields are to be worn as necessary. If any liquid does enter the eyes, they are to be irrigated immediately with clean running water and medical assistance obtained.

e. Rubber gloves are to be worn and any portion of the skin liable to come into contact with the fluid is to be protected by a barrier cream. If the skin is splashed the affected parts are to be thoroughly washed with soap and clean water as soon as possible.

Full details of precautions and hazards associated with Trichloroethane are laid down in AP119A-0512-1.

BAY MAINTENANCE SCHEDULE
EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES

AP109B-0131-5F

MAINTENANCE NOTES1. Timed Components.

a. Maintenance of all timed components is to be carried out by an Aircraft Technician Weapons.

b. Timed components are not to be dismantled until the initial timing tests have been carried out.

2. Faulty Items. Items which require repair are to be noted and the NCO IC Maintenance is to be informed.

3. Stiffnuts (Self Locking Nuts). Stiffnuts may be used on this equipment and although supplied under a single stored reference number, may be of four different types; Aerotight, Philidas, Nyloc and Oddie. The Oddie nut is not approved for use on this equipment and is not to be fitted. (AP1464B Vol 1, Pt 2, Sect 6, Chap 5 details the difference between stiffnut types). All stiffnuts used are to be examined before and after fitment for completeness of locking devices.

4. Seat Pan Reaction Cords. Seat pan reaction cords have a finite life of 5 years from date of manufacture. Date of manufacture is indicated by colour coded threads in reaction cord outer covering.

5. Maintenance Checks. Maintenance checks detailed in this schedule are to be carried out in accordance with instructions contained in AP100B-01 Order 5635.

6. Torque Loading. A predetermined torque load is applied to nuts, bolts, set screws, unions etc to provide security and prevent overstressing. Failure to apply correct load may result in an inadequate clamping load or damage to threads. Either condition may not be obvious but may cause failure in service. Only approved torque wrenches and extension pieces are to be used. The setting of a wrench (and where extension pieces are used, the complete assembly) is to be checked immediately before use. The applied load will be incorrect if the wrench is handled improperly.

7. Torque Load Checking. When a check of torque loading is required, nuts are to be loosened 1/4 turn and retightened to the specified torque loading individually; not more than one nut is to be loose at any time.

8. Cleanliness of Maintenance Areas and Components. All areas in which maintenance is carried out are to be clean. All components are to be cleaned before examination or lubrication. Lubrication is to be adequate but not excessive and all excess oil or grease is to be removed.

9. Lubrication. Details of lubrication for ejection seats and associated components are contained in AP109A-0100-6 Leaflet A4.

10. Avdel Pins. Over a period of time an adverse build up of tolerances may prevent the pin locking devices of certain types of ball-lock pins from operating correctly. Pins are to be inspected after fitment and if necessary selective fitting of pins is to be carried out to achieve the correct locking.

11. Nuts. Any nut which is not self locking, or not fitted with a locking washer, or not loctited is to be 'staked' or centre punched in two places.

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Sheet No.	No of Sheets
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Chapter 1	Ejection Seat Type 4HA and 4HA(N) Series	...	...	...	...	...	1-32	32
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WEAPONS Sheet 1	EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES SUPPLEMENTARY MAINTENANCE	AP109B-0131-5F Chap 1	MAINTENANCE RECORD
Safety and Maintenance Notes are to be complied with throughout the work detailed on this card			Aircraft Serial No:
Date:			SNOW (when applicable)

SPECIAL TOOLS AND EQUIPMENT

Reference	Nomenclature	Qty
27L/1031936	Tester G Switch.	1
27L/1046822	Drogue Gun Cocking Tool	1
27L/1046823	BTRU Cocking Tool.	1
27L/1046921	Lifting Tool.	1
27L/1482317	Top Latch Plunger Tool.	1
27L/1508549	Screwdriver Special 1/4 in. - 28 UNF.	1
27L/1508550	Screwdriver Special 8 - 32 UNF.	1
27L/1508661	Screwdriver Special 10 - 32 UNF.	1
27L/7154659	Protrusion Gauge.	1

SPARES

AP109B-0131-3A

MATERIALS

15A/4177183	Thread No.8.	As required
30A/6363056	Lockwire 0.5 mm (0.02 in.).	"
33D/2246858	Trichloroethane.	"
33H/2202110	Pigmented Varnish.	"

ASSOCIATED AIR PUBLICATIONS

AP108C-0149-12
AP109A-0100-6
AP109B-0131-1
AP109C-0202-5F
AP109C-0206-5F
AP109D-0203-5F
AP109E-0103-5F
AP109G-0701-5F

WEAPONS Sheet 3		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
Aircraft/Equipment:						Ser No:		Date:			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
						Man Hrs	Initis & TDM	Man Hrs	Initis & TDM	Man Hrs	Initis & TDM
1.	<u>Preparation</u>					1	2	3		4	5
1.1	Introduction.	)									
1.2	Lethal Warnings.	)			Read.						
1.3	Safety Precautions.	)									
1.4	Maintenance Notes.	)									
NB	Item 2 is to be carried out by the NCO IC Maintenance.										
2.	<u>Documentation</u>										
2.1	MOD Form 731.				Ensure complete.						
2.2	MOD Form 735A.	)			(i) Enter details from MOD						
2.3	MOD Form 749.	)			Form 731.						
2.4	MOD Form 753.	)			(ii) Check for outstanding						
					modifications, SIs and STIs.						
E2049 (10)					Continued						

Aircraft/Equipment:

Ser No:

Date:

SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD

Tradesman

Brief details of
suspected fault(s)
and SNOW(s)

Supervisor

C
o
d
eMan
Hrs
1Inits
& TDM
2Man
Hrs
4Inits
& TDM
53. Safety Pins

3.1 Safety pin. (4 off).

- (i) Remove.
- (ii) Examine.
- (iii) Look for loose or broken locking devices.
- (iv) Check tally secure.

3.2 Maintenance check.

Inspect work carried out at Sub-item 3.1.

4. Harness Release System

4.1 Emergency harness release handle.

Ensure in locked position.

4.2 Leg restraint line

taper plug. (2 off).

4.3 Harness buckle. (2 off).

)))
Fit.

4.4 Barostatic time release unit (BTRU) trip rod elastic cord.

Disconnect.

E2049 (10A)

Continued

WEAPONS Sheet 5		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)	
Aircraft/Equipment:						Ser No:		Date:	
						Tradesman		Brief details of suspected fault(s) and SNOW(s)	
						Man Hrs	1	Man Hrs	4
						Initis & TDM	2	Initis & TDM	5
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD									
4. <u>Harness Release System</u> (Contd) NB During Sub-item 4.5 the BTRU is to be restrained using the cocking tool. 4.5 BTRU. 4.6 Leg restraint line taper plug. (2 off). 4.7 Harness buckle. (2 off). 4.8 Scissor shackle. Function. Ensure released.						C o d e			
5. <u>Survival Equipment</u> 5.1 Drogue assembly. 5.2 Face screen assembly. 5.3 Leg restraint line. (2 off).									
Continued									

WEAPONS Sheet 6 Amdt 1		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES AP109B-0131-5F Chap 1		MAINTENANCE RECORD RAF Form 2988B (Revised Apr 89)							
Aircraft/Equipment:				Date:							
				Ser No:							
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD				Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor			
Code				Man Hrs	1	Initis & TDM	2	Man Hrs	4	Initis & TDM	5
6.	BTRU										
6.1	Guard assembly. (Post Mod 7029).			(i) Remove. (ii) Examine.							
NB	During Sub-item 6.2 the shackle release plunger and guide tube must not be strained.										
6.2	BTRU.			Remove for bay maintenance. (AP109E-0103-5F).							
7.	<u>Oxygen Equipment</u>										
7.1	Oxygen hose.			) Remove.							
7.2	Anti G hose.			)							
7.3	Emergency oxygen set.			(i) Remove. (ii) Attach MOD Form 731. (iii) Transport to Oxygen Maintenance bay.							
SM 90/1715 (2A)				Continued							

WEAPONS Sheet 7		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)					
Aircraft/Equipment:						Ser No:		Date:					
						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Man Hrs 1		Inits & TDM 2		Man Hrs 4		Inits & TDM 5	
						C o d e		3					
8. <u>Mic/Tel Lead</u>													
8.1 Drogue gun trip rod elastic cord.													
8.2 Parachute container.													
8.3 Mic/tel lead.													
9. <u>Drogue Gun</u>													
9.1 Drogue gun.													
E2049 (12)													

Continued

WEAPONS Sheet 9		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:			
						Ser No:					
						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
						Man Hrs	Initis & TDM			Man Hrs	Initis & TDM
						1	2			4	5
10. <u>Seat Pan Raising and Lowering Mechanism (Contd)</u>						C o d e		3			
10.8 Counter shaft.)											
10.9 Split collar securing bolt.)											
10.10 Starboard main beam connecting link securing nut.) Refit.)											
10.11 Seat pan raising and lowering mechanism.) Function.)											
10.12 Maintenance check. Inspect work carried out at Sub-items 10.8 to 10.11 inclusive.											
11. <u>Leg Restraint Line Taper Plug Housing</u>											
11.1 Cover plate.)											
11.2 Taper plug housing. (2 off).) (i) Remove.) (ii) Examine.)											
11.3 End cap. (2 off).)											
E2049 (13)										Continued	

Aircraft/Equipment:

Ser No: Date:

SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD

Code	Tradesman		Brief details of suspected fault(s) and SNOW(s)	Supervisor	
	Man Hrs	Inits & TDM		Man Hrs	Inits & TDM
	1	2	3	4	5
11. Leg Restraint Line Taper Plug Housing (Contd)					
11.4 Spring. (2 off).					
11.5 Plunger. (2 off).					
11.6 Torque tube assembly.					
11.7 Maintenance check.					
12. Seat Pan Firing Handle Assembly					
12.1 Firing handle.					
12.2 Firing cable assembly.					
E2049 (13A)			Continued		

WEAPONS Sheet 11		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
						Aircraft/Equipment:		Date:			
						Ser No:					
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
						Man Hrs	Initis & TDM			Man Hrs	Initis & TDM
						1	2			4	5
12.	Seat Pan Firing Handle Assembly (Contd)					C					
12.3	Housing end plug.										
12.4	Spring.										
12.5	Plunger.										
12.6	Firing handle housing.										
12.7	Maintenance check.										
12.8	Plunger.										
12.9	Spring.										
12.10	Housing end plug.										
12.11	Firing handle.										
12.12	Maintenance check.										
E2049 (14)	Continued										

WEAPONS Sheet 12		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		API09B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:			
						Ser No:					
						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
						Man Hrs & TDM		Initis & TDM		Man Hrs & TDM	
C o d e						Man Hrs 1		Initis & TDM 2		Man Hrs 4	
Initis & TDM 2						Man Hrs 1		Initis & TDM 2		Man Hrs 4	
13. Leg Restraint Line Taper Plug Housing								3			
13.1 Plunger. (2 off).) Refit.											
13.2 Spring. (2 off).)											
13.3 End cap. (2 off). (i) Refit.											
(ii) Lock with split pin.											
13.4 Taper plug housing. (i) Apply pigmented varnish to bearing surfaces.											
(ii) Refit.											
13.5 Cover plate. Refit.											
13.6 Maintenance check. Inspect work carried out at Sub-items 13.1 to 13.5 inclusive.											
E2049 (14A)											
Continued											

WEAPONS Sheet 13 Amdt 2		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES API09B-0131-5F Chap 1		MAINTENANCE RECORD RAF Form 2988B (Revised Apr 89)	
Aircraft/Equipment:				Date:	
Ser No:				Date:	
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD		Tradesman		Supervisor	
		Man Hrs 1	Init & TDM 2	Brief details of suspected fault(s) and SNOW(s) 3	Man Hrs 4
					Init & TDM 5
14.	Seat Pan Assembly	C			
14.1	Seat pan assembly.				
14.2	Negative G bracket. (3 off).				
14.3	Sticker strap clip. (2 off).				
14.4	Maintenance check.				
15.	Sticker Strap Pull Off Test				
15.1	Sticker strap test lug. (2 off).				
15.2	Spring balance.				
NB	Sub-items 15.3 to 15.5 inclusive are to be carried out simultaneously.				
15.3	Left sticker strap test lug.				
15.4	Spring balance.				
SM 92/0872 (2)					
Continued					

WEAPONS Sheet 14 Amdt 2		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES AP109B-0131-5F Chap 1		MAINTENANCE RECORD RAF Form 2988B (Revised Apr 89)	
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD				Aircraft/Equipment:	
				Ser No:	Date:
		Tradesman		Brief details of suspected fault(s)	
		Man Hrs	Inits & TDM	Man Hrs	Inits & TDM
		1	2	4	5
15.	<u>Sticker Strap Pull Off Test (Contd)</u>				
15.5	Maintenance check. Inspect work carried out at Sub-items 15.3 and 15.4.				
15.6	Spring balance. (i) Remove from left test lug. (ii) Fit to right test lug.				
NB	Sub-items 15.7 to 15.9 inclusive are to be carried out simultaneously.				
15.7	Right sticker strap test lug. Withdraw using spring balance.				
15.8	Spring balance. Check reading 9 to 18 kg (20 to 40 lb).				
15.9	Maintenance check. Inspect work carried out at Sub-items 15.7 and 15.8.				
▶15.10	Arrow head test connector. Fit to PSB sticker clip.				
15.11	Spring balance. Fit to arrow head test connector. ◀				
SM 92/0872 (2A)		Continued			

WEAPONS Sheet 15 Amdt 2		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)					
						Aircraft/Equipment:							
						Ser No:		Date:					
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor			
						Man Hrs 1		Inits & TDM 2		Man Hrs 4		Inits & TDM 5	
15. <u>Sticker Strap Pull Off Test (Contd)</u>						C o d e							
▶NB Sub-items 15.12 to 15.14 inclusive are to be carried out simultaneously.													
15.12 Arrow head test connector. Withdraw using spring balance.													
15.13 Spring balance Check reading 27.2 to 31.75 kg (60 to 70 lbs).													
15.14 Maintenance check. Inspect work carried out at Sub-items 15.12 and 15.13.													
16. <u>Snubber Units</u>													
16.1 Snubber unit. (2 off). (i) Examine. (ii) Function.													
16.2 Maintenance check. Inspect work carried out at Sub-item 16.1.													
17. <u>Emergency Oxygen Operating Mechanism</u>													
17.1 Operating knob.) Examine.													
17.2 Housing.)													
17.3 Operating cable. (i) Examine as far as possible. (ii) Lubricate lightly.													
SM 92/0872 (3) Continued													

WEAPONS Sheet 16		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:			
						Ser No:					
						Tradesman		Brief details of suspected fault(s)		Supervisor	
						Man Hrs 1	Init & TDM 2	3		Man Hrs 4	Init & TDM 5
17. <u>Emergency Oxygen Operating Mechanism</u> (Contd)						C					
17.4 Cable conduit. Examine.											
17.5 Maintenance check. Inspect work carried out at Sub-items 17.1 to 17.4 inclusive.											
18. <u>Manual Separation System</u>											
18.1 Manual separation handle.) Examine.											
18.2 Handle housing.)											
18.3 Operating linkage. (i) Examine.											
(ii) Lubricate pivot points.											
18.4 Maintenance check. Inspect work carried out at Sub-items 18.1 to 18.3 inclusive.											
19. <u>Seat Pan Guides</u>											
19.1 Seat pan guide. (2 off). (i) Examine.											
(ii) Lubricate lightly.											
SM 92/0872 (3A) CSDE											
Continued											

WEAPONS Sheet 17		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)	
						Aircraft/Equipment:			
						Ser No:		Date:	
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Tradesman		Supervisor	
						Brief details of suspected fault(s) and SNOW(s)			
						Man Hrs 1		Man Hrs 4	
						Inits & TDM 2		Inits & TDM 5	
19.	<u>Seat Pan Guides</u> (Contd)								
19.2	Maintenance check.	Inspect work carried out at Sub-item 19.1.							
20.	<u>Drogue Container Assembly</u>								
20.1	Drogue sleeve.	) Ensure examination carried out.							
20.2	Drogue flap. (4 off).	) (SE Fitt AP108C-0149-1).							
20.3	Drogue container.	Examine.							
20.4	Danger notice.	Ensure present and legible.							
20.5	Maintenance check.	Inspect work carried out at Sub-items 20.1 to 20.4 inclusive.							
21.	<u>Guillotine Assembly</u>								
21.1	Guillotine firing unit.	Remove for bay maintenance. (AP109C-0202-5F).							
21.2	Guillotine assembly.	Remove for bay maintenance. (AP109G-0701-5F).							
E2049 (17)						Continued			

WEAPONS Sheet 18		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:			
						Ser No:					
						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
						Man Hrs 1		Inits & TDM 2			
22. <u>Seat Structure</u>						C o d e		3			
22.1 Upper cross beam.)											
22.2 Upper cross beam)											
22.3 locating pin.)											
22.4 Emergency oxygen bracket.)											
22.5 Spreader paddle. (2 off).)											
22.6 Lower cross beam.)											
22.6 Maintenance check.											
22.7 Seat pan reaction cord. (2 off).											
NB Sub-item 22.8 is applicable only to life expired seat pan reaction cords.											
22.8 Seat pan reaction cord. (2 off). Replace.											
E2049 (17A)											
Continued											

WEAPONS Sheet 19		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		API09B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:			
						Ser No:					
						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
						Man Hrs 1		Inits & TDM 2		Man Hrs 4	
22.	<u>Seat Structure</u> (Contd)										
22.9	Maintenance check.										
23.	<u>Reduction Gear Box</u>										
23.1	Reduction gear box.										
23.2	Firing cable. (2 off).										
23.3	Pulley wheel. (2 off).										
23.4	Top cap.										
23.5	Centre housing.										
23.6	Bottom housing.										
23.7	Distance tube.										
E2049 (18)						Continued					

WEAPONS Sheet 20		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		API09B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)	
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:	
						Ser No:			
						Tradesman		Supervisor	
						Brief details of suspected fault(s) and SNOW(s)		Man Hrs & TDM	
						Man Hrs & TDM		Man Hrs & TDM	
						Man Hrs & TDM		Man Hrs & TDM	
23.	Reduction Gear Box (Contd)								
23.8	Maintenance check.								
23.9	Reduction gear box.								
23.10	Maintenance check.								
24.	Top Latch Assembly								
24.1	Top latch plunger.								
24.2	Spring.								
Continued									

WEAPONS Sheet 21		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:			
						Ser No:					
						Tradesman		Brief details of suspected fault(s)		Supervisor	
						Man Hrs	Initis & TDM	Man Hrs	Initis & TDM		
						1	2	4	5		
24.	Top Latch Assembly	(Contd)			C o d e						
24.3	Top latch housing.	(i) Examine. (ii) Lubricate lightly.									
24.4	Maintenance check.	Inspect work carried out at Sub-items 24.1 to 24.3 inclusive.									
24.5	Spring.	) Refit.									
24.6	Top latch plunger.	)									
24.7	Maintenance check.	Inspect work carried out at Sub-items 24.5 and 24.6.									
25.	Seat Slippers										
25.1	Seat slipper. (6 off).	(i) Examine. (ii) Check clearance. (AP109B-0131-1).									
25.2	Maintenance check.	Inspect work carried out at Sub-item 25.1.									
E2049 (19)						Continued					

WEAPONS Sheet 23		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
						Aircraft/Equipment:					
						Ser No:		Date:			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
						Man Hrs 1	Initis & TDM 2				
Code						Man Hrs 1	Initis & TDM 2	Brief details of suspected fault(s) and SNOW(s)		Man Hrs 4	Initis & TDM 5
26.	Scissor Shackle (Contd)										
26.6	Maintenance check.	Inspect work carried out at Sub-items 26.4 and 26.5.									
26.7	Spring balance.	Remove.									
26.8	Scissor shackle securing nut.	Ensure locked to bolts by centre punching in three places.									
26.9	Maintenance check.	Inspect work carried out at Sub-item 26.8.									
27.	<u>Harness Beam Assembly</u>										
27.1	Harness reel.	(i) Remove. (ii) Dismantle. (AP109B-0131-1). (iii) Examine.									
27.2	Bearing. (2 off).	(i) Examine.									
27.3	Torsion spring.	(ii) Lubricate lightly.									
E2049 (20)						Continued					

Aircraft/Equipment:

Ser No:

Date:

SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD

Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
Man Hrs	Initis & TDM	Man Hrs	Initis & TDM	Man Hrs	Initis & TDM
1	2	3	4	5	
C o d e					
27. Harness Beam Assembly (Contd)					
27.4 Webbing strap.	Ensure examination carried out. (SE Fitt AP108C-0149-1).				
27.5 Maintenance check.	Inspect work carried out at Sub-items 27.1 to 27.4 inclusive.				
27.6 Harness reel.	Reassemble. (AP109B-0131-1).				
27.7 Maintenance check.	Inspect work carried out at Sub-item 27.6.				
27.8 Harness reel.	Refit.				
27.9 Maintenance check.	Inspect work carried out at Sub-item 27.8.				
E2049 (20A)	Continued				

WEAPONS Sheet 25		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)					
Aircraft/Equipment:						Ser No:		Date:					
						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Man Hrs 1		Inits & TDM 2		Man Hrs 4		Inits & TDM 5	
						Code							
28.	Go Forward Control Mechanism												
28.1	Control lever.												
28.2	Housing.												
28.3	Linkage assembly.												
28.4	Snubber.												
28.5	Snubber return spring.												
28.6	Snubber operating shaft bearing.												
28.7	Go forward mechanism.												
28.8	Maintenance check.												
E2049 (21)													
Continued													

WEAPONS Sheet 26		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		API09B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
Aircraft/Equipment:						Ser No:		Date:			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
						Man Hrs 1	Initis & TDM 2	Man Hrs 4	Initis & TDM 5		
29. Guillotine Assembly						C o d e					
29.1 Guillotine assembly.											
29.2 Guillotine firing unit.											
29.3 Maintenance check.											
30. Drogue Gun											
30.1 Drogue gun.											
30.2 Maintenance check.											
E2049 (21A)											
Continued											

WEAPONS Sheet 27 Amdt 1		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)	
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:	
						Ser No:			
		Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor			
		Man Hrs	Initis & TDM	Man Hrs	Initis & TDM				
31.	<u>Parachute Container</u>	C o d e		1	2	3	4 5		
31.1	Parachute support bracket.		Examine.						
31.2	Parachute container.		(i) Examine. (ii) Fit.						
31.3	Maintenance check.		Inspect work carried out at Sub-items 31.1 and 31.2.						
32.	<u>BTRU</u>								
NB	During Sub-item 32.1 the shackle release plunger and guide tube must not be strained.								
32.1	BTRU. (Bay maintained item).		(i) Ensure tripped. (ii) Fit.						
32.2	Guard assembly. (Post Mod 7029).		Fit.						
32.3	Maintenance check.		Inspect work carried out at Sub-items 32.1 and 32.2.						
SM 90/1715 (3)		Continued							

SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD		Tradesman		Brief details of suspected fault(s) and SNOW(s)	Supervisor	
		Man Hrs 1	Initis & TDM 2		Man Hrs 4	Initis & TDM 5
33.	<u>Survival Equipment</u>			3		
33.1	Drogue assembly.					
33.2	Face screen assembly.					
33.3	Leg restraint line. (2 off).					
33.4	Maintenance check.					
34.	<u>BTRU</u>					
34.1	Scissor shackle.					
34.2	BTRU. Close over drogue shackle. Cock.					
34.3	Maintenance check.					
SM 90/1715 (3A)						
Continued						

WEAPONS Sheet 29 Amdt 1		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)					
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:					
						Ser No:		Tradesman		Brief details of suspected fault(s) and SNOW(s)		Supervisor	
								Man Hrs 1		Inits & TDM 2		Man Hrs 4	
35. <u>Leg Restraint Line and Harness Release Test</u>						C o d e				3			
35.1 Leg restraint line and harness release test. Carry out. (AP109B-0131-1).													
35.2 Maintenance check. Inspect work carried out at Sub-item 35.1.													
36. <u>Oxygen Equipment</u>													
36.1 Emergency oxygen set. Fit bay maintained item.													
36.2 Maintenance check. Inspect work carried out at Sub-item 36.1.													
36.3 'P' clip.) Remove.													
36.4 Mk 9 socket.)													
36.5 Oxygen hose. Examine.													
36.6 Restraint sleeve. 635 mm (25 in.). Fit.													
SM 90/1715 (4)													
Continued													

WEAPONS Sheet 30 Amdt 1		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)			
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Aircraft/Equipment:		Date:			
						Ser No:					
						Tradesman		Brief details of suspected fault(s)		Supervisor	
						Man Hrs	Init & TDM			Man Hrs	Init & TDM
36.	Oxygen Equipment (Contd)	C	o	d	e	1	2	3		4	5
36.7	Restraint sleeve loop. 41.275 mm (1.625 in.). (2 off).	Ensure fits to hose from Mk 9 socket end.									
36.8	Jubilee clip.	Fit through 14.28 mm (0.756 in.) loop. (2 off).									
36.9	Mk 9 socket.	Fit to oxygen hose.									
36.10	Jubilee clip.	Tighten.									
36.11	'p' clip.	Fit through 41.275 mm (1.625 in.) loop. (2 off).									
36.12	Oxygen hose.	Refit.									
36.13	Restraint sleeve loop. (4 off).	Ensure aligned.									
36.14	Mk 9 socket.	Adjust to 533 mm (21 in.) from 'p' clip forward edge.									
SM 90/1715 (4A)						Continued					

WEAPONS Sheet 31 Amdt 1		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES AP109B-0131-5F Chap 1		MAINTENANCE RECORD RAF Form 2988B (Revised Apr 89)	
				Aircraft/Equipment:	
				Ser No:	Date:
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD				Tradesman	
				Man Hrs 1	Initis & TDM 2
				Brief details of suspected fault(s) and SNOW(s) 3	
				Supervisor	
				Man Hrs 4	Initis & TDM 5
36.	Oxygen Equipment (Contd)				
36.15	'p' clip securing nut.	Tighten.			
36.16	Anti G hose.	(i) Examine. (ii) Refit.			
36.17	Maintenance check.	Inspect work carried out at Sub-items 36.5 to 36.16 inclusive.			
37.	Mic/Tel Lead Assembly				
37.1	Mic/tel lead assembly.	Fit bay maintained item.			
37.2	Maintenance check.	Inspect work carried out at Sub-item 37.1.			
38.	Parachute Container				
38.1	Drogue gun trip rod elastic cord.	) Reconnect.			
38.2	BTRU trip rod elastic cord.	)			
SM 90/1715 (5)				Continued	

WEAPONS Sheet 32 Amdt 1 ◀		EJECTION SEAT TYPE 4HA AND 4HA(N) SERIES		AP109B-0131-5F Chap 1		MAINTENANCE RECORD		RAF Form 2988B (Revised Apr 89)	
						Aircraft/Equipment:			
						Ser No:		Date:	
SAFETY AND MAINTENANCE NOTES ARE TO BE COMPLIED WITH THROUGHOUT THE WORK DETAILED ON THIS CARD						Tradesman		Supervisor	
						Brief details of suspected fault(s) and SNOW(s)			
						Man Hrs		Man Hrs	
						Initialed		Initialed	
						TDM		TDM	
38.	Parachute Container (Contd)								
38.3	Maintenance check.	Inspect work carried out at Sub-items 38.1 and 38.2.							
39.	Safety Pins								
39.1	Safety pin. (4 off).	Refit.							
39.2	Maintenance check.	Inspect work carried out at Sub-item 39.1.							
40.	Documentation								
40.1	MOD Form 731.	Attach to ejection seat and ancillary items.							
40.2	MOD Form 735A.	) Enter any change of parts or serial							
40.3	MOD Form 749.	) numbers, details of modifications							
40.4	MOD Form 753.	) embodied, SIs and STIs complied with.							
40.5	Maintenance check certificate.	Complete.							
SM 90/1715 (5A) CSDE									

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