



# Ministry of Defence

**RIFLE .22 in. No.8 Mk 1**  
1005-99-961-9008 (long butt)  
1005-99-961-9009 (normal butt)  
1005-99-961-9010 (short butt)

## REPAIR INSTRUCTION

Sponsored for use in the  
UNITED KINGDOM MINISTRY OF DEFENCE  
AND ARMED FORCES  
by

SOLDIER SYSTEMS PROGRAM LETHALITY  
PROJECT TEAM  
KD4Q8

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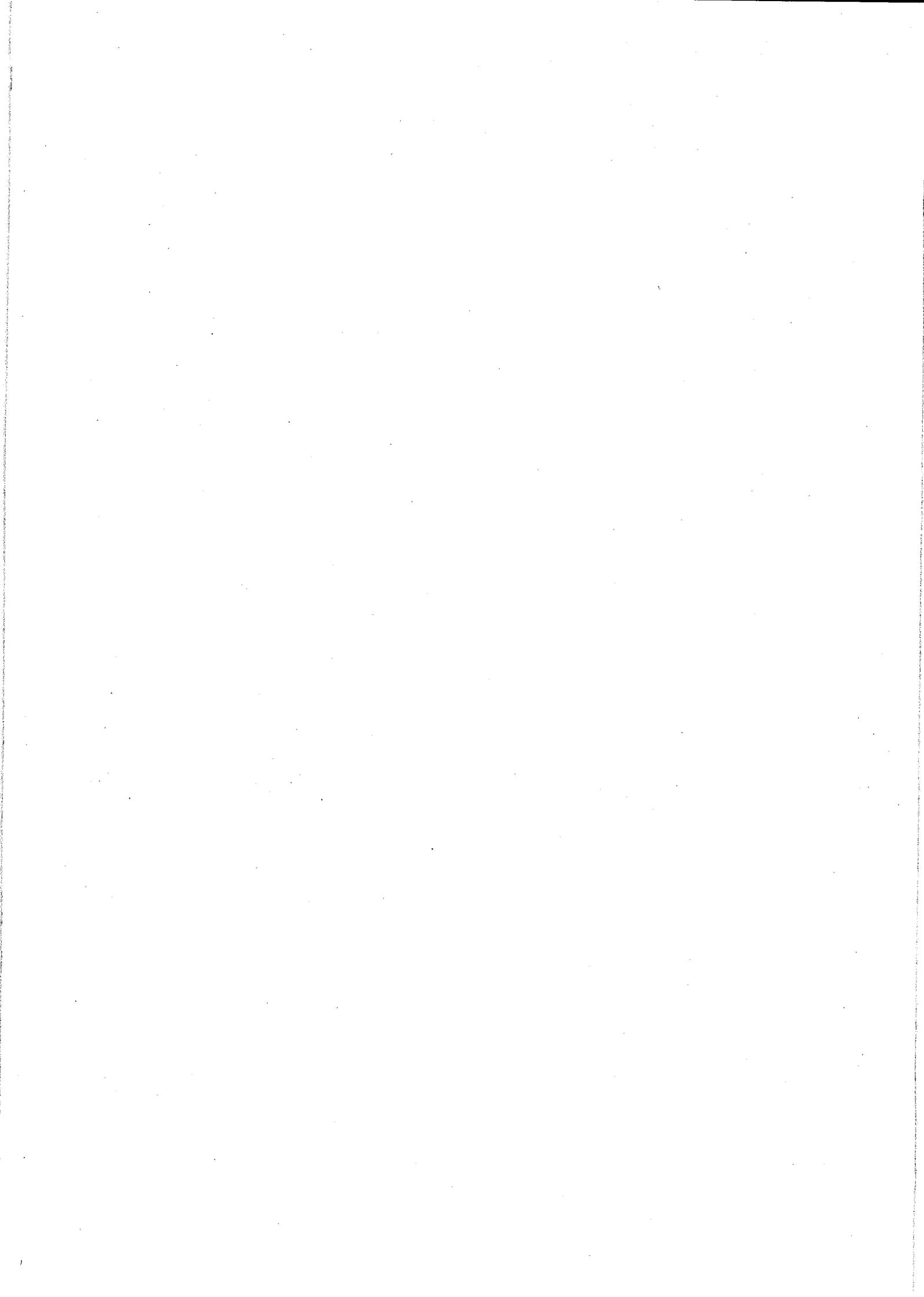
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**INSPECTION STANDARDS**

Chapter

- 1 General information
- 2 Inspection standards

**PREFACE**

Sponsor: SSP Lethality  
 Project Number: -  
 File Ref: -

Publication Authority: SSP Lethality

**INTRODUCTION**

1 Any comments by service users on this publication should be forwarded through the channels prescribed in Army Equipment Support Publication (AESP) 0100-P-011-013. An AESP Form 10 is provided at the end of this publication; it should be photocopied and used for forwarding comments on this AESP.

2 AESPs are issued under UK MOD authority and where AESPs specify action is to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores, subject to the provisions of Para 3 below.

3 The subject matter of this publication may be affected by Defence Instructions and Notices (DINs), Standard Operating Procedures (SOPs) or by local regulations. When any such instruction, order or regulation contradicts any portion of this publication it is to be taken as the overriding authority.

**RELATED AND ASSOCIATED PUBLICATIONS****Related publications**

4 The Octad for the subject equipment consists of the publications shown below. All references are prefixed with the first eight digits of this publication. The availability of the publications can be checked by reference to the relevant Group Index (see AESP 0100-A-001-013).

Category/Sub-category			Information Level			
			1 User/Operator	2 Unit Maintenance	3 Field Maintenance	4 Base Maintenance
1	0	Purpose and Planning Information	101	101	*	*
	1	Equipment Support Policy Directive	111	111	*	*
2	0	Operating Information	201	201	*	*
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	2	Training Aids	*	*	*	*
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4	1	Installation Instructions	*	*	*	*
	2	Preparation for Special Environments	*	*	*	*
5	1	Failure Diagnosis	201	522	522	522
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	3	Inspection Standards	*	532	532	532
	4	Calibration Procedures	*	*	*	*
6		Maintenance Schedules	*	*	*	*
7	1	Illustrated Parts Catalogues	711	711	711	711
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	3	Complete Equipment Schedule, Production	*	*	*	*
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	5	Complete Equipment Schedule, Service Edition (Complex Equipment)	*	*	*	*
8	1	Modification Instructions	*	*	*	*
	2	General Instructions, Special Technical Instructions and Servicing Instructions	*	*	*	*
	3	Service Engineered Modification Instructions (RAF only)	*	*	*	*

\*Category/sub-category not published.



**Associated publications**

5 Reference Title

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

**WARNINGS AND CAUTIONS**

**WARNING**

**RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON. REFER TO 1005-L-203-201 CHAP 2.**

**CAUTIONS**

NA



## LIST OF ABBREVIATIONS

<b>Abbreviation</b>	<b>Definition</b>
AESP	Army Equipment Support Publication
approx.	approximately
AQL	Acceptable Quality Level
BR	Beyond Repair
Cat	Category
Chap	Chapter
DIN	Defence Instruction Notice
EFR	Equipment Failure Report
EMER	Electrical & Mechanical Engineering Regulations
in.	Inch(es)
lbf	Pound foot
max	Maximum
min	minimum
MOD	Ministry of Defence
NATO	North Atlantic Treaty Organisation
No.	Number
NSN	NATO Stock Number
NSP	Normal Safety Precautions
Pamp	Pamphlet
Para	Paragraph
PT	Project Team
REME	Royal Electrical and Mechanical Engineers
SOP	Standard Operating Procedure
SSP	Soldier Systems Programme

**CHAPTER 1**

**GENERAL INFORMATION**

**CONTENTS**

Para

- 1 Introduction
- 3 Safety precautions
- 4 Frequency of inspection
- 5 Modification and general instructions
- 6 Special tools and gauges
- 7 Protective finish
- 8 Defects
- 9 Proof marks
- 10 Lubrication
- 11 Sentencing
- 12 Principles and practices
- 13 Amendments

**INTRODUCTION**

- 1 This category details the inspection standards and functional checks to be carried out when the weapon is being inspected at Unit repair (level 2), Field (level 3) and Base (level 4).
- 2 The inspection standards detailed in this publication are to be applied to achieve the minimum Acceptable Quality Level (AQL) to ensure that the weapon will be reliable and safe for its intended role.
- 3 These inspection standards are to be read in conjunction with AESP 1005-L-203-522.

**SAFETY PRECAUTIONS**

- 4 Before commencing work on the weapon, make sure it is unloaded and safe to handle by carrying out the safety precautions detailed in AESP 1005-L-203-201 Chapter 2.

**FREQUENCY OF INSPECTION**

- 5 Inspection of the weapon is to be carried out in accordance with AESP 1000-A-003-013 Chapter 5 or where any of the following occur:
  - 5.1 The weapon is reported by the user as having a fault or failing to function correctly.
  - 5.2 The weapon is subject to an ammunition incident or performance failure.

**MODIFICATION AND GENERAL INSTRUCTIONS**

- 6 The inspector is to be aware of all Modification Instructions and General Instructions.
  - 6.1 The inspector is to ensure that where applicable, all immediate modifications have been carried out. Equipment with immediate modifications outstanding are to be sentenced unserviceable until the modification is completed.
  - 6.2 Routine modifications and general instructions are to be completed, unless the instruction contains a note, stipulating during repair or during overhaul only.

**SPECIAL TOOLS AND GAUGES**

7 The special tools and gauges required by Armourers for the inspection and repair of this weapon are detailed in AESP 1005-L-203-522 Chapter 1.

**PROTECTIVE FINISH**

8 Details on types of finish, paints and protection of individual components by weapon type are given in AESP 1000-A-003-013 Chapter 9.

**DEFECTS**

9 Where, during inspection, a weapon or ancillary is found to be in an unserviceable condition due to deterioration in storage, the effects of fatigue stress, faulty design, material, or manufacture, an Equipment Failure Report (EFR) - AFG 8267 is to be completed and distributed as laid down in JSP 886.

**PROOF MARKS**

10 The barrel, body and bolt assembly of this weapon are subject to the stress created by firing and as such must exhibit a valid proof mark. AESP 1000-A-003-013, Chap 11 contains further details of proof requirements and acceptable proof marks.

**LUBRICATION**

11 Subsequent to repair, all metal to wood contact points of this rifle are to be lightly protected by coating with grease XG 276. Further information on lubricants and preservatives is detailed in AESP 1000-A-003-013 Chapter 3.

**SENTENCING**

12 After inspection, the condition of the equipment is to be given by the standard series of sentencing symbols laid down in AESP 1000-A-003-013.

**PRINCIPLES AND PRACTICES**

13 The general principles and practices when inspecting light weapons and their associated stores are detailed in AESP 1000-A-003-013 Chapter 4.

**AMENDMENTS**

14 The inspector is responsible for notifying the SSP PT Abbey Wood of any aspect of these inspection standards that are wrong, confusing or cannot be achieved. Suggested amendments to this publication are to be submitted in accordance with AESP 0100-P-011-013 using AESP Form 10 provided at the end of this document.

**CHAPTER 2**

**INSPECTION STANDARDS**

**CONTENTS**

Para

- 1 Introduction (WARNING)
- 3 Use of inspection tables

Table

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**INTRODUCTION**

**WARNING**

**RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON. REFER TO 1005-L-203-201 CHAP 2.**

- 1 The inspection data contained in this chapter is to be applied at all levels.
- 2 These inspection standards detail the minimum quality standards to be achieved when inspecting and testing the equipment listed.

**USE OF INSPECTION TABLES**

3 The features to be inspected are set out in a logical order to minimise inspection time and avoid repetitive inspection:

- 3.1 Column 1 gives the table serial number.
- 3.2 Column 2 gives the feature to be inspected.
- 3.3 Column 3 gives the minimum acceptable quality level applied to the feature.
- 3.4 Column 4 details any relevant remarks.
- 3.5 Column 5 gives the sentencing symbol to be used at Level 2. When inspecting the weapon at Level 3 and 4 the symbols are to be taken as 'Y' or 'Z'. Where at Level 4 the weapon cannot be repaired to meet the standard laid down in this publication, it is to be sentenced Beyond Repair (BR).

TABLE 1 WEAPON ASSEMBLED

Serial (1)	Feature (2)	Acceptable Quality Level (AQL) (3)	Remarks (4)	Cond Code (5)
1	Safety	Carry out normal safety precautions (NSPs).	AESP 1005-L-203-201 refers.	X
2	Registered serial numbers	Numbers on the body, bolt and fore-end must agree and be legible.		X
3	Proof marks	Body, barrel and bolt and/or bolt head must bear a valid and legible proof mark.	AESP 1000-A-003-013 refers.	X
4	Protective finish	4.1 Unit/Field - No more than 50% of the exposed metal area is to be devoid of phosphate and paint.	Unit - Protection and appearance is to be maintained by patch painting.	X
		4.2 Base - Weapons subject to programme load are to have 100% protective finish.	Field/Base - Protection and appearance is to be maintained by rustproofing.	Z
5	Fore-end	5.1 Must have an overall smooth finish and be free from splits and damage.		X
		5.2 Maximum number of four patches.	All repair levels.	X
		5.3 Must be a reasonable colour match to the butt and handguard.		X
		5.4. Filling/stopping must not exceed 0.25 in. diameter. Splits are to be glued and pegged.		X
		5.5 Patches must not exceed 3.0 in. in length.		X
		5.6 Must be correctly fitted.	AESP 1005-L-203-522 refers.	X
		5.7 Weight to lift barrel from front bearing: Min: 3.0-lbf. Max: 4.5-lbf.	Trigger tester held at 90° to bore axis.	X
		5.8 Clearance fore-end to butt socket: Max: 0.030 in.		X

continued

**TABLE 1 WEAPON ASSEMBLED (continued)**

Serial (1)	Feature (2)	Acceptable Quality Level (AQL) (3)	Remarks (4)	Cond Code (5)
6	Handguard	6.1 Must not be split, bowed or damaged.  6.2 Edges are to be flush to the fore-end.  6.3 Must not be loose.		X   X  X
7	Ring, retaining handguard	Must not be fractured or distorted. Must retain handguard securely.	Use of card packing strips is permissible.	X
8	Front band	8.1 Must retain handguard securely while allowing rotation of the sling swivel.  8.2 Band should be flush or below flush with the surrounding woodwork.		X  X
9	Butt	9.1 Must be tight in the butt socket and in line with the bore axis.  9.2 Must not be split or damaged.  9.3 Screws for the butt plate and rear swivel must be free from damage and must not slip.  9.4 Clearance, butt shoulder to body socket. Min. 0.005 in. Max 0.040 in.		X  X  X  X
10	Sling swivels. (front, rear & trigger guard)	10.1 Must not be distorted.  10.2 Loop must be secure on its link.  10.3 Must rotate freely.		X  X  X

continued

TABLE 1 WEAPON ASSEMBLED (continued)

Serial (1)	Feature (2)	Acceptable Quality Level (AQL) (3)	Remarks (4)	Cond Code (5)
11	Butt plate	11.1 Must not be perished, damaged or distorted.  11.2 Should be a reasonable fit to the surface of the butt.		X  X
12	Backsight assembly	12.1 Must operate smoothly on its axis pin, without sideplay or slackness.  12.2 Plunger and spring must hold sight in vertical and horizontal positions.  12.3 Range scale to be legible and scale face polished.  12.4 Leaf must not be damaged, cracked or distorted and must operate smoothly over the range scale using the adjusting screw.  12.5 Adjusting screw must not be worn or distorted and is to be retained in each position by the plunger and spring.		X  X  X  X
13	Protector foresight	13.1 Must be secure and free from cracks, burrs and distortion.  13.2 Retaining screw must not be damaged or stripped.		X  X
14	Foresight	Must be secure within its dovetail seating.		X
15	Trigger guard	Must not be distorted or damaged.		X
16	Action of bolt	16.1 Unlocking of the bolt from the fired position must be smooth.  16.2 Sear must not foul the resistance lug of the bolt during operation.  16.3 Cocking piece must not foul its channel in the body or the spindle of the locking bolt.	AESP 1005-L-203-522 refers.	X  Y  X

continued

**TABLE 1 WEAPON ASSEMBLED (continued)**

Serial (1)	Feature (2)	Acceptable Quality Level (AQL) (3)	Remarks (4)	Cond Code (5)
17	Primary extraction	Field/Base Max: 0.030 in.	AESP 1005-L-203-522 refers.	Y
18	Cartridge headspace	Field/Base Min: 0.045 in. Max: 0.050 in.		Y
19	Pull-off	19.1 Single pull. Min: 3 lbf. 19.2 Double pull. 1st: 3 lbf to 4 lbf. 2nd: 5 lbf to 6.5 lbf.	With outer spring removed. Inner and outer springs fitted.	X X
20	Safety tests	With the mechanism cocked the striker must not be released when forward pressure is applied to the rear of the trigger.	AESP 1005-L-203-522 refers.	Y
21	Applied safety	21.1 Safety catch is to be positive in action and must engage its recess in the bolt.  21.2 With the action cocked and safety catch applied the cocking piece must be withdrawn from the sear. Pressure applied to the rear of the cocking piece must not push the safety catch forward.		X X
22	Catch, head breech bolt	Check for correct operation and retention of the head breech bolt.		X
23	Extraction and ejection	Must extract and eject a spent cartridge case.		X
24	Cocking piece	24.1 Stud must not be chipped, worn or burred.  24.2 Stud should move freely along the cam face of the bolt and engage the recess in the rear of the bolt face.  24.3 Sear engagement face must be flat, smooth and polished.		X X X

continued

TABLE 1 WEAPON ASSEMBLED (continued)

Serial (1)	Feature (2)	Acceptable Quality Level (AQL) (3)	Remarks (4)	Cond Code (5)
25	Striker	25.1 Must not be loose in the cocking piece.  25.2 Striker assembly must move freely within the bolt under the influence of the striker spring.		X  X
26	Spring striker	Field/Base. Check first movement of the striker with bolt in closed and cocked condition. Min: 13.0 lbf. Max: 15.0 lbf.		Y
27	Bolt/cocking piece clearance	Check clearance, rear of bolt to front face of cocking piece. Min: 0.012 in. Max: 0.060 in.	To be checked with bolt head screwed up into alignment with resistance column.	X

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1. In the **AESP/EMER NUMBER cell**: enter the full document number eg. **AESP 1357-L-438-711**.
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3. Enter details in non-mandatory cells if relevant.
4. In the comments cell the Form 10 Originator is to enter their comments/concerns/questions.
5. **There is a maximum of 15 lines available to enter text.**  
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  - 1.2 The **Form 10 Reference**.
  - 1.3 The **Problem Report Number [generated by the Design Repository]**.  
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  - 1.4 The **Date the Form 10 was E-Mailed** to the Sponsor/Project team and record each stage on their Excel Spreadsheet.

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  - 1.2 Enter their **E-Mail details**.
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  - 1.4 Enter the **date they received the Form 10**.
  - 1.5 Enter details in the non-mandatory field if relevant.
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2. **The Sponsor shall then:**
  - 2.1 **Assess** the content of the comment(s) submitted by the originator.
  - 2.2 **Mark the box** to indicate the action being taken by the sponsor.
  - 2.3 **Fill in the remarks** to explain the reason for the actions being taken.
  - 2.4 **Mark the box** to indicate that the sponsor will notify the originator of the actions taken against the comment(s) raised. **There are only 10 lines available to enter text.**
  - 2.5 **Enter the date** to indicate when the sponsor responded to the Form Comment(s).
  - 2.6 **E-Mail** a copy of the completed Form 10 to the Form 10 Cell & Originator of the Form 10.  
**The Form 10 is to be assessed and the response sent to the Form 10 Cell & Originator of the Form 10 within 6 weeks of the Sponsor receiving the Form 10 request.**

### **FORM 10 CELL USE:**

1. The **Form 10 Cell** shall record the final stages of the Form 10 process on their Spreadsheet.
2. The **E2E audit trail of the Form 10 is now complete and closed on a single form.**

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Incorporate comment(s) in future amendments:			No action required:

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# Ministry of Defence

**RIFLE .22 in. No.8 Mk 1**  
1005-99-961-9008 (long butt)  
1005-99-961-9009 (normal butt)  
1005-99-961-9010 (short butt)

## ILLUSTRATED PARTS CATALOGUE

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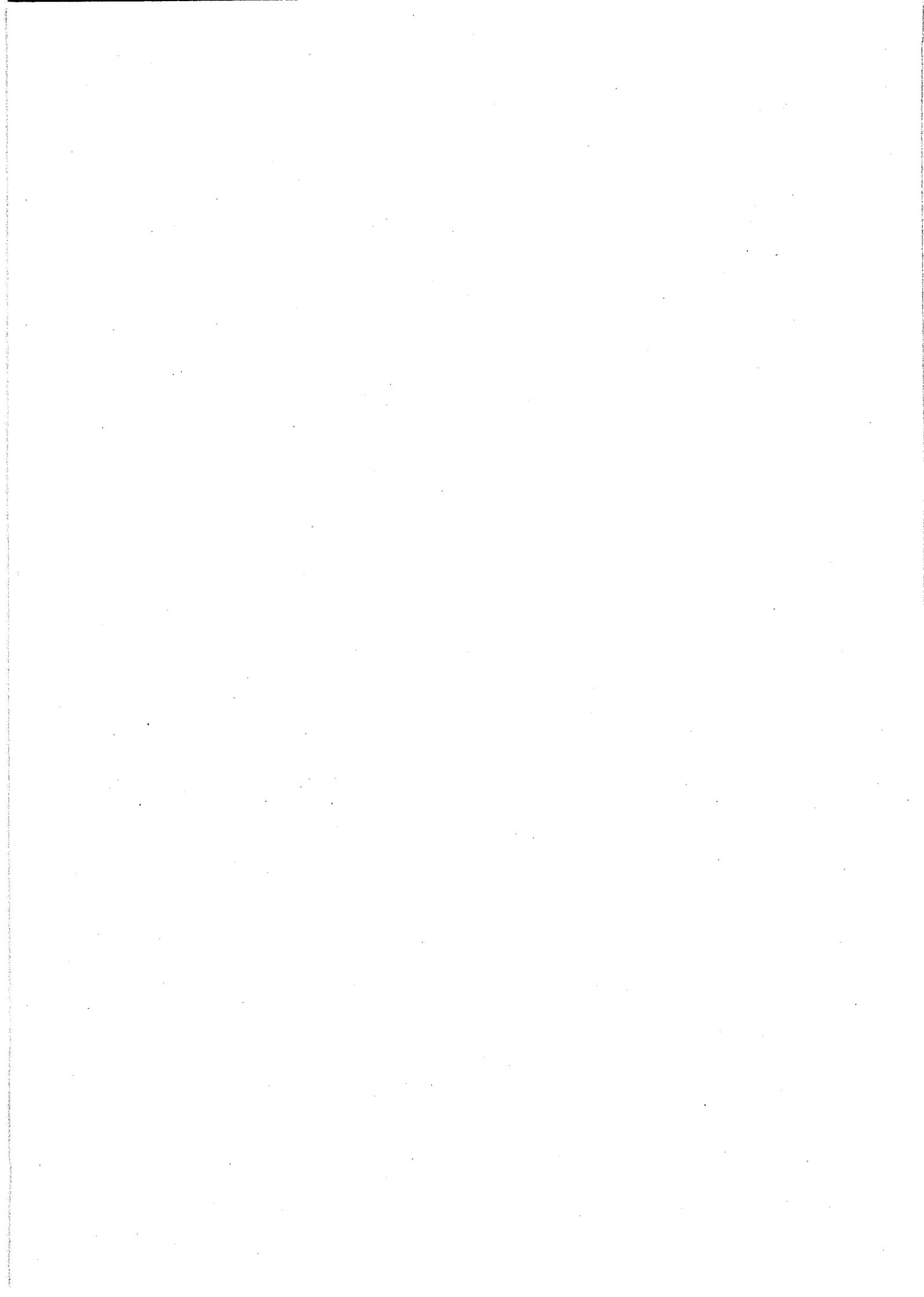


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Publication Authority: SSP Lethality

**INTRODUCTION**

1 Any comments by service users on this publication should be forwarded through the channels prescribed in Army Equipment Support Publication (AESP) 0100-P-011-013. An AESP Form 10 is provided at the end of this publication; it should be photocopied and used for forwarding comments on this AESP.

2 AESPs are issued under UK MoD authority and where AESPs specify action is to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores, subject to the provisions of Para 3 below.

3 The subject matter of this publication may be affected by Defence Instructions and Notices (DINs), Standard Operating Procedures (SOPs) or by local regulations. When any such instruction, Order or Regulation contradicts any portion of this publication it is to be taken as the overriding authority.

4 This Illustrated Parts Catalogue (IPC) is designed as an aid to the identification of components, parts or assemblies of parts of the equipment and to provide information necessary for demanding spares.

5 This IPC may list some or all of the parts comprising the equipment concerned, but only those parts assigned a NATO Stock Number, Service Catalogue or Reference Number will normally be available as spares. Should there be a requirement for an item not assigned a number, demands may be submitted quoting AESP, Item Number, Figure reference and Item Name. Where a manufacturer's reference is known, this should also be quoted.

**Quantity**

6 The figure in the 'Number Off' column specifies the quantity for the unit (or assembly, sub-assembly etc); it does not indicate the quantity to be demanded.

**Demands**

7 When demanding Spare Parts the following particulars must be quoted:

- 7.1 Management Code (Man Code).
- 7.2 NATO Stock Number.
- 7.3 Item Name.
- 7.4 Name of equipment for which the part is required.
- 7.5 Manufacturer's reference, if known.

**NOTE**

Alternatives quoted apply only to the equipment covered by this IPC.

**Modification state**

8 When appropriate, a list at the front of each chapter or sub-chapter will indicate the modification numbers which have been incorporated in the IPC by amendment action, subsequent to initial issue.

### Annotations

9 The following notations are used in this publication:

- 9.1 AR - When appearing in the 'Number Off' column indicates that the quantity is 'as required'.
- 9.2 NI - (Not Illustrated) when appearing with a number in the 'Fig Item' column indicates that the item is not illustrated.
- 9.3 NP - (Non Provisioned) when appearing in the 'NATO Stock Number' column indicates that the item may be illustrated, but not available from stock as a replacement item.
- 9.4 REF - In the 'Number Off' column indicates that the item is listed for reference purposes only.

### Abbreviations

10 Abbreviations and symbols used in the IPC have been approved and are listed separately.

### Amendments

- 11 Amendments to the catalogue will be published as and when necessary. These will be numbered consecutively, and the Amendment record sheet is to be completed for each amendment list embodied.
- 12 New or amended material will be highlighted by side lining to show the extent of the amendment.

### Indentation

13 Items are listed in a logical assembly/disassembly order and are identified by the 'dot system' in which each 'dot' depicts the relationship of the item to the assembly.

#### MAIN ASSEMBLY

Attaching parts for main assembly.

. FIRST LEVEL OF BREAKDOWN (Sub-assembly or detail part of main assembly).  
. Attaching parts for first level.

.. SECOND LEVEL OF BREAKDOWN (Sub-sub-assembly or detailed part of sub-assembly).  
.. Attaching parts for second level.

... THIRD LEVEL OF BREAKDOWN (Sub-sub-sub-assembly or detail part of sub-sub-assembly).  
... Attaching parts of third level.

.... FOURTH LEVEL OF BREAKDOWN (Sub-sub-sub-sub-assembly or detail part of  
sub-sub-sub-assembly)  
.... Attaching parts for fourth level.

### NOTES

- (1) Attaching parts for the Main Assembly are listed at the end of the text of the Main Assembly.
- (2) Catalogue numbers quoted in this catalogue will supersede any number that may have been allocated previously.

### Description

14 The Item Description and Annotation Block is also to convey additional information to the IPC user, such as:

- 14.1 Related location details, i.e. another AESP or Chapter/Item within the AESP.

14.2 Circuit reference numbers relating to the illustration.

## RELATED AND ASSOCIATED PUBLICATIONS

### Related publications

15 The Octad for the subject equipment consists of the publications shown below. All references are prefixed with the first eight digits of this publication. The availability of the publications can be checked by reference to the relevant Group Index (See AESP 0100-A-001-013).

Category/Sub-category			Information Level			
			1 User/Operator	2 Unit Maintenance	3 Field Maintenance	4 Base Maintenance
1	0	Purpose and Planning Information	101	101	*	*
	1	Equipment Support Policy Directive	111	111	*	*
2	0	Operating Information	201	201	*	*
	1	Aide Memoire	*	*	*	*
2	2	Training Aids	*	*	*	*
	3	Technical Description	201	302	302	302
4	1	Installation Instructions	*	*	*	*
	2	Preparation for Special Environments	*	*	*	*
5	1	Failure Diagnosis	201	522	522	522
	2	Maintenance Instructions	201	522	522	522
	3	Inspection Standards	*	532	532	532
	4	Calibration Procedures	*	*	*	*
6		Maintenance Schedules	*	*	*	*
7	1	Illustrated Parts Catalogues	711	711	711	711
	2	Commercial Parts Lists	*	*	*	*
	3	Complete Equipment Schedule, Production	*	*	*	*
	4	Complete Equipment Schedule, Service Edition (Simple Equipment)	*	*	*	*
	5	Complete Equipment Schedule, Service Edition (Complex Equipment)	*	*	*	*
8	1	Modification Instructions	*	*	*	*
	2	General Instructions, Special Technical Instructions and Servicing Instructions	*	*	*	*
	3	Service Engineered Modification Instructions (RAF only)	*	*	*	*

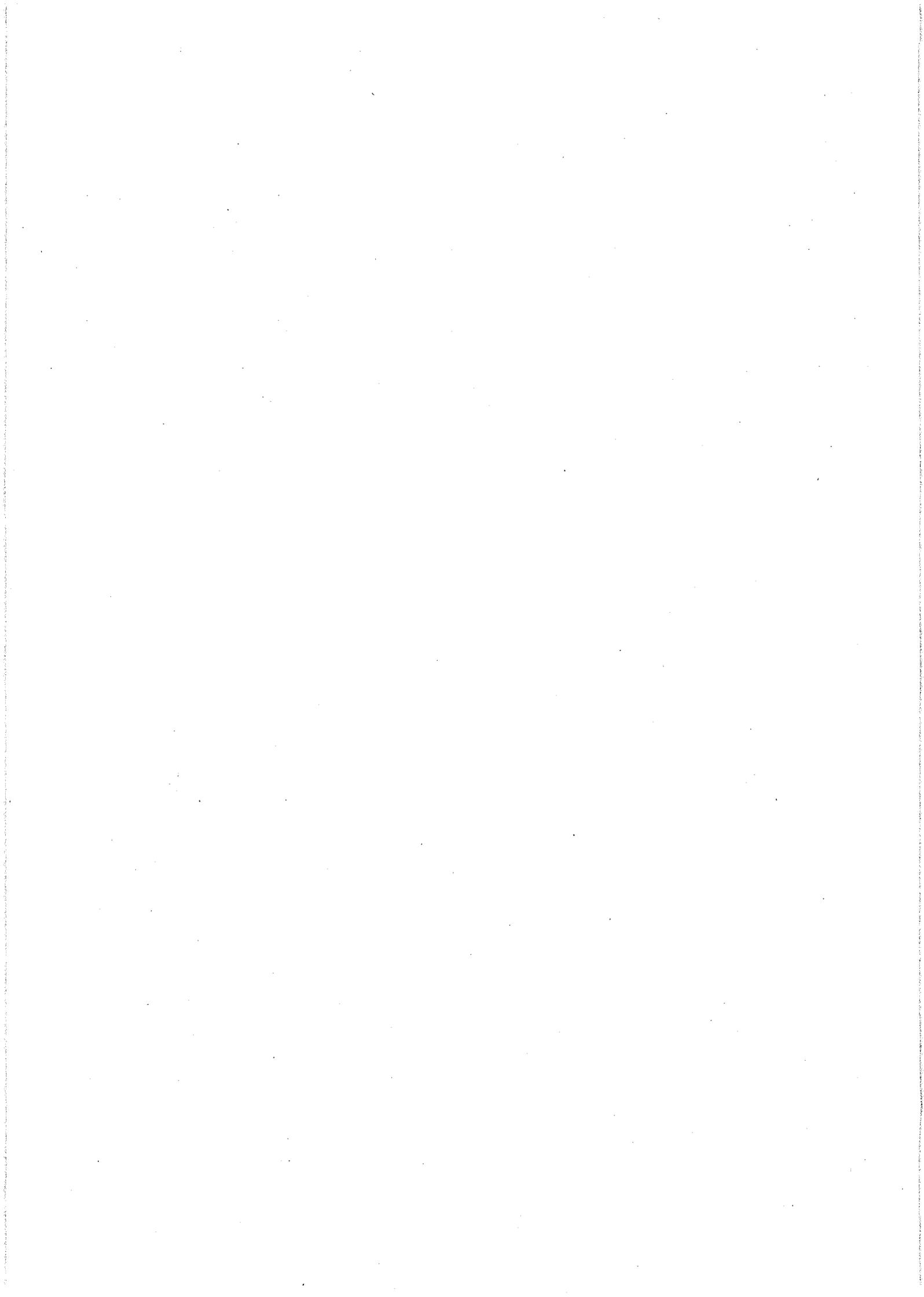
\*Category/sub-category not published.

### Associated publications

16 There are no associated publications for this Category.

**LIST OF ABBREVIATIONS**

<b>Abbreviation</b>	<b>Definition</b>
AESP	Army Equipment Support Publication
Amdt	Amendment
AR	As required
Assy	Assembly
BA	British Association
cd	cadmium
contd	continued
dia	diameter
DMC	Domestic Management Code
dr	drive
Dwg	Drawing
Fig	Figure
fill	fillister
hd	head
in.	inch(es)
IPC	Illustrated Parts Catalogue
lg	long
Mk	Mark
Mod	Modification
NATO	North Atlantic Treaty Organisation
NI	Not Illustrated
No.	Number
nom	nominal
NP	Not Provisioned
NSCM	NATO Supply Code for Manufacturers
NSN	NATO Stock Number
o/a	over all
od	outside diameter
phos	phosphated
pl	plated
rd	round
Ref	Reference
slot	slotted
SSP	Solider Systems Programme
thk	thick
w	wide
whit	Whitworth





**CHAPTER 1**

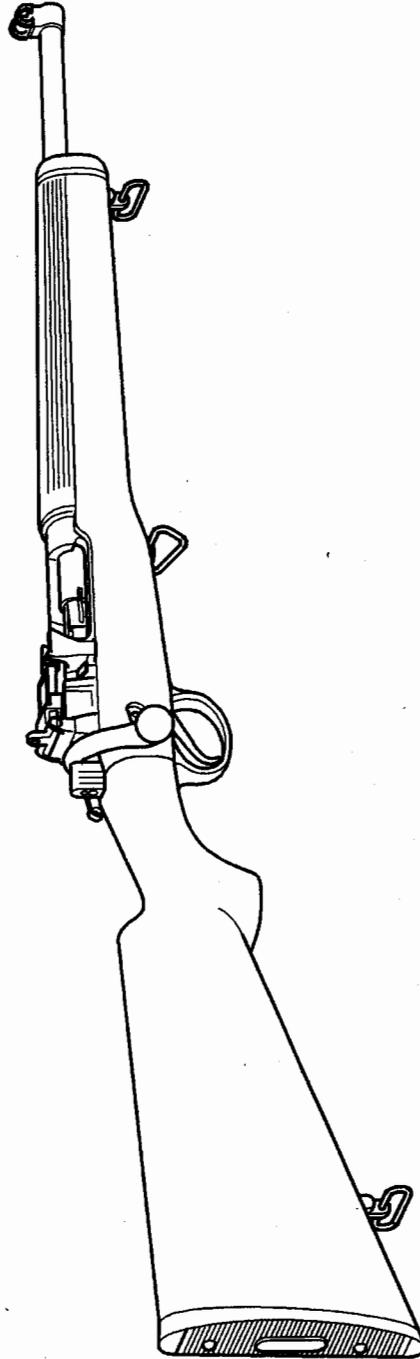
**GENERAL INFORMATION**

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Frontispiece .....	2
Family tree .....	3
Index of related IPCs and sub-chapters .....	4
Index of main assemblies and sub-assemblies to related IPCs or part/drawing numbers and chapter .....	5
Index of illustration to chapter and figure numbers .....	6



FRONTISPIECE



Rifle .22 in. No.8 Mk 1

**FAMILY TREE  
(PUBLICATION/CHAPTER PLAN)**

**Not issued**

## INDEX OF RELATED IPCS AND SUB-CHAPTERS

Chap Plan No.	Chap 2 Sub-Chap No.	Item Name and (if applicable) Related IPC Reference No.	Part No./ Drawing No.	DMC Army	NATO Stock No.
-	2-1	RIFLE .22 in. No.8 Mk 1 (long butt)	CR35GA		NP
-	2-1	RIFLE .22 in. No.8 Mk 1 (normal butt)	CR36GA	NUM8	1005-99-961-9009
-	2-1	RIFLE .22 in. No.8 Mk 1 (short butt)	CR37GA		NP

**INDEX OF MAIN ASSEMBLIES AND SUB-ASSEMBLIES  
TO  
RELATED IPCS OR PART/DRAWING NUMBERS AND CHAPTER**

Item	Drawing No.	Chapter
RIFLE, LONG BUTT, .22 IN., NO.8, MK 1	CR35GA	
RIFLE, NORMAL BUTT, .22 IN., NO.8, MK 1	CR36GA	
RIFLE, SHORT BUTT, .22 IN., NO.8, MK 1	CR37GA	
SIGHT, REAR	CR33A	
BODY	CR72A	
BOLT, BREECH, NO.1	CR60A	
BOLT, BREECH, NO.2	CR59A	
BOLT, BREECH, NO.3	CR58A	
BOLT, BREECH, NO.4	CR57A	
BOLT, BREECH, NO.5	CR56A	
BOLT, BREECH, NO.6	CR55A	
BOLT, BREECH, NO.7	CR54A	
BOLT, BREECH, NO.8	CR53A	
TRIGGER MECHANISM	CR38A	
STOCK BUTT, LONG	CR62A	
STOCK BUTT, NORMAL	CR63A	
STOCK BUTT, SHORT	CR64A	

INDEX OF ILLUSTRATION  
TO  
CHAPTER AND FIGURE NUMBERS

Item	Chapter	Figure
RIFLE, .22 IN., NO.8, MK 1	2-1	1
SIGHT, REAR	2-1	2
BODY	2-1	3
BREECH BOLT NOS.1 TO 8	2-1	4
TRIGGER MECHANISM AND GUARD	2-1	5
BUTT, STOCK	2-1	6



**CHAPTER 2**

**PARTS LIST**

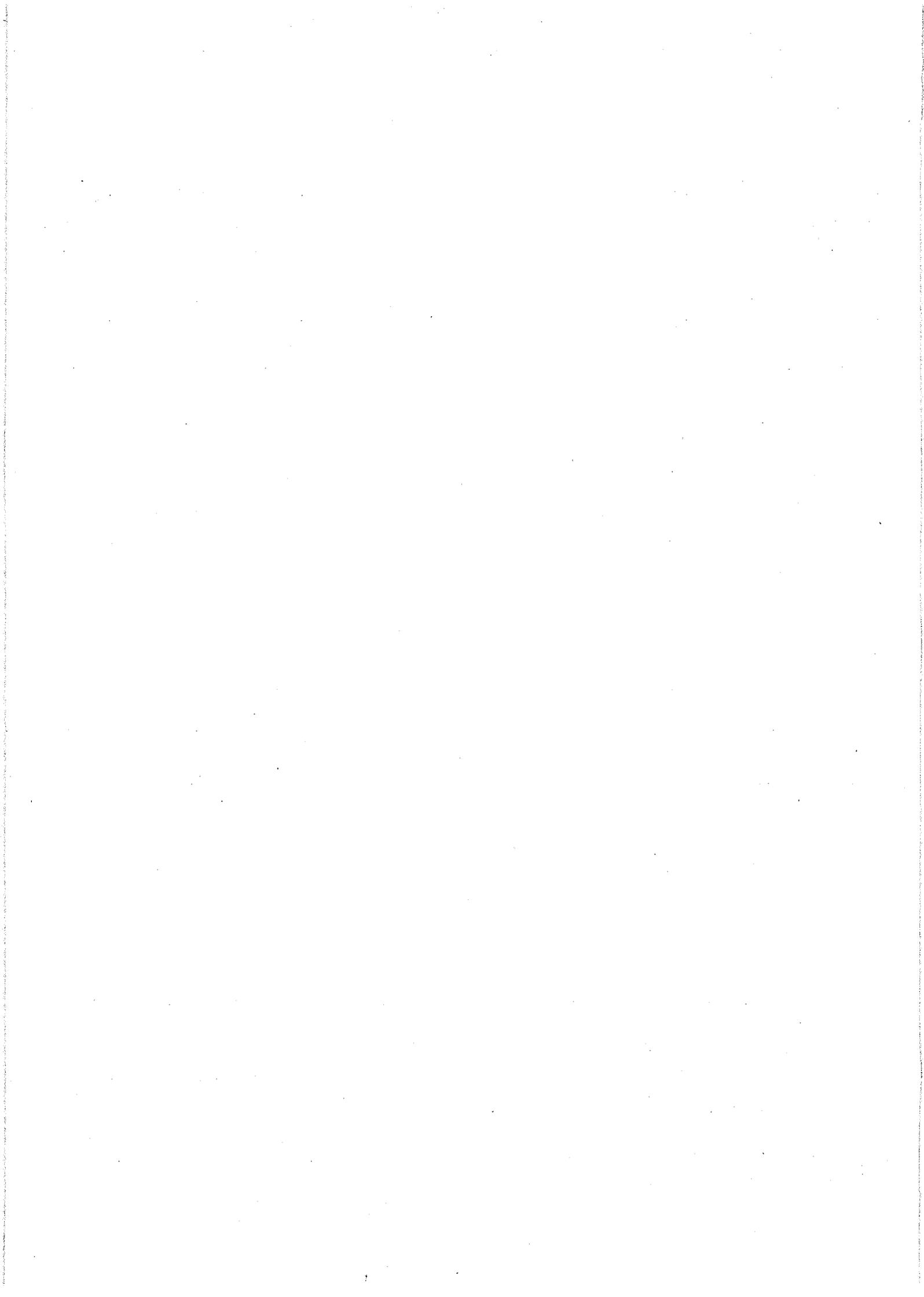
**CONTENTS**

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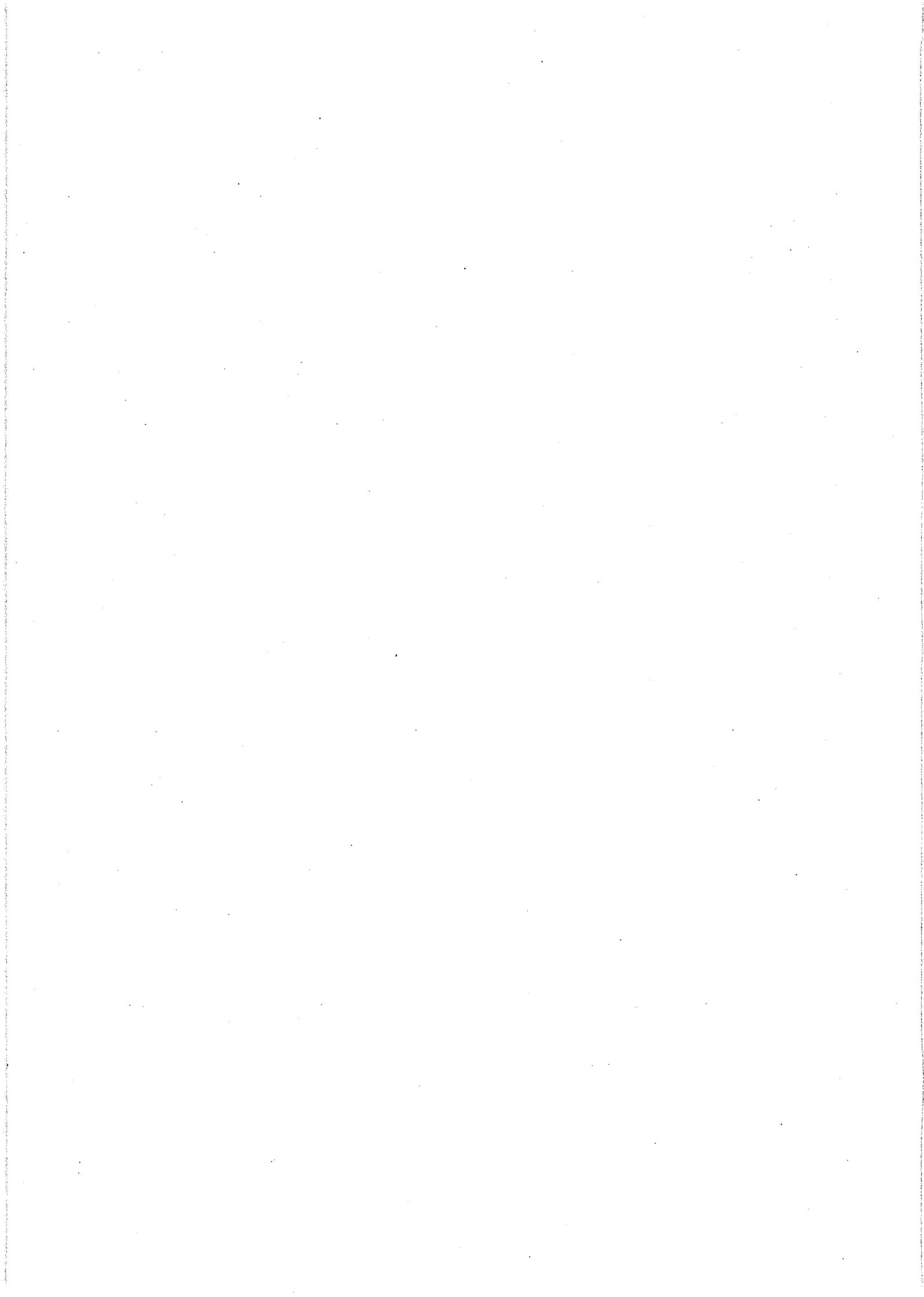
Chapter

2-1 Rifle, .22in., No.8, Mk 1, (Long, normal and short butt)











1  
↓

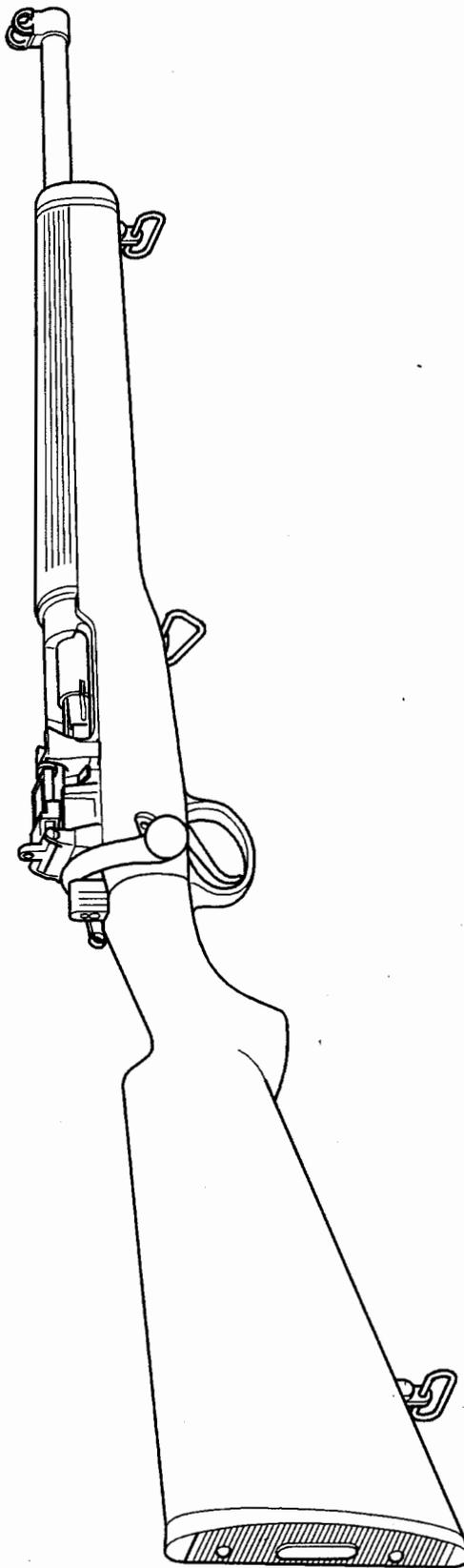


Fig 1 Rifle .22 in. No.8 Mk 1

**PARTS LIST**

Fig 1 Item	DMC Army	NATO stock number	Item name	Part No./ Dwg No.	No. off	Annotation (NSCM)
1A		NP	RIFLE .22 in. No.8 Mk 1 (long butt)	CR35GA	1	(U1515)
1B	NUM8	1005-99-961-9009	RIFLE .22 in. No.8 Mk 1 (normal butt)	CR36GA	1	(U1515)
1C		NP	RIFLE .22 in. No.8 Mk 1 (short butt)	CR37GA	1	(U1515)

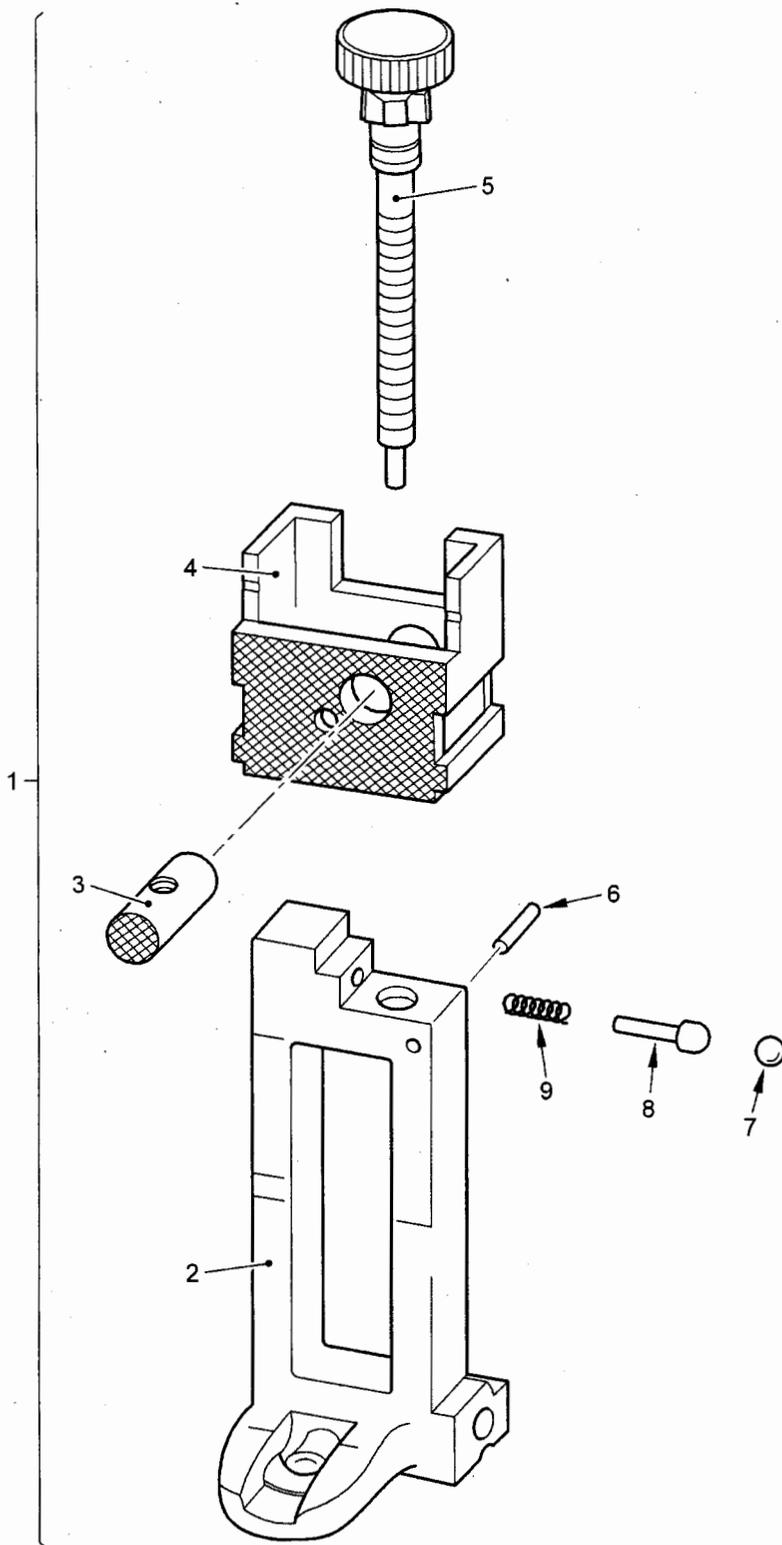


Fig 2 Sight, rear

PARTS LIST

Fig 2 Item	DMC Army	NATO stock number	Item name	Part No./ Dwg No.	No. off	Annotation (NSCM)
1	NUM8	1005-99-961-8900	SIGHT, REAR	CR33A	1	(U1515)
2	NUM8	1005-99-961-8903	• SCALE, REAR SIGHT	CR313	1	
3	5310	5310-99-961-8362	• NUT, PLAIN, BARREL	CR314	1	
4	NUM8	1005-99-961-8018	• SLIDE, REAR SIGHT	CR318	1	
5	NUM8	1005-99-128-3276	• SCREW, ADJUSTING BACKSIGHT steel, whit form, phos, knurled hd, 1/8 in. x 1 3/4 in. lg	CR317	1	
6	NUM8	5315-99-961-8339	• PIN, STRAIGHT, HEADLESS	CR315	1	
7	46MT7	3110-99-950-0564	• BALL BEARING, steel, 3/32 in. dia OR	RB2-381 CLASS 2	1	(U0214)
8	NUM8	1005-99-961-8032	• PLUNGER DETENT	CR316	1	
9	NUM8	1005-99-961-8246	• SPRING, HELICAL, COMPRESSION	CR502	1	

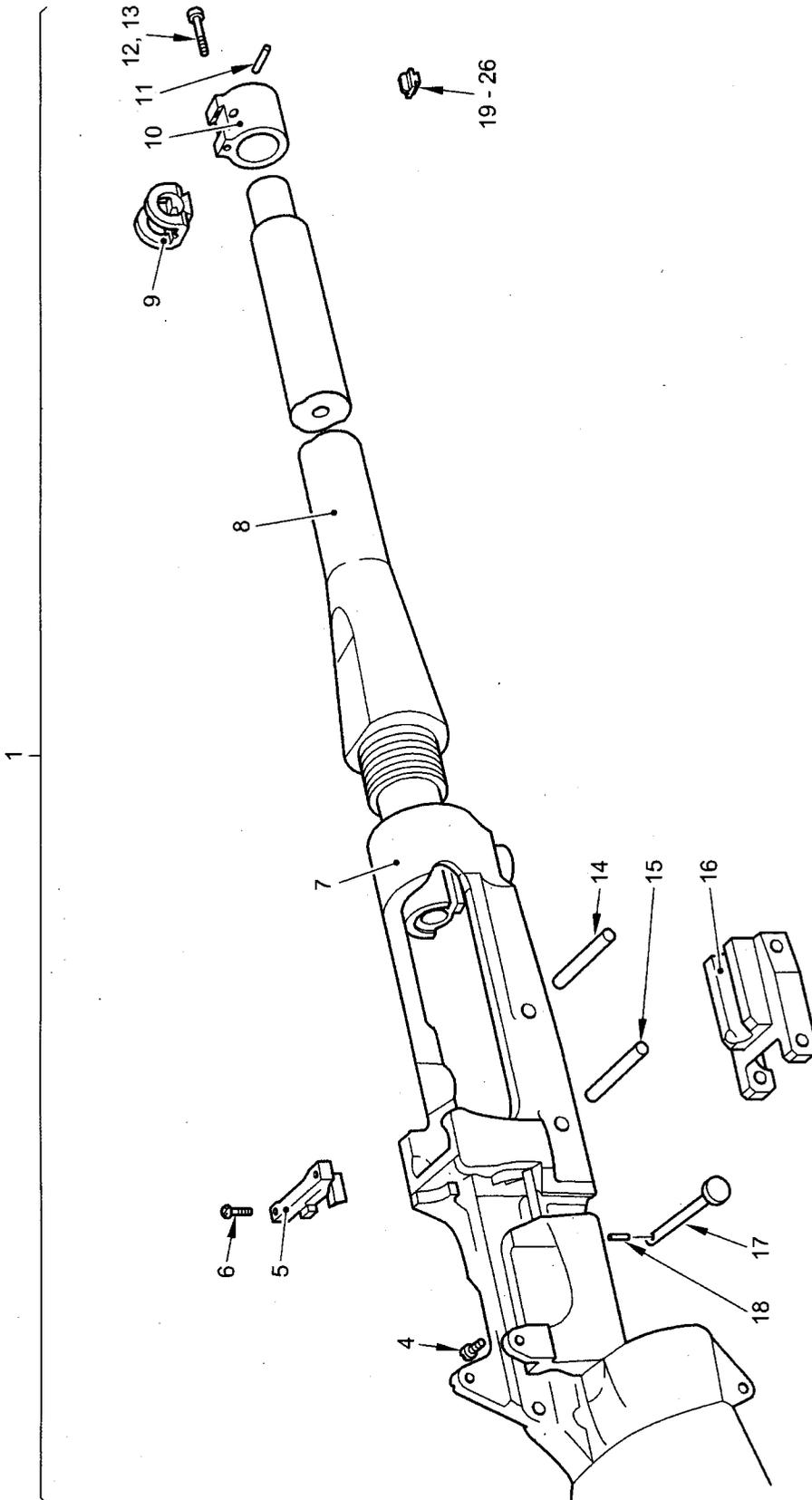


Fig 3 Body

PARTS LIST

Fig 3 Item	DMC Army	NATO stock number	Item name	Part No./ Dwg No.	No. off	Annotation (NSCM)
1			BODY, COMPLETE	REF		
NI 2		NP	• BODY	CR72A	1	
NI 3		NP	•• BODY	CR83SA	1	
4	NUM8	5305-99-128-2164	••• SCREW, MACHINE, BA, steel, phos, pan hd, slot dr, no.3 x 0.180 in.lg	CR544	1	
5		NP	••• BRIDGE	CR494	1	
6		NP	••• SCREW, MACHINE, BA, steel, fill hd, slot dr, no.6 x 0.340 in.lg	CR495	1	
7		NP	••• BODY	CR324	1	
8		NP	••• BARREL, RIFLE	CR559	1	
9	NUM8	1005-99-961-8920	••• PROTECTOR, FORESIGHT	CR557	1	
10		NP	••• FORESIGHT BAND	CR558	1	
11		NP	••• PIN, steel, no.36 (0.104) x 0.6in.lg	G2C/GB212 71	1	
12		NP	••• SCREW, MACHINE, BA, no.4 x 7/8 in.lg	BS57	1	
13	10A	5305-99-941-6856	••• SCREW, MACHINE, BA, steel, cd pl, fill hd, slot drive, no.4 x 7/8 in.lg	BS57	1	
14	NUM8	5315-99-961-8867	•• PIN, STRAIGHT, HEADLESS, steel, phos, 0.1809 in.dia x 1.230 in.lg	CR325	1	
15	NUM8	5315-99-961-8868	•• PIN, STRAIGHT, HEADLESS, steel, phos, 0.1809 in.dia x 1.330 in.lg	CR326	1	
16		NP	•• PLATFORM	CR327	1	
17	NUM8	5315-99-961-8358	• PIN, STRAIGHT, HEADED, steel, phos, 0.144 in.dia x 1.240 in.lg	CR359	1	
18	NUM8	5315-99-961-8021	• PIN, STRAIGHT, HEADLESS, steel, phos, 0.056 in.dia x 0.350 in.lg	CR360	1	
19	NUM8	1005-99-961-8137	• BLADE, FRONT SIGHT, minus 0.030 in.	CR353	AR	
20	NUM8	1005-99-961-8136	• BLADE, FRONT SIGHT, minus 0.015 in.	CR352	AR	
21	NUM8	1005-99-961-8135	• BLADE, FRONT SIGHT, '0'	CR351	AR	
22	NUM8	1005-99-961-8134	• BLADE, FRONT SIGHT, 0.015 in.	CR350	AR	
23	NUM8	1005-99-961-8133	• BLADE, FRONT SIGHT, 0.030 in.	CR349	AR	
24	NUM8	1005-99-961-8132	• BLADE, FRONT SIGHT, 0.045 in.	CR348	AR	
25	NUM8	1005-99-961-8131	• BLADE, FRONT SIGHT, 0.060 in.	CR347	AR	
26	NUM8	1005-99-961-8130	• BLADE, FRONT SIGHT, 0.075 in.	CR346	AR	

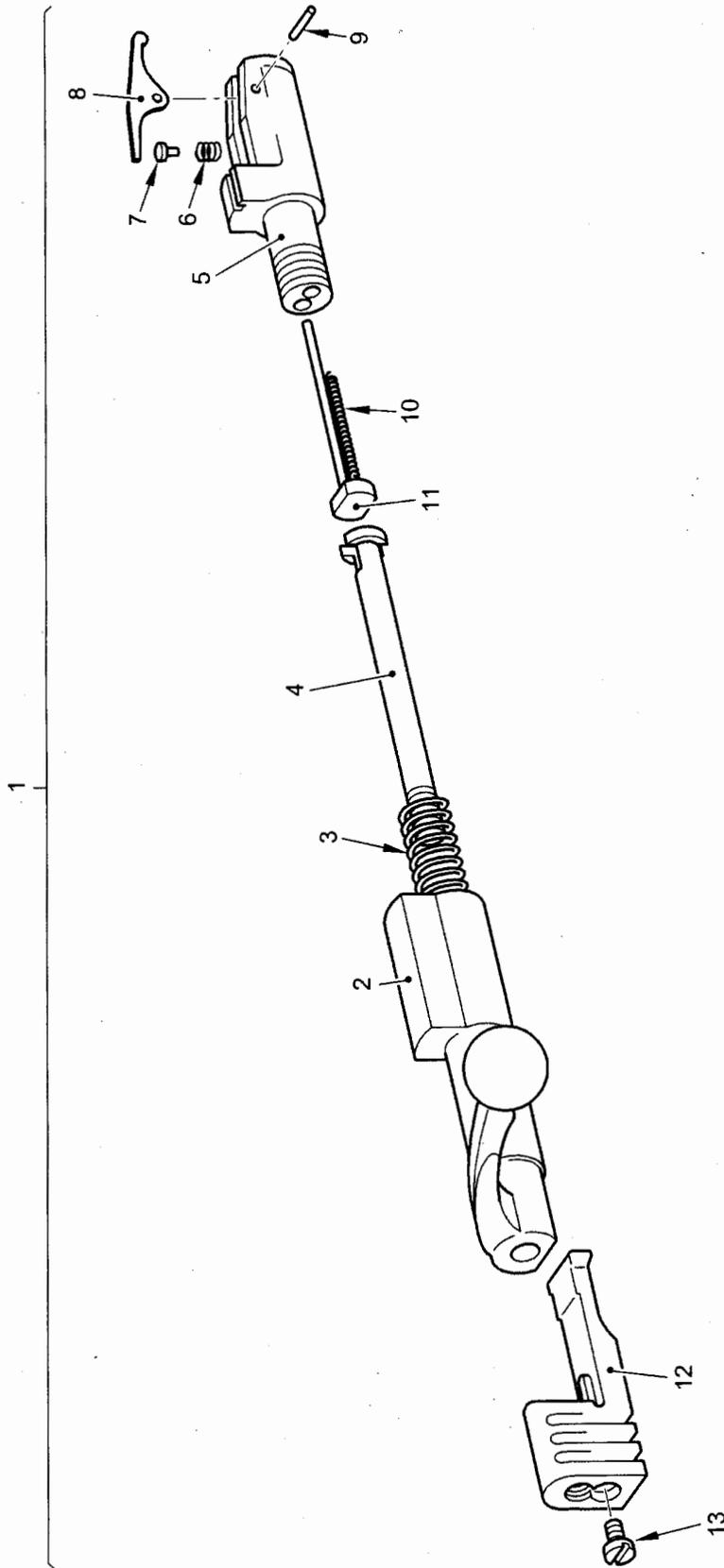


Fig 4 Breech bolt Nos.1 to 8

**PARTS LIST**

Fig 4 Item	DMC Army	NATO stock number	Item name	Part No./ Dwg No.	No. off	Annotation (NSCM)
1(1)		NP	BREECH BOLT – NO.1	CR60A	1	
1(2)		NP	BREECH BOLT – NO.2	CR59A	1	
1(3)		NP	BREECH BOLT – NO.3	CR58A	1	
1(4)		NP	BREECH BOLT – NO.4	CR57A	1	
1(5)		NP	BREECH BOLT – NO.5	CR56A	1	
1(6)		NP	BREECH BOLT – NO.6	CR55A	1	
1(7)		NP	BREECH BOLT – NO.7	CR54A	1	
1(8)		NP	BREECH BOLT – NO.8	CR53A	1	
2	NUM8	1005-99-128-5072	• BOLT, BREECH, steel, phos, 3.300 in.o/a lg	CR328	1	
3	NUM8	1005-99-961-9089	• SPRING, HELICAL, COMPRESSION, steel, phos, 31 active coils, 0.358 in.od x 3.570 in.lg	CR331	1	
4	NUM8	1005-99-961-8906	• STRIKER	CR332	1	
5(1)	NUM8	1005-99-961-8917	• HEAD, BREECH BOLT, no.1	CR397	1	
5(2)	NUM8	1005-99-961-8916	• HEAD, BREECH BOLT, no.2	CR396	1	
5(3)	NUM8	1005-99-961-8915	• HEAD, BREECH BOLT, no.3	CR395	1	
5(4)	NUM8	1005-99-961-8914	• HEAD, BREECH BOLT, no.4	CR394	1	
5(5)	NUM8	1005-99-961-8913	• HEAD, BREECH BOLT, no.5	CR393	1	
5(6)	NUM8	1005-99-961-8912	• HEAD, BREECH BOLT, no.6	CR392	1	
5(7)	NUM8	1005-99-961-8911	• HEAD, BREECH BOLT, no.7	CR391	1	
5(8)	NUM8	1005-99-961-8910	• HEAD, BREECH BOLT, no.8	CR390	1	
6	NUM8	1005-99-961-9090	• SPRING, HELICAL, COMPRESSION, steel, phos, 5 ½ active coils, 0.142 in.od x 0.315 in.lg	CR337	1	
7	NUM8	1005-99-961-8907	• PLUNGER, CARTRIDGE EXTRACTOR	CR336	1	
8	NUM8	1005-99-961-8957	• EXTRACTOR, CARTRIDGE	CR333	1	
9	NUM8	5315-99-961-8869	• PIN, STRAIGHT, HEADLESS, steel, phos, 0.0998 in.dia x 0.320 in.lg	CR335	1	
10	NUM8	1005-99-961-9088	• SPRING, HELICAL, COMPRESSION, steel, phos, 15 active coils, 0.118 in.od x 1.050 in.lg	CR339	1	
11	NUM8	1005-99-961-8918	• PIN, FIRING	CR543	1	
12	NUM8	1005-99-961-8921	• COCKING PIECE, STRIKER	CR942	1	
13	NUM8	5305-99-128-2163	• SCREW, MACHINE, BA, steel, phos, fill hd, slot drive, no.4 x 0.240 in.lg	CR330	1	

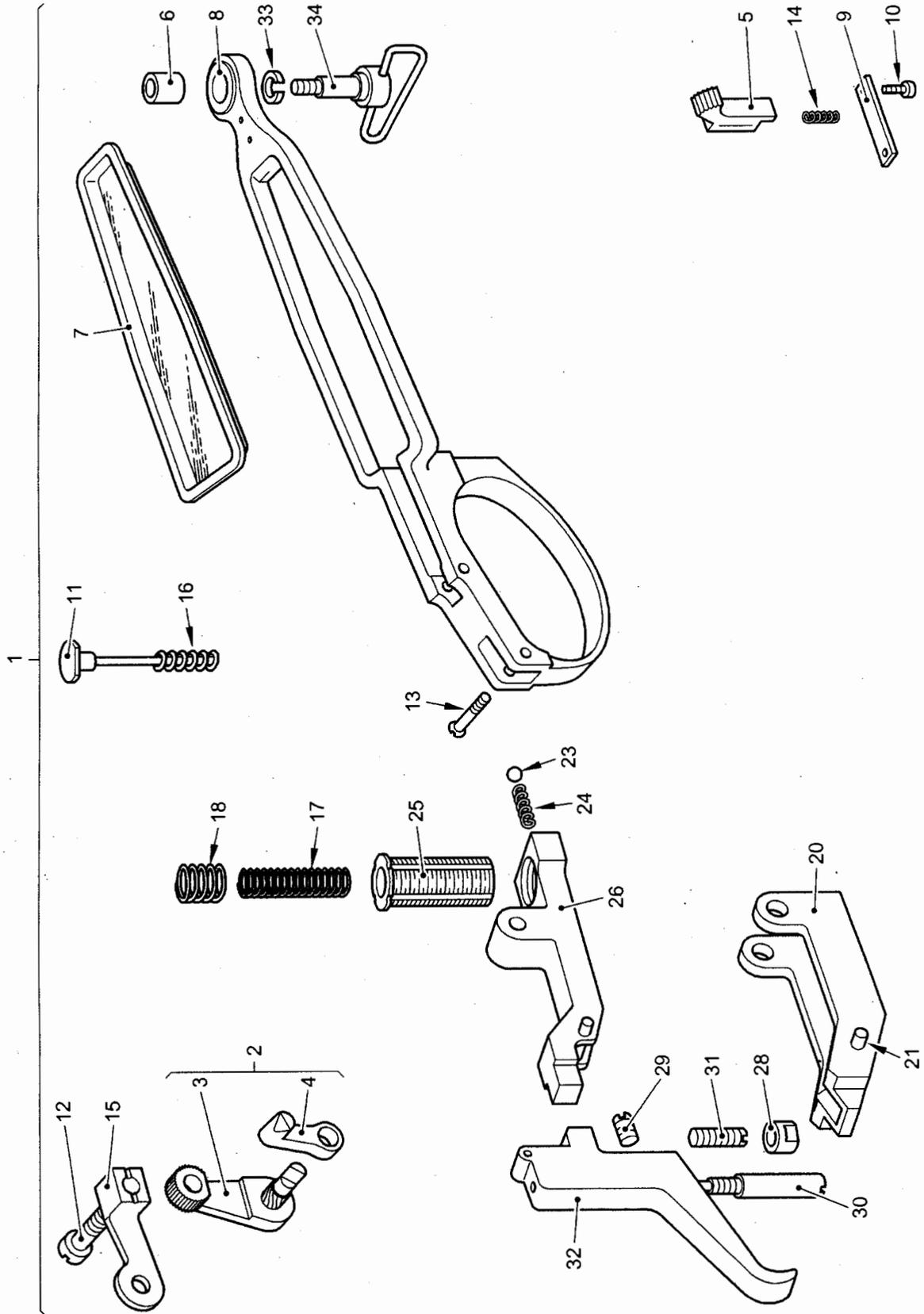


Fig 5 Trigger mechanism and guard

PARTS LIST

Fig 5 Item	DMC Army	NATO stock number	Item name	Part No./ Dwg No.	No. off	Annotation (NSCM)
1			TRIGGER MECHANISM AND GUARD	REF	1	
2	NUM8	1005-99-128-6142	• SAFETY, SMALL ARMS, steel, 1.370 in.o/a lg	CR63SA	1	
3		1005-99-128-5044	• • LEVER, ACTUATING, SAFETY CATCH, steel, phos, <sup>27</sup> / <sub>32</sub> in.lg x 1 <sup>3</sup> / <sub>8</sub> in.o/a w	CR340	1	REF
4		1005-99-963-3002	• • CATCH, SAFETY	CR343	1	REF
5	NUM8	1005-99-961-8020	• CATCH, BREECH BOLT	CR342	1	
6	NUM8	5365-99-961-8361	• SPACER, SLEEVE	CR344	1	
7	NUM8	1005-99-961-8908	• COVER PLATE, MAGAZINE OPENING	CR345	1	
8	NUM8	1005-99-961-8116	• GUARD, TRIGGER	DDE450-25	1	
9	NUM8	1005-99-961-8909	• PLATE, BREECH BOLT CATCH SPRING	CR361	1	
10	10A	5305-99-100-6166	• SCREW, MACHINE	BS 57	2	
11	NUM8	1005-99-961-8022	• PLUNGER, DETENT	CR362	1	
12	NUM8	5305-99-128-2422	• SCREW, MACHINE, BA, steel, phos, fill hd, slot drive, no.3 x 0.320 in.lg	CR366	1	
13	NUM8	5305-99-128-2156	• SCREW, MACHINE, BA, steel, phos, oval csk hd, slot drive, no.4 x 0.890 in.lg	CR311	1	
14	NUM8	5360-99-961-8307	• SPRING, HELICAL, COMPRESSION, 8 active turns, 0.176 in.od x 0.60 in.lg	CR367	1	
15	NUM8	1005-99-961-8023	• SPRING, DETENT	CR363	1	
16	NUM8	5360-99-961-8310	• SPRING, HELICAL, COMPRESSION, steel, phos, 11 active turns, 0.486 in.od x 0.850 in.lg	CR368	1	
17	NUM8	5360-99-961-8884	• SPRING, HELICAL, COMPRESSION, steel, phos, 14 active coils, 0.314 in.od x 1.500 in.lg	CR560	1	
18	NUM8	1005-99-961-9087	• SPRING, HELICAL, COMPRESSION, steel, phos, 3 active coils, 0.050 in.od x 0.570 in.lg	CR370	1	

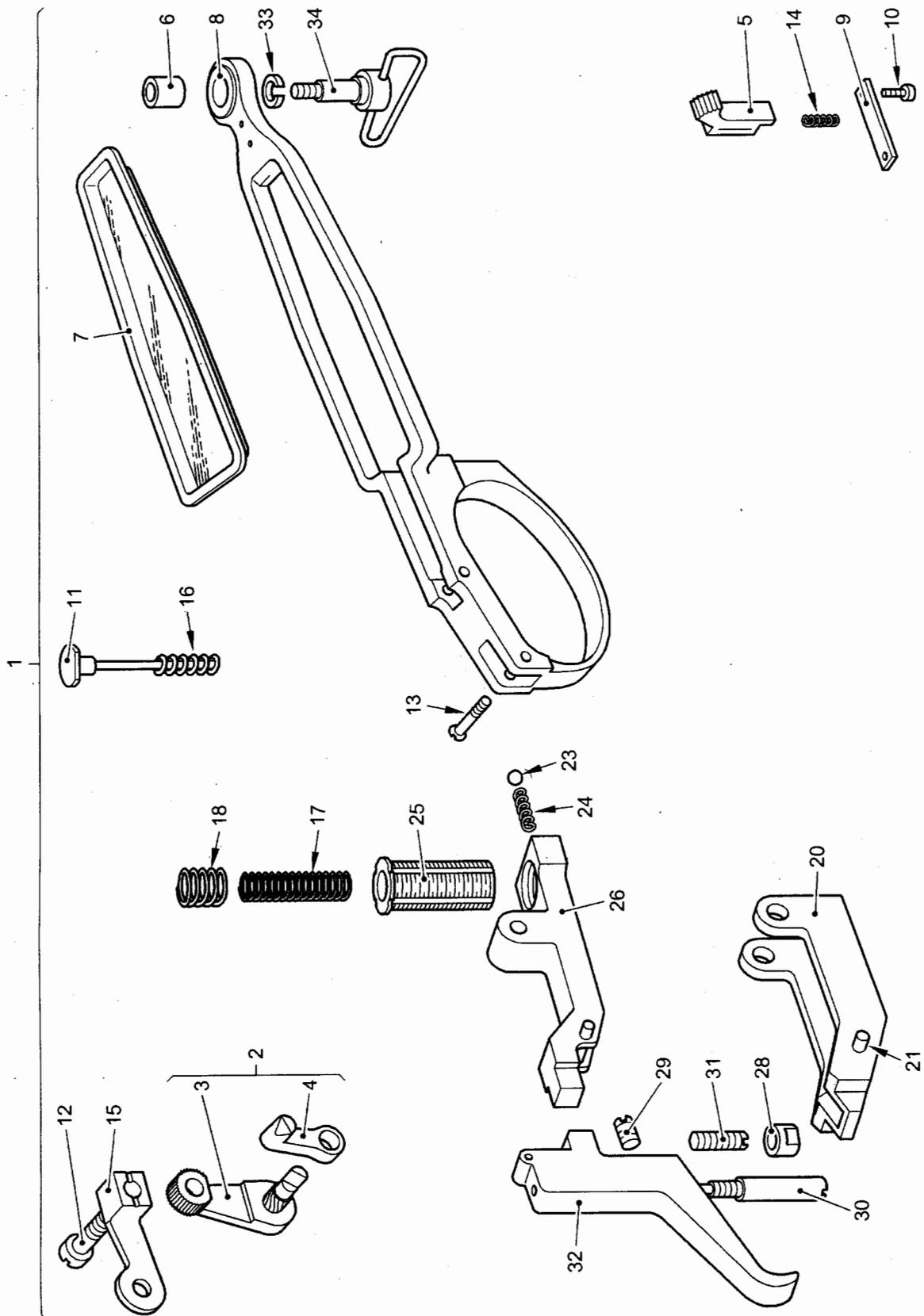


Fig 5 Trigger mechanism and guard

PARTS LIST

Fig 5 Item	DMC Army	NATO stock number	Item name	Part No./ Dwg No.	No. off	Annotation (NSCM)
1			TRIGGER MECHANISM AND GUARD (contd)	REF	1	
NI 19		NP	• TRIGGER MECHANISM	CR38A	1	
20	NUM8	1005-99-962-1763	•• CRADLE, SEAR,	CR377	1	
21	NUM8	5315-99-961-8932	•• PIN, STRAIGHT, HEADLESS, steel, phos, 0.1009 in. dia x 3/8 in. lg	CR383	1	
NI 22	NUM8	1005-99-961-8953	•• SEAR, steel, phos, 3.14 in. nom lg x 0.69 in. nom w	CR46SA	1	
23		NP	••• BALL, steel, antifriction	C3/BF10056	1	
24	NUM8	1005-99-961-8883	••• SPRING, HELICAL, COMPRESSION, steel, phos, 17 active coils, 0.110 in. od x 0.600 in. lg	CR381	1	
25	NUM8	1005-99-961-8919	••• CUP, SEAR SPRING	CR556	1	
26(1)		NP	••• SEAR	CR943	1	
			OR			
26(2)		NP	••• SEAR	CR380	1	
NI 27	NUM8	1005-99-961-8955	•• TRIGGER	CR44SA	1	
28	NUM8	5310-99-961-8931	••• NUT, PLAIN, ROUND	CR382	1	
29	NUM8	5305-99-128-2492	••• SETSCREW, BA, steel, phos, rd point, slot drive, no.4 x 0.200 in. o/a lg	CR355	1	
30	NUM8	5305-99-128-3360	••• SETSCREW, BA, steel, phos, flat hd, rd point, slot drive, no.4 x <sup>43</sup> / <sub>64</sub> in. lg	CR384	1	
31	NUM8	5305-99-128-2491	••• SETSCREW, BA, steel, phos, rd point, slot drive, no.4 x 1/2 in. o/a lg	CR385	1	
32		1005-99-961-8954	••• TRIGGER	CR386	1	REF
33	NUM8	5310-99-961-8261	• WASHER, LOCK, steel, phos, single coil, 0.25 in. id x 0.390 in. od x 0.0625 in. thk	CR387	1	
34	NUM8	1005-99-961-8952	• SWIVEL, SLING, SMALL ARMS	CR540	1	

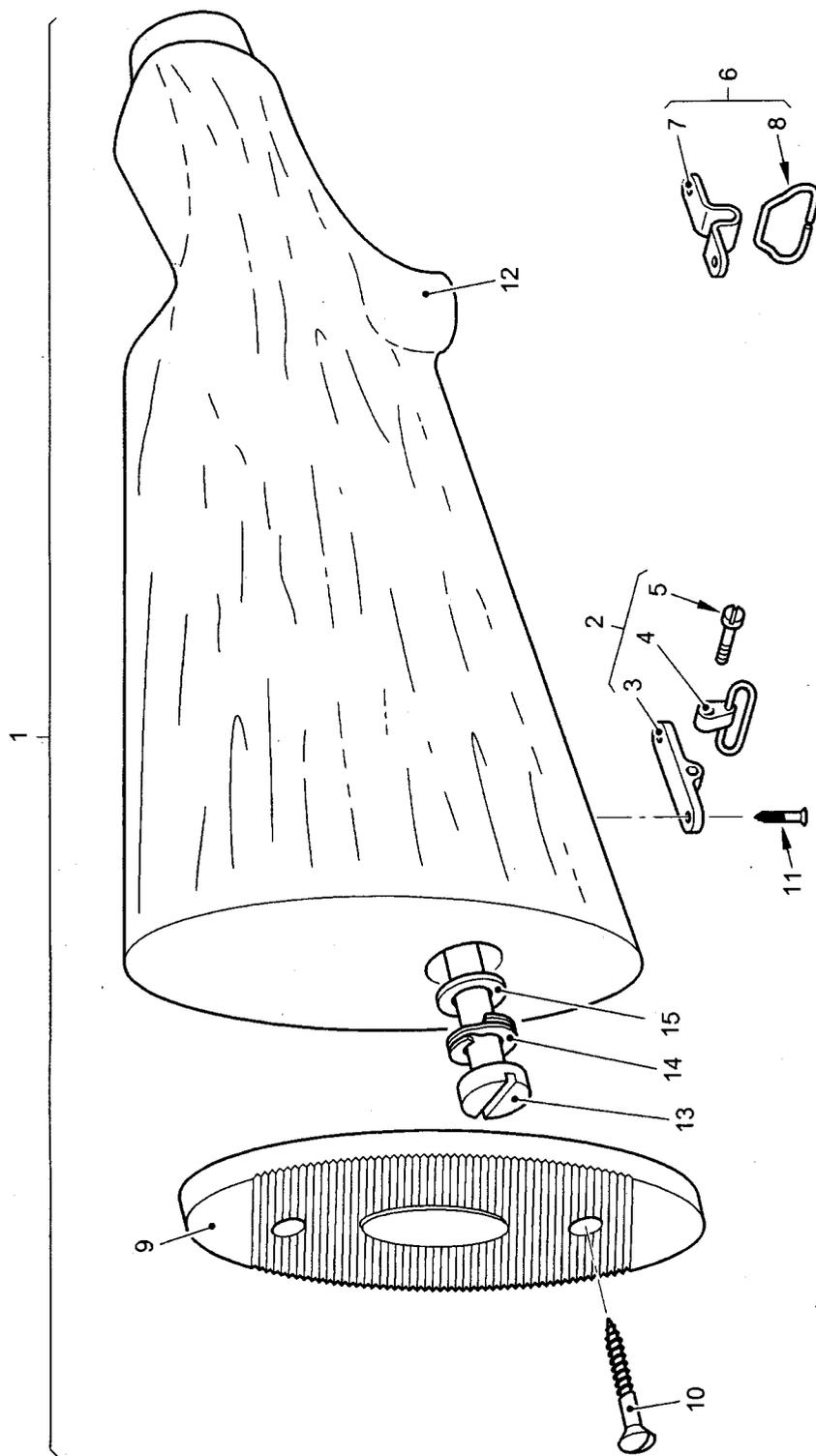


Fig 6 Butt, stock

PARTS LIST

Fig 6 Item	DMC Army	NATO stock number	Item name	Part No./ Dwg No.	No. off	Annotation (NSCM)
1(1)		NP	STOCK BUTT - LONG	CR62A	1	
1(2)		NP	STOCK BUTT - NORMAL	CR63A	1	
1(3)		NP	STOCK BUTT - SHORT	CR64A	1	
2		NP	• BRACKET	CR64SA	1	
3	NUM8	1005-99-961-8205	•• BRACKET, SLING SWIVEL	CR443	1	
4	NUM8	1005-99-961-8019	•• SWIVEL, SLING, SMALL ARMS	CR322	1	
5	NUM8	5305-99-128-2178	•• SCREW, MACHINE, steel, phos, pan hd, slot drive, no.2 x <sup>33</sup> / <sub>64</sub> in.lg	CR321	1	
6			OR • BRACKET AND SLING SWIVEL ASSEMBLY	CR65SA	1	Obsolete
7			•• BRACKET, SLING SWIVEL	CR444	1	Obsolete
8	NUM8	1005-99-961-8203	•• LOOP SLING SWIVEL	CR445	1	
9	NUM8	1005-99-961-8922	• PLATE, BUTT	CR1194	1	
10	B1	5305-99-632-2738	• WOODSCREW, steel, phos, raised hd, no.10 x 1.5 in.lg	B1/BA10296	2	
11	NUM8	5305-99-128-2588	• SCREW, WOOD, steel, phos, raised hd, no.10 x 1 in.lg	CR472	2	
12(1)	NUM8	1005-99-961-8949	• STOCK EXTENSION, GUN, long	CR511	1	
12(2)	NUM8	1005-99-961-8950	• STOCK EXTENSION, GUN, normal	CR512	1	
12(3)	NUM8	1005-99-961-8951	• STOCK EXTENSION, GUN, short	CR513	1	
13	NUM8	5305-99-123-7587	• SCREW, MACHINE	CR510	1	
14	NUM8	5310-99-961-8260	• WASHER, LOCK	CR389	1	
15	NUM8	5310-99-961-8363	• WASHER, FLAT	CR285	1	

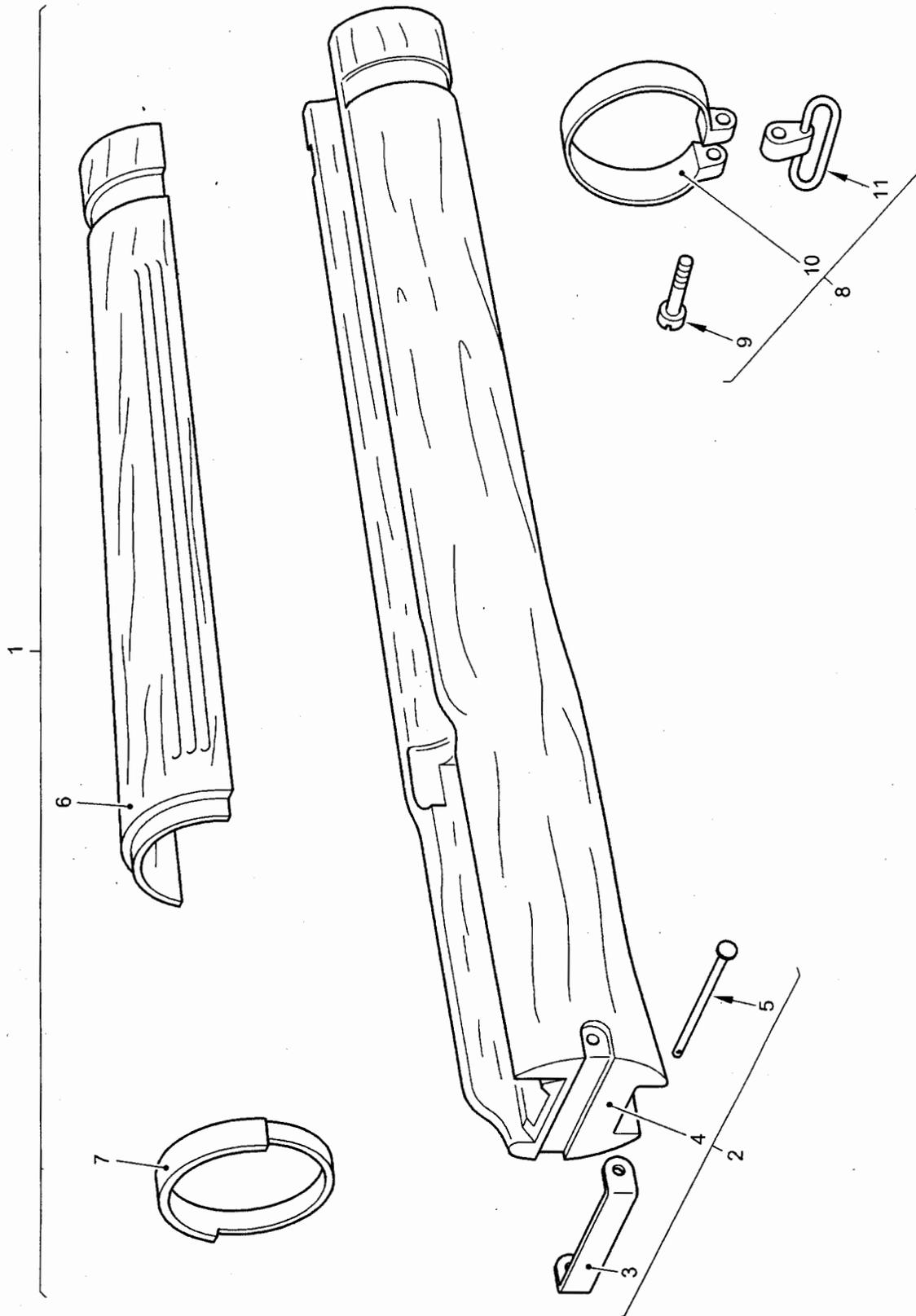
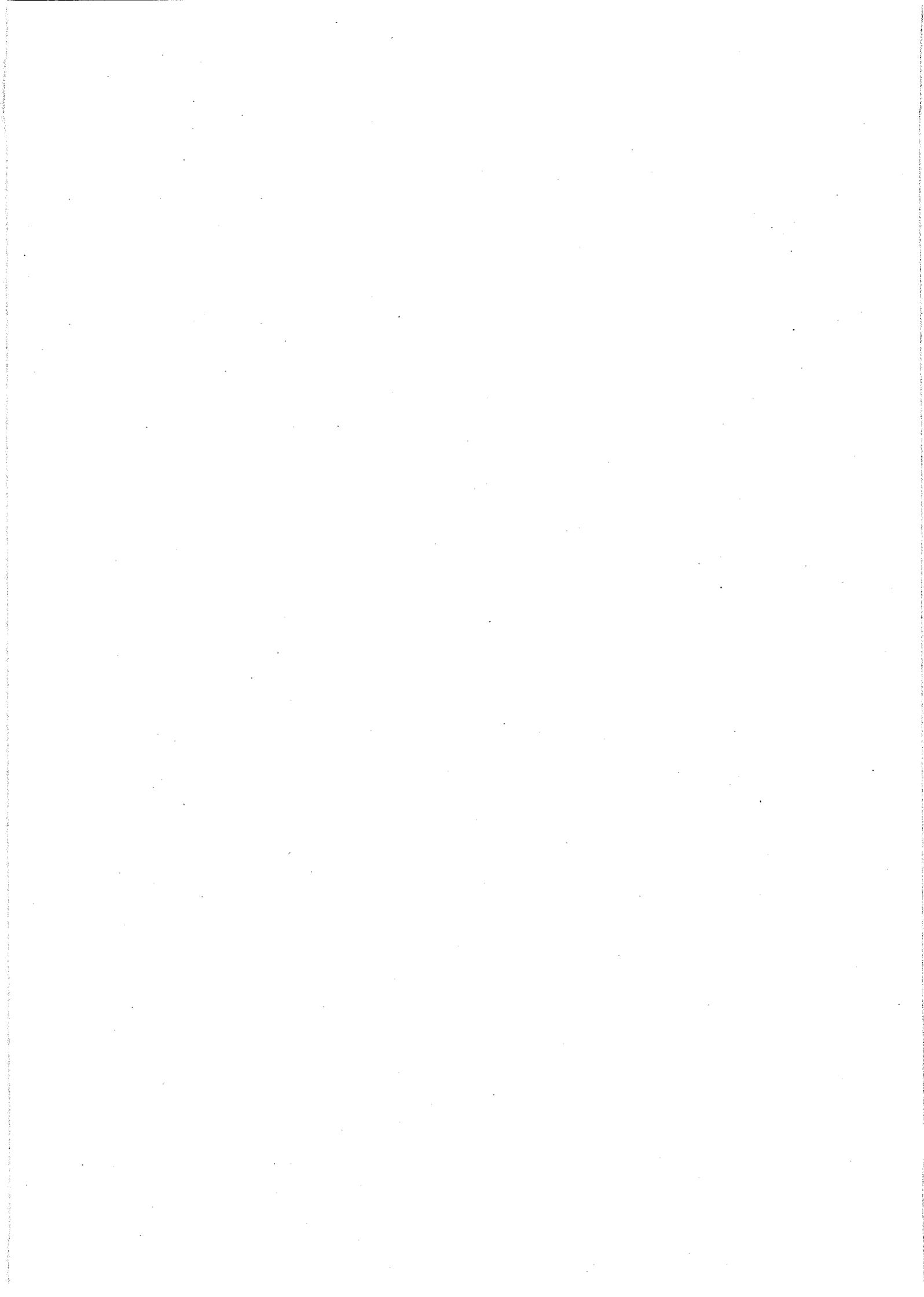


Fig 7 Fore end stock and handguard

PARTS LIST

Fig 7 Item	DMC Army	NATO stock number	Item name	Part No./ Dwg No.	No. off	Annotation (NSCM)
1			FORE END STOCK AND HANDGUARD	REF	1	
2	NUM8	1005-99-961-8956	• STOCK, FORE END, GUN	CR37A	1	
3		NP	•• TIE PLATE	CR374	1	
4		NP	•• STOCK	CR373	1	
5		NP	•• RIVET, TIE PLATE	CR375	1	
6	NUM8	1005-99-961-8958	• GUARD, HAND, GUN	CR358	1	
7	NUM8	1005-99-961-8033	• RING, RETAINING, SMALL ARMS HANDGUARD, rear	CR288	1	
8		NP	• BAND	CR41SA	1	
9	NUM8	5305-99-128-2178	•• SCREW, MACHINE, BA, steel, phos, pan hd, slot drive, no.2 x <sup>33</sup> / <sub>64</sub> in. lg	CR321	1	
10	NUM8	1005-99-961-8904	•• BAND, FORE END	CR320	1	
11	NUM8	1005-99-961-8019	•• SWIVEL, SLING, SMALL ARMS, Mk 1	CR322	1	



**CHAPTER 3**

**INDEXES**

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Para

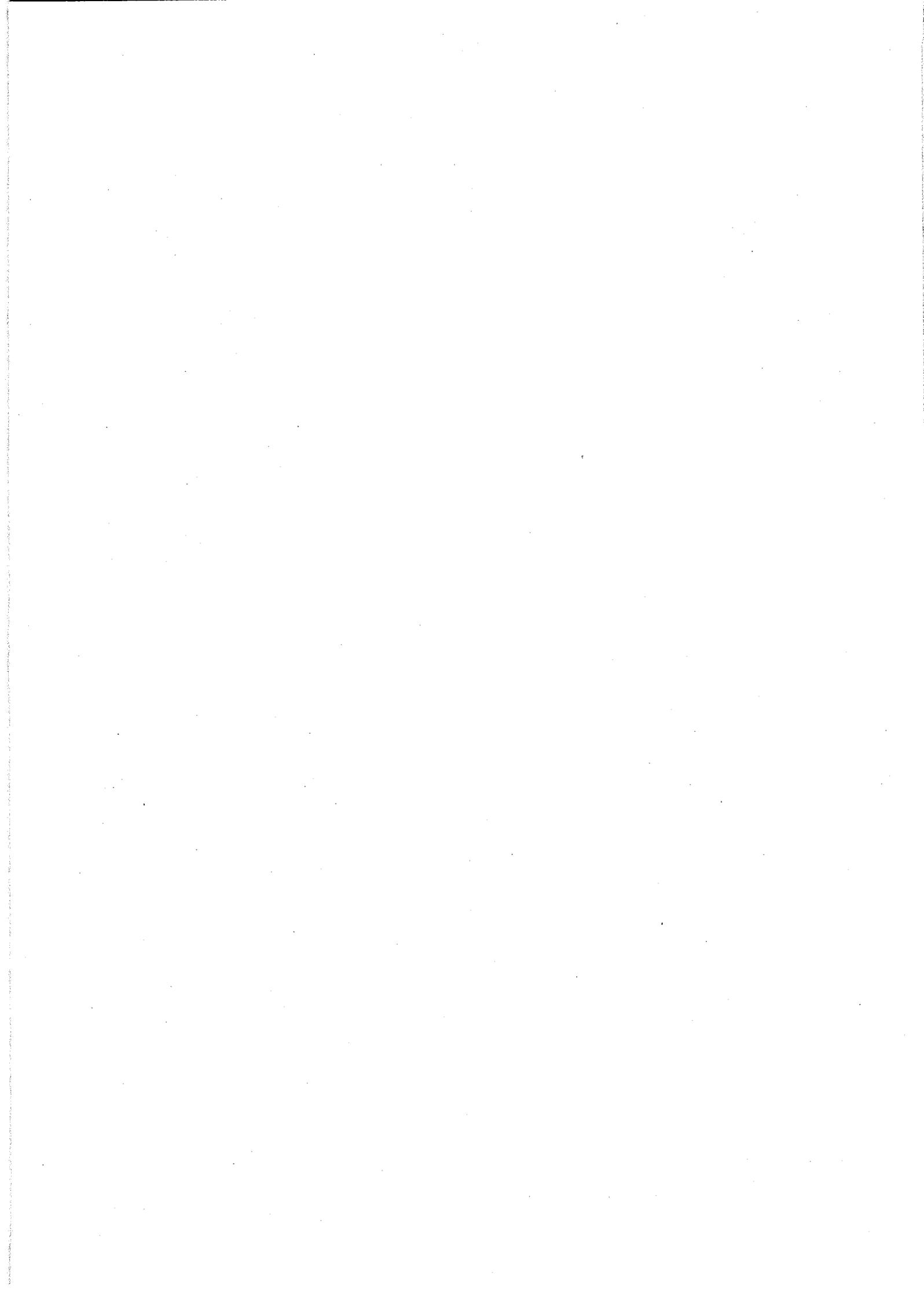
- 1 Introduction

Chapter

- 3-1 Index of NATO stock numbers to chapter, fig and item numbers
- 3-2 Index of manufacturers' part/drawing numbers to chapter, fig and item numbers
- 3-3 Index of NATO stock numbers to item names and description (not issued)
- 3-4 Index of NATO supply codes for manufacturers and manufacturers' names

**INTRODUCTION**

- 1 This chapter identifies the number of indexes provided in support of the main Parts List.





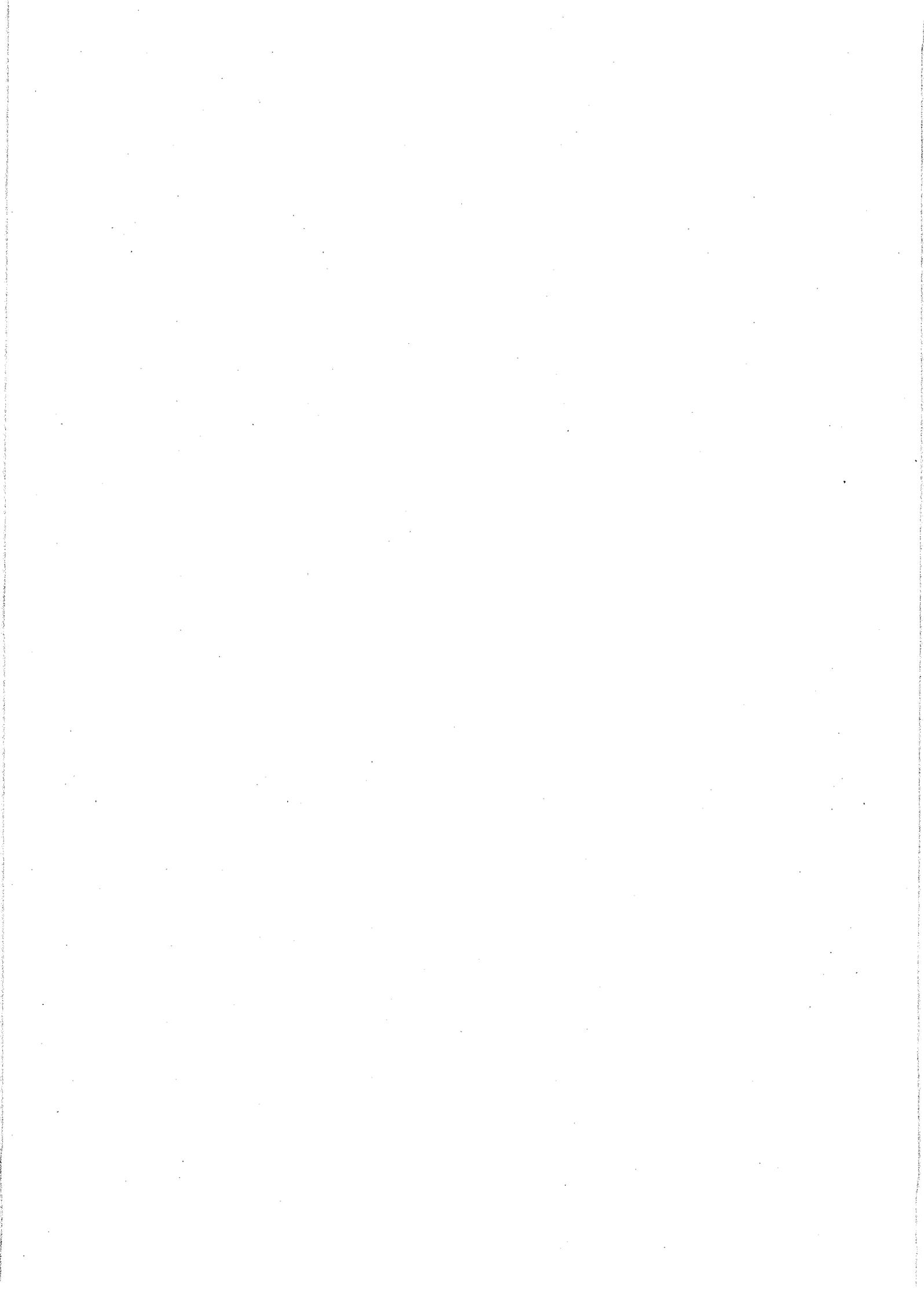
**CHAPTER 3-1**

**INDEX OF NATO STOCK NUMBERS  
TO  
CHAPTER, FIGURE AND ITEM NUMBERS**

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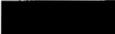
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TO  
CHAPTER, FIGURE AND ITEM NUMBERS**

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5305-99-100-6166	1	5-10	1005-99-961-8205	1	6-3
5305-99-123-7587	1	6-13	1005-99-961-8246	1	2-9
5305-99-128-2156	1	5-13	5310-99-961-8260	1	6-14
5305-99-128-2163	1	4-13	5310-99-961-8261	1	5-33
5305-99-128-2164	1	3-4	5360-99-961-8307	1	5-14
5305-99-128-2178	1	6-5	5360-99-961-8310	1	5-16
5305-99-128-2178	1	7-9	5315-99-961-8339	1	2-6
5305-99-128-2422	1	5-12	5315-99-961-8358	1	3-17
5305-99-128-2491	1	5-31	5365-99-961-8361	1	5-6
5305-99-128-2492	1	5-29	5310-99-961-8362	1	2-3
5305-99-128-2588	1	6-11	5310-99-961-8363	1	6-15
1005-99-128-3276	1	2-5	5315-99-961-8867	1	3-14
5305-99-128-3360	1	5-30	5315-99-961-8868	1	3-15
1005-99-128-5044	1	5-3	5315-99-961-8869	1	4-9
1005-99-128-5072	1	4-2	1005-99-961-8883	1	5-24
1005-99-128-6142	1	5-2	5360-99-961-8884	1	5-17
5305-99-632-2738	1	6-10	1005-99-961-8900	1	2-1
5305-99-941-6856	1	3-13	1005-99-961-8903	1	2-2
3110-99-950-0564	1	2-7	1005-99-961-8904	1	7-10
1005-99-961-8018	1	2-4	1005-99-961-8906	1	4-4
1005-99-961-8019	1	6-4	1005-99-961-8907	1	4-7
1005-99-961-8019	1	7-11	1005-99-961-8908	1	5-7
1005-99-961-8020	1	5-5	1005-99-961-8909	1	5-9
5315-99-961-8021	1	3-18	1005-99-961-8910	1	4-5(8)
1005-99-961-8022	1	5-11	1005-99-961-8911	1	4-5(7)
1005-99-961-8023	1	5-15	1005-99-961-8912	1	4-5(6)
1005-99-961-8032	1	2-8	1005-99-961-8913	1	4-5(5)
1005-99-961-8033	1	7-7	1005-99-961-8914	1	4-5(4)
1005-99-961-8116	1	5-8	1005-99-961-8915	1	4-5(3)
1005-99-961-8130	1	3-26	1005-99-961-8916	1	4-5(2)
1005-99-961-8131	1	3-25	1005-99-961-8917	1	4-5(1)
1005-99-961-8132	1	3-24	1005-99-961-8918	1	4-11
1005-99-961-8133	1	3-23	1005-99-961-8919	1	5-25
1005-99-961-8134	1	3-22	1005-99-961-8920	1	3-9
1005-99-961-8135	1	3-21	1005-99-961-8921	1	4-12
1005-99-961-8136	1	3-20	1005-99-961-8922	1	6-9
1005-99-961-8137	1	3-19	5310-99-961-8931	1	5-28
1005-99-961-8203	1	6-8	5315-99-961-8932	1	5-21

  
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**TO**  
**CHAPTER, FIGURE AND ITEM NUMBERS**

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1005-99-961-8949	1	6-12(1)			
1005-99-961-8950	1	6-12(2)			
1005-99-961-8951	1	6-12(3)			
1005-99-961-8952	1	5-34			
1005-99-961-8953	1	5-22			
1005-99-961-8954	1	5-32			
1005-99-961-8955	1	5-27			
1005-99-961-8956	1	7-2			
1005-99-961-8957	1	4-8			
1005-99-961-8958	1	7-6			
1005-99-961-9009	1	1-1B			
1005-99-961-9087	1	5-18			
1005-99-961-9088	1	4-10			
1005-99-961-9089	1	4-3			
1005-99-961-9090	1	4-6			
1005-99-962-1763	1	5-20			
1005-99-963-3002	1	5-4			



**CHAPTER 3-2**

**INDEX OF MANUFACTURERS' PART/DRAWING NUMBERS**

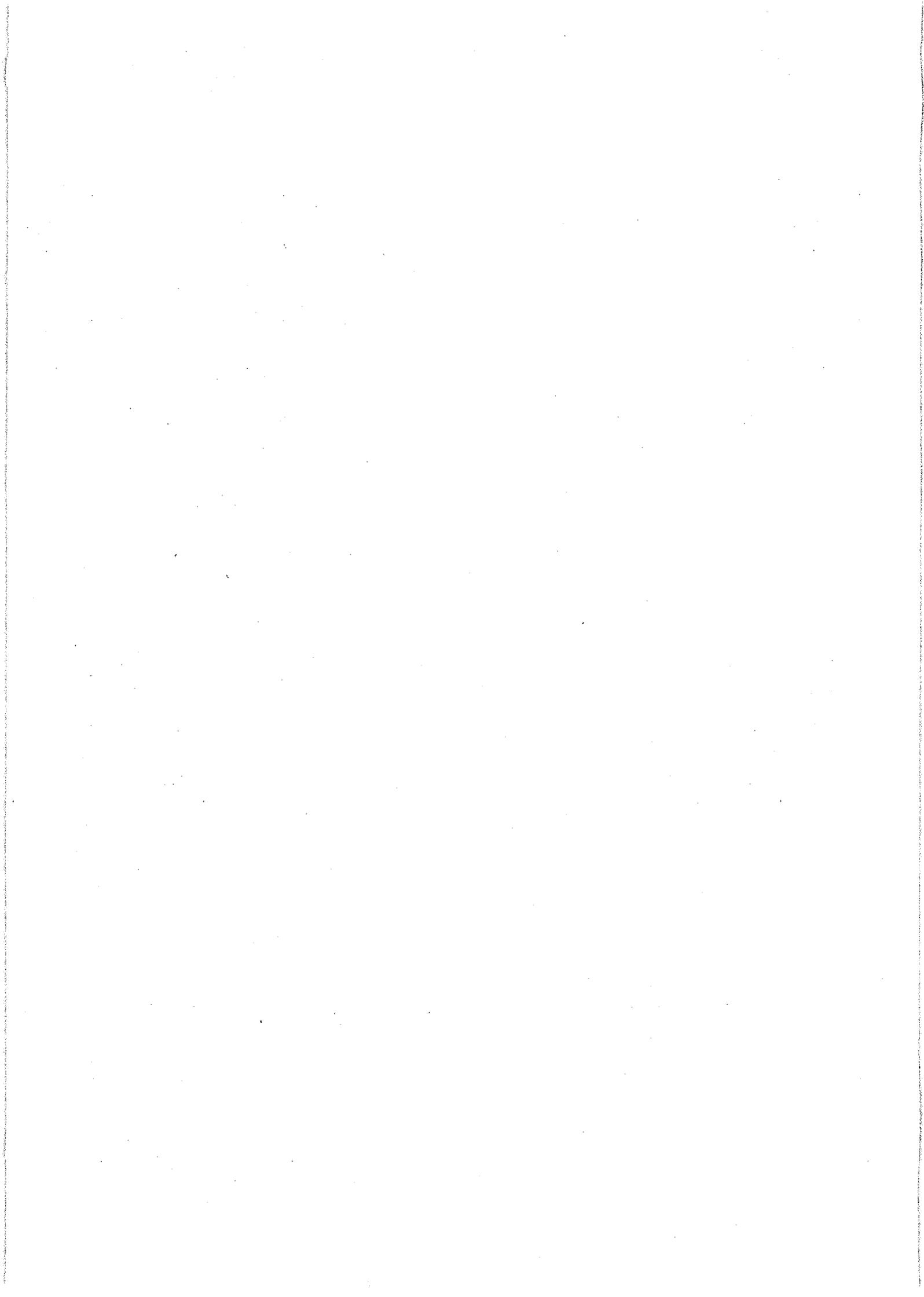
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**CHAPTER, FIGURE AND ITEM NUMBERS**

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**INDEX OF MANUFACTURERS' PART/DRAWING NUMBER  
TO  
CHAPTER, FIGURE AND ITEM NUMBERS**

<b>Manufacturers part or dwg no.</b>	<b>Chapter 2-sub-chapter</b>	<b>Fig &amp; item</b>	<b>Manufacturers part or dwg no.</b>	<b>Chapter 2-sub-chapter</b>	<b>Fig &amp; item</b>
B1/BA10296	1	6-10	CR344	1	5-6
BS 57	1	5-10	CR345	1	5-7
BS57	1	3-12	CR346	1	3-26
BS57	1	3-13	CR347	1	3-25
C3/BF10056	1	5-23	CR348	1	3-24
CR1194	1	6-9	CR349	1	3-23
CR285	1	6-15	CR350	1	3-22
CR288	1	7-7	CR351	1	3-21
CR311	1	5-13	CR352	1	3-20
CR313	1	2-2	CR353	1	3-19
CR314	1	2-3	CR355	1	5-29
CR315	1	2-4	CR358	1	7-6
CR316	1	2-5	CR359	1	3-17
CR317	1	2-7	CR35GA	1	1-1A
CR318	1	2-8	CR360	1	3-18
CR320	1	7-10	CR361	1	5-9
CR321	1	6-5	CR362	1	5-11
CR321	1	7-9	CR363	1	5-15
CR322	1	6-4	CR366	1	5-12
CR322	1	7-11	CR367	1	5-14
CR324	1	3-7	CR368	1	5-16
CR325	1	3-14	CR36GA	1	1-1B
CR326	1	3-15	CR370	1	5-18
CR327	1	3-16	CR373	1	7-4
CR328	1	4-2	CR374	1	7-3
CR330	1	4-13	CR375	1	7-5
CR331	1	4-3	CR377	1	5-20
CR332	1	4-4	CR37A	1	7-2
CR333	1	4-8	CR37GA	1	1-1C
CR335	1	4-9	CR380	1	5-26(2)
CR336	1	4-7	CR381	1	5-24
CR337	1	4-6	CR382	1	5-28
CR339	1	4-10	CR383	1	5-21
CR33A	1	2-1	CR384	1	5-30
CR340	1	5-3	CR385	1	5-31
CR342	1	5-5	CR386	1	5-32
CR343	1	5-4	CR387	1	5-33

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Manufacturers part or dwg no.	Chapter 2-sub-chapter	Fig & item	Manufacturers part or dwg no.	Chapter 2-sub-chapter	Fig & item
CR389	1	6-14	CR58A	1	4-1(3)
CR38A	1	5-19	CR59A	1	4-1(2)
CR390	1	4-5(8)	CR60A	1	4-1(1)
CR391	1	4-5(7)	CR62A	1	6-1(1)
CR392	1	4-5(6)	CR63A	1	6-1(2)
CR393	1	4-5(5)	CR63SA	1	5-2
CR394	1	4-5(4)	CR64A	1	6-1(3)
CR395	1	4-5(3)	CR64SA	1	6-2
CR396	1	4-5(2)	CR65SA	1	6-6
CR397	1	4-5(1)	CR72A	1	3-2
CR41SA	1	7-8	CR83SA	1	3-3
CR443	1	6-3	CR942	1	4-12
CR444	1	6-7	CR943	1	5-26(1)
CR445	1	6-8	DDE450-25	1	5-8
CR44SA	1	5-27	G2C/GB21271	1	3-11
CR46SA	1	5-22	RB2-381 CLS 2	1	2-6
CR472	1	6-11			
CR494	1	3-5			
CR495	1	3-6			
CR502	1	2-9			
CR510	1	6-13			
CR511	1	6-12(1)			
CR512	1	6-12(2)			
CR513	1	6-12(3)			
CR53A	1	4-1(8)			
CR540	1	5-34			
CR543	1	4-11			
CR544	1	3-4			
CR54A	1	4-1(7)			
CR556	1	5-25			
CR557	1	3-9			
CR558	1	3-10			
CR559	1	3-8			
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CR560	1	5-17			
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CR57A	1	4-1(4)			



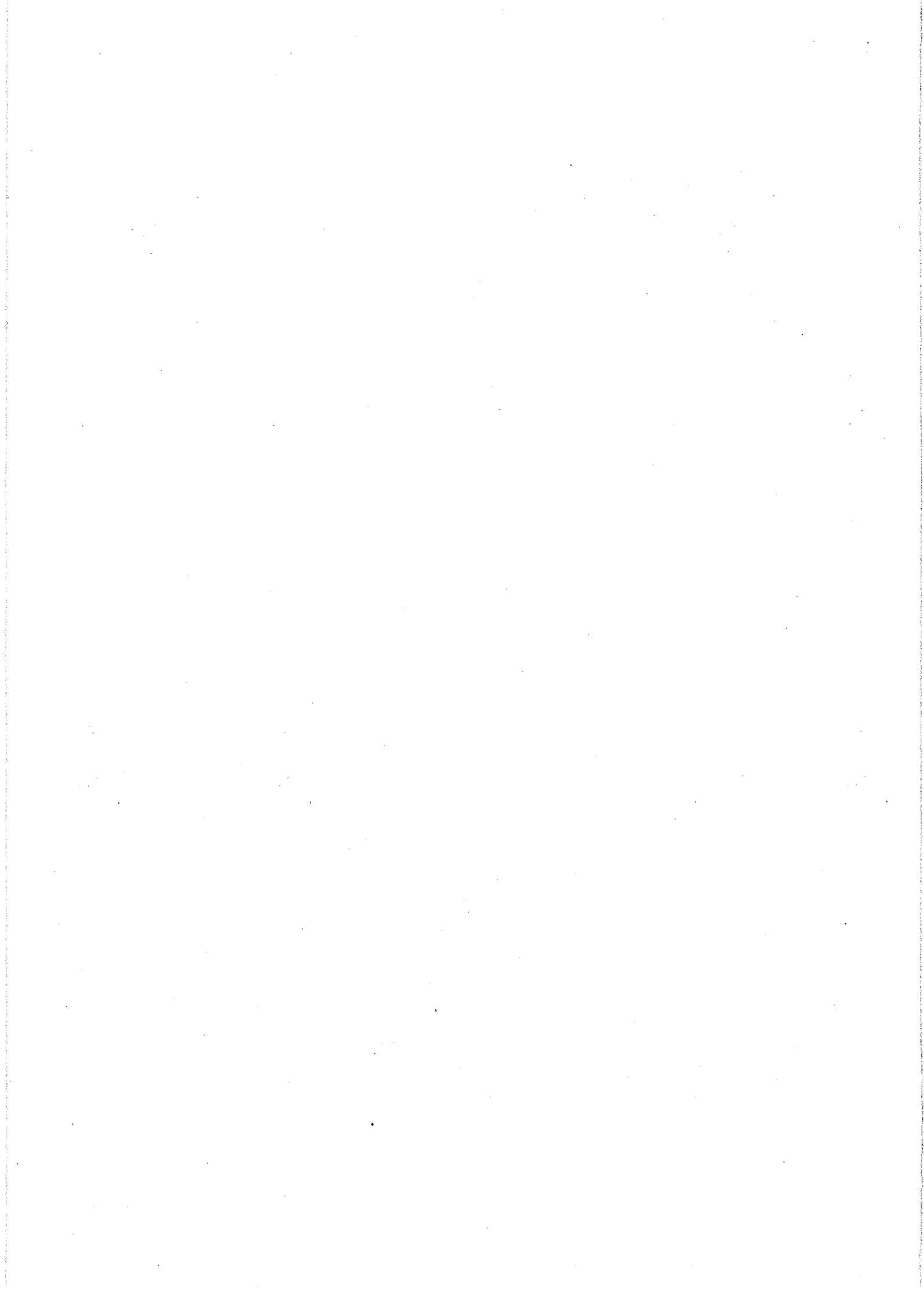
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INDEX OF NATO SUPPLY CODE FOR MANUFACTURERS  
TO  
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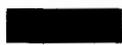


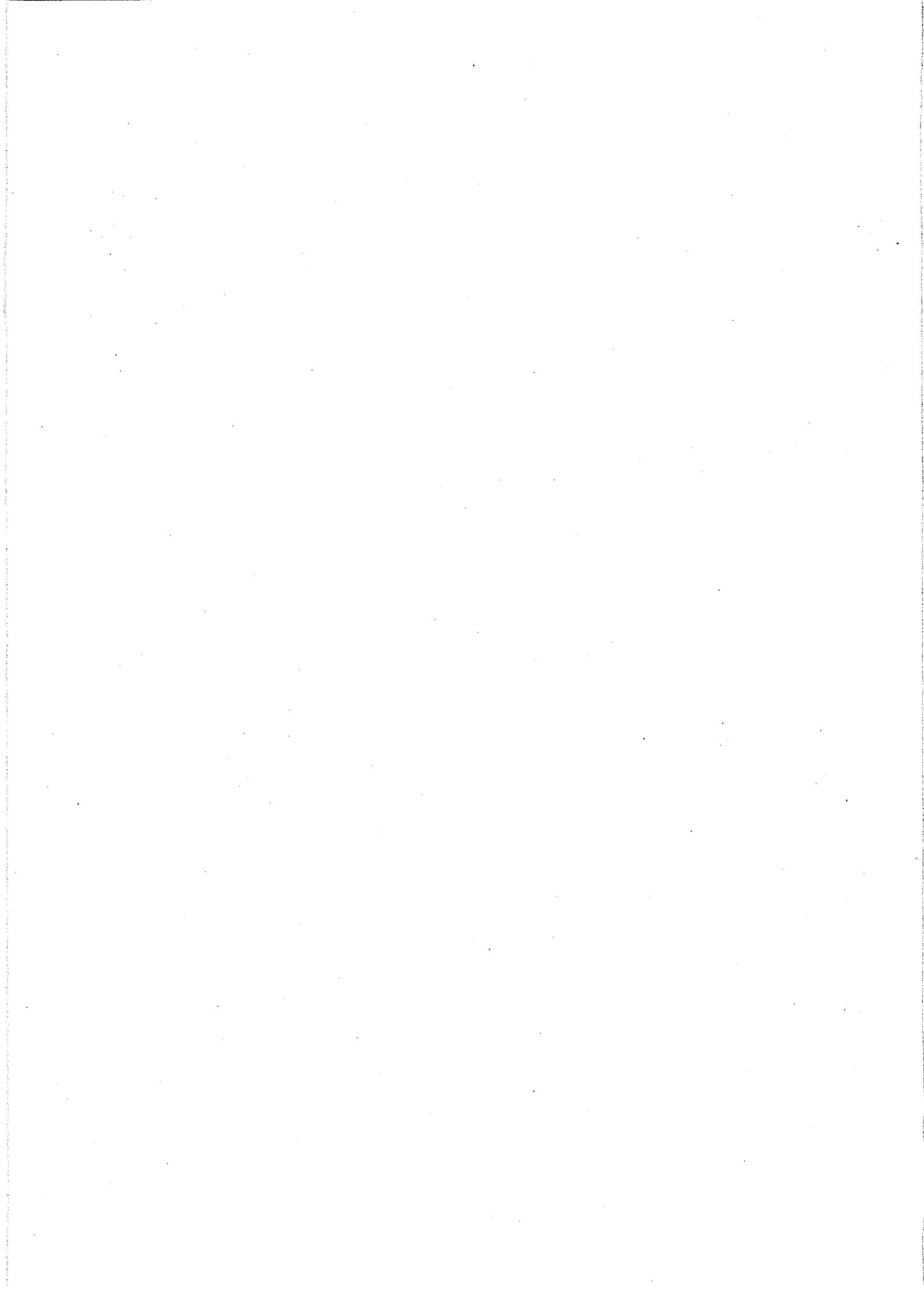




INDEX OF NATO SUPPLY CODE FOR MANUFACTURERS  
TO  
MANUFACTURERS' NAMES

NSCM	Manufacturer	NSCM	Manufacturer
[REDACTED]	[REDACTED]		
[REDACTED]	[REDACTED]		
[REDACTED]	[REDACTED]		





**THE ORIGINATOR OF THE FORM 10 SHALL ENTER THE FOLLOWING DETAILS:**

**IDENTIFICATION:**

1. In the **AESP/EMER NUMBER cell**: enter the full document number eg. **AESP 1357-L-438-711**.
2. In the **IS THIS SAFETY RELATED? cell**: enter **YES** or **NO** as appropriate.

**ORIGINATORS DETAILS:**

1. In the **Address cell** enter the full address of the originator including Post Code/BFPO No.
2. In the **E-Mail cell** enter the originators E-Mail.
3. Enter details in all the other mandatory cells. **[The Senders Reference must be unique]**.
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3. Enter details in non-mandatory cells if relevant.
4. In the comments cell the Form 10 Originator is to enter their comments/concerns/questions.
5. **There is a maximum of 15 lines available to enter text.**  
**[Additional information relating to the comments [additional text / photographs etc.] is to be E-Mailed at the same time as the Form 10 as separate attachments].**

**FORM 10 CELL USE:**

1. The **Form 10 Cell** shall enter on the Form 10 received:
  - 1.1 The **Date Received**.
  - 1.2 The **Form 10 Reference**.
  - 1.3 The **Problem Report Number [generated by the Design Repository]**.**The Form 10 Cell shall endeavour to identify the Project Team / Individual Sponsor.**
  - 1.4 The **Date the Form 10 was E-Mailed** to the Sponsor/Project team and record each stage on their Excel Spreadsheet.

**SPONSOR/PROJECT TEAM RESPONSE TO COMMENTS:**

1. The **Sponsor** shall:
  - 1.1 Enter their **Name [if different to the name entered by the Form 10 Cell]**.
  - 1.2 Enter their **E-Mail details**.
  - 1.3 Enter their **Phone number**.
  - 1.4 Enter the **date they received the Form 10**.
  - 1.5 Enter details in the non-mandatory field if relevant.
  - 1.6 Acknowledge receipt of the **Form 10 by return of E-Mail**, or by **Marking the Form 10 with an X in the Under investigation cell** and returning it by E-Mail to the Form 10 Cell within one week of receiving it.
2. **The Sponsor shall then:**
  - 2.1 **Assess** the content of the comment(s) submitted by the originator.
  - 2.2 **Mark the box** to indicate the action being taken by the sponsor.
  - 2.3 **Fill in the remarks** to explain the reason for the actions being taken.
  - 2.4 **Mark the box** to indicate that the sponsor will notify the originator of the actions taken against the comment(s) raised. **There are only 10 lines available to enter text.**
  - 2.5 **Enter the date** to indicate when the sponsor responded to the Form Comment(s).
  - 2.6 **E-Mail** a copy of the completed Form 10 to the Form 10 Cell & Originator of the Form 10.  
**The Form 10 is to be assessed and the response sent to the Form 10 Cell & Originator of the Form 10 within 6 weeks of the Sponsor receiving the Form 10 request.**

**FORM 10 CELL USE:**

1. The **Form 10 Cell** shall record the final stages of the Form 10 process on their Spreadsheet.
2. The **E2E audit trail of the Form 10 is now complete and closed on a single form.**

**COMMENT(S) ON AESP**

<b>IDENTIFICATION:</b>	
<b>AESP/EMER NUMBER:</b>	<b>IS THIS SAFETY RELATED?:</b>

<b>Send To:</b>	<b>Form 10 Cell BFPO 794</b>	<b>Notice: This Form 10 (Issue 6.0) replaces any previous versions of the Form 10/45.</b>
		<b>Tel:</b> 030 679 82542 or 9679 82542
		<b>Email:</b> <a href="mailto:DESLEPPS-EngPol-Pubs@mod.uk">DESLEPPS-EngPol-Pubs@mod.uk</a>

<b>ORIGINATORS DETAILS:</b>	
<b>[SENDERS REFERENCE MUST BE UNIQUE]</b>	
<b>*Address</b>	<b>*Name</b>
	<b>Rank / Grade</b>
	<b>*Phone</b>
	<b>*Senders Reference</b>
	<b>*Date Raised</b>
<b>*UK E-Mail</b>	<b>Eqpt Asset Code if applicable</b>

<b>AESP/EMER DETAILS:</b>							
<b>*Full Title of AESP/EMER (Not the AESP/EMER Number)</b>							
<b>*Edition</b>	<b>*Amendment</b>	<b>*Chapter</b>	<b>*Paragraph</b>	<b>*Page</b>	<b>Figure</b>	<b>Instruction</b>	<b>Other</b>
<b>*Comments: If additional information is to be supplied, please e-mail with the Form 10 as separate attachments.</b>							

<b>FORM 10 CELL USE:</b>			
<b>*Date Received</b>		<b>*Form 10 Reference</b>	
<b>*Project Team (PT) / SME</b>		<b>Sponsors Name</b>	
<b>*Date Sent to PT / SME</b>		<b>*Problem Report</b>	

<b>PROJECT TEAM / SME RESPONSE TO COMMENTS:</b>			
<b>*Email</b>		<b>Rank / Grade</b>	
<b>*Phone</b>		<b>*Date Received</b>	
<b>*The following action is being taken</b>	<b>Mark:</b>		<b>Mark:</b>
Issue a revised/amended AESP/EMER:		Under investigation:	
Incorporate comment(s) in future amendments:		No action required:	

<b>Remarks:</b>			
<b>*SPONSOR/PT FINAL CLOSURE STEPS</b>	<b>Mark:</b>		<b>Date:</b>
<b>Form 10 Originator notified of the action taken:</b>		<b>Form 10 Cell notified of the action taken</b>	



# Ministry of Defence

## **RIFLE .22 in. No.8 Mk 1**

**1005-99-961-9008 (long butt)**

**1005-99-961-9009 (normal butt)**

**1005-99-961-9010 (short butt)**

## **OPERATING INFORMATION**

Sponsored for use in the  
**UNITED KINGDOM MINISTRY OF DEFENCE  
AND ARMED FORCES**  
by

**SOLDIER SYSTEMS PROGRAM LETHALITY  
PROJECT TEAM  
KD4Q8**

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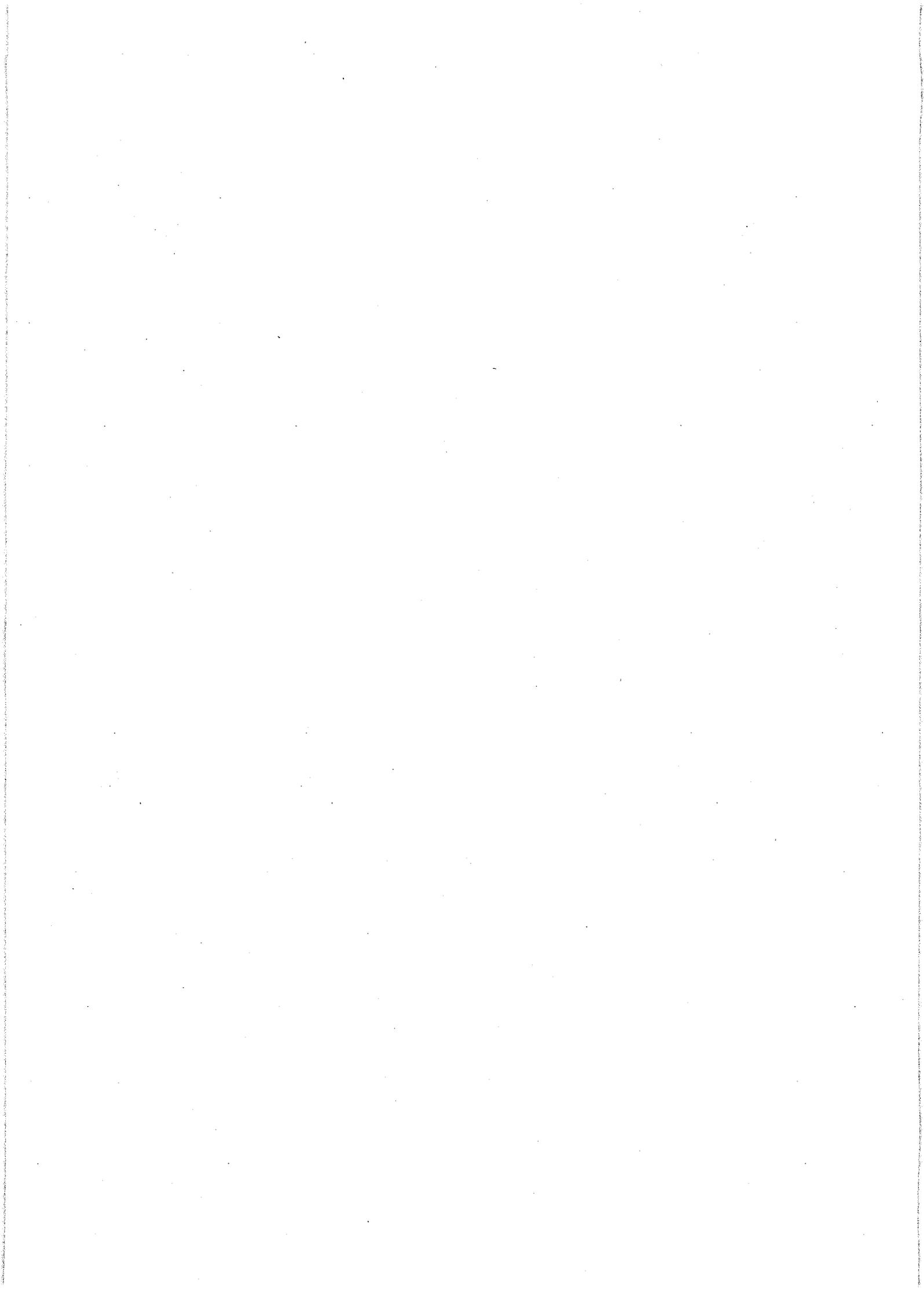
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**AMENDMENT RECORD**

<b>Amdt No.</b>	<b>Incorporated By (Signature)</b>	<b>Date</b>
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**OPERATING INFORMATION**

Chapter

- 1 Description
- 2 Operating information
- 3 Failure diagnosis
- 4 Maintenance information

## PREFACE

Sponsor: SSP Lethality  
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## INTRODUCTION

1 Any comments by service users on this publication should be forwarded through the channels prescribed in Army Equipment Support Publication (AESP) 0100-P-011-013. An AESP Form 10 is provided at the end of this publication; it should be photocopied and used for forwarding comments on this AESP.

2 AESPs are issued under UK MOD authority and where AESPs specify action is to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores, subject to the provisions of Para 3 below.

3 The subject matter of this publication may be affected by Defence Instructions and Notices (DINs), Standard Operating Procedures (SOPs) or by local regulations. When any such instruction, order or regulation contradicts any portion of this publication it is to be taken as the overriding authority.

## RELATED AND ASSOCIATED PUBLICATIONS

## Related publications

4 The Octad for the subject equipment consists of the publications shown below. All references are prefixed with the first eight digits of this publication. The availability of the publications can be checked by reference to the relevant Group Index (see AESP 0100-A-001-013).

Category/Sub-category			Information Level			
			1 User/Operator	2 Unit Maintenance	3 Field Maintenance	4 Base Maintenance
1	0	Purpose and Planning Information	101	101	*	*
	1	Equipment Support Policy Directive	111	111	*	*
2	0	Operating Information	201	201	*	*
	1	Aide Memoire	*	*	*	*
	2	Training Aids	*	*	*	*
3		Technical Description	201	302	302	302
4	1	Installation Instructions	*	*	*	*
	2	Preparation for Special Environments	*	*	*	*
5	1	Failure Diagnosis	201	522	522	522
	2	Maintenance Instructions	201	522	522	522
	3	Inspection Standards	*	532	532	532
	4	Calibration Procedures	*	*	*	*
6		Maintenance Schedules	*	*	*	*
7	1	Illustrated Parts Catalogues	711	711	711	711
	2	Commercial Parts Lists	*	*	*	*
	3	Complete Equipment Schedule, Production	*	*	*	*
	4	Complete Equipment Schedule, Service Edition (Simple Equipment)	*	*	*	*
	5	Complete Equipment Schedule, Service Edition (Complex Equipment)	*	*	*	*
8	1	Modification Instructions	*	*	*	*
	2	General Instructions, Special Technical Instructions and Servicing Instructions	*	*	*	*
	3	Service Engineered Modification Instructions (RAF only)	*	*	*	*

\*Category/sub-category not published.

**Associated publications**

5 Associated publications are as follows:

[REDACTED]

**WARNINGS AND CAUTIONS**

**WARNINGS**

- (1) **RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON.**
- (2) **RISK OF HEARING DAMAGE OR DEAFNESS. ALWAYS WEAR SUITABLE EAR PROTECTORS WHEN FIRING THE WEAPON.**
- (3) **RISK OF EYE INJURY OR BLINDNESS. ALWAYS WEAR SUITABLE EYE PROTECTION WHEN FIRING THE WEAPON. KEEP THE MUZZLE AREA CLEAR WHEN FIRING.**
- (4) **PERSONAL INJURY. OPERATION THIS WEAPON MUST BE CARRIED OUT IN ACCORDANCE WITH [REDACTED]**

**CAUTIONS**

- (1) **EQUIPMENT DAMAGE. Excessive force. Do not use excessive force when cleaning the weapon.**
- (2) **EQUIPMENT DAMAGE. Incorrect cleaning agents and care products. Do not use any metallic objects, plastics (nylon, etc.) or chemical cleaning agents to clean the weapon.**

## LIST OF ABBREVIATIONS

Abbreviation	Definition
AESP	Army Equipment Support Publication
B.A.	British Association
B.S.F.	British Standard Fine
B.S.W.	British Standard Whitworth
dia	diameter
DMC	Domestic Management Code
etc.	etcetera
Fig	Figure
in.	Inch(es)
lb(s)	Pound(s)
Mk	Mark
MOD	Ministry of Defence
MPI	Mean Point of Impact
NATO	North Atlantic Treaty Organisation
No.	Number
NSN	NATO Stock Number
NSP	Normal Safety Precautions
oz	Ounce
Para	Paragraph
SOP	Standard Operating Procedure
SSP	Soldier System Programme
UK	United Kingdom
w/	with
yds	yards

**CHAPTER 1**

**DESCRIPTION**

**CONTENTS**

Para

- 1 Introduction
- 3 General
- 5 Trigger
- 6 Rifling
- 7 Bolt
- 8 Fore-end
- 9 Barrel

Table

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1 General characteristics.....	2

Fig

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1 Rifle, No.8, Mk 1.....	3

**INTRODUCTION**

1 Designed for use as a training rifle and also for competition shooting, the No.8 Mk 1 rifle is a hand-operated, bolt-action rifle available in three different lengths. It is a single shot weapon that fires a .22 in. round and has no magazine. The trigger can be adjusted to give either the service (double) pull or a single pull. The weight of the pull can be adjusted in either case. The rifle is installed with a blade foresight and an aperture backsight which has graduations of 25, 50 and 100 yds.

2 General characteristics for the weapon are given in Table 1.

**TABLE 1 GENERAL CHARACTERISTICS**

Serial (1)	Characteristic (2)	Data (3)
<b>General</b>		
1	Length of rifle (normal butt)	41.05 in.
2	Weight of rifle	8 lb. 14 oz.
3	Cartridge head space	0.045 in. to 0.047 in.
4	Striker protrusion	0.034 in. to 0.038 in.
5	Screw thread system	B.A., B.S.F., B.S.W.
<b>Barrel</b>		
6	Length	23.3 in.
7	Diameter of bore	0.216 in. to 0.2165 in.
<b>Rifling</b>		
8	Form	Concentric tapering
9	Number of grooves	6
10	Direction of twist	Right hand
11	Pitch	One turn in 16 in.
12	Width of grooves	0.055 in. (+0.01 in. - 0.0 in.)
13	Depth of grooves at breech end	0.000275 in. to 0.004 in.
14	Uniform taper on groove diameter decreasing towards muzzle	0.0002 in. per inch
15	Chamber	0.22 in. service ammunition
<b>Sights</b>		
16	Fore: Blade type issued in eight heights:	-0.03 in., -0.015 in., .0 in., 0.015 in., 0.030 in., 0.045 in., 0.060 in., 0.075 in.
17	Back:	Aperture type located at the rear of the body and graduated for 25, 50 and 100 yds, and also a harmonisation position.
18	Mean sight radius	26.95 in.

### GENERAL

3 The rifle has been designed both as a training rifle and also for competitive shooting. In the latter role it is intended to be used with a match-type backsight and a tunnel foresight. These are not issued with the rifle.

4 It is a bolt-action, single-shot weapon and has no magazine. The rifle is shown in Fig 1.

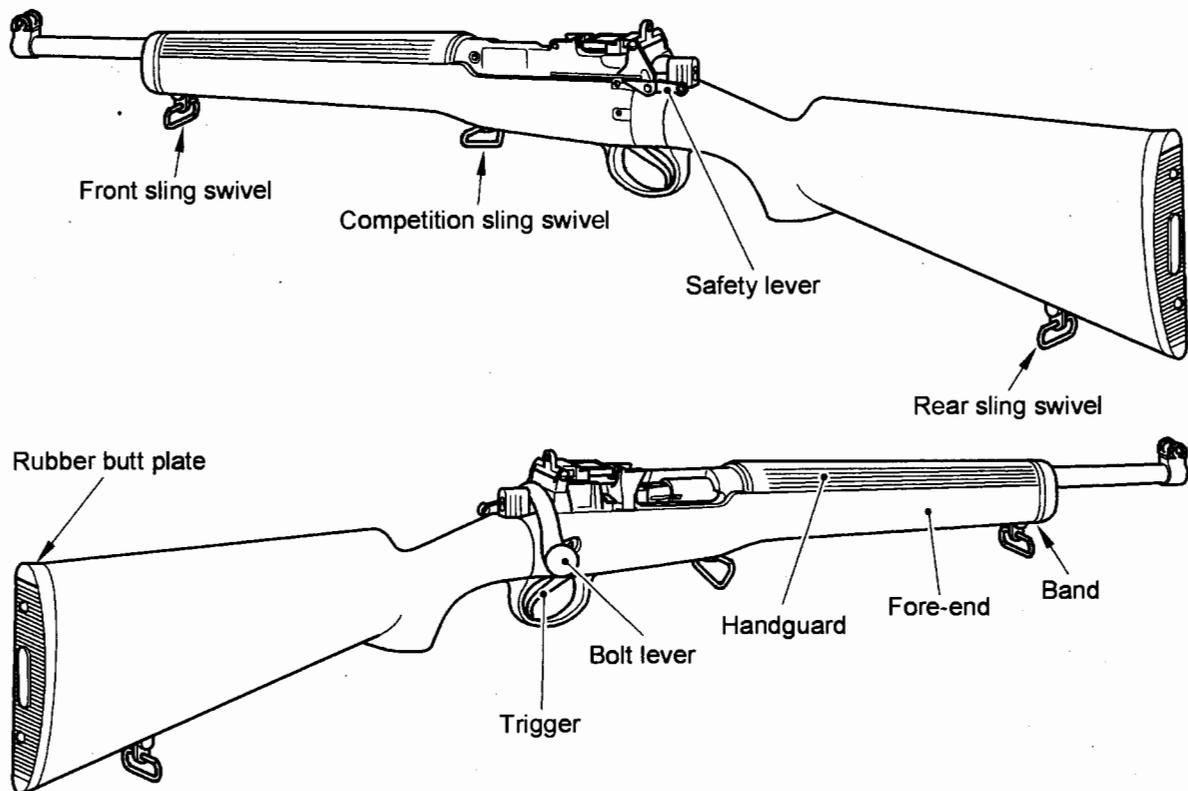


Fig 1 Rifle, No.8, Mk 1

### TRIGGER

5 The trigger can be adjusted to give either the service pull-off or single pull-off. The weight can be adjusted in either case.

### RIFLING

6 The depth of the grooves in the barrel taper, decreasing towards the muzzle end. This removes the engraving from the bullet as it leaves the bore, achieving greater stability in flight.

### BOLT

7 Raising the bolt lever re-cocks the weapon. It is not necessary to pull the bolt back in the event of a misfire. There is no short cam. Instead there is a shallow recess in the back of the bolt which holds the cocking piece when it is in the withdrawn position. The striker does not strike the round, but drives forward an independent firing pin which is spring-loaded and housed in the bolt head.

**FORE-END**

8 The fore-end is wide and provides the shooter with a good grip. The bearings in the fore-end are:

- 8.1 Body seating.
- 8.2 Reinforce.
- 8.3 Centre bearing.
- 8.4 Muzzle.

**NOTE**

There is no draw bearing.

**BARREL**

9 The rifle is fitted with a heavy barrel to give added accuracy. The chamber is positioned sufficiently far back on the body to facilitate loading when the shooter is in the prone position. A cartridge platform, on which is formed the ejector, is located just behind the entrance to the chamber.

**CHAPTER 2**

**OPERATING INFORMATION**

**CONTENTS**

Para

- 1 Introduction
- 3 Normal safety precautions (WARNINGS)
- 5 Function check (WARNINGS)
- Preparation of the weapon before firing
- 7 Attaching a carrying sling
- 8 Sights
- Operation
- 12 Loading the weapon (WARNING)
- 13 Firing (WARNINGS)
- 14 Unloading the weapon
- Immediate action and misfire drill
- 15 Immediate action
- 16 Misfire drill

Fig

Page

1	Rifle, No.8, Mk 1 .....	3
2	Cartridge platform .....	5

**INTRODUCTION**

- 1 This chapter gives the information that follows:
  - 1.1 Safety and function checks required to ensure the weapon is safe for maintenance and in good working order,
  - 1.2 Operating information.
- 2 The information contained in this chapter does not countermand Normal Safety Precautions and Standard Operating Procedures.

**NORMAL SAFETY PRECAUTIONS****WARNINGS**

- 1) **RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON.**
- 3 Successful completion of the Normal Safety Precautions (NSPs) will verify that the weapon is unloaded. The NSPs must be performed whenever:
  - 3.1 Handing over or receiving the weapon.
  - 3.2 Preparing the weapon for cleaning, maintenance or inspection.
  - 3.3 Uncertainty exists that the weapon is loaded.
- 4 Carry out NSPs as follows:
  - 4.1 Point the rifle in a safe direction.
  - 4.2 Move the safety lever forward to the fire position.
  - 4.3 Raise the bolt lever and draw the bolt fully to the rear.
  - 4.4 Look into the breech, bolt face and loading chamber. There must be no cartridge.
  - 4.5 If there is a cartridge, remove it.
  - 4.6 Grasp the knob of the lever, thrust the bolt sharply forward as far as it will go, then rotate the bolt lever fully downward.
  - 4.7 Point the rifle in a safe direction, aim and fire off the action.
  - 4.8 Move the safety lever back to the safe position.

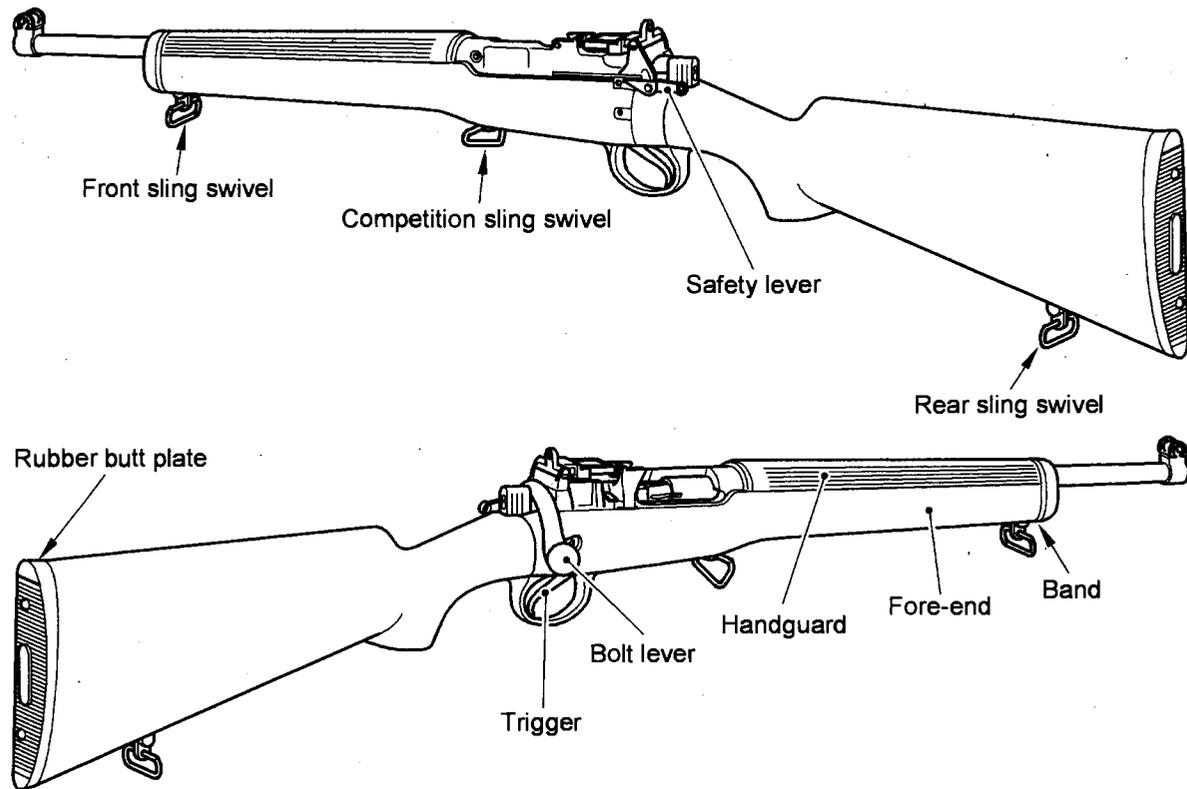


Fig 1 Rifle, No.8, Mk 1

## FUNCTION CHECK

### WARNINGS

**1) RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON.**

5 Successful completion of the function check will confirm that the weapon is in working order. The function check **MUST** be done after:

- 5.1 The weapon has been re-assembled.
- 5.2 The weapon has been cleaned.
- 5.3 The weapon has been repaired.

6 Carry out the function check as follows:

- 6.1 Move the safety catch forwards to the fire position.
- 6.2 Grasp the bolt lever and cock the weapon.
- 6.3 Squeeze the trigger, the trigger should operate.
- 6.4 Re-cock the weapon.
- 6.5 Move the safety catch backwards to the safe position.

- 6.6 Squeeze the trigger, the trigger should not operate.
- 6.7 Move the safety catch forward to the fire position and squeeze the trigger.
- 6.8 Move the safety catch backwards to the safe position.

## PREPARATION OF THE WEAPON BEFORE FIRING

### Attaching a carrying sling

7 A carrying sling can be attached to the weapon using the front, rear and competition sling swivels as appropriate.

### Sights

- 8 The rifle can be fitted with competition sights. Competition sights must be installed by an armourer.
- 9 The point of impact can depend on the ammunition. The use of different types of ammunition can change the elevation and windage of the point of impact. The sights can be adjusted to correct for the changed point of impact.
- 10 The rifle is zeroed, by alterations to the size and position of the foresight. There are eight foresights available ranging from -0.03 in. to +0.075 in., in steps of 0.015 in. One change of foresight will make a vertical alteration to the Mean Point of Impact (MPI) of approximately 1/2 inch at 25 metres. Lateral adjustment is made using the foresight cramp No.3. One turn of the cramp will make a lateral alteration to the MPI of approximately one inch at 25 metres.
- 11 The rifle should be zeroed so that the MPI is at the point of aim with the backsight set for the range used.

## OPERATION

### Loading the weapon

### WARNING

**1) RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON.**

- 12 Load the weapon as follows:
  - 12.1 Move the safety catch forwards to the fire position.
  - 12.2 Raise the bolt lever and draw the bolt fully to the rear.
  - 12.3 Place a cartridge in the groove of the cartridge platform (Fig 2), then press the round forward with the thumb or finger until the bullet has entered the chamber and resistance is felt.

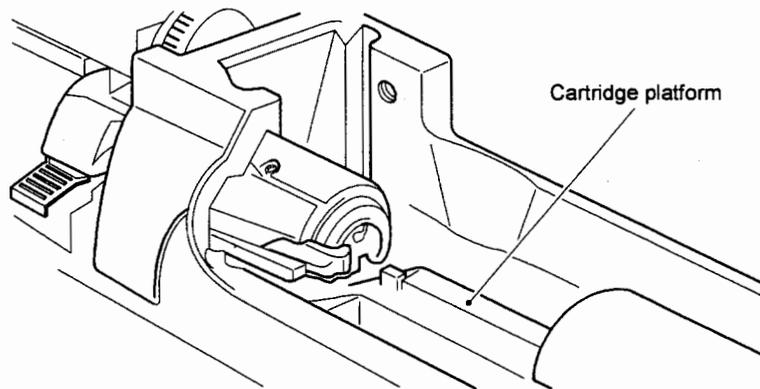


Fig 2 Cartridge platform

12.4 Grasp the knob of the bolt lever, thrust the bolt sharply forward as far as it will go, then rotate the bolt lever fully downward.

12.5 Repeat Paras 12.2 to 12.4 for each successive round.

#### Firing

#### WARNINGS

(1) **RISK OF HEARING DAMAGE OR DEAFNESS. ALWAYS WEAR SUITABLE EAR PROTECTORS WHEN FIRING THE WEAPON.**

(2) **RISK OF EYE INJURY OR BLINDNESS. ALWAYS WEAR SUITABLE EYE PROTECTION WHEN FIRING THE WEAPON. KEEP THE MUZZLE AREA CLEAR WHEN FIRING.**

(3) **RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON.**

(4) **PERSONAL INJURY. OPERATION THIS WEAPON MUST BE CARRIED OUT IN ACCORDANCE WITH [REDACTED]**

13 Fire the weapon as follows:

13.1 Load the weapon. Para 12 refers.

13.2 Aim.

13.3 Move the safety lever forward to the fire position.

13.4 Pull the trigger; a cartridge is fired.

13.5 Move the safety lever back to the safe position.

#### Unloading the weapon

14 To unload the weapon:

14.1 Grasp the bolt lever, raise it, and retract the bolt.

**NOTE**

The empty case is removed from the chamber by the extractor claw; the ejector then strikes the rim of the case and ejects it from the rifle.

**Immediate action and misfire drill****NOTE**

Misfires are attributed to two main causes, faulty ammunition and mechanical failure of the weapon. Both faults are likely to result in a misfired round of ammunition.

**Immediate action**

15 If the rifle fails to fire, do the steps that follow:

- 15.1 Check that the safety lever is forward in the fire position.
- 15.2 Re-aim and attempt to fire again.

**NOTE**

A hang fire should be suspected whenever the rifle fails to fire, but has not clearly malfunctioned. Hang fire refers to an unexpected delay between the triggering of the rifle and the ignition of the propellant. The delay is typically too brief to be noticed, but can be several seconds.

15.3 If the rifle still fails to fire, a hang fire must be assumed. Keep the weapon pointed at the target and wait 30 seconds.

**Misfire drill**

16 After 30 seconds pull the bolt back and do the steps that follow:

- 16.1 If the cartridge is not struck:
  - 16.1.1 Remove the cartridge.
  - 16.1.2 Check the firing pin hole. Clean it if necessary.
  - 16.1.3 Reload the weapon with the same cartridge.
  - 16.1.4 Re-aim and fire the weapon.
- 16.2 If the cartridge is struck:
  - 16.2.1 Remove the cartridge.
  - 16.2.2 Reload the weapon with a new cartridge.
  - 16.2.3 Re-aim and fire the weapon.
- 16.3 If after examination and cleaning the rifle still fails to fire, submit the rifle to the armourer.

16.4 Isolate a misfired cartridge from the other ammunition. At the conclusion of firing it is to be taken to a suitable area and destroyed as a blind.

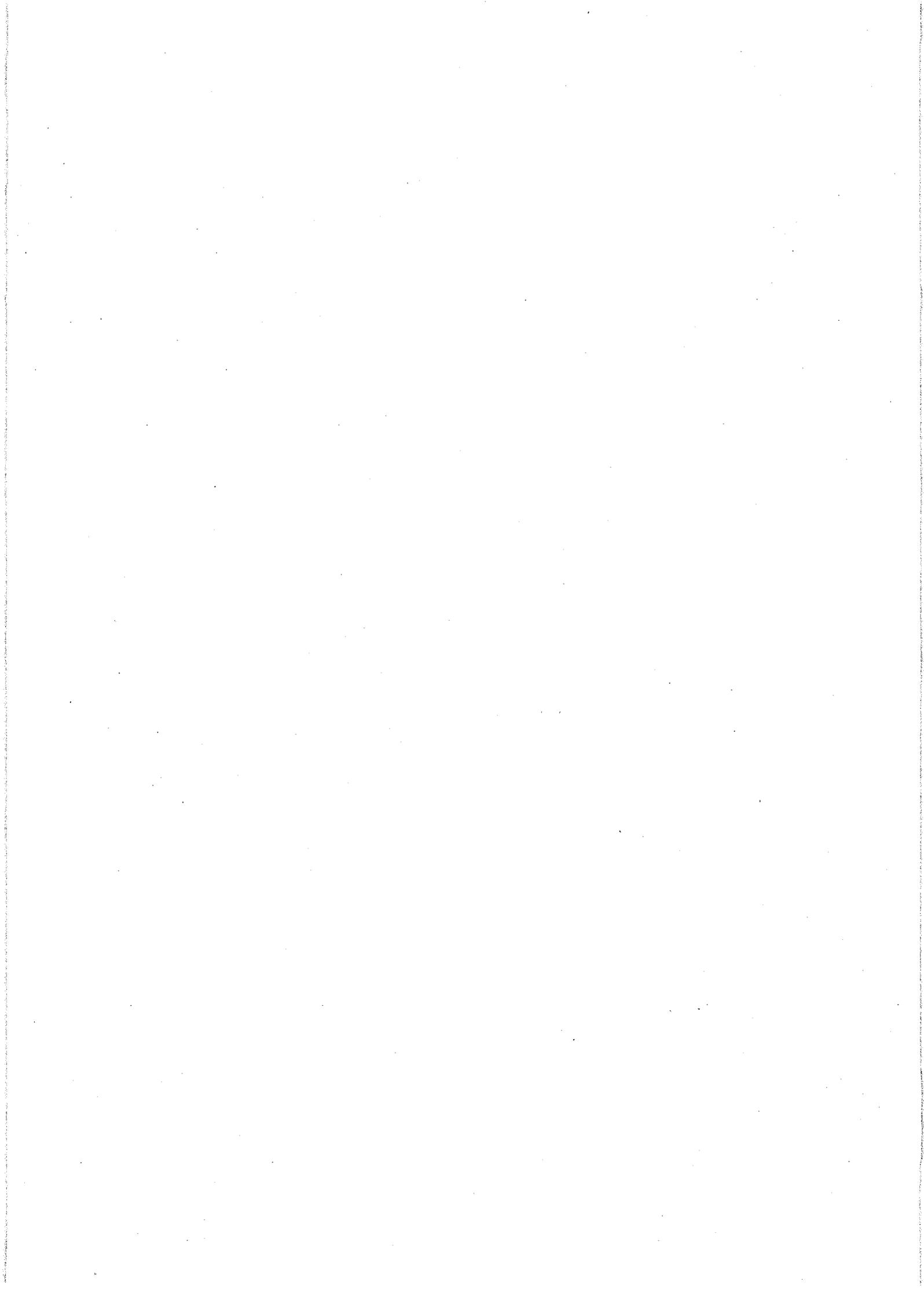
16.5 If misfires happen at night it will not be possible to examine the rounds for firing pin strike. In this event:

16.5.1 Reload the weapon with a new cartridge.

16.5.2 Re-aim and fire the weapon.

16.5.3 If the misfire happens again, replace the weapon and the ammunition batch.

16.5.4 Keep the batch of ammunition from which the misfired rounds came from to one side for further examination by the Ammunition Technical Officer.



**CHAPTER 3**

**FAILURE DIAGNOSIS**

**CONTENTS**

Para

- 1 Introduction (WARNINGS)

Table

Page

- 1 Failure diagnosis ..... 2

**INTRODUCTION**

**WARNINGS**

**(1) RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON.**

**(2) PERSONAL INJURY. OPERATION THIS WEAPON MUST BE CARRIED OUT IN ACCORDANCE WITH [REDACTED]**

1 This Chapter contains Level 1 fault diagnosis for the Rifle. It does not cover all theoretical failures, causes and rectification.

2 If a fault cannot be identified and rectified using the information contained in Table 1, do NOT investigate further, return the weapon to unit for repair by qualified armourers.

**TABLE 1**      **FAILURE DIAGNOSIS**

<b>Serial (1)</b>	<b>Fault (2)</b>	<b>Cause (3)</b>	<b>Action (4)</b>
1	Fails to fire.	Ammunition defective.	Replace ammunition.
		Firing pin damaged.	Send weapon in for repair.
2	Fails to extract.	Extractor or extractor spring damaged.	Send weapon in for repair.
3	Fails to eject.	Ejector block worn or damaged.	Send weapon in for repair.
4	Fails to chamber a round.	Ammunition defective.	Replace ammunition.
		Dirty chamber.	Clean chamber & barrel.
5	Unable to zero.	Damaged sights.	Send weapon in for repair.
		Misaligned sights.	Re adjust sights.

CHAPTER 4

MAINTENANCE INFORMATION

CONTENTS

Para

- 1 Introduction
- 3 Cleaning (WARNING) (CAUTIONS)  
Bolt (WARNING)
- 6 Stripping
- 7 Assembly

Fig

Page

- 1 Remove the bolt ..... 2
- 2 Strip the bolt ..... 3

**INTRODUCTION**

- 1 This chapter describes User (Level 1) maintenance for the Rifle, .22in., No.8, Mk 1.
- 2 User maintenance is limited to removal of the bolt and the cleaning of the weapon.

**CLEANING**

**WARNING**

**RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON.**

**CAUTIONS**

- (1) **EQUIPMENT DAMAGE. Excessive force. Do not use excessive force when cleaning the weapon.**
- (2) **EQUIPMENT DAMAGE. Incorrect cleaning agents and care products. Do not use any metallic objects, plastics (nylon, etc.) or chemical cleaning agents to clean the weapon.**
- 3 Clean the exterior and working parts with an oily rag.
- 4 The .22 inch ammunition issued to the services and most makes of commercial ammunition are non-rusting, therefore, it normally is not necessary to clean the bore after firing. The deposit remaining in the barrel after firing is a preservative and should not be removed. Particular attention should be paid to the cleaning of the chamber, breech area and face of the bolt to ensure that all wax and deposits are removed.
- 5 When putting the rifle into storage for a long period or when changing from one brand of ammunition to another it may however, be necessary to clean the barrel to remove foreign matter other than the preservative deposited by the ammunition. When cleaning the bore, the No.6 cleaning rod with brush and cleaner should be used.

**BOLT****WARNING**

**RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON.**

**Stripping**

6 Remove and strip the bolt as follows:

- 6.1 Raise the backsight (Fig 1 (1)).
- 6.2 Press down the bolt head catch (3), lift the bolt lever (2) and pull the bolt back to its full extent.
- 6.3 Release the bolt head catch (3), raise the bolt head and withdraw the bolt from the rifle.

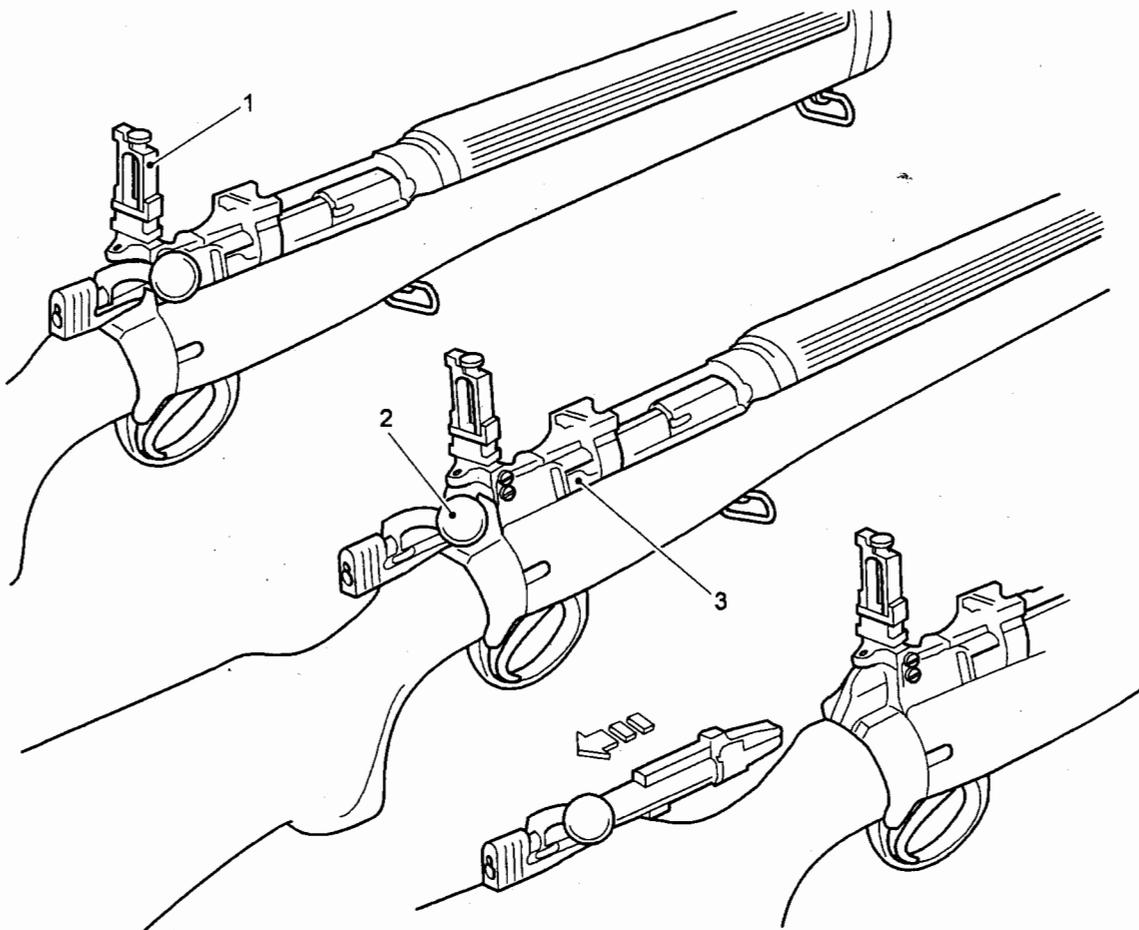


Fig 1 Remove the bolt

6.4 To strip the bolt: Unscrew the bolt head (Fig 2 (2)), and pull out the firing pin (1) and the firing pin spring (3).

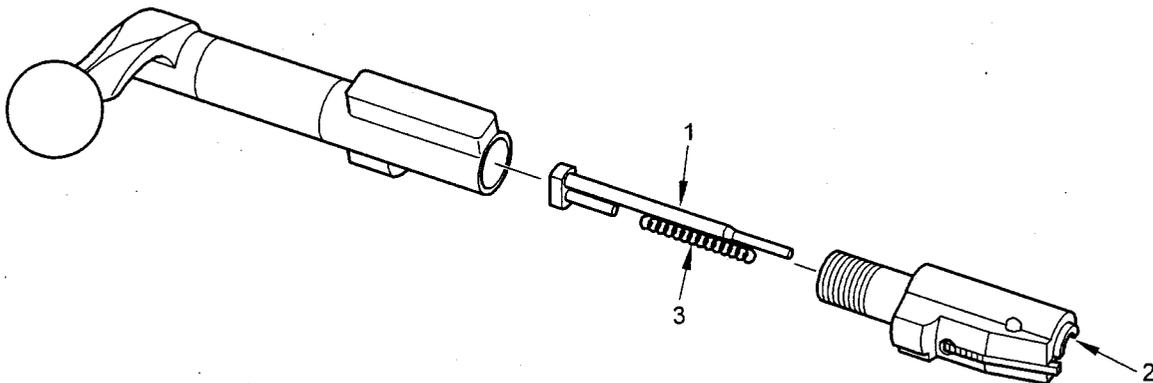


Fig 2 Strip the bolt

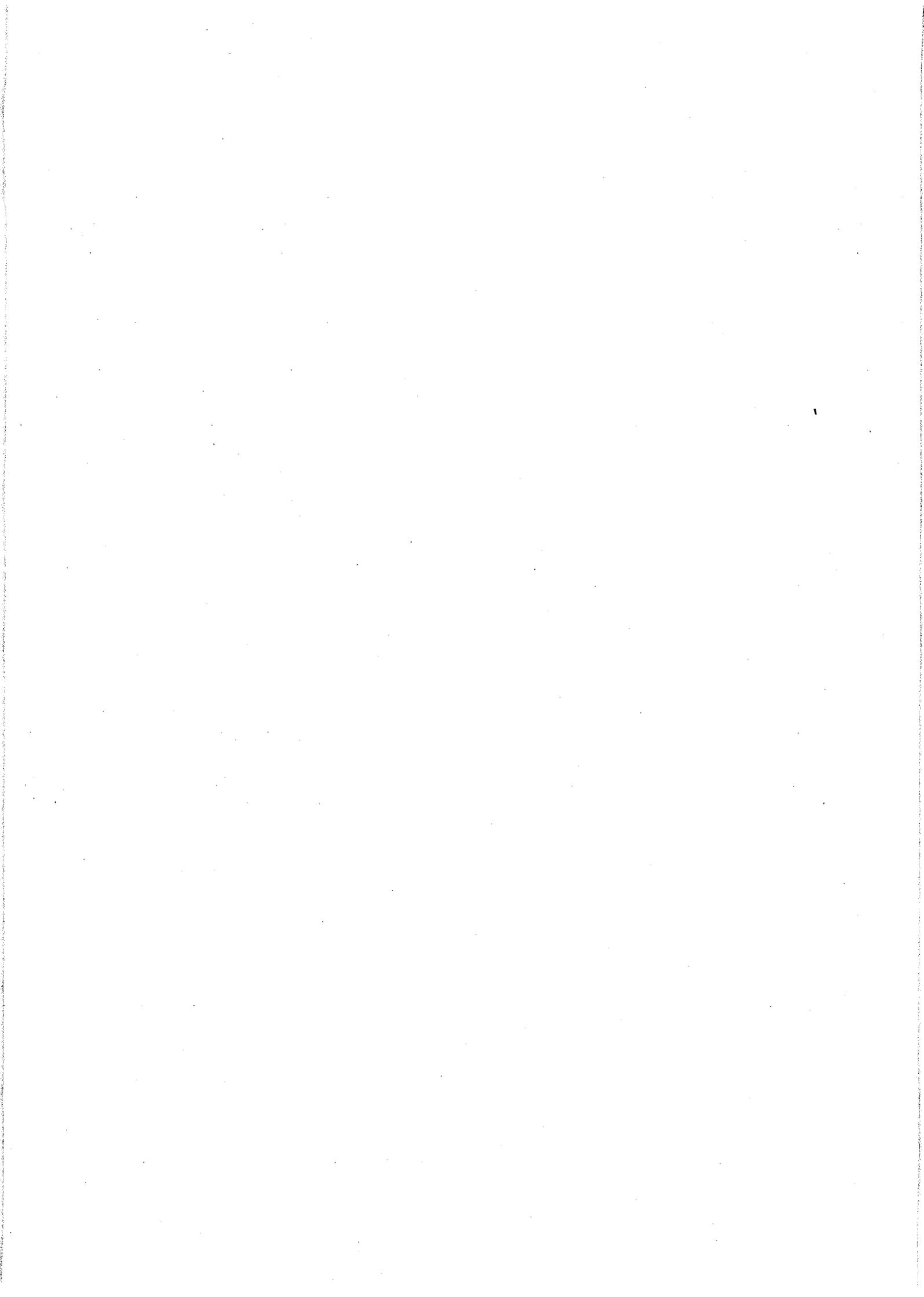
### Assembly

7 Assemble and install the bolt as follows:

- 7.1 Insert the firing pin (Fig 2 (1)) and firing pin spring (3) into the bolt.
- 7.2 Screw the bolt head (2) into the bolt; make sure it is fully tightened.
- 7.3 Raise the backsight (Fig 1 (1)).
- 7.4 With the bolt head catch (3) released, slide the bolt into the rifle.
- 7.5 Rotate the bolt head downwards.
- 7.6 Push the bolt fully forwards so that the bolt lever (2) is in the locked position.

### NOTE

Stripping the bolt further than described above must be carried out by an armourer.



## COMMENT(S) ON AESP

### THE ORIGINATOR OF THE FORM 10 SHALL ENTER THE FOLLOWING DETAILS:

#### **IDENTIFICATION:**

1. In the **AESP/EMER NUMBER** cell: enter the full document number eg. **AESP 1357-L-438-711**.
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4. In the comments cell the Form 10 Originator is to enter their comments/concerns/questions.
5. **There is a maximum of 15 lines available to enter text.**  
**[Additional information relating to the comments [additional text / photographs etc.] is to be E-Mailed at the same time as the Form 10 as separate attachments].**

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1. The **Form 10 Cell** shall enter on the Form 10 received:
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  - 1.4 The **Date the Form 10 was E-Mailed** to the Sponsor/Project team and record each stage on their Excel Spreadsheet.

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  - 1.2 Enter their **E-Mail details**.
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  - 1.4 Enter the **date they received the Form 10**.
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2. **The Sponsor shall then:**
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  - 2.2 **Mark the box** to indicate the action being taken by the sponsor.
  - 2.3 **Fill in the remarks** to explain the reason for the actions being taken.
  - 2.4 **Mark the box** to indicate that the sponsor will notify the originator of the actions taken against the comment(s) raised. **There are only 10 lines available to enter text.**
  - 2.5 **Enter the date** to indicate when the sponsor responded to the Form Comment(s).
  - 2.6 **E-Mail** a copy of the completed Form 10 to the Form 10 Cell & Originator of the Form 10.  
**The Form 10 is to be assessed and the response sent to the Form 10 Cell & Originator of the Form 10 within 6 weeks of the Sponsor receiving the Form 10 request.**

### **FORM 10 CELL USE:**

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2. The **E2E audit trail of the Form 10 is now complete and closed on a single form**.

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		<b>Email:</b>	<b>DESLEPPS-EngPol-Pubs@mod.uk</b>

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			<b>Rank / Grade</b>
			<b>*Phone</b>
			<b>*Senders Reference</b>
			<b>*Date Raised</b>
<b>*UK E-Mail</b>			<b>Eqpt Asset Code <u>if applicable</u></b>

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<b>*Edition</b>	<b>*Amendment</b>	<b>*Chapter</b>	<b>*Paragraph</b>	<b>*Page</b>	<b>Figure</b>	<b>Instruction</b>	<b>Other</b>
<b>*Comments: If additional information is to be supplied, please e-mail with the Form 10 as separate attachments.</b>							

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# Ministry of Defence

**RIFLE .22 in. No.8 Mk 1**  
**1005-99-961-9008 (long butt)**  
**1005-99-961-9009 (normal butt)**  
**1005-99-961-9010 (short butt)**

## REPAIR INSTRUCTION

Sponsored for use in the  
**UNITED KINGDOM MINISTRY OF DEFENCE  
AND ARMED FORCES**  
by

**SOLDIER SYSTEMS PROGRAM LETHALITY  
PROJECT TEAM  
KD4Q8**

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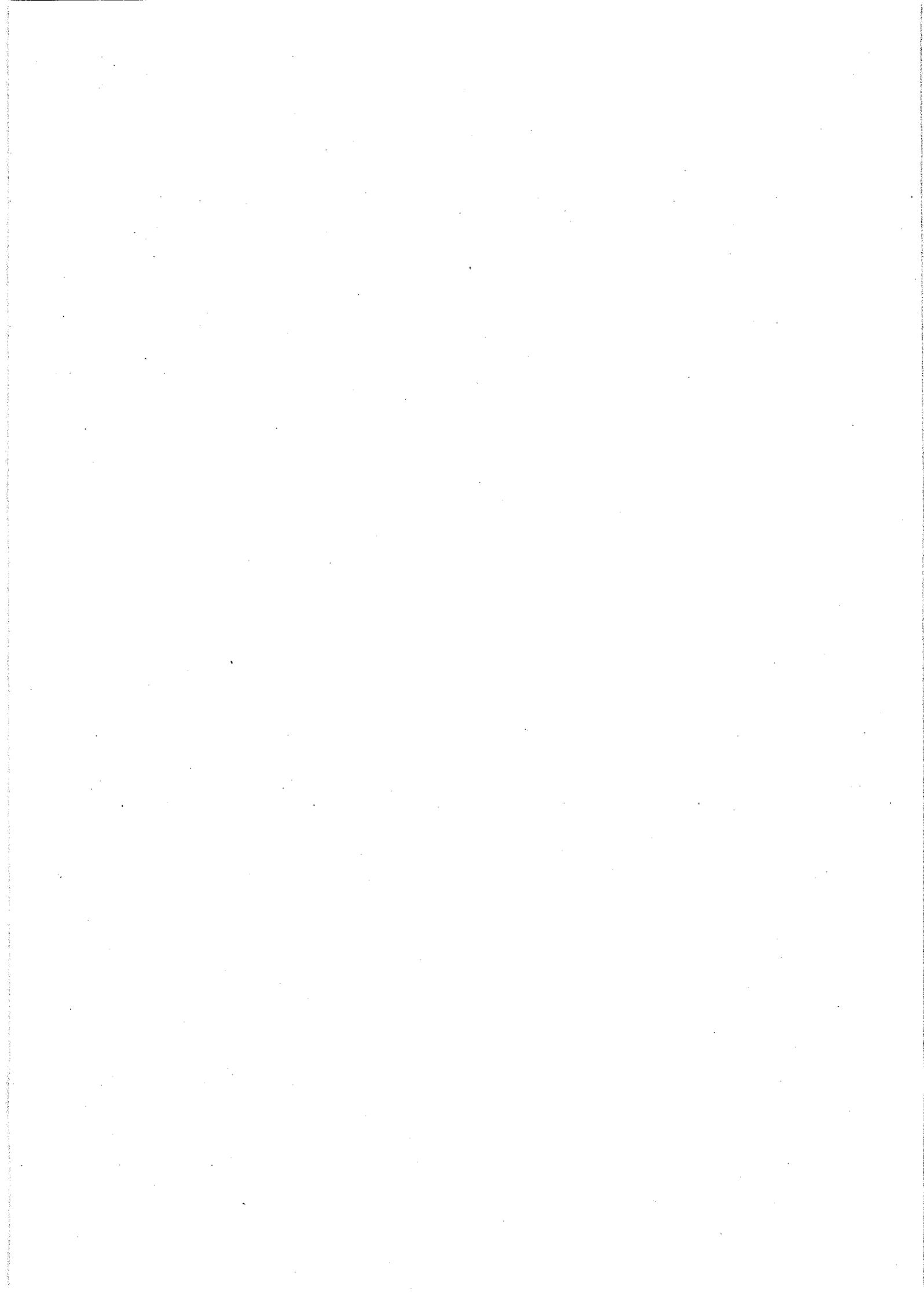


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**REPAIR INSTRUCTIONS**

Chapter

- 1 General information
- 2 Inspection and repairs - Unit
- 3 Inspection, repair and sentence - Field and base

## PREFACE

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## INTRODUCTION

1 Any comments by service users on this publication should be forwarded through the channels prescribed in Army Equipment Support Publication (AESP) 0100-P-011-013. An AESP Form 10 is provided at the end of this publication; it should be photocopied and used for forwarding comments on this AESP.

2 AESPs are issued under UK MOD authority and where AESPs specify action is to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores, subject to the provisions of Para 3 below.

3 The subject matter of this publication may be affected by Defence Instructions and Notices (DINs), Standard Operating Procedures (SOPs) or by local regulations. When any such instruction, Order or Regulation contradicts any portion of this publication it is to be taken as the overriding authority.

## RELATED AND ASSOCIATED PUBLICATIONS

## Related publications

4 The Octad for the subject equipment consists of the publications shown below. All references are prefixed with the first eight digits of this publication. The availability of the publications can be checked by reference to the relevant Group Index (see AESP 0100-A-001-013).

Category/Sub-category			Information Level			
			1 User/Operator	2 Unit Maintenance	3 Field Maintenance	4 Base Maintenance
1	0	Purpose and Planning Information	101	101	*	*
	1	Equipment Support Policy Directive	111	111	*	*
2	0	Operating Information	201	201	*	*
	1	Aide Memoire	*	*	*	*
	2	Training Aids	*	*	*	*
3		Technical Description	201	302	302	302
4	1	Installation Instructions	*	*	*	*
	2	Preparation for Special Environments	*	*	*	*
5	1	Failure Diagnosis	201	522	522	522
	2	Maintenance Instructions	201	522	522	522
	3	Inspection Standards	*	532	532	532
	4	Calibration Procedures	*	*	*	*
6		Maintenance Schedules	*	*	*	*
7	1	Illustrated Parts Catalogues	711	711	711	711
	2	Commercial Parts Lists	*	*	*	*
	3	Complete Equipment Schedule, Production	*	*	*	*
	4	Complete Equipment Schedule, Service Edition (Simple Equipment)	*	*	*	*
	5	Complete Equipment Schedule, Service Edition (Complex Equipment)	*	*	*	*
8	1	Modification Instructions	*	*	*	*
	2	General Instructions, Special Technical Instructions and Servicing Instructions	*	*	*	*
	3	Service Engineered Modification Instructions (RAF only)	*	*	*	*

\*Category/sub-category not published.

**Associated publications**

5 Reference

Title

[REDACTED]

AESP 1000-A-003-013

[REDACTED]

Policy and procedures for armourers, light weapons and workshops

**WARNINGS AND CAUTIONS**

**WARNINGS**

- (1) **RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON. REFER TO 1005-L-203-201 CHAP 2.**
- (2) **PERSONAL INJURY OR DEATH. SUITABLE EQUIPMENT. WHEN RIFLES ARE REQUIRED FOR COMPETITION SHOOTING, ADJUSTMENTS MUST ONLY TO BE MADE WHEN IT IS SAFE AND STABLE FOR THE INDIVIDUAL RIFLE CONCERNED.**
- (3) **PERSONAL INJURY OR DEATH. AVAILABILITY OF CORRECT TEST EQUIPMENT. ONLY ADJUST RIFLES TO THE NSRA STANDARD WHEN [REDACTED] NSRA 'DEAD-WEIGHT' TYPES OF TESTER ARE AVAILABLE FOR PULL-OFF WEIGHTS BELOW 3 LBF.**
- (4) **PERSONAL INJURY OR DEATH. CORRECT IDENTIFICATION. RIFLES REQUIRED TO BE PERMANENTLY ADJUSTED TO THE NSRA LIMIT MUST BE READILY IDENTIFIABLE AS SUCH, AND MUST BE USED FOR COMPETITION SHOOTING ONLY.**
- (5) **PERSONAL INJURY OR DEATH. CORRECT ADJUSTMENT. RIFLES REQUIRED TO BE ADJUSTED FOR SPECIFIC COMPETITIONS ONLY, ARE TO BE RE-ADJUSTED TO NORMAL SERVICE PULL-OFF LIMITS ON COMPLETION OF THE SPECIFIC COMPETITION.**
- (6) **PERSONAL INJURY OR DEATH. REPAIRS AND ADJUSTMENTS ARE ONLY TO BE CARRIED OUT BY A QUALIFIED ARMOURER.**

**CAUTIONS**

N/A

**LIST OF ABBREVIATIONS**

<b>Abbreviation</b>	<b>Definition</b>
AESP	Army Equipment Support Publication
BA	British Association
BSF	British Standard Fine
BSW	British Standard Whitworth
Chap	Chapter
deg	degree
dia	diameter
EMER	Electrical and Mechanical Engineering Regulations
etc.	etcetera
ETS	Equipment Table Scale
Fig	Figure
H	High
HQ	Headquarters
in.	inch(es)
L	Low
lbf	pound foot
LH	Left Hand
Max	Maximum
Med	Medium
Min	Minimum
Mk	Mark
NATO	North Atlantic Treaty Organisation
No.	Number
NSN	NATO Stock Number
NSRA	National Small-bore Rifle Association
Para	Paragraph
REME	Royal Electrical and Mechanical Engineers
RH	Right Hand
SSP	Soldier System Programme
SWG	Stubs Wire Gauge
TBA	To Be Advised
tpi	threads per inch
UK	United Kingdom
yd(s)	yard(s)

**CHAPTER 1**

**GENERAL INFORMATION**

**CONTENTS**

Para

Introduction

- 1 Safety precautions
- 2 General
- 3 Range testing
- 4 Rustproofing
- 5 Tools and gauges

Table

Page

1	Gauges for field workshops.....	2
2	Gauges for base workshops .....	2

**INTRODUCTION**

**Safety precautions**

1 Before commencing any operation on the weapon, ensure that it is unloaded. Pull the bolt to the rear and confirm that the chamber is clear.

**General**

2 This category 522 gives the procedures for the repair, adjustment and testing of the Rifle No.8, .22 in., Mk 1 (rifle) at Level 2 and Level 3 and the equivalent RN and RAF levels of repair. It is to be read in conjunction with the inspection standards in AESP 1005-L-203-532.

**Range testing**

3 Range testing is to be carried out whenever it is necessary to confirm the serviceability or accuracy of a weapon, or when repairs affecting accuracy have been completed. The range test is detailed in Chapter 2.

**Rustproofing**

4 Rustproofing is to be carried out in accordance with AESP 1000-A-003-013.

**Tools and gauges**

5 Tools and gauges are listed in Equipment Table Scale 03718. Gauges for Level 2 and Level 3 repair workshops are also listed in Table 1 and Table 2.

**TABLE 1      GAUGES FOR FIELD WORKSHOPS**

<b>Serial (1)</b>	<b>DMC/NSN (2)</b>	<b>Description (3)</b>
1	NUM8/5220-99-961-8926	Gauge, inspectors, headspace 0.045 in. Mk 1
2	NUM8/5220-99-961-8925	Gauge, inspectors, headspace 0.047 in. Mk 1
3	NUM8/5220-99-961-9052	Gauge, armourers firing pin protrusion No.2 Mk 1
4	NUM8/5220-99-961-8937	Gauge, inspectors, plug 0.215 in.

**TABLE 2      GAUGES FOR BASE WORKSHOPS**

<b>Serial (1)</b>	<b>DMC/NSN (2)</b>	<b>Description (3)</b>
1	NUM8/5220-99-961-8930	Gauge, inspectors, plate 7 deg Mk 1

**CHAPTER 2**

**INSPECTION AND REPAIRS  
UNIT**

**CONTENTS**

Para

- 1 Introduction
- Stripping
- 3 General (WARNING)
- 5 Bolt
- 6 Fore-end and handguard
- 7 Trigger mechanism
- Assembly
- 8 Trigger mechanism
- 9 Fore-end and handguard
- 10 Bolt
- Conversion to single and double action pull-off
- 11 Convert from double to single pull-off (WARNINGS)
- 12 Convert from single to double pull-off
- 13 Inspection and repair
- Zeroing and accuracy
- 14 General
- 15 Preparation for firing
- 17 Inspection repair and adjustment tables

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3 Stocking.....	10
4 Rifle assembled.....	11

Fig

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1 Trigger mechanism.....	9

## INTRODUCTION

1 This chapter describes the stripping, assembling, inspection, adjustment, repair, sentence and zeroing for the Rifle No.8, .22 in., Mk 1, to be carried out by qualified armourers (AESP 1000-A-003-013 refers).

2 Tools required for the procedures contained in this chapter are detailed in Tables 1 and 2 of Chapter 1.

## STRIPPING

### WARNING

**RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON. REFER TO 1005-L-203-201 CHAP 2.**

### General

- 3 Prove the rifle.
- 4 Check that the serial numbers on the bolt and body agree.

### Bolt

- 5 Remove the bolt as follows:
  - 5.1 Raise the backsight.
  - 5.2 Push the locking bolt to its fully forward position and raise the bolt lever.
  - 5.3 Press down the bolt head catch on the right side of body and pull the bolt to the rear keeping the catch pressed downwards.
  - 5.4 Rotate the bolt head upwards and remove the bolt from the body.

### Fore-end and handguard

- 6 Remove the fore-end and handguard as follows:
  - 6.1 Grip the rifle in a vice at the band, with the butt to the left and trigger guard uppermost.
  - 6.2 Remove the front swivel screw and swivel, the trigger guard, and screws front and rear, the collar and spring washer. The filler plate can now be removed from its bed in the fore-end.
  - 6.3 Remove the rifle from the vice.
  - 6.4 Remove the band and the handguard.
  - 6.5 Remove the fore-end from the rifle by tapping the front end of the fore-end on the bench and swinging it downwards away from the barrel.

### Trigger mechanism

- 7 Remove the trigger mechanism as follows:
  - 7.1 Put the rifle butt in a vice. Make sure the barrel is to the left and trigger mechanism uppermost.
  - 7.2 Tap out the rear cartridge platform pin and remove the trigger mechanism assembly.

- 7.3 Remove the trigger and sear at the same time from the cradle by holding the cradle and lifting the sear upwards.

**NOTE**

The trigger setting screw and nut are not to be adjusted or removed. If the mechanism is found to be defective as a result of tests detailed in AESP 1005-L-203-532, the rifle is to be sentenced 'Y'.

**ASSEMBLY**

**Trigger mechanism**

- 8 Install the trigger mechanism as follows:
- 8.1 Assemble the sear and trigger together in the cradle, lining up the axis holes.
  - 8.2 Put the inner and outer sear springs into the sear spring cup, and place the trigger mechanism assembly into the body.
  - 8.3 Line up the axis holes with a suitable drift and install the rear cartridge platform pin.

**NOTE**

For ease of assembly, the rear cartridge platform pin may be chamfered at one end, to a maximum of  $\frac{1}{16}$  in.

**Fore-end and handguard**

- 9 Install the fore-end and handguard as follows:
- 9.1 Assemble the fore-end and handguard to the rifle, ensuring that the rear end of the handguard fits into the retaining ring.
  - 9.2 Install the band so that the head of the screw is on the left-hand side of rifle.
  - 9.3 Put the rifle band in a vice. Make sure the butt is to the left and the trigger guard recess is uppermost.
  - 9.4 Reassemble the trigger guard ensuring that the collar and spring washer are not omitted.

**Bolt**

- 10 Installation of the bolt is the reverse of the procedure in Para 5. Make sure that the bolt head is screwed fully into the bolt before inserting the bolt into the body.

**CONVERSION TO SINGLE AND DOUBLE ACTION PULL-OFF**

**Convert from double to single pull-off**

**WARNINGS**

- (1) **PERSONAL INJURY OR DEATH. SUITABLE EQUIPMENT. WHEN RIFLES ARE REQUIRED FOR COMPETITION SHOOTING, ADJUSTMENTS MUST ONLY TO BE MADE WHEN IT IS SAFE AND STABLE FOR THE INDIVIDUAL RIFLE CONCERNED.**
- (2) **PERSONAL INJURY OR DEATH. AVAILABILITY OF CORRECT TEST EQUIPMENT. ONLY ADJUST RIFLES TO THE NSRA STANDARD WHEN [REDACTED] NSRA 'DEAD-WEIGHT' TYPES OF TESTER ARE AVAILABLE FOR PULL-OFF WEIGHTS BELOW 3 LBF.**
- (3) **PERSONAL INJURY OR DEATH. CORRECT IDENTIFICATION. RIFLES REQUIRED TO BE PERMANENTLY ADJUSTED TO THE NSRA LIMIT MUST BE READILY IDENTIFIABLE AS SUCH, AND MUST BE USED FOR COMPETITION SHOOTING ONLY.**

**(4) PERSONAL INJURY OR DEATH. CORRECT ADJUSTMENT. RIFLES REQUIRED TO BE ADJUSTED FOR SPECIFIC COMPETITIONS ONLY, ARE TO BE RE-ADJUSTED TO NORMAL SERVICE PULL-OFF LIMITS ON COMPLETION OF THE SPECIFIC COMPETITION.**

**(5) PERSONAL INJURY OR DEATH. REPAIRS AND ADJUSTMENTS ARE ONLY TO BE CARRIED OUT BY A QUALIFIED ARMOURER.**

11 To convert from double to single pull-off proceed as follows:

- 11.1 Remove the trigger mechanism from the body.
- 11.2 Remove the outer sear spring from the sear spring cup.
- 11.3 Refit the trigger mechanism into the body.
- 11.4 Loosen the screw locking pull-off.
- 11.5 Screw in the screw setting pull-off, in half turn increments until a single pull is obtained.
- 11.6 Tighten the screw locking pull-off.
- 11.7 Test the weight of the pull-off.

**NOTE**

For normal service competition shooting, the weight should not be less than 3 lbf.

- 11.8 When necessary adjust the pull-off weight by turning the sear spring cup.

**NOTE**

Turning the sear spring cup clockwise will increase the pull-off weight. Turning the sear spring cup counter-clockwise will decrease the pull-off weight.

**Convert from single to double pull-off**

12 To convert from single to double pull-off proceed as follows:

- 12.1 Remove the trigger mechanism from the body.
- 12.2 Refit the outer sear spring.
- 12.3 Screw the sear spring cup in a counter-clockwise direction as far as possible.
- 12.4 Refit the trigger mechanism in the body.
- 12.5 Loosen the keeper screw in the front face of the trigger.
- 12.6 Unscrew the pull-off adjusting screw in half-turn increments until a double pull-off is obtained.
- 12.7 Tighten the keeper screw and test the weight of the pull-off.
- 12.8 Screw in the sear spring cup to adjust the weight of the pull-off until you get values that follow:
  - 12.8.1 First pull – 3 lbf to 4 lbf.
  - 12.8.2 Second pull – 5 lbf to 6 ½ lbf.

**INSPECTION AND REPAIR**

- 13 Give the rifle a general inspection as follows:
- 13.1 Carry out Normal Safety Precautions (NSPs).
  - 13.2 Ensure that the serial numbers are legible and agree on the body, bolt and fore-end.
  - 13.3 Examine all components for rust, corrosion, damage or distortion which would affect the functioning of the rifle.
  - 13.4 When no sentence is given in column 4 of the tables, the component in doubt is to be exchanged.
  - 13.5 When rustproofing is necessary, use existing local facilities. If this is not possible, apply protective paint in accordance with AESP 1000-A-003-013.

**ZEROING AND ACCURACY**

**General**

- 14 Rifles are to be zeroed and tested for accuracy after the repairs and adjustments that follow:
- 14.1 Fitting of new stock fore-ends.
  - 14.2 Refitting of old stock fore-ends.
  - 14.3 Repair of foresights.
  - 14.4 Replacement of foresights.

**Preparation for firing**

- 15 Ensure that the foresight and foresight block are secure then check:
- 15.1 There is no excessive looseness of the backsight.
  - 15.2 The fore-end is fitted correctly and the butt is not loose.
  - 15.3 The correct bolt is fitted.
  - 15.4 All screws are tight.
- 16 Zeroing and accuracy are to be carried out to the standards that follow:
- 16.1 Range – 25 yds.
  - 16.2 Sights Setting – 25 yds.
  - 16.3 Number of Rounds - (2 sighters), 5 deliberate.
  - 16.4 Size of group – ½ in. circle.
  - 16.5 MPI - Group to be within a rectangle 2 in. horizontal by 1 ½ in. vertical at point of aim.

**NOTES**

- (1) Foresight Blades are available in the sizes given in AESP 1005-L-203-302.

(2) The Tool foresight cramp No.3 is to be used for the removal or lateral adjustment of the foresight blade.

(3) The limit of lateral adjustment is reached when the edge of the foresight tool is flush with the edge of the block.

### INSPECTION REPAIR AND ADJUSTMENT TABLES

17 Inspection procedures and repair, adjustment or sentence are given as follows:

- 17.1 Barrel body assembly (Table 1 refers).
- 17.2 Trigger mechanism assembly (Table 2 refers).
- 17.3 Stocking (Table 3 refers).
- 17.4 Rifle assembled (Table 4 refers).

**TABLE 1 BARREL BODY ASSEMBLY**

Serial (1)	Component (2)	Inspection procedure (3)	Repair, adjustment or sentence (4)
1	Barrel	Ensure that:	Barrels are to be cleaned in accordance with AESP 1000-A-003-013.
2		a. Chamber, and bore are clean and free from superficial fouling.	
3		b. Bore is free from:	
4		(1) Cuts	
5		(2) Pitting	
		(3) Bends	Slight cuts can be ignored
		(4) Bulges	Minor pitting can be accepted. Excessive pitting, rifle is to be sentenced 'Y'. Sentence rifle 'Y'.
		Note: Information concerning bulges and dates of range testing will be found on a plate screwed to the knuckle of the butt.	Sentence rifle 'Y', if not already range tested.
6		c. Block band foresight is tight. (Test by finger pressure only). Check that the screw thread is serviceable.	Slight movement of oil may be ignored. Loose band rifle is to be sentenced 'BLR'. If the thread is unserviceable sentence the rifle 'Y'.
7		d. Protector is not fractured or distorted.	Fractures, or distortion which cannot be rectified, exchange protector.
8	Body	a. Is free from fractures.	Bodies which are fractured, rifle is to be sentenced 'Y'.
9		b. Bridge charger guide is tight.	Loose bridge charger guides, sentence rifle 'Y'.
10	Backsight	a. Is held firmly in the horizontal and vertical positions.	Replace plunger and/or spring. If fault is still not rectified exchange backsight

continued

**TABLE 1 BARREL BODY ASSEMBLY (continued)**

Serial (1)	Component (2)	Inspection procedure (3)	Repair, adjustment or sentence (4)
11		b. There is no appreciable side play or slackness on the axle pin.	Exchange pin. If fault is still not rectified exchange leaf.
12		c. Range scale is legible and scaled side of leaf is polished.	If scaling is illegible, exchange leaf.
13		d. Leaf is not distorted, or fractured, and slide works freely for the full length of leaf.	
14		e. The plunger adjusting screw engages the serrations of the adjusting screw.	
15		f. Adjusting screw is not bent, and head of screw does not foul bridge charger guide.	
16	Bolt breech assembly	a. Bolt is not fractured or pitted. Barrel of the bolt is polished.	Bolts which are fractured or badly pitted on bearing surfaces, rifle is to be sentenced 'Y'.
17		b. Firing pin protrudes and moves freely in the bolt head under the influence of its spring. Pin and spring are not damaged.	
18		c. Bolt head can be screwed fully home by finger pressure, and does not overturn more than 10 deg.	Bolt heads with more than 10 deg of overturn, rifle is to be sentenced 'Y'.
19		d. Extractor and spring are not damaged, and first movement of the extractor is not less than 2 lbf.	
20		e. Stud on the cocking piece is not fractured and moves freely along the cam groove wall into positive engagement in the fully withdrawn position. With the bolt assembled to the body check the bolt action, the operation of raising the bolt lever from the fired position must be accomplished without difficulty.	When the stud is fractured exchange cocking piece. If bolt is hard to manipulate check cam groove wall. Some bolts have been manufactured with a rough surface finish at this point and are the cause of hard unlocking action. Where this is encountered attempt to remedy the defect by carefully stoning the affected part. If repair cannot be effected, sentence rifle 'Y'.
21		f. Striker is not loose in cocking piece. Check the striker protrusion using 'Gauge, Armourers, firing pin protrusion, No.2, Mk1' (5220-99-961-9052).	If protrusion is excessive reduce the length by stoning the point, ensuring that the radius is maintained. If protrusion is insufficient exchange the firing pin.
22		g. That the final screwing up of the bolt head lifts the cocking piece a distance within the limits of 0.060 in. max and 0.012 in. min. This distance will be measured between the cocking piece and rear of the bolt.	If the limits cannot be obtained by either changing the striker or cocking piece screw back off the striker a maximum of one turn from the 'flush' position. If the clearance is still unobtainable sentence the rifle 'Y'.

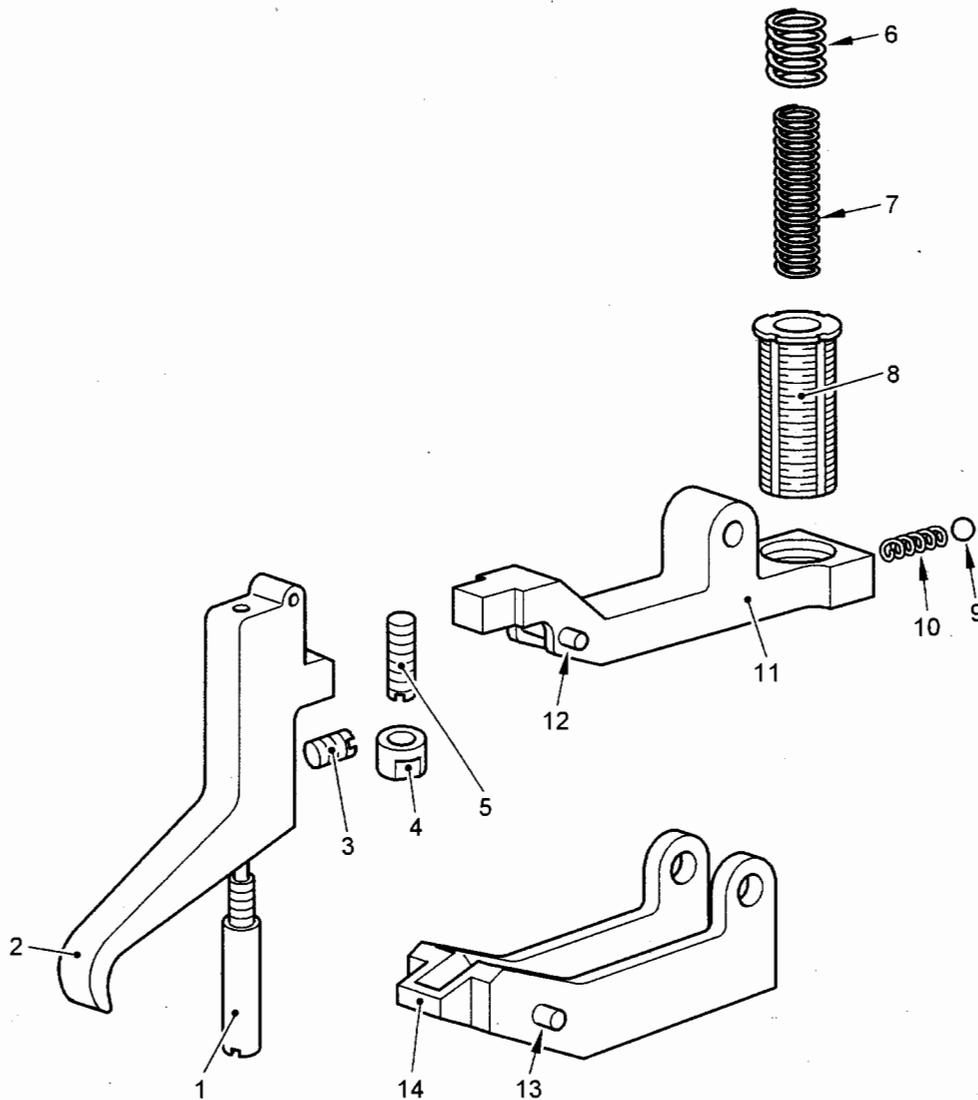
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**TABLE 1 BARREL BODY ASSEMBLY (continued)**

Serial (1)	Component (2)	Inspection procedure (3)	Repair, adjustment or sentence (4)
23	Bolt breech assembly (cont)	<p>h. With bolt head, firing pin and spring removed and the bolt held securely in a vice, the strength of the mainspring is as follows:</p> <p>(1) With cocking piece held in approximate cocked position - first movement of cocking piece rearward is 13 to 15 ½ lbf.</p> <p>(2) Fired position - first movement of cocking piece rearward is 10 ½ to 13 lbf.</p>	If the weight of the spring is under or overweight, exchange the spring.

**TABLE 2 TRIGGER MECHANISM**

Serial (1)	Component (2)	Inspection procedure (3)	Repair, adjustment or sentence (4)
1	Sear spring cup	<p>Ensure that:</p> <p>a. Detent is operating and engages the cup at each quarter turn. After testing, ensure that the cup is returned to its original setting, otherwise pull-off will be affected.</p>	If detent fails to retain cup at each quarter turn, exchange detent or springs and/or cup.  If defective, sentence rifle 'Y'.
2		b. Cup contains both inner and outer springs, and springs have not collapsed.	
3	Trigger	Pull-off setting screw is locked by its locking screw and trigger stop screw is locked by its nut. Test mechanism for balance and high sear as follows:	
4		a. Cock rifle. Apply forward pressure to the trigger. The rifle should not fire.	
5		b. Remove bolt. Remove burrs from resistance lug of bolt and the locking recess in the body. Apply a smear of marking compound to the lug and assemble the bolt to the rifle. Operate the bolt, remove it from the rifle and check for evidence of the sear fouling the lug. If marking is evident the sear height is incorrect.	
6	Platform cartridge	Pins retaining front and rear are flush with the body and are a friction fit.	
7	Ejector	Is not fractured or damaged.	



- 1 Screw, pull-off setting
- 2 Trigger
- 3 Screw, pull-off locking
- 4 Nut, trigger stop screw
- 5 Screw, trigger stop
- 6 Spring, sear, outer
- 7 Spring, sear, inner
- 8 Cup, sear spring
- 9 Ball, steel, anti-friction 1/8 in.
- 10 Spring, ball
- 11 Sear
- 12 Pin, trigger
- 13 Pin, crane
- 14 Cradle, sear

Fig 1 Trigger mechanism

TABLE 3 STOCKING

Serial (1)	Component (2)	Inspection procedure (3)	Repair, adjustment or sentence (4)
1	General	Ensure that:	
2		a. Stocking has a smooth finish and matches in colour and grain as closely as possible.	Staining and preservation of woodwork is to be carried out by a qualified armourer.
3		b. Indentations up to ¼ in. diameter can be accepted if they are carefully filled with a suitable matching compound of a durable nature.	
4		c. Patches are dovetailed and pegged where possible.	Patches are to be made from wood similar to the stocking repaired.
5	Butt	a. It is not split or damaged. Patches are not to exceed four in number.	Patches should not normally exceed 3 in. in length but this dimension may be increased in order to eliminate damage to an otherwise serviceable butt, provided the butt is not weakened.
6		b. It is tight in socket and aligned to the barrel.	
7		c. There is a clearance between rear face of butt socket and the shoulder of the butt of 0.030 in. max, 0.010 in. min.	Wood will be removed from the shoulder of the butt to obtain this clearance.
8		d. Wood of butt should be proud of metal of the butt socket.	This is normal practice but is not to be insisted upon if it requires the exchange of an otherwise serviceable butt.
9		e. Butt plate is not damaged, fits the form of the butt, and is securely held by its screws.	
10	Fore-end	a. Is not split or damaged. Patches do not exceed four in number.	
11		b. It is correctly fitted.	To fit fore-end:
12			a. The rear of the fore-end must fit tightly against the butt socket. Where this is not possible a limit of 1/32 in. is permissible.
			b. Using a suitable marking compound on the underside of the barrel and body, ensure that the fore-end bears at the points that follow:- (1) Muzzle end (2) Reinforce (3) Body surfaces around the hole for the collar and rearwards for 1 ½ in.
		Note: A bearing midway between the reinforce and muzzle end is desirable but not essential.	continued

**TABLE 3 STOCKING (continued)**

Serial (1)	Component (2)	Inspection procedure (3)	Repair, adjustment or sentence (4)
13	Fore-end (continued)	c. Ends of the collar are flat and square, and it has not been shortened to such an extent that when assembled to the rifle without the fore-end it is not held firmly between trigger guard and body.	
14	Handguard	a. It is not spilt or damaged. Slip patches do not exceed three in number.	Handguards which are split may be repaired by the fitting of slip patches which must not exceed 1/8 in. in width.
15		b. Even contact is obtained between the handguard and fore-end, and its sides are flush with the sides of the fore-end.	
16		c. Ring retaining handguard is not distorted or fractured and securely retains the handguard.	

**TABLE 4 RIFLE ASSEMBLED**

Serial (1)	Component (2)	Inspection procedure (3)	Repair, adjustment or sentence (4)
	General	Ensure:	
1		a. All screws are tight and screwdriver slots are not damaged.	
2		b. With screw swivel band screwed fully home, band is tight and swivel is free to rotate.	When swivel is not free to rotate, packing may be placed under band until swivel is free. To obtain a 'wood above metal' condition it is permissible to proceed as follows:
3			a. Remove packing when the band is flush or proud of the woodwork.
4			b. Band - a maximum of 0.030 in. (approx one thread pitch) may be removed from the inside face of the threaded lug, which should not be less than 0.120 in. wide after adjustment.
5			c. Swivel - metal may be removed as required from either face of the lug. The lug is not to be less than 0.17 in. wide after adjustment.
6			d. All faces adjusted are to be protected with a suitable paint.

continued

TABLE 4 RIFLE ASSEMBLED (continued)

Serial (1)	Component (2)	Inspection procedure (3)	Repair, adjustment or sentence (4)
7	General (continued)	c. When assembling the bolt to the body, the bolt head catch can be depressed by thumb pressure on the bolt head wing.	
8		d. Trigger guard is not distorted and fits evenly in the fore-end.	
9		e. Cocking piece does not foul the channel in the body, or spindle of the bolt locking.	If cocking piece fouls channel, check that the striker is straight. Metal may be eased lightly from channel to give clearance.
10	Applied safety	a. With the action cocked, and the locking bolt to the rear, the cocking piece is withdrawn to the rear and disengages from the sear. Also that the safety catch is engaged in the recess in the bolt. Apply thumb pressure to the rear of the cocking piece, bolt locking should remain on 'safe'.	
11		b. With the locking bolt in the 'safe' position, it should not be possible to raise bolt lever in either the cocked or fired position.	Exchange the safety catch.
12	Pull-off	There are two distinct trigger pressures. Cock action and test trigger functioning.	Pull-off is to be adjusted in accordance with Para 11 and 12.
13		First pull                      3 lbf to 4 lbf.	
14		Second pull                    5 lbf to 6 ½ lbf.	

CHAPTER 3

INSPECTION, REPAIR AND SENTENCE  
FIELD AND BASE

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**INTRODUCTION****WARNING**

**RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON. REFER TO 1005-L-203-201 CHAP 2.**

1 This chapter deals with the inspection, repair, adjustment and testing of Rifles No.8, .22 in., Mk 1 in field and base workshops REME, and the equivalent RN and RAF repair echelons. It is to be read in conjunction with Chapter 2.

**GENERAL**

2 Rifles are to be inspected as detailed in AESP 1005-L-203-532 and the additional information contained in this chapter.

3 Rifles are to be repaired and adjusted in accordance with Chapter 2 and the additional repairs and adjustments detailed in this chapter.

4 Where limits of acceptable wear are not specified, the serviceability of the component or weapon is to be assessed by functional efficiency and the safety factors involved.

5 Use may be made of the tables of design sizes listed in Table 5 and Table 6. They are however, to be used as a guide only and not as condemning limits.

6 Weapons beyond field/base workshop repair are to be sentenced 'ZF'. A label is to be securely attached to the weapon giving the reason for sentence. The symbol 'ZF' is to be stencilled in white paint on the butt and fore-end.

7 Special tools and gauges required for the procedures contained in this chapter are detailed in Chapter 1.

**REGISTERED NUMBERS**

8 The serial numbers of bolt, body, and stock fore-end should agree. Should the numbers not be decipherable, application for a new serial number should be made through the Design Team (DT).

**BODY****Sentencing**

9 The rifle is to be sentenced 'ZF' for the faults in the body that follow:

- 9.1 Fractures.
- 9.2 Threads for screws holes stripped, Para 11.1 refers.
- 9.3 Platform loose, Para 12 refers.

**Repairs**

Loose bridge charger guides

**NOTE**

Bridge charger guides are secured either by welding or screws.

10 Repair a loose bridge charger guide that has a welded bridge as follows:

10.1 Clamp the insert securely into position.

10.2 Drill each side of the body at the centre of the lower seating of the insert to a depth of  $\frac{1}{16}$  in. using a  $\frac{3}{8}$  in. dia drill.

10.3 Fill the depression with weld deposit using a No.12 SWG mild steel electrode.

10.4 Dress off surplus material flush with the body and re-touch finish or re-rustproof as necessary.

11 Repair a loose bridge charger guide that has a screwed bridge as follows:

11.1 If the bridge support threads are stripped, drill a  $\frac{1}{8}$  in. dia hole at a suitable point on the circumference of the screw head and screw hole to a depth of  $\frac{1}{16}$  in.

11.2 Fill the hole with weld deposit using a suitable mild steel electrode.

11.3 Dress off surplus metal and retouch finish or re-rustproof as necessary.

Loose cartridge platform

12 Repair a loose cartridge platform as follows:

12.1 Install new cartridge platform pins to the body and cartridge platform.

12.2 If the new pins are not a tight fit, install a new cartridge platform.

12.3 If the platform is still loose, sentence the rifle 'ZF'.

**NOTE**

Base workshops with low temperature welding facilities (Eutectic or Dewrance) may re-size holes by metal deposition and re-machining to the limits:

- High 0.1806 in.

- Low 0.180 in.

Damaged, or worn ejectors

13 When cartridge ejection is not correct because the ejector is chipped or worn, install a new ejector block. Make sure the pins are a tight fit.

**BARREL**

- 14 Rifles with three bulges or less are to be range tested for accuracy before repairs. Rifles that fail the range test or have more than three bulges are to be sentenced 'ZF'.
- 15 Rifles are to be sentenced 'ZF' for the following faults in the barrel:
- 15.1 Damaged cartridge seating face.
  - 15.2 Obstructions that cannot be removed by normal methods (AESP 1000-A-003-013).
  - 15.3 Inaccuracy.
  - 15.4 Misalignment of barrel and body – i.e. barrel unbreeched or loose in the body.
  - 15.5 Bends, puckers, or other faults that obstruct the free running of the 'Gauge, Inspectors, plug 0.215 in.' (Note 2 refers).

**NOTES**

- (1) Slight bends are acceptable, if accuracy is not affected.
- (2) Minor blemishes including cuts, pitting, puckers etc., are acceptable if accuracy is not affected and lead deposits do not accumulate in the bore (AESP 1000-A-003-013).
- (3) Rifles with three bulges or less which pass the accuracy test are to be fitted with a brass disc stamped with the number of bulges and the date of the test. The disc should not exceed  $\frac{3}{4}$  in. in diameter and is to be screwed to the flat of the knuckle of the butt.

**TRIGGER MECHANISM****General**

- 16 The trigger mechanism is capable of fine adjustment and must be accurately balanced to ensure maximum safety and efficiency. The instructions in Paras 18 to 22 give the basic adjustments to the mechanism, but variations in tolerance ranges of components ancillary to the mechanism mean that each rifle will vary in adjustment.
- 17 Make sure the following points are checked and adjustment is made before any adjustment is made to the mechanism:
- 17.1 Fit of stock fore-end and length of collar (see AESP 1005-L-203-532). Ensure that the trigger is clear of the fore-end at all points.
  - 17.2 The seating in the fore-end for the trigger guard and plate is not broken away or otherwise malformed. The seating should permit an overall even bearing for the plate with no springing of the plate evident when the rifle is assembled.
  - 17.3 The profile of the trigger is correct. Tails of triggers which have been 'set' are to be re-formed to the contours of the profile gauge as shown in Fig 1.
  - 17.4 The trigger guard profile, particularly line A-B of Fig 2 is correct. Distorted guards should be re-set on a flat surface. Guards with distorted bows should be replaced.

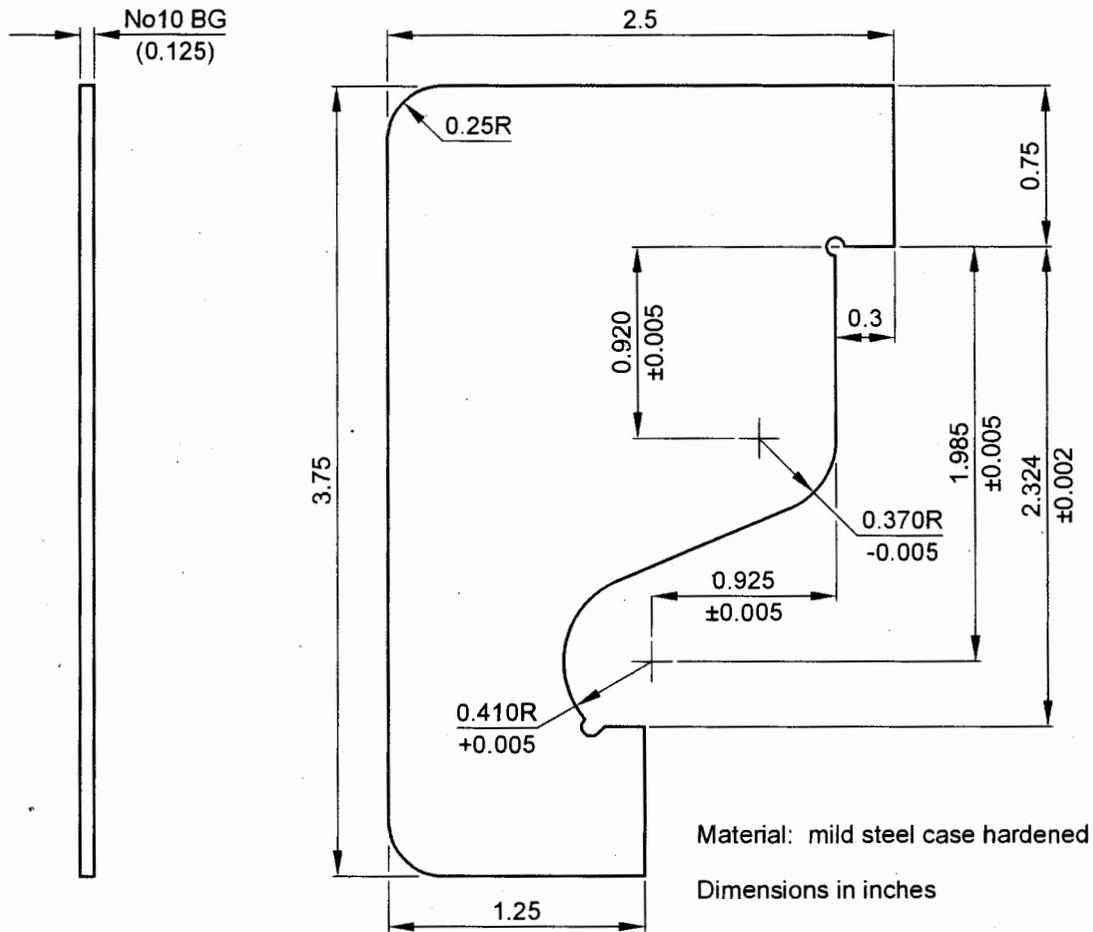


Fig 1 Profile gauge for trigger

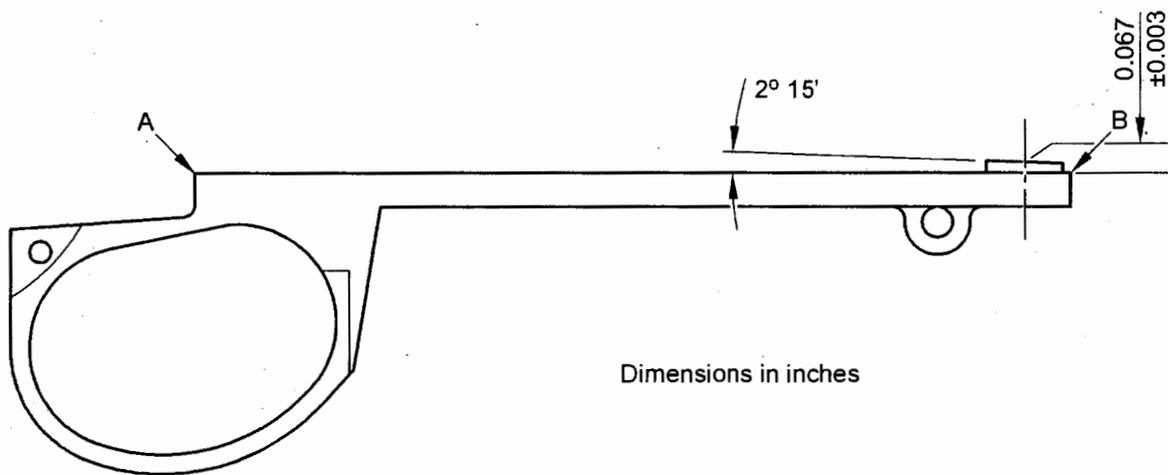


Fig 2 Correct form of trigger guard

NOTE

The internal dimensions and radii of trigger guard bows vary considerably. Interchange of trigger guards may therefore assist in the correction of the fault noted in Para 22.

**Tests and adjustments**

18 After checking and correcting the points listed in Para 17, assemble the mechanism for double pull-off action. Adjust to the limits given in AESP 1005-L-203-532 using the pull-off adjusting screw and sear spring cup only.

19 Assemble the rifle without the handguard, outer band swivel and bolt.

20 Assemble the bolt to the rifle.

21 Cock the rifle and apply forward pressure to the trigger.

**NOTE**

The rifle should not fire and forward movement of the trigger should be stopped by the inside surface of the trigger guard bow.

22 If the rifle fires, adjust the mechanism as follows:

22.1 Remove the trigger guard, plate, and fore-end.

22.2 Re-assemble the trigger guard to the rifle with the fore-end collar in position between the trigger guard boss and the body.

22.3 Install the front and rear guard screws. Make sure they are screwed fully in.

22.4 Slacken the lock-nut of the trigger setting screw and adjust the screw counter-clockwise in one-eighth turn increments.

22.5 After each one-eighth turn adjustment test the mechanism by cocking the rifle and applying forward trigger pressure until the rifle fails to fire.

22.6 Adjust one further eighth turn increment.

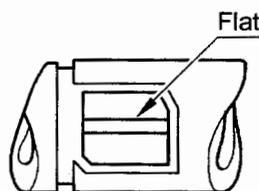
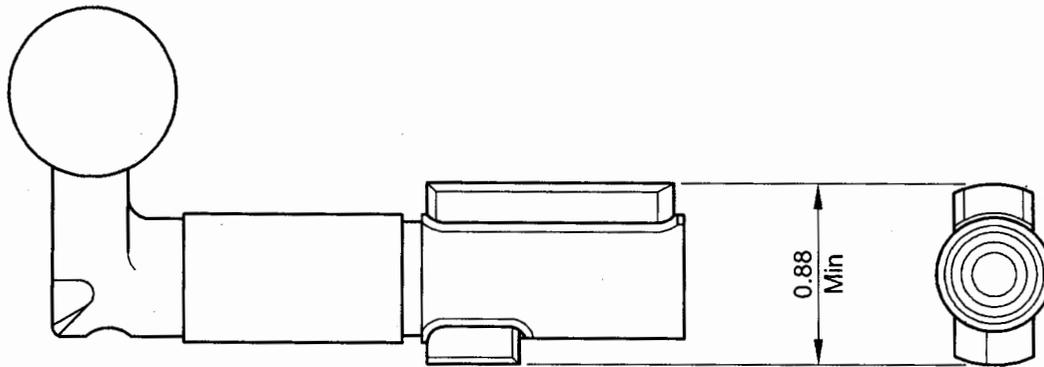
22.7 Tighten the lock nut securely.

22.8 Re-check the pull-off in accordance with AESP 1005-L-203-532 and adjust the length of pull as necessary using the pull-off adjusting screw only.

22.9 Test and adjust for 'high sear' condition as follows:

22.9.1 Apply a suitable marking compound to the underside of the bolt resistance lug and operate the bolt.

22.9.2 Remove the bolt and check for sear/lug interference.



Dimensions in inches

Fig 3 Adjustment to bolt resistance lug

22.9.3 If the marking on the lug indicates that the sear is high, check the dimension shown in Fig 3. If it is in excess of 0.88 in. a flat may be stoned or machined on the lug as illustrated. The dimension is not to be adjusted to less than 0.88 in.

22.9.4 If a high sear condition remains after the adjustment in Para 22.9.3 selectively replace the components of the trigger mechanism and then repeat Paras 22.9.1 to 22.9.3 as necessary.

22.9.5 If the trigger mechanism cannot be adjusted satisfactorily, sentence the rifle 'ZF' and label it accordingly.

## REPAIR OF LOOSE BANDS AND FITTING OF NEW BAND PROTECTOR FORESIGHT

### Loose bands

23 Repair loose bands as follows:

- 23.1 Remove the pin and band from the barrel.
- 23.2 Clean the mating surfaces.
- 23.3 Make sure that the protector hole and its corresponding groove on the barrel circumference are in the correct position.
- 23.4 Sweat the band into position using ordinary tinmans solder.
- 23.5 Replace the pin with a new item.

### NOTE

Replacement pins are not issued. They are to be manufactured locally from silver steel, bar, carbon, cold finished, 0.106 in. dia and cut to a length of 0.600in.

**Modification of band protector and protector to No.4 BA**

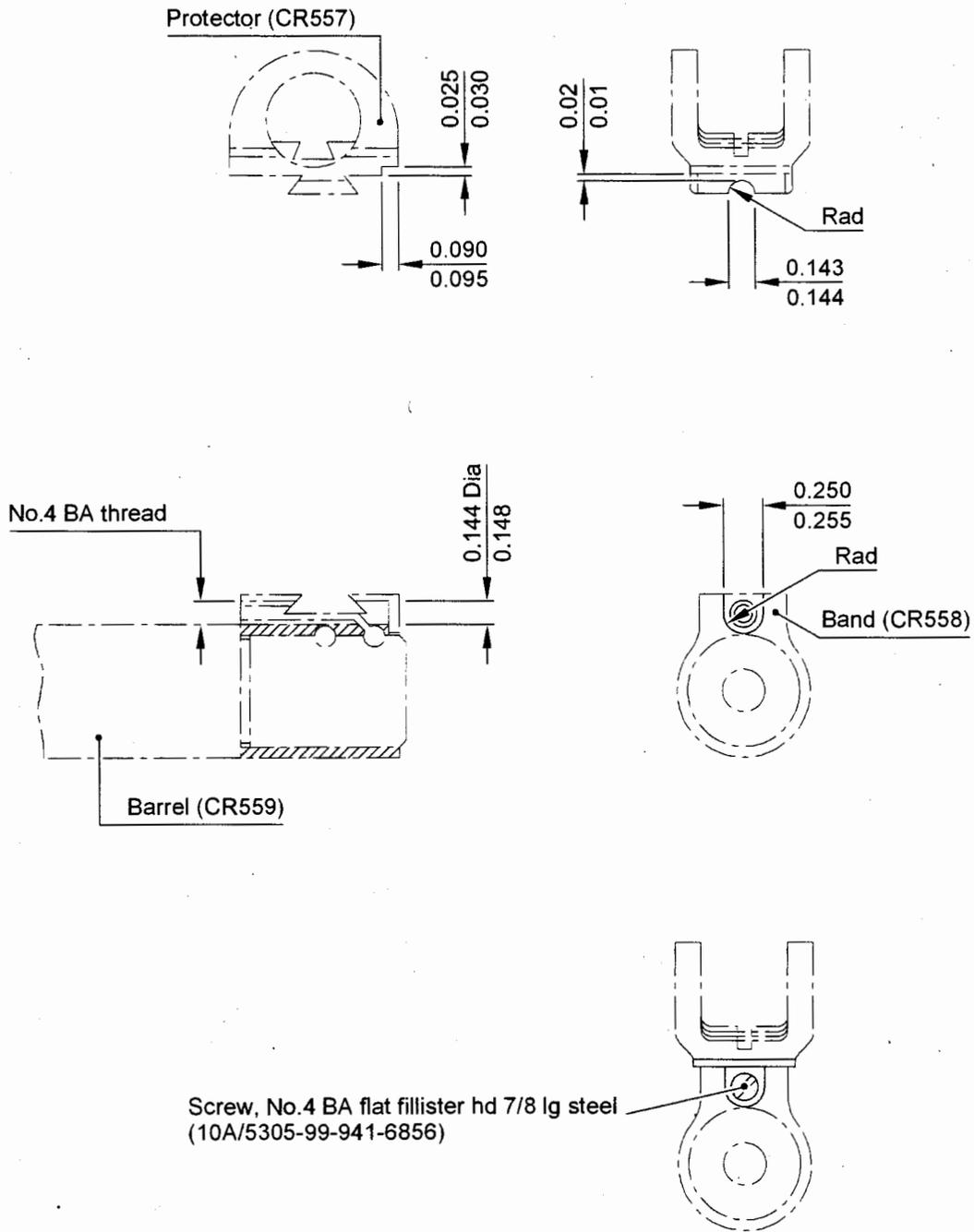
24 Replacement protector screws will be one of the following. Fig 4 refers:

24.1 B1/BA 10326 Screw protector (6 BA thread).

24.2 10A/5305-99-941-6856. Screw, machine, BA, steel, cadmium plated, No.4 x  $\frac{7}{8}$  in.

**NOTE**

To accommodate the 4 BA screw it will be necessary to modify existing bands and protectors in accordance with Fig 4. Future manufacture bands and protectors are to be manufactured to accommodate the 4 BA screw.



Dimensions in inches

Fig 4 Modification, protector and band foresight

**BOLT BREECH ASSEMBLY****Bolt**

25 The bolt is to be replaced when any of the faults that follow are found:

- 25.1 Fractures.
- 25.2 Excessive wear of the short cam recess or the safety catch engagement recess.
- 25.3 Excessive wear of internal threads for the bolt-head.
- 25.4 Excessive pitting of bearing surfaces.

**NOTE**

Combined wear of the internal threads of the bolt and the external threads of the bolt-head may cause the bolt-head to foul the cartridge platform.

**Bolt-heads**

26 Bolt-heads are to be exchanged for the faults that follow:

- 26.1 Excessive wear of threads.
- 26.2 Fractures or cracks.
- 26.3 Evidence of removal of metal from front or rear faces.

**BOLT ASSEMBLED - TESTS, ADJUSTMENTS AND REPAIRS****Firing pin protrusion**

27 Turn the cocking piece into the long cam recess in the bolt.

28 Use the 'Gauge, armourers, firing pin protrusion No.2' to check the protrusion of the firing pin is within the limits given in Table 1.

**TABLE 1      FIRING PIN PROTRUSION**

<b>Serial (1)</b>	<b>Maximum protrusion (2)</b>	<b>Minimum protrusion (3)</b>
1	0.038 in.	0.034 in.

29 Adjust the firing pin protrusion as follows:

- 29.1 Excessive protrusion - reduce its length by stoning the point of the firing pin, maintaining the radius of 0.045 in.
- 29.2 Insufficient protrusion - replace the firing pin.

**Bolt head clearance**

30 Unscrew the bolt head until it is free from mainspring pressure. Using a feeler gauge, check that the clearance between the rear face of the bolt head and front face of the bolt is within the limits given in Table 2.

**TABLE 2 BOLT HEAD CLEARANCE**

<b>Serial (1)</b>	<b>Maximum clearance (2)</b>	<b>Minimum clearance (3)</b>
1	0.060 in.	0.012 in.

31 Adjust the bolt head clearance by the interchange of the following components, singly or in combination:

- 31.1 Bolt head.
- 31.2 Striker.
- 31.3 Cocking piece.

32 If the correct clearance is still unobtainable, replace the bolt and repeat Paras 30 and 31 as necessary.

**Overturn of bolt head**

33 Screw the bolt head fully home. If overturn is in excess of the following limits, exchange the bolt head:

- 33.1 Field 10 deg.
- 33.2 Base 7 deg.

**NOTE**

Bolt heads rejected for overturn which are otherwise serviceable should be retained for possible future use with other bolts.

**RIFLE ASSEMBLED****Cartridge headspace****NOTE**

Trials have shown that it is feasible to increase the cartridge head space without impairing the safety or accuracy of the weapon. The increased limits are given in Table 3.

**TABLE 3 CARTRIDGE HEADSPACE**

<b>Serial (1)</b>	<b>Maximum limit (2)</b>	<b>Minimum limit (3)</b>
1	0.050 in.	0.045 in.

34 Punch out a shim from 0.003 in. shim foil. The shim is to be used in conjunction with – 'Gauge, Inspectors, Headspace 0.047 in. Mk 1'. To produce the shim the following items are necessary:

34.1 Stores required - G2/9535-99-943-3984, Brass foil, hard temper 0.003 in.

34.2 Tools required – HTC16/5110-99-910-5566, Punch cutting hollow round, 3/16 in. dia of hole, No.6.

35 Test as follows:

35.1 Remove and strip the bolt and bolt-head. Re-assemble the stripped bolt head to the bolt.

35.2 Install the bolt in the rifle and insert the 0.045 in. headspace gauge in the chamber. Close the bolt, using light finger and thumb pressure only on the final bolt lever movement. The bolt should close fully.

35.3 Remove the 0.045 in. gauge.

35.4 Use a smear of grease to attach the 0.003 in. shim (made in Para 34) to the 0.047 in. gauge and insert the 0.047 in. gauge together with the shim in the chamber.

35.5 Close the bolt using light finger and thumb pressure only on the final bolt lever movement. The bolt should not close.

35.6 Adjust the headspace by exchanging bolt heads within the range of sizes supplied. Should headspace conditions not be adjustable within the size range, exchange the bolt. Re-test with the range of bolt head sizes. If still incorrect sentence the rifle 'ZF'.

**NOTE**

Bolt heads are supplied in 8 sizes varying by 0.002 in. between sizes. They are numbered from 1-8.

**Primary extraction**

36 Test primary extraction as follows:

36.1 Cock the rifle.

36.2 Raise the bolt lever gently until a check is felt as the stud of the cocking piece contacts the bolt.

36.3 Make sure that a 0.030 in. feeler gauge cannot be inserted vertically between the front of the bolt head and the rear end of the barrel.

36.4 If the gauge can be inserted and the bolt, bolt head, and cocking piece stud are serviceable, sentence the rifle 'ZF'.

**Body socket and fore-end clearance**

37 If the clearance between the body socket and rear face of the fore-end is in excess of  $\frac{1}{32}$  in. replace the fore-end.

**Butt sizes**

38 Butt sizes are as follows:

38.1 Butts are supplied in three lengths. To ensure positive identification, butts should be measured and an identifying letter stamped on the top rear end of the butt using a  $\frac{5}{16}$  in. letter stamp.

38.2 Measurements are to be taken from the heel of the butt to the rear of the body socket. The dimensions, butt sizes and identification letters are given in Table 4.

**TABLE 4 BUTT SIZES**

<b>Serial (1)</b>	<b>Dimension (2)</b>	<b>Description (3)</b>	<b>Marking (4)</b>
1	12.75 in.	Long butt	'L'
2	12.25 in.	Normal butt	'N'
3	11.75 in.	Short butt	'S'

**NOTE**

In support of the revised Out of Service Date (OSD), only weapons complete with normal butts are provisioned.

TABLE 5 PLAN SIZES OF MAIN COMPONENTS

Serial (1)	Designation (2)	Dwg No. (3)	Size (in inches) (4)	
	<b>BARREL</b> 6 grooves RH	CR559		
1	Twist of grooves 1 turn in 16 in. Bore dia		L 0.216	H 0.2165
2	Width of extractor way		L 0.110	H 0.115
3	Length of barrel from breech face to end of muzzle		L 23.25	H 23.3
4	Outside dia of muzzle		L 0.649	H 0.650
	<b>BODY</b>	CR324		
5	Dia of boltway		L 0.395	H 0.398
6	Keyway for resistance column		L 0.395	H 0.398
7	Outside dia of boss for front guard screw		L 0.47	H 0.48
8	Holes for pins, cartridge, platform front and rear		L 0.1800	H 0.1806
9	Hole for pin, axis, backsight		L 0.144	H 0.146
10	Hole for plunger, backsight, large shank		L 0.196	H 0.198
11	Hole for plunger, backsight, small shank		L 0.104	H 0.107
12	Thread for front guard screw		1/4 in. BSF (med)	
13	Thread for rear guard screw		No.4 BA	
14	Thread for stock bolt		7/16 in. BSW	
15	Thread for screw, spring, bolt, locking		No.3 BA	
16	Thread for ejector screw		No.3 BA	
	<b>BACKSIGHT</b>	CR313		
17	Hole for pin, axis		L 0.1445	H 0.1470
18	Aperture of slide, dia		L 0.100	H 0.102
	<b>BOLTS, BREECH</b>			
19	Internal dia of mainspring housing		L 0.376	H 0.382
20	Internal dia of striker housing		L 0.253	H 0.255
21	Length of mainspring housing		L 2.900	H 2.920
22	Internal dia of bolt head (plain shank) housing		L 0.439	H 0.440
23	Thread for bolt head		L 0.4375 x 26 tpi	
24	Width of resistance column and lug		L 0.390	H 0.394
25	Outside dia of body of bolt		L 0.583	H 0.584
26	Overall length of bolt		L 3.295	H 3.305
27	Dia across resistance lug and column		L 0.88	H 0.895
	<b>COCKING PIECE</b>	CR942		
28	Thread for striker		0.247 x 26 tpi	
29	Thread for screw striker		No.4 BA	
30	Hole for head of screw striker		L 0.286	H 0.290

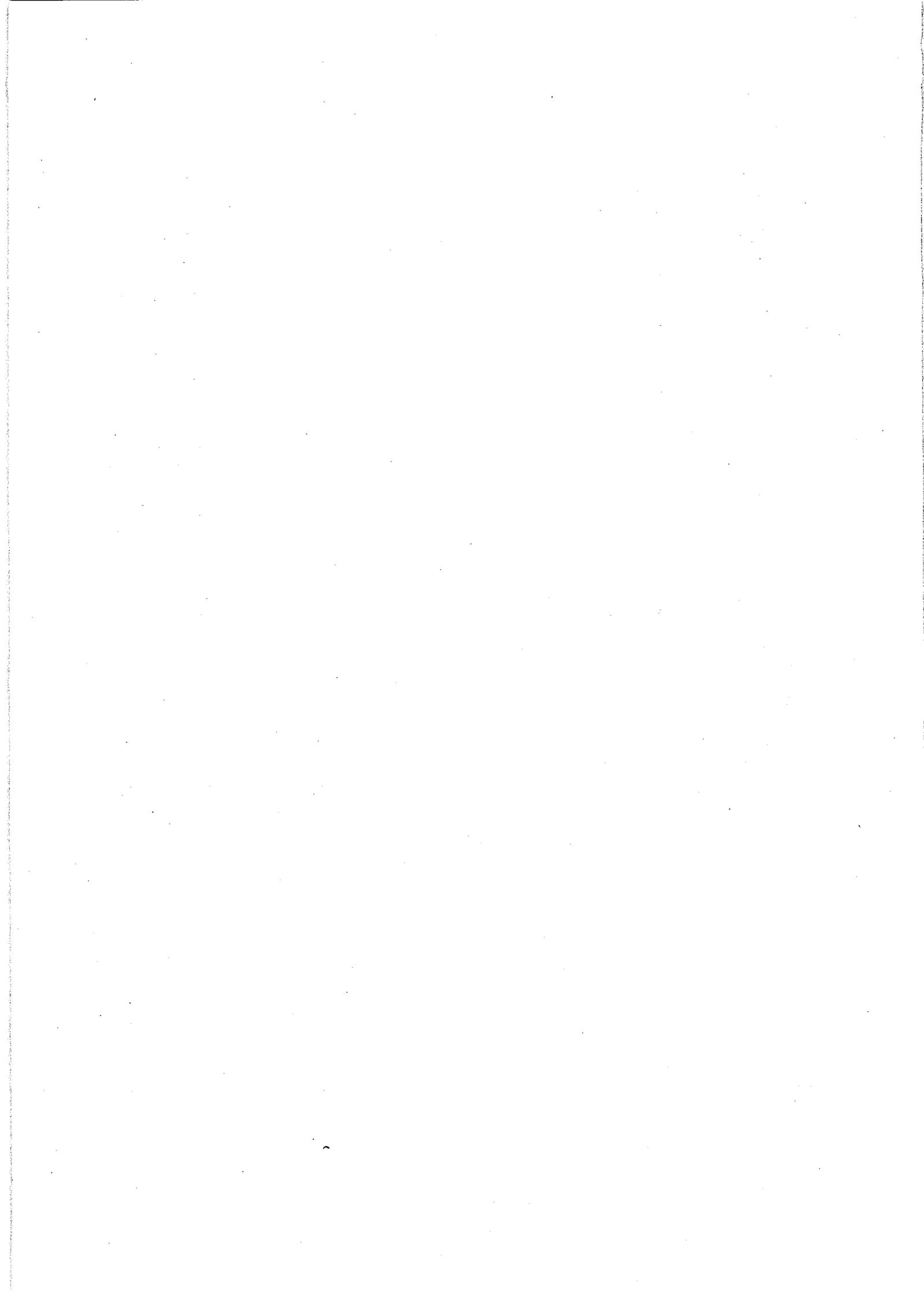
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**TABLE 5 PLAN SIZES OF MAIN COMPONENTS (continued)**

Serial (1)	Designation (2)	Dwg No. (3)	Size (in inches) (4)
	<b>HEAD, BREECH BOLT</b>	CR390 to CR397	
31	Length of bolt head No.1 (Each subsequent head increases by 0.001 in.)		L 1.346    H 1.347
32	Length of bolt head No.8		L 1.353    H 1.354
33	Thread of tenon		L 0.4375 x 20 tpi
34	Hole for pin, firing, large shank		L 0.125    H 0.127
35	Hole for pin, firing, small shank		L 0.090    H 0.092
36	Hole for pin, extractor		L 0.100    H 0.1006
37	Depth of cartridge face		L 0.032    H 0.0325

**TABLE 6 DETAILS OF HELICAL SPRINGS**

Serial (1)	Spring Designation (2)	Part No. (3)	Total No. of coils effective (4)	Dia of wire (5)	Dia external (6)	Free length (7)	Spring to be wound (8)
1	Catch head breech bolt	CR367	8	0.026	0.176	0.60	LH or RH
2	Extractor	CR337	5	0.022	0.142	0.315	LH or RH
3	Firing pin	CR339	15	0.0136	0.1186	1.00 + 0.05	LH or RH
4	Plunger adjusting screw	CR502	8	0.015	0.088	0.30	LH or RH
5	Plunger backsight	CR368	11	0.036	0.186	0.85	LH or RH
6	Sear, inner	CR560	14	0.064	0.314	1.50	RH
7	Sear, outer	CR370	3	0.08	0.50	0.57	LH
8	Striker	CR 331	31	0.048	0.358	3.57	LH or RH



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  - 1.4 Enter the **date they received the Form 10**.
  - 1.5 Enter details in the non-mandatory field if relevant.
  - 1.6 Acknowledge receipt of the **Form 10 by return of E-Mail**, or by **Marking the Form 10 with an X in the Under investigation cell** and returning it by E-Mail to the Form 10 Cell within one week of receiving it.
2. **The Sponsor shall then:**
  - 2.1 **Assess** the content of the comment(s) submitted by the originator.
  - 2.2 **Mark the box** to indicate the action being taken by the sponsor.
  - 2.3 **Fill in the remarks** to explain the reason for the actions being taken.
  - 2.4 **Mark the box** to indicate that the sponsor will notify the originator of the actions taken against the comment(s) raised. **There are only 10 lines available to enter text.**
  - 2.5 **Enter the date** to indicate when the sponsor responded to the Form Comment(s).
  - 2.6 **E-Mail** a copy of the completed Form 10 to the Form 10 Cell & Originator of the Form 10.  
**The Form 10 is to be assessed and the response sent to the Form 10 Cell & Originator of the Form 10 within 6 weeks of the Sponsor receiving the Form 10 request.**

**FORM 10 CELL USE:**

1. The **Form 10 Cell** shall record the final stages of the Form 10 process on their Spreadsheet.
2. The **E2E audit trail of the Form 10 is now complete and closed on a single form.**

**COMMENT(S) ON AESP**

<b>IDENTIFICATION:</b>	
<b>AESP/EMER NUMBER:</b>	<b>IS THIS SAFETY RELATED?:</b>

<b>Send To:</b>	<b>Form 10 Cell BFPO 794</b>	<b>Notice: This Form 10 (Issue 6.0) replaces any previous versions of the Form 10/45.</b>	
		<b>Tel:</b>	<b>030 679 82542 or 9679 82542</b>
		<b>Email:</b>	<b><u>DESLEPPS-EngPol-Pubs@mod.uk</u></b>

<b>ORIGINATORS DETAILS:</b>			
<b>[SENDERS REFERENCE MUST BE UNIQUE]</b>			
<b>*Address</b>			<b>*Name</b>
			<b>Rank / Grade</b>
			<b>*Phone</b>
			<b>*Senders Reference</b>
			<b>*Date Raised</b>
<b>*UK E-Mail</b>		<b>Eqpt Asset Code <u>if applicable</u></b>	

<b>AESP/EMER DETAILS:</b>							
<b>*Full Title of AESP/EMER (Not the AESP/EMER Number)</b>							
<b>*Edition</b>	<b>*Amendment</b>	<b>*Chapter</b>	<b>*Paragraph</b>	<b>*Page</b>	<b>Figure</b>	<b>Instruction</b>	<b>Other</b>
<b>*Comments: If additional information is to be supplied, please e-mail with the Form 10 as separate attachments.</b>							

<b>FORM 10 CELL USE:</b>			
<b>*Date Received</b>		<b>*Form 10 Reference</b>	
<b>*Project Team (PT) / SME</b>		<b>Sponsors Name</b>	
<b>*Date Sent to PT / SME</b>		<b>*Problem Report</b>	

<b>PROJECT TEAM / SME RESPONSE TO COMMENTS:</b>			
<b>*Email</b>		<b>Rank / Grade</b>	
<b>*Phone</b>		<b>*Date Received</b>	
<b>*The following action is being taken</b>	<b>Mark:</b>		<b>Mark:</b>
Issue a revised/amended AESP/EMER:		Under investigation:	
Incorporate comment(s) in future amendments:		No action required:	

<b>Remarks:</b>			
<b>*SPONSOR/PT FINAL CLOSURE STEPS</b>	<b>Mark:</b>		<b>Date:</b>
<b>Form 10 Originator notified of the action taken:</b>		<b>Form 10 Cell notified of the action taken</b>	



# Ministry of Defence

## **RIFLE .22 in. No.8 Mk 1**

**1005-99-961-9008 (long butt)**

**1005-99-961-9009 (normal butt)**

**1005-99-961-9010 (short butt)**

## **EQUIPMENT SUPPORT POLICY DIRECTIVE (ESPD)**

**Sponsored for use in the  
UNITED KINGDOM MINISTRY OF DEFENCE  
AND ARMED FORCES  
by**

**SOLDIER SYSTEMS PROGRAM LETHALITY  
PROJECT TEAM  
KD4Q8**

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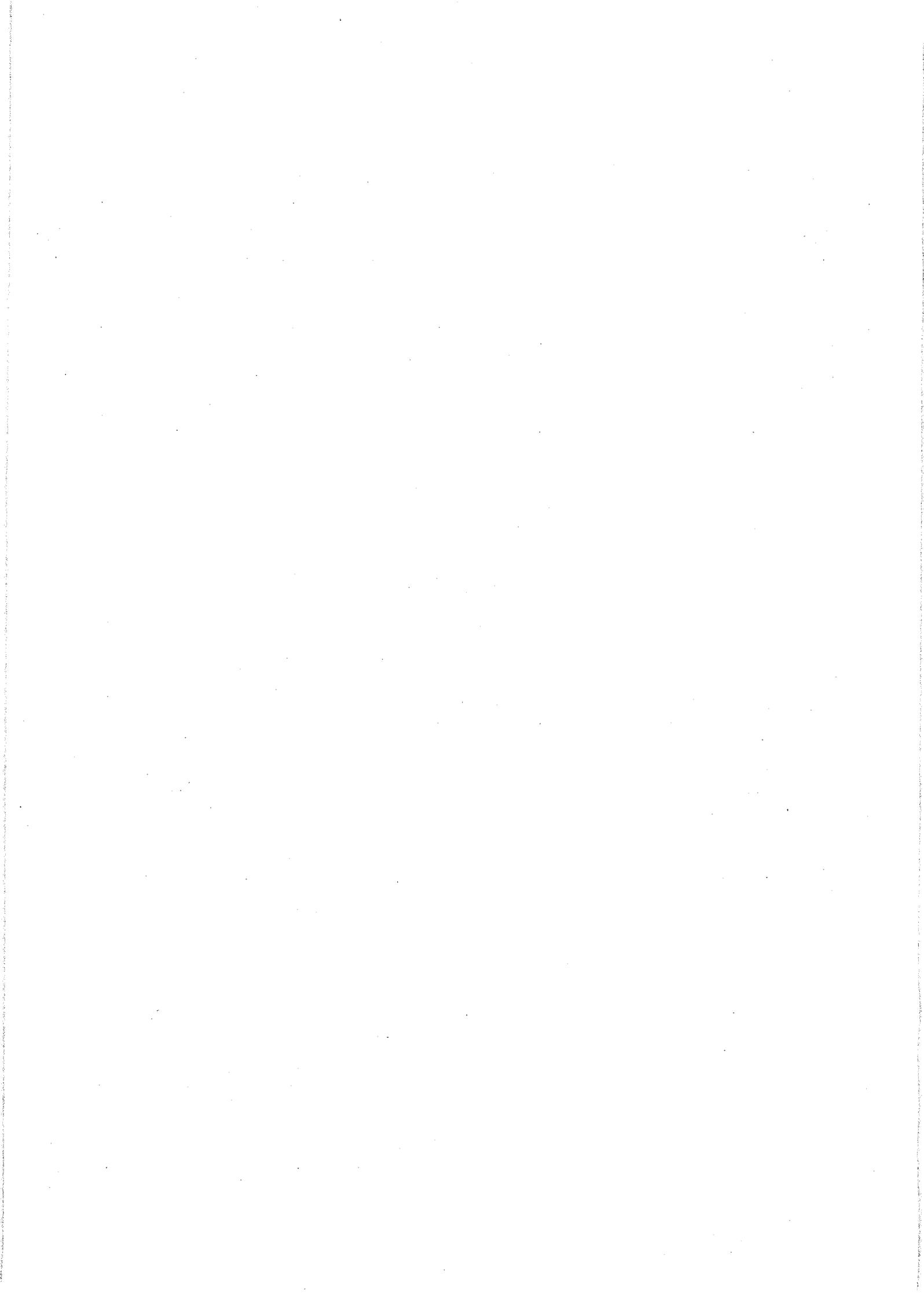


**AMENDMENT RECORD**

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**PREFACE**

Sponsor: SSP Lethality  
 Project Number: -  
 File Ref: -  
 Publication Authority: SSP Lethality

**INTRODUCTION**

1 Any comments by service users on this publication should be forwarded through the channels prescribed in Army Equipment Support Publication (AESP) 0100-P-011-013. An AESP Form 10 is provided at the end of this publication; it should be photocopied and used for forwarding comments on this AESP.

2 AESPs are issued under UK MOD authority and where AESPs specify action is to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores, subject to the provisions of Para 3 below.

3 The subject matter of this publication may be affected by Defence Instructions and Notices (DINs), Standard Operating Procedures (SOPs) or by local regulations. When any such instruction, order or regulation contradicts any portion of this publication it is to be taken as the overriding authority.

**RELATED AND ASSOCIATED PUBLICATIONS**

**Related publications**

4 The Octad for the subject equipment consists of the publications shown below. All references are prefixed with the first eight digits of this publication. The availability of the publications can be checked by reference to the relevant Group Index (see AESP 0100-A-001-013).

Category/Sub-category			Information Level			
			1 User/Operator	2 Unit Maintenance	3 Field Maintenance	4 Base Maintenance
1	0	Purpose and Planning Information	101	101	*	*
	1	Equipment Support Policy Directive	111	111	*	*
2	0	Operating Information	201	201	*	*
	1	Aide Memoiré	*	*	*	*
	2	Training Aids	*	*	*	*
3		Technical Description	201	302	302	302
4	1	Installation Instructions	*	*	*	*
	2	Preparation for Special Environments	*	*	*	*
5	1	Failure Diagnosis	201	522	522	522
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	4	Calibration Procedures	*	*	*	*
6		Maintenance Schedules	*	*	*	*
7	1	Illustrated Parts Catalogues	711	711	711	711
	2	Commercial Parts Lists	*	*	*	*
	3	Complete Equipment Schedule, Production	*	*	*	*
	4	Complete Equipment Schedule, Service Edition (Simple Equipment)	*	*	*	*
	5	Complete Equipment Schedule, Service Edition (Complex Equipment)	*	*	*	*
8	1	Modification Instructions	*	*	*	*
	2	General Instructions, Special Technical Instructions and Servicing Instructions	*	*	*	*
	3	Service Engineered Modification Instructions (RAF only)	*	*	*	*

\*Category/sub-category not published.

**Associated publications**

5 Associated publications are as follows:

<u>Reference</u>	<u>Title</u>
[REDACTED]	[REDACTED]
AESP 1000-A-003-013	Policy and Procedures for Armourers Light Weapons and Workshops
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

**WARNINGS AND CAUTIONS**

6 The warnings and cautions listed in all of the AESPs shown in the OCTAD table at Para 4 above are consolidated in the list below.

**WARNINGS**

- (1) **RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON. REFER TO 1005-L-203-201 CHAP 2.**
- (2) **RISK OF HEARING DAMAGE OR DEAFNESS. ALWAYS WEAR SUITABLE EAR PROTECTORS WHEN FIRING THE WEAPON.**
- (3) **RISK OF EYE INJURY OR BLINDNESS. ALWAYS WEAR SUITABLE EYE PROTECTION WHEN FIRING THE WEAPON. KEEP THE MUZZLE-AREA CLEAR WHEN FIRING.**
- (4) **PERSONAL INJURY. OPERATION THIS WEAPON MUST BE CARRIED OUT IN ACCORDANCE WITH PAM21C.**
- (5) **PERSONAL INJURY OR DEATH. SUITABLE EQUIPMENT. WHEN RIFLES ARE REQUIRED FOR COMPETITION SHOOTING, ADJUSTMENTS MUST ONLY TO BE MADE WHEN IT IS SAFE AND STABLE FOR THE INDIVIDUAL RIFLE CONCERNED.**
- (6) **PERSONAL INJURY OR DEATH. AVAILABILITY OF CORRECT TEST EQUIPMENT. ONLY ADJUST RIFLES TO THE NSRA STANDARD WHEN [REDACTED] NSRA 'DEAD-WEIGHT' TYPES OF TESTER ARE AVAILABLE FOR PULL-OFF WEIGHTS BELOW 3 LBF.**
- (7) **PERSONAL INJURY OR DEATH. CORRECT IDENTIFICATION. RIFLES REQUIRED TO BE PERMANENTLY ADJUSTED TO THE NSRA LIMIT MUST BE READILY IDENTIFIABLE AS SUCH, AND MUST BE USED FOR COMPETITION SHOOTING ONLY.**
- (8) **PERSONAL INJURY OR DEATH. CORRECT ADJUSTMENT. RIFLES REQUIRED TO BE ADJUSTED FOR SPECIFIC COMPETITIONS ONLY, ARE TO BE RE-ADJUSTED TO NORMAL SERVICE PULL-OFF LIMITS ON COMPLETION OF THE SPECIFIC COMPETITION.**
- (9) **PERSONAL INJURY OR DEATH. REPAIRS AND ADJUSTMENTS ARE ONLY TO BE CARRIED OUT BY A QUALIFIED ARMOURER**

**CAUTIONS**

- (1) **EQUIPMENT DAMAGE. Excessive force. Do not use excessive force when cleaning the weapon.**

(2) **EQUIPMENT DAMAGE.** Incorrect cleaning agents and care products. Do not use any metallic objects, plastics (nylon, etc.) or chemical cleaning agents to clean the weapon.

(3) **EQUIPMENT DAMAGE.** Only the approved and authorised maintenance kits and lubricants are to be used for the cleaning and preservation of this weapon system. Any deviation from this instruction may result in damage to the equipment which may result in disciplinary action being taken.

## Misuse of weapons

### Introduction

7 This warning outlines the British Armed Forces policy governing the use or misuse of weapons and ammunition.

### Competent person

8 Only those persons authorised in AESP 1000-A-003-013 Chap 1 Para 2 are deemed competent to carry out maintenance beyond level 1, User Maintenance.

- a) REME Artificer Weapons
- b) REME Armourer
- c) RM Armourer
- d) RAF Eng Tech W and W Mech with appropriate specialist trade qualifications
- e) Formally qualified DSG staff involved in light weapons repair
- f) Formally qualified Fleet staff involved in light weapon repair
- g) Formally qualified staff employed by the Prime Contractor for Logistic Support.

## WEAPONS

9 In AESPs the following definitions apply:

9.1 **Non Service Weapon (NSW).** Relates to all foreign and obsolete British light weapons whether officially issued or otherwise acquired which are not "in service" e.g. 9 mm Sten. A weapon is not officially "in service" unless it is listed in the Establishment's Equipment Table (ET).

9.2 **Light weapons.** Includes the following equipments deployed primarily for ground use.

9.2.1 **Small arms.** All personal weapons including rifles, carbines, pistols, submachine guns, shotguns anti-riot guns and associated stores.

9.2.2 **Machine guns.** All types of light, medium and heavy machine guns including their mounts and stores.

9.2.3 **Grenade launchers.** All types of grenade launcher.

9.2.4 **Anti-tank weapons.** Infantry hand held anti-tank weapons.

9.2.5 **Mortars.** All mortars and associated stores.

9.3 Firing or attempting to fire illegally modified service or other weapon is strictly prohibited.

9.4 Firing or attempting to fire locally manufactured weapons, service or foreign weapons, or use of weapons used for display, ceremonial, or trophy purpose in museums, messes, parade grounds, armouries or such like areas is prohibited except when specifically authorised through ESM SSP Lethality Delivery Team.

9.5 Some units and training establishments hold special weapons and ammunition of non-service pattern for familiarisation training, firing training and for firing on fixed mountings forward of troops undergoing training. Authority to hold all NSW can only be given by SSP Lethality Team.

**AMMUNITION**

10 Tampering with or use of service and commercial ammunition for other than their designed purpose is prohibited.

11 The modification, breakdown or sectioning of live ammunition for experimental, instructional or any other purpose is forbidden. This prohibition includes:

- 11.1 Unauthorised interchanges of fuses or primers or both.
- 11.2 Experiments with blank ammunition to alter the charge or introduce any other substance into the cartridge case or into the weapon with the approved cartridge.
- 11.3 Experiments involving the use of altered propelling or bursting charges with ammunition of any type.
- 11.4 The use of non-service ammunition.
- 11.5 Use of foreign ammunition other than that received through normal supply channels or supplied in accordance with NATO Standardisation Agreements.
- 11.6 Any alteration of the design of ammunition.
- 11.7 Deviation from any authorised drills for use of ammunition.
- 11.8 Rendering live ammunition inert for use as museum or instructional items.

**AUTHORISED AMMUNITION NATURES**

<b>Serial (1)</b>	<b>NSN (2)</b>	<b>Gen ADAC (3)</b>	<b>Specific ADAC (4)</b>	<b>Designation (5)</b>
1	1305-99-962-5598	10501	10501-02	ROUND .22 INCH BALL L5A1
2	1305-99-774-6324	10502	10502-02	ROUND .22 INCH BALL TENEX ULTIMATE L9A2

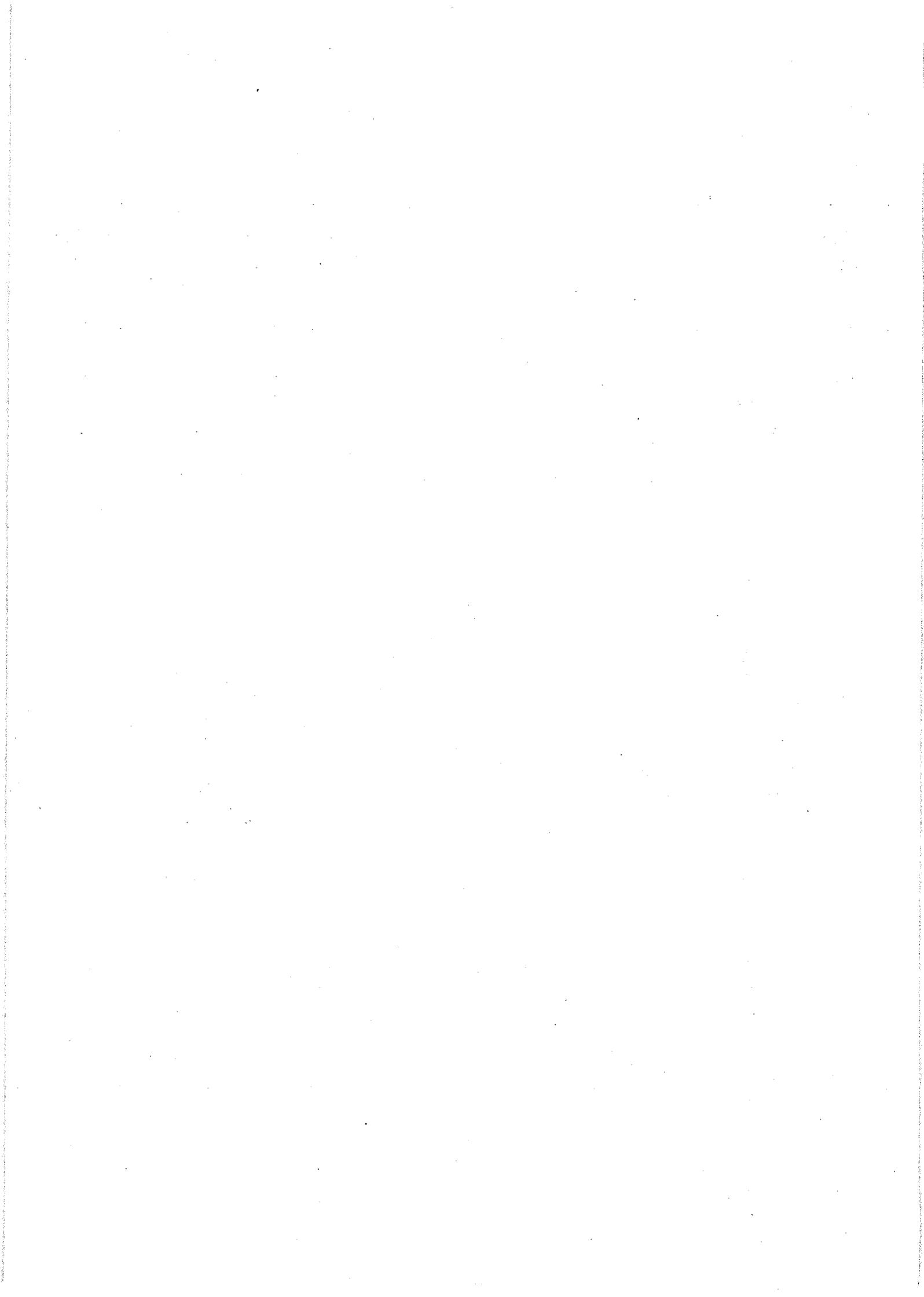
**ABBREVIATIONS AND SYMBOLS**

**ABBREVIATIONS**

<b>Abbreviation</b>	<b>Definition</b>
ACF	Army Cadet Force
ADAC	Ammunition Descriptive Asset Code
AESP	Army Equipment Support Publication
BLR	Beyond Local Repair
CCF	Combined Cadet Force
DE&S	Defence Equipment & Support
DGM	Defence General Munitions
DIN	Defence Instruction and Notice
DSEME	Defence School of Electrical & Mechanical Engineering
DSG	Defence Support Group
EFR	Equipment Failure Report
ESM	Equipment Support Manager
ESPD	Equipment Support Policy Directive
ET	Equipment Table
Fig	Figure
in.	inch
JSP	Joint Service Publications
kg	kilogramme
lb	Pound
lbf	Pound-foot
Mk	Mark
mm	millimetres
MOD	Ministry of Defence
NATO	North Atlantic Treaty Organisation
No	Number
NSN	NATO Stock Number
NSW	Non Service Weapon
OSD	Out of Service Date
oz	Ounce
RAF	Royal Air Force
REME	Corps of Royal Electrical and Mechanical Engineers
RM	Royal Marines
SOP	Standard Operating Procedure
SSP	Soldier Systems Program
STTE	Special Tools and Test Equipment
UK	United Kingdom

**SYMBOLS**

12 There are no symbols applicable to this equipment.



**EQUIPMENT SUPPORT POLICY DIRECTIVE**

**INTRODUCTION**

1 This Equipment Support Policy Directive (ESPD) provides the Equipment Support Policy for the Rifle 0.22 in No 8 Mk 1 in service with the UK Armed Forces and Army Cadet Force (ACF)/Combined Cadet Force (CCF).

**EQUIPMENT IDENTITY**

2 The equipment identities are shown in Table 1. Information regarding oils and lubricants is provided in Annex B and physical data and characteristics of the weapon system are included in Annex C to this ESPD.

**TABLE 1 EQUIPMENT IDENTITIES**

Serial (1)	Item Name (2)	NATO stock no (3)	Remarks (4)
1	RIFLE .22 IN NO 8 Mk1	1005-99-961-9008	long butt
2	RIFLE .22 IN NO 8 Mk1	1005-99-961-9009	normal butt
3	RIFLE .22 IN NO 8 Mk1	1005-99-961-9010	short butt

**TABLE 2 REPLACED WEAPONS**

Serial (1)	Item name (2)	NATO stock no (3)
1	NA	

**MANAGEMENT INFORMATION**

**Equipment management**

3 The in-service management of the Rifle 0.22 in, No 8 Mk1 is vested in the following branches:

- 3.1 Equipment Support Manager (ESM): SSP Lethality Delivery Team.
- 3.2 Equipment Sponsor: Capability Directorate Combat, Dismounted Close Combat.
- 3.3 Project Manager: SSP Lethality Delivery Team.
- 3.4 Engineering Support: SSP Lethality Delivery Team.
- 3.5 Engineering Branch: SSP Lethality Delivery Team.
- 3.6 Ammunition: Defence General Munitions (Light Munitions) (DGM (Lt Mun)).
- 3.7 Development/manufacture:
  - 3.7.1 Prime Contractor: [REDACTED]
  - 3.7.2 Design Authority: [REDACTED]
  - 3.7.3 Ammunition: DGM (Lt Mun).

**Planned role**

4 The Rifle 0.22 in No 8 Mk 1 was designed for use as a training rifle for the ACF and for small bore competition shooting.

**Planned life**

5 The Out Of Service Date (OSD) for the system has been amended to 30 September 2015 as per 2013DIN04-163.

**Planned utilisation**

6 In-service history supports the weapon system and currently meets the reliability requirements.

**Availability**

7 The period the equipment is deemed not to be available includes time spent on maintenance and repair. Planned availability is given in Table 3.

**TABLE 3 PLANNED EQUIPMENT AVAILABILITY**

<b>Serial (1)</b>	<b>Availability (2)</b>	<b>Percentage (3)</b>
1	Available now	95
2	Available in 24 hours	100

**Establishments**

8 Applications for establishment changes should be raised by the Unit and forwarded, through the chain of command and establishment sponsors, to the Equipment Sponsor and copied to the Equipment Support Manager (ESM) at Soldier Systems Program, Lethality Delivery Team, DE&S Abbey Wood, Bristol BS34 8JH.

**Security**

9 The security to be afforded to this weapon and the spares and ammunition will be that promulgated by the relevant Command and Service instructions.

**MAINTENANCE****CAUTION**

**EQUIPMENT DAMAGE.** Only the approved and authorised maintenance kits and lubricants are to be used for the cleaning and preservation of this weapon system. Any deviation from this instruction may result in damage to the equipment which may result in disciplinary action being taken.

10 All weapons and repairable ancillaries are to be repaired as far forward within the area of operations as technically feasible, economically sensible and operationally acceptable. All relevant equipment, work, maintenance and record of rounds fired documentation must be updated and achieved for future reference.

**Level 1: User maintenance**

11 Level 1 maintenance is to be carried out in accordance with AESP 1005-L-203-201. User maintenance is restricted to thorough cleaning and examination of parts for wear, breakage or defects all abnormalities are to be reported to REME Armourers or equivalent tradesmen as stated in AESP 1000-A-003-013. The maintenance kit provided is sufficient for all field stripping, zeroing, and cleaning tasks.

**Level 2: Unit maintenance**

12 Level 2 failure diagnosis, repairs and inspections are to be carried out in accordance with AESPs 1005-L-203-512, 1005-L-203-522 and 1005-L-203-532 respectively. The Special Tools and Test Equipment (STTE) provided and the issued combined armourer's toolkit are sufficient for all Level 2 maintenance tasks.

**Level 3: Field maintenance**

13 Level 3 repairs are to be carried out in accordance with AESP 1005-L-203-532.

**Rustproofing**

14 Rustproofing is to be carried out in accordance with AESP 1000-A-003-013.

**Level 4: DGS and contract maintenance**

15 Level 4 repairs and inspections are to be carried out in accordance with AESPs 1005-L-203-522 and 532.

**Mean active repair time**

16 Mean active repair time at level 2 (Unit Repairs) is estimated at 15 mins for the most time consuming component exchange.

**Non-operational maintenance**

17 At present weapons are preserved for "long term storage" with a stock servicing code of 6 years. Future plans to hold weapons in a Controlled Humidity Environment may change this policy.

**Depot**

18 Serviced and oiled.

**Units**

19 Units are to maintain weapons on their charge in accordance with unit standing orders, to a minimum detailed within [REDACTED]

**Equipment failure reports**

20 Where during use, inspection or repair, the condition of an equipment, component or ancillary is found to be in an unsatisfactory condition due to deterioration in storage, fatigue stress, faulty design, poor workmanship or faulty manufacture, an Equipment Failure Report (EFR) (AF G8267) is to be completed in all cases. These reports are to be submitted in accordance with [REDACTED]. Where ammunition accidents or performance failures occur, refer to AESP 1000-A-003-013.

**Calibration and certification of supporting items**

21 The supporting items detailed in Table 4 are to be calibrated and certified every [REDACTED]

**TABLE 4 SUPPORTING ITEMS**

Serial (1)	DMC/NSN (2)	Description (3)
1	NUM8/5220-99-961-8926	Gauge, inspectors, headspace 0.045 in. Mk 1
2	NUM8/5220-99-961-8925	Gauge, inspectors, headspace 0.047 in. Mk 1 **
3	NUM8/5220-99-961-9052	Gauge, armourers firing pin protrusion No.2 Mk 1
4	NUM8/5220-99-961-8937	Gauge, inspectors, plug 0.215 in.

\*\* Refer to process stated in 1005-L-203-532 as this gauge is no longer provisioned.

**SUPPLY****Inventory management**

22 General guidance for inventory management can be found in [REDACTED]

**Weapons, bayonets, magazines and accessories**

23 Weapons sentenced Beyond Local Repair (BLR) are to be the subject of AF G1043 action. The forms are to be annotated BLR Z and the reason for the sentence stated on the form. A copy of the AF G1043 is to be attached to the weapon. Guidance can be found in AESP 0100-A-003-013 and [REDACTED]. If EFR action is required then the ESM shall be informed immediately and EFR action taken. Guidance on EFR action can be found in [REDACTED].

**Special tools and test equipment**

24 The Special Tools and Test Equipment (STTE) required to maintain the rifle is provided in the Equipment Table Schedule 03718F and listed in Table 5. However, as detailed in 2013DIN04-163, this STTE is now obsolete.

**TABLE 5 SPECIAL TOOLS AND TEST EQUIPMENT**

Serial (1)	DMC/NSN (2)	Description (3)
1	NUM8/5120-99-961-7658	Bit, Screwdriver Stock Bolt
2	NUM8/5120-99-961-8110	Spanner Wrench
3	NUM8/5220-99-961-8924	Rod Plug Gauge Mk1
4	NUM8/1005-99-961-8870	Brush cleaning Small Arms

**Instructions for units**

25 Where a Unit is to support the equipment, demands for the entitlement of STTE are to be submitted to the ESM at Soldier Systems Program, Lethality Delivery Team, DE&S Abbey Wood.

**Calibration**

26 Gauges within the STTE packs will be supplied with calibration certificates valid for 36 months. Near the end of this period, holding Units are to initiate re-calibration and certification of their gauges in accordance with extant MOD policy.

**Deployment scale**

27 Fielding of this equipment is complete. Queries relating to entitlement and the Total Fleet Requirement should be addressed in the first instance to Army Headquarters Equipment Directorate, Dismounted Close Combat.

**PUBLICATIONS**

28 The following publications have been produced to support the equipment:

28.1 Army Equipment Support Publications (AESPs) see Table 6.

28.2 Related and associated publications – see Table 7 and Table 8.

**Army Equipment Support Publications**

29 Army Equipment Support Publications (AESP) for the Rifle 0.22 in. No 8 Mk 1 and supporting equipments are detailed in Table 6. AESPs are only issued when demanded in accordance with AESP 0100-P-007-013.

**Related and Associated publications**

30 Other publications associated with the Rifle 0.22 in. No 8 Mk 1 are detailed in Table 7 and 8.

**TABLE 6 ARMY EQUIPMENT SUPPORT PUBLICATIONS**

Serial (1)	AESP Category (2)	Title (3)
1	1005-L-203-101	Purpose and planning information
2	1005-L-203-111	Equipment support policy directive
3	1005-L-203-201	Description
4	1005-L-203-201	Operating information
5	1005-L-203-201	Failure diagnosis
6	1005-L-203-21	Maintenance information
7	1005-L-203-302	Technical description
8	1005-L-203-522	General information
9	1005-L-203-522	Inspection and repairs - Unit
10	1005-L-203-522	Inspection, repair and sentence - Field and base
11	1005-L-203-532	General information
12	1005-L-203-532	Inspection standards
13	1005-L-203-711	Illustrated parts catalogue
14	1000-A-003-013	Policy and procedures for armourers, light weapons and workshops

**TABLE 7 COMPLETE EQUIPMENT SCHEDULES**

Serial (1)	Publication code (2)	Title (3)
1	Nil	-

**TABLE 8 RELATED AND ASSOCIATED PUBLICATIONS**

Serial (1)	Publication code (2)	Title (3)
1	[REDACTED]	[REDACTED]
2	[REDACTED]	[REDACTED] [REDACTED]
3	[REDACTED]	[REDACTED]

**TRAINING****User training**

31 User training will be carried out in accordance with [REDACTED]  
[REDACTED]

**Maintenance training**

32 Service tradesmen are trained at the specialist course level delivered by Service training establishments listed below: However there is no [REDACTED] equipment course for the Rifle 0.22 No 8 Mk1.

32.1 [REDACTED]

32.2 [REDACTED]

32.3 [REDACTED]

**Training aids**

33 Nil.

**Scaling**

34 As directed by HQ Land.

**Drill rounds**

35 As directed by HQ Land.

**RELIABILITY****Warranty procedures and documentation**

36 The strategy underpinning the support solution is based on the high reliability and minimal preventative maintenance requirements of the Rifle 0.22 in. No 8 Mk1.

**Level 4 support**

37 Level 4 support may be invoked for defect investigation or warranty claims if required.

**Other usage and failure reporting requirements**

38 Equipment Failure Reports (EFR) AFG 8267A/B are to be raised in accordance with [REDACTED] Technical Support, Part 2 Land Equipment Support, in order to report weapons and spare parts found to be defective.

## CONFIGURATION MANAGEMENT

### Configuration and control procedures

39 The ESM will carry out configuration control in accordance with [REDACTED], and Configuration Management Land Modifications. The prime contractor will conduct configuration management and configuration change management in accordance with its ISO 9001: 2008 Quality Management Plan.

### Changes or modifications

40 No changes or modifications will be carried out on any weapon system contained within this AESP without the authority of the ESM SSP- Lethality Delivery Team.

### Post design services

41 SSP is responsible for all post design services.

### Modification instructions

42 Modification instructions will be published as AESP category 811. Prior notification of these instructions may be issued as a Defence Instruction Notice (DIN).

### Mid-life upgrades

43 None are envisaged.

### Extended life upgrades

44 None are envisaged.

## STORAGE AND MOVEMENT

### Packaging

45 Weapons initially issued to MoD distribution centres will utilise commercial grade packaging equivalent to Level J. Each package will be marked compliant to Def Con 129 and will include a STANAG 4329 bar code on the packing label.

**TABLE 9 SPECIAL TO CONTENTS CONTAINERS**

<b>Serial (1)</b>	<b>Name and NSN (2)</b>	<b>Qty Packed (3)</b>	<b>Dimensions (mm) (4)</b>	<b>Weight empty (kg) (5)</b>	<b>Weight full (kg) (6)</b>
N/A					

### Controlled environmental storage

46 Refer to Paras 17 to 19.

### Non-controlled environmental storage

#### Armoury and guardroom

47 Users should store weapons in accordance with [REDACTED]. Where additional or replacement storage media is required, this should be procured via your principle security advisor(s) from an approved source such as the Security Cabinet Office (SEAP) catalogue.

**Long term storage of weapons**

48 STCC furniture specifications for this weapon are now available for long term storage in humidified and dehumidified environments.

**Shelf-lived items**

49 The Rifle 0.22 in No. 8 Mk1 does not have shelf-lived items.

**OBSOLESCENCE AND DISPOSAL****Obsolescence procedures**

50 Obsolescence will be managed in accordance with [REDACTED]

**Disposal procedures**

51 Disposal will be carried out in accordance with [REDACTED]

**Disposal procedures for hazardous components**

52 No components are deemed hazardous.

**Surplus procedure**

53 Units which require disposing of surplus weapons are to request disposal instructions from DSDC Donnington, in accordance with [REDACTED]

**SAFETY**

54 A safety case for the weapon systems has been produced by the MOD in accordance with extant safety regulations and guidance. A Safe and Suitable for Service report has been produced for ancillaries.

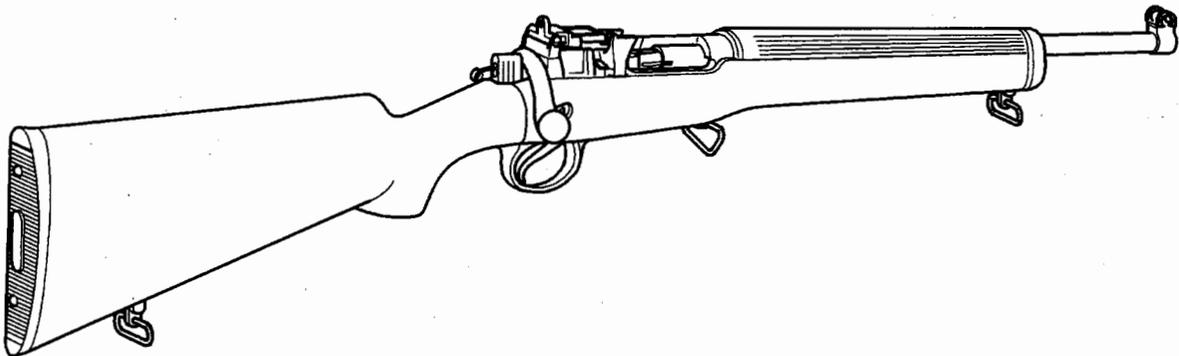
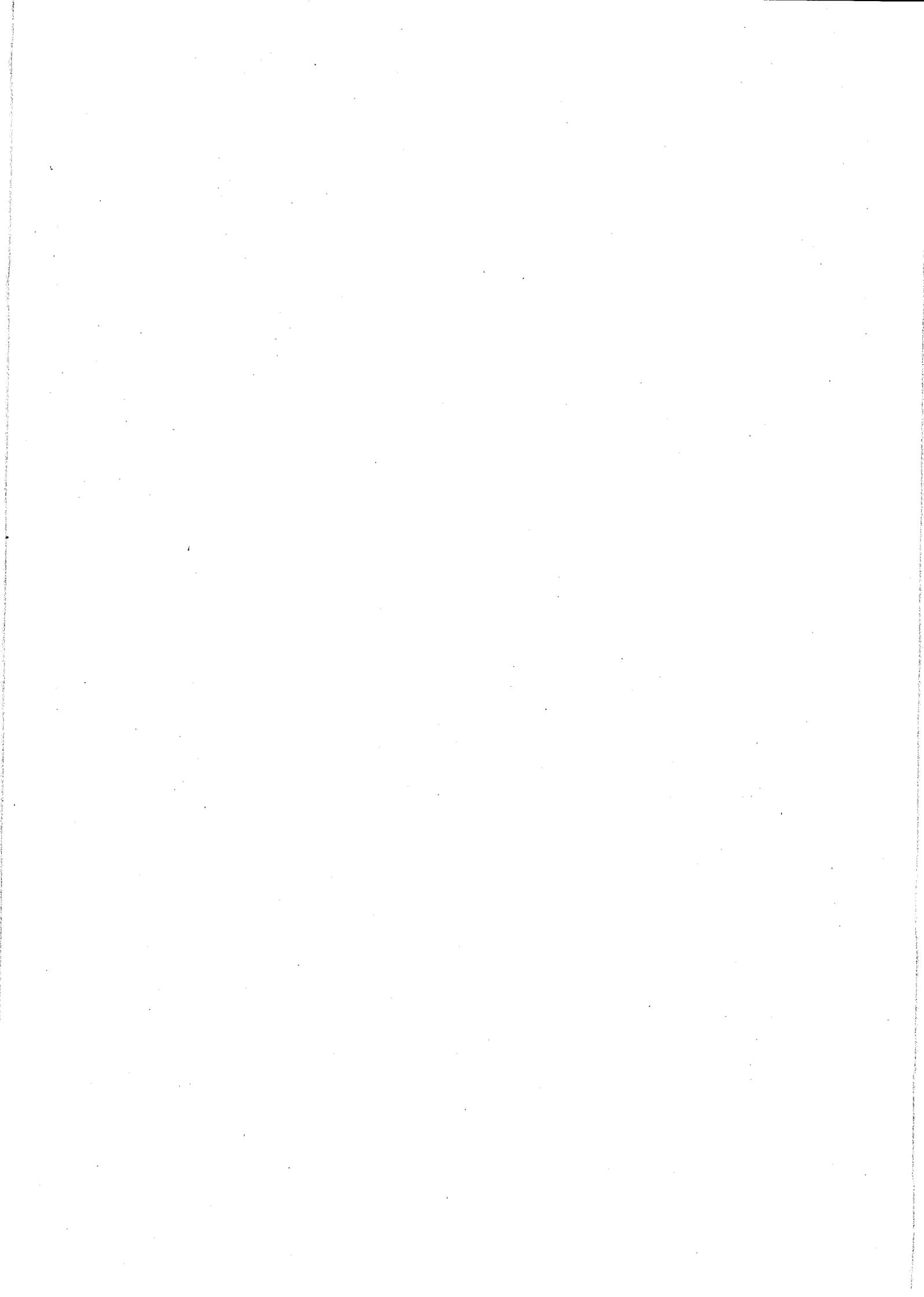


Fig 1 Rifle 0.22 in., No 8, Mk 1

**ANNEX A**

**WEAPON ANCILLARIES AND ACCESSORIES**

No illustrations available at time of publication



ANNEX B  
OILS AND LUBRICANTS  
CONTENTS

Para

- 1 General

Table

Page

1	Lubricants and protectives.....	1
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**GENERAL**

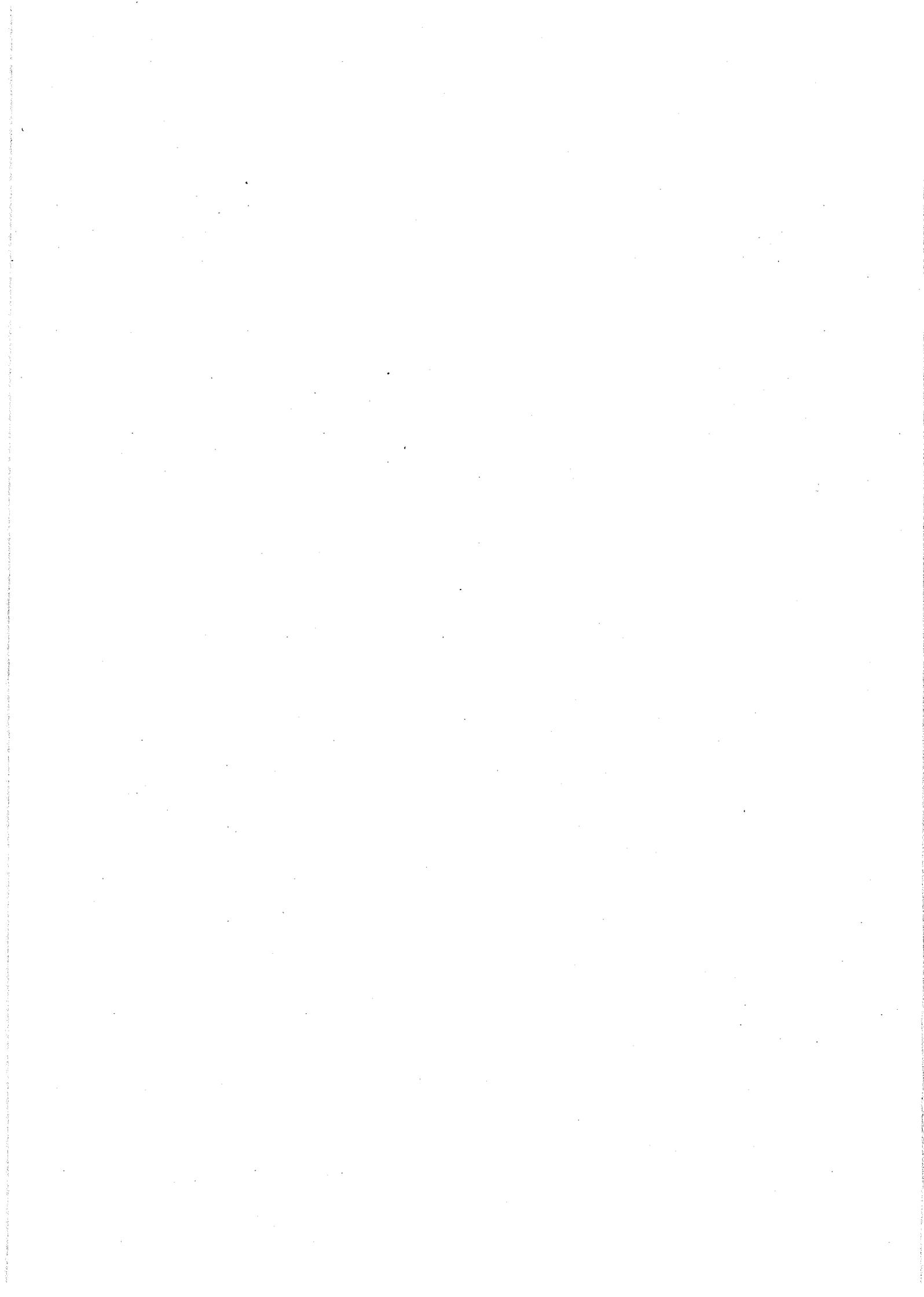
- 1 Table B1 gives the correct lubricant to be used with Rifle 0.22 in. No 8 Mk 1.

**TABLE B1 LUBRICANTS AND PROTECTIVES**

Serial (1)	Lubricant (2)	Application (3)	Remarks (4)
1	Oil: OX 24	Lubrication is to be carried out in strict accordance with AESP 1005-L-203.	Used for the lubrication and preservation of small arms and light calibre weapons up to 20mm. Compliant with Def Stan 91-102/2, JSD OX-24 and NATO 0-157 Temperature range -54°C to 50°C.
2	Grease: XG 276	Used as a preservation between metal wood contacts.	-
3	Protective: PX 11	Temporary storage.	Not to be used for long term storage.

**NOTE**

The lubricants at Serial 1, 2 & 3 are applicable at all temperature ranges.



**ANNEX C**

**WEAPON CHARACTERISTICS**

**CONTENTS**

Para

1 General

Table

Page

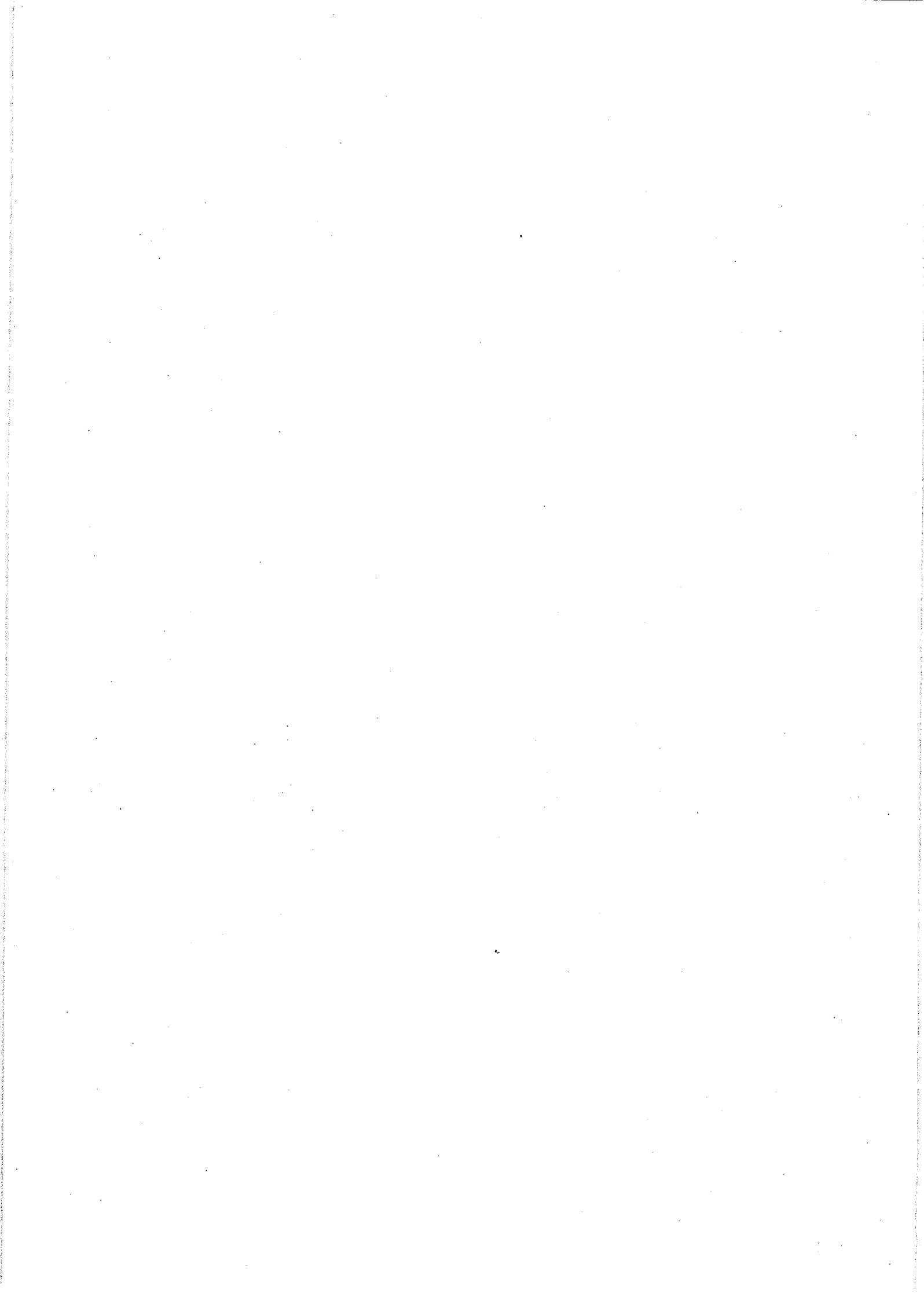
1 Technical specification..... 1

**GENERAL**

1. Table C1, gives the dimensions, weights and general characteristics for Rifle 0.22 in. No 8 Mk 1.

**TABLE C1 TECHNICAL SPECIFICATION**

Serial (1)	Detail (2)	Data (3)
<b>Dimensions</b>		
1	Length overall (normal butt)	41 in.
2	Length of barrel	23.36 in.
3	Weight	8 lb. 14 oz.
4	Sight radius	27.14 in.
5	Barrel dia (at muzzle)	3/4 in.
6	Barrel dia (at receiver)	7/8 in.
7	Head space	0.046 in. (± 0.001 in.)
<b>Characteristics</b>		
8	Calibre	0.22 in.
9	Number of grooves	6
10	Twist of rifling (1 turn in 16 in.)	Right-hand
11	Trigger pull single pull	3 lbf
12	Trigger pull double pull off	First pull 3-4 lbf Second pull 5-6.5 lbf
13	Principle of operation	Bolt action
14	Mode of fire	Single shot only
15	Trigger function	Single action
16	Locking system	Rotating bolt
17	Feed system	Hand/manual
18	Number of safeties	2
19	Ammunition	0.22 in. rim fire



**ANNEX D**

**MARKING OF LOCAL IDENTIFICATION NUMBERS**

**CONTENTS**

Para

- 1 Introduction  
Methods of marking
- 3 Painting
- 4 Etching, engraving and stamping
- 5 Location of marking

**INTRODUCTION**

- 1 This Annex details the policy for Units who require marking the weapons with local identification numbers, commonly referred to as butt numbers.
- 2 Weapons must always be accounted for using their master serial number. Butt numbers are only acceptable as a local means for quick recognition of an individual's personal weapon.

**METHODS OF MARKING**

**Painting**

- 3 Butt numbers may be applied using any standard issue paint product in any colour to the rear face of the pistol grip, but must not cover or in any way adulterate any engravings on the weapon e.g. the serial number, NSN or nomenclature.

**Etching, engraving and stamping**

- 4 Due to the fact such marking is virtually impossible to remove, etching, engraving or stamping of butt numbers or any other number for local recognition purposes on any part of the weapon, weapon furniture or ancillary is strictly forbidden.

**LOCATION OF MARKING**

- 5 All locally added markings such as butt numbers must be removable, and applied as directed above. They must not be painted on:
  - 5.1 Metal components.
  - 5.2 Internal components.
  - 5.3 Working surfaces.



**THE ORIGINATOR OF THE FORM 10 SHALL ENTER THE FOLLOWING DETAILS:**

**IDENTIFICATION:**

1. In the **AESP/EMER NUMBER cell**: enter the full document number eg. **AESP 1357-L-438-711**.
2. In the **IS THIS SAFETY RELATED? cell**: enter **YES** or **NO** as appropriate.

**ORIGINATORS DETAILS:**

1. In the **Address cell** enter the full address of the originator including Post Code/BFPO No.
2. In the **E-Mail cell** enter the originators E-Mail.
3. Enter details in all the other mandatory cells. **[The Senders Reference must be unique]**.
4. Enter details in non-mandatory cells if relevant.

**AESP/EMER DETAILS:**

1. In the **Full Title of AESP/EMER cell** enter the Full Title of the **AESP** or **EMER**.  
**[Do not state the AESP/EMER number in this cell]**
2. Enter details in all the other mandatory cells.
3. Enter details in non-mandatory cells if relevant.
4. In the comments cell the Form 10 Originator is to enter their comments/concerns/questions.
5. **There is a maximum of 15 lines available to enter text.**  
**[Additional information relating to the comments [additional text / photographs etc.] is to be E-Mailed at the same time as the Form 10 as separate attachments].**

**FORM 10 CELL USE:**

1. The **Form 10 Cell** shall enter on the Form 10 received:
  - 1.1 The **Date Received**.
  - 1.2 The **Form 10 Reference**.
  - 1.3 The **Problem Report Number [generated by the Design Repository]**.  
**The Form 10 Cell shall endeavour to identify the Project Team / Individual Sponsor.**
  - 1.4 The **Date the Form 10 was E-Mailed** to the Sponsor/Project team and record each stage on their Excel Spreadsheet.

**SPONSOR/PROJECT TEAM RESPONSE TO COMMENTS:**

1. The **Sponsor** shall:
  - 1.1 Enter their **Name [if different to the name entered by the Form 10 Cell]**.
  - 1.2 Enter their **E-Mail details**.
  - 1.3 Enter their **Phone number**.
  - 1.4 Enter the **date they received the Form 10**.
  - 1.5 Enter details in the non-mandatory field if relevant.
  - 1.6 Acknowledge receipt of the **Form 10 by return of E-Mail**, or by **Marking the Form 10 with an X in the Under investigation cell** and returning it by E-Mail to the Form 10 Cell within one week of receiving it.
2. **The Sponsor shall then:**
  - 2.1 **Assess** the content of the comment(s) submitted by the originator.
  - 2.2 **Mark the box** to indicate the action being taken by the sponsor.
  - 2.3 **Fill in the remarks** to explain the reason for the actions being taken.
  - 2.4 **Mark the box** to indicate that the sponsor will notify the originator of the actions taken against the comment(s) raised. **There are only 10 lines available to enter text.**
  - 2.5 **Enter the date** to indicate when the sponsor responded to the Form Comment(s).
  - 2.6 **E-Mail** a copy of the completed Form 10 to the Form 10 Cell & Originator of the Form 10.  
**The Form 10 is to be assessed and the response sent to the Form 10 Cell & Originator of the Form 10 within 6 weeks of the Sponsor receiving the Form 10 request.**

**FORM 10 CELL USE:**

1. The **Form 10 Cell** shall record the final stages of the Form 10 process on their Spreadsheet.
2. The **E2E audit trail of the Form 10** is now complete and closed on a single form.

**COMMENT(S) ON AESP**

<b>IDENTIFICATION:</b>	
<b>AESP/EMER NUMBER:</b>	<b>IS THIS SAFETY RELATED?:</b>

<b>Send To:</b>	<b>Form 10 Cell BFPO 794</b>	<b>Notice: This Form 10 (Issue 6.0) replaces any previous versions of the Form 10/45.</b>	
		<b>Tel:</b>	<b>030 679 82542 or 9679 82542</b>
		<b>Email:</b>	<b>DESLEPPS-EngPol-Pubs@mod.uk</b>

<b>ORIGINATORS DETAILS:</b>			
<b>[SENDERS REFERENCE MUST BE UNIQUE]</b>			
<b>*Address</b>			<b>*Name</b>
			<b>Rank / Grade</b>
			<b>*Phone</b>
			<b>*Senders Reference</b>
			<b>*Date Raised</b>
<b>*UK E-Mail</b>			<b>Eqpt Asset Code if applicable</b>

<b>AESP/EMER DETAILS:</b>							
<b>*Full Title of AESP/EMER (Not the AESP/EMER Number)</b>							
<b>*Edition</b>	<b>*Amendment</b>	<b>*Chapter</b>	<b>*Paragraph</b>	<b>*Page</b>	<b>Figure</b>	<b>Instruction</b>	<b>Other</b>
<b>*Comments: If additional information is to be supplied, please e-mail with the Form 10 as separate attachments.</b>							

<b>FORM 10 CELL USE:</b>			
<b>*Date Received</b>		<b>*Form 10 Reference</b>	
<b>*Project Team (PT) / SME</b>		<b>Sponsors Name</b>	
<b>*Date Sent to PT / SME</b>		<b>*Problem Report</b>	

<b>PROJECT TEAM / SME RESPONSE TO COMMENTS:</b>			
<b>*Email</b>		<b>Rank / Grade</b>	
<b>*Phone</b>		<b>*Date Received</b>	
<b>*The following action is being taken</b>	<b>Mark:</b>		<b>Mark:</b>
Issue a revised/amended AESP/EMER:		Under investigation:	
Incorporate comment(s) in future amendments:		No action required:	

<b>Remarks:</b>	

<b>*SPONSOR/PT FINAL CLOSURE STEPS</b>	<b>Mark:</b>		<b>Date:</b>
<b>Form 10 Originator notified of the action taken:</b>		<b>Form 10 Cell notified of the action taken</b>	



# Ministry of Defence

**RIFLE .22 in. No.8 Mk 1**  
1005-99-961-9008 (long butt)  
1005-99-961-9009 (normal butt)  
1005-99-961-9010 (short butt)

## PURPOSE AND PLANNING INFORMATION

Sponsored for use in the  
UNITED KINGDOM MINISTRY OF DEFENCE  
AND ARMED FORCES  
by

SOLDIER SYSTEMS PROGRAM LETHALITY  
PROJECT TEAM  
KD4Q8

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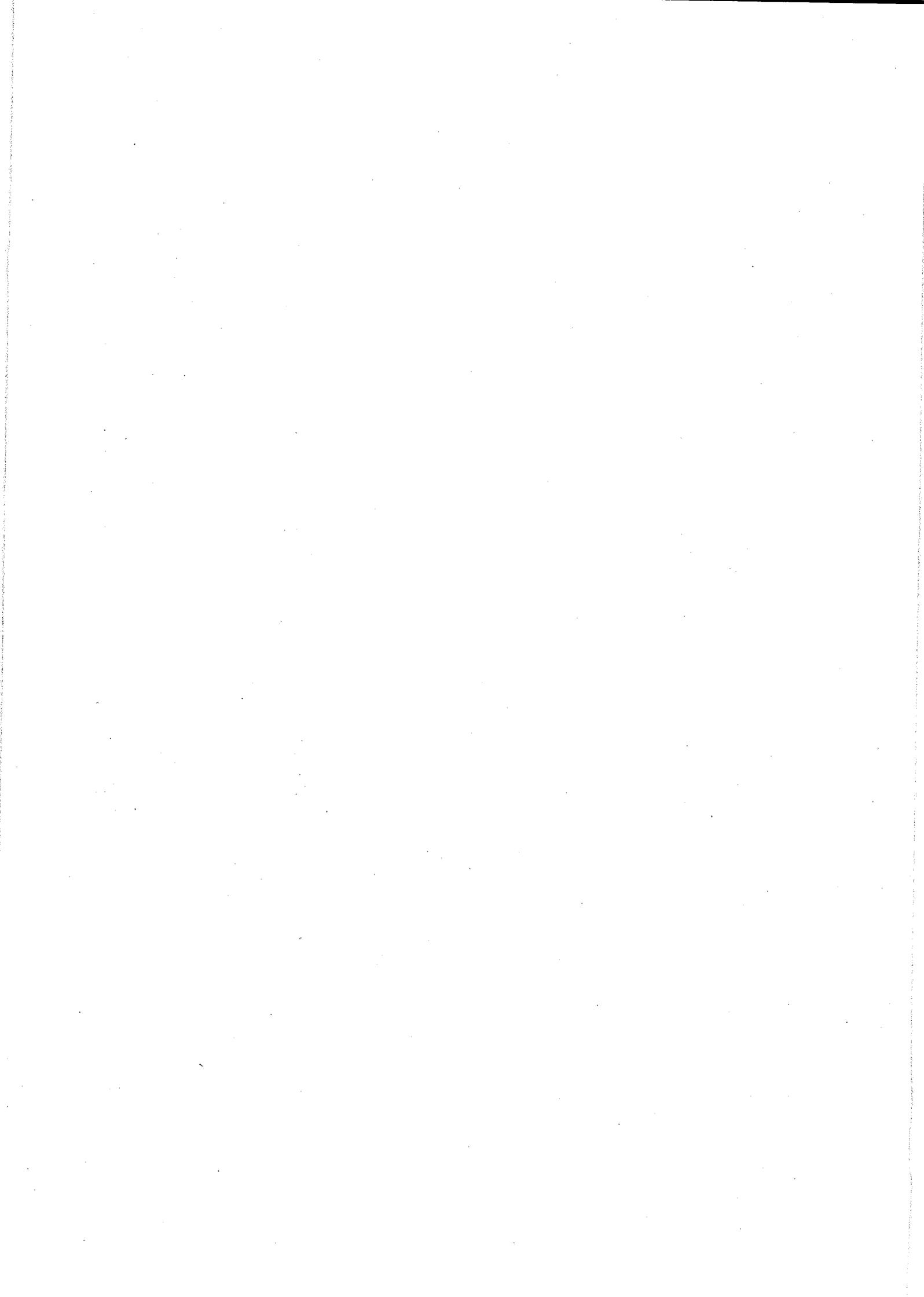


**AMENDMENT RECORD**

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**PURPOSE AND PLANNING INFORMATION**

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- 1 Equipment identity
- 2 Role
- 3 Brief description
- 8 Physical Data
- 9 Maintenance
- 13 Environmental data
- 14 Packaging and transport data
- 16 Manning requirements

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██████████

## PREFACE

Sponsor: SSP Lethality  
 Project Number: -  
 File Ref: -

Publication Authority: SSP Lethality

## INTRODUCTION

1 Any comments by service users on this publication should be forwarded through the channels prescribed in Army Equipment Support Publication (AESP) 0100-P-011-013. An AESP Form 10 is provided at the end of this publication; it should be photocopied and used for forwarding comments on this AESP.

2 AESPs are issued under UK MOD authority and where AESPs specify action is to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores, subject to the provisions of Para 3 below.

3 The subject matter of this publication may be affected by Defence Instructions and Notices (DINs), Standard Operating Procedures (SOPs) or by local regulations. When any such instruction, Order or Regulation contradicts any portion of this publication it is to be taken as the overriding authority.

## RELATED AND ASSOCIATED PUBLICATIONS

### Related publications

4 The Octad for the subject equipment consists of the publications shown below. All references are prefixed with the first eight digits of this publication. The availability of the publications can be checked by reference to the relevant Group Index (see AESP 0100-A-001-013).

Category/Sub-category			Information Level			
			1 User/Operator	2 Unit Maintenance	3 Field Maintenance	4 Base Maintenance
1	0	Purpose and Planning Information	101	101	*	*
	1	Equipment Support Policy Directive	111	111	*	*
2	0	Operating Information	201	201	*	*
	1	Aide Memoiré	*	*	*	*
	2	Training Aids	*	*	*	*
3		Technical Description	201	302	302	302
4	1	Installation Instructions	*	*	*	*
	2	Preparation for Special Environments	*	*	*	*
5	1	Failure Diagnosis	201	522	522	522
	2	Maintenance Instructions	201	522	522	522
	3	Inspection Standards	*	532	532	532
	4	Calibration Procedures	*	*	*	*
6		Maintenance Schedules	*	*	*	*
7	1	Illustrated Parts Catalogues	711	711	711	711
	2	Commercial Parts Lists	*	*	*	*
	3	Complete Equipment Schedule, Production	*	*	*	*
	4	Complete Equipment Schedule, Service Edition (Simple Equipment)	*	*	*	*
	5	Complete Equipment Schedule, Service Edition (Complex Equipment)	*	*	*	*
8	1	Modification Instructions	*	*	*	*
	2	General Instructions, Special Technical Instructions and Servicing Instructions	*	*	*	*
	3	Service Engineered Modification Instructions (RAF only)	*	*	*	*

\*Category/sub-category not published.

**Associated publications**

5 Associated publications are as follows:

<u>Reference</u>	<u>Title</u>
[REDACTED]	[REDACTED]
AESP 1000-A-003-013	Policy and Procedures for Armourers Light Weapons and Workshops
STTE	Scale no 037187 is declared obsolete 2013DIN04-163
[REDACTED]	[REDACTED]

**WARNINGS AND CAUTIONS****WARNINGS**

- (1) **RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON.**
- (2) **RISK OF EYE INJURY OR BLINDNESS. ALWAYS WEAR SUITABLE EYE PROTECTION WHEN FIRING THE WEAPON. KEEP THE MUZZLE AREA CLEAR WHEN FIRING.**
- (3) **PERSONAL INJURY. OPERATION THIS WEAPON MUST BE CARRIED OUT IN ACCORDANCE WITH [REDACTED]**

**CAUTIONS**

- (1) **EQUIPMENT DAMAGE. EXCESSIVE FORCE. DO NOT USE EXCESSIVE FORCE WHEN CLEANING THE WEAPON.**
- (2) **EQUIPMENT DAMAGE. INCORRECT CLEANING AGENTS AND CARE PRODUCTS. DO NOT USE ANY METALLIC OBJECTS, PLASTICS (NYLON, ETC.) OR CHEMICAL CLEANING AGENTS TO CLEAN THE WEAPON.**

**Misuse of weapons**Introduction

6 This warning outlines the British Armed Forces policy governing the use or misuse of weapons and ammunition.

Competent person

7 Only those persons authorised in AESP 1000-A-003-013 Chap 1 Para 2 are deemed competent to carry out maintenance beyond level 1, User Maintenance.

- (1) REME Artificer Weapons
- (2) REME Armourer
- (3) RM Armourer
- (4) RAF Eng Tech W and W Mech with appropriate specialist trade qualifications
- (5) Formally qualified DSG staff involved in light weapons repair
- (6) Formally qualified Fleet staff involved in light weapon repair
- (7) Formally qualified staff employed by the Prime Contractor for Logistic Support.

## WEAPONS

8 In AESPs the following definitions apply:

9 **Non Service Weapon (NSW).** Relates to all foreign and obsolete British light weapons whether officially issued or otherwise acquired which are not "in service" e.g. 9 mm Sten. A weapon is not officially "in service" unless it is listed in the Establishments Equipment Table (ET).

9.1 Light weapons. Includes the following equipments deployed primarily for ground use.

9.1.1 Small arms. All personal weapons including rifles, carbines, pistols, submachine guns, shotguns anti-riot guns and associated stores.

9.1.2 Machine guns. All types of light, medium and heavy machine guns including their mounts and stores.

9.1.3 Grenade launchers. All types of grenade launcher.

9.1.4 Anti-tank weapons. Infantry hand held anti-tank weapons.

9.1.5 Mortars. All mortars and associated stores.

9.2 Firing or attempting to fire illegally modified service or other weapon is strictly prohibited.

9.3 Firing or attempting to fire locally manufactured weapons, service or foreign weapons, or use of weapons used for display, ceremonial, or trophy purpose in museums, messes, parade grounds, armouries or such like areas is prohibited except when specifically authorised through ESM SSP Lethality Delivery Team.

9.4 Some units and training establishments hold special weapons and ammunition of non-service pattern for familiarisation training, firing training and for firing on fixed mountings forward of troops undergoing training. Authority to hold all NSW can only be given by SSP Lethality Team.

## AMMUNITION

10 Tampering with or use of service and commercial ammunition for other than their designed purpose is prohibited.

11 The modification, breakdown or sectioning of live ammunition for experimental, instructional or any other purpose is forbidden. This prohibition includes:

11.1 Unauthorised interchanges of fuses or primers or both.

11.2 Experiments with blank ammunition to alter the charge or introduce any other substance into the cartridge case or into the weapon with the approved cartridge.

11.3 Experiments involving the use of altered propelling or bursting charges with ammunition of any type.

11.4 The use of non-service ammunition.

11.5 Use of foreign ammunition other than that received through normal supply channels or supplied in accordance with NATO Standardisation Agreements.

11.6 Any alteration of the design of ammunition.

11.7 Deviation from any authorised drills for use of ammunition.

11.8 Rendering live ammunition inert for use as museum or instructional items.

**ABBREVIATIONS AND SYMBOLS****ABBREVIATIONS**

<b>Abbreviation</b>	<b>Definition</b>
AESP	Army Equipment Support Publication
BLR	Beyond Local Repair
Dia	Diameter
DIN	Defence Instruction and Notice
DSG	Defence Support Group
ET	Equipment Table
Fig	Figure
in.	inch
JSP	Joint Service Publications
lb	Pound
lbf	Pound-foot
Mk	Mark
MOD	Ministry of Defence
NATO	North Atlantic Treaty Organisation
No	Number
NSN	NATO Stock Number
NSW	Non Service Weapon
OSD	Out of Service Date
oz	Ounce
RAF	Royal Air Force
REME	Corps of Royal Electrical and Mechanical Engineers
SOP	Standard Operating Procedure
SSP	Soldier Systems Program
STANAG	Standardisation Agreement
STTE	Special Tools and Test Equipment
UK	United Kingdom

**SYMBOLS**

12 There are no symbols applicable to this equipment.

**PURPOSE AND PLANNING INFORMATION**

**EQUIPMENT IDENTITY**

1 Item names and NATO Stock Numbers (NSN) for the three variants of the Rifle .22 No. 8 Mk1, are detailed in Table 1.

**NOTE**

In accordance with 2013DIN04-163 0.22 inch No 8 Mk 1 Cadet Rifle – revision of Out Of Service Date (OSD). The only replacement that can be demanded is Serial 2 of Table 1, normal butt. When Serial 1 and 3 are declared Beyond Local Repair BLR they will be replaced by Serial 2 only - normal butt.

**TABLE 1 EQUIPMENT IDENTITIES**

<b>Serial (1)</b>	<b>Item Name (2)</b>	<b>NATO stock no (3)</b>	<b>Remarks (4)</b>
1	RIFLE .22 IN NO 8 Mk1	1005-99-961-9008	long butt
2	RIFLE .22 IN NO 8 Mk1	1005-99-961-9009	normal butt
3	RIFLE .22 IN NO 8 Mk1	1005-99-961-9010	short butt

**ROLE**

2 The Rifle, 0.22 in. No 8 Mk 1 (the rifle) was designed for use as a training rifle and for small bore competition shooting.

**BRIEF DESCRIPTION**

3 The rifle (Fig 1) is a bolt action, single-shot weapon with no magazine, cartridges are hand loaded manually.



Fig 1 Rifle, .22 in., No.8, Mk 1

**Weapon firing action and mechanical safeties/common features**

4 This hand loaded, bolt action weapon system has an applied safety catch and also a built in mechanical safety mechanism that will not allow the action to be fired off until the bolt is fully locked.

**Variations**

5 Variations of the weapon system are listed in Table 1.

**Ancillaries**

6 The standard service sight fitted can be replaced with commercial competition match foresight and back sights.

**NOTE**

Competition match sights must only be fitted by qualified armourers.

**Holsters/Slings/Carry cases**

7 The rifle can be fitted with a match shooting sling.

**PHYSICAL DATA**

8 Dimensions and characteristics of the rifle are detailed in the Table 2.

**TABLE 2 PHYSICAL DATA**

<b>Serial (1)</b>	<b>Detail (2)</b>	<b>Data (3)</b>
	<b>Dimensions</b>	
1	Length overall (normal butt)	41 in.
2	Length of barrel	23.36 in.
3	Weight	8 lb. 14 oz.
4	Sight radius	27.14 in.
5	Barrel dia (at muzzle)	3/4 in.
6	Barrel dia (at receiver)	7/8 in.
7	Head space	0.046 in. ( $\pm$ 0.001 in.)
	<b>Characteristics</b>	
8	Calibre	0.22 in.
9	Number of grooves	6
10	Twist of rifling (1 turn in 16 in.)	Right-hand
11	Trigger pull single pull	3 lbf
12	Trigger pull double pull off	First pull 3-4 lbf Second pull 5-6.5 lbf
13	Principle of operation	Bolt action
14	Mode of fire	Single shot only
15	Trigger function	Single action
16	Locking system	Rotating bolt
17	Feed system	Hand/manual
18	Number of safeties	2
19	Ammunition	0.22 in. rim fire

## **MAINTENANCE**

### **Level 1: User maintenance**

9 Level 1 maintenance is to be carried out in accordance with AESP 1005-L-203-201. User maintenance is restricted to thorough cleaning and examination of parts for wear, breakage or defects and subsequent reporting through the maintenance chain of command. The Universal Weapon Cleaning kit is sufficient to support all cleaning tasks. Armourer assistance may be required for adjustments to zeroing.

### **Level 2: Unit maintenance**

10 Level 2 failure diagnosis, repairs and inspections are to be carried out in accordance with AESPs 1005-L-203-512, 1005-L-203-522 and 1005-L-203-532 respectively. The Special Tools and Test Equipment (STTE) provided and the issued combined armourer's toolkit are sufficient for all Level 2 maintenance tasks.

### **Level 3: Field maintenance**

11 There is no level 3 maintenance for this weapon system.

### **Level 4: Contractor Logistic Support**

12 Contractor Logistic Support is the controlling authority for the issue of replacement serial numbered items, should these items be required.

## **ENVIRONMENTAL DATA**

13 The climatic operating range of the No 8 Rifle is -40 °C to +50 °C and the system is compliant to Def Stan 00-35 climatic operating conditions A1, A2, A3, B1, B2, B3, C0, C1 and C2.

## **PACKAGING AND TRANSPORT DATA**

14 Weapons initially issued to MoD distribution centres utilise commercial grade packaging equivalent to Level J. Each package is marked compliant to Def Con 129 and includes a STANAG 4329 compliant bar code on the packaging label.

15 On initial issue, STTE is issued in a plastic bag containing one complete set. For ease of identification, the bag includes a check list, as when supplied as a 'kit', each sub-item will not be fully labelled with all codification data. However, spares demanded individually are fully labelled with codification data. Calibration certificates are included where appropriate.

## **MANNING REQUIREMENTS**

16 This weapon system requires only one operator and will be integrated into existing support arrangements. No additional manning is required to operate or support the system.



**THE ORIGINATOR OF THE FORM 10 SHALL ENTER THE FOLLOWING DETAILS:**

**IDENTIFICATION:**

1. In the **AESP/EMER NUMBER** cell: enter the full document number eg. **AESP 1357-L-438-711**.
2. In the **IS THIS SAFETY RELATED?** cell: enter **YES** or **NO** as appropriate.

**ORIGINATORS DETAILS:**

1. In the **Address** cell enter the full address of the originator including Post Code/BFPO No.
2. In the **E-Mail** cell enter the originators E-Mail.
3. Enter details in all the other mandatory cells. **[The Senders Reference must be unique]**.
4. Enter details in non-mandatory cells if relevant.

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1. In the **Full Title of AESP/EMER** cell enter the Full Title of the **AESP** or **EMER**.  
**[Do not state the AESP/EMER number in this cell]**
2. Enter details in all the other mandatory cells.
3. Enter details in non-mandatory cells if relevant.
4. In the comments cell the Form 10 Originator is to enter their comments/concerns/questions.
5. **There is a maximum of 15 lines available to enter text.**  
**[Additional information relating to the comments [additional text / photographs etc.] is to be E-Mailed at the same time as the Form 10 as separate attachments].**

**FORM 10 CELL USE:**

1. The **Form 10 Cell** shall enter on the Form 10 received:
  - 1.1 The **Date Received**.
  - 1.2 The **Form 10 Reference**.
  - 1.3 The **Problem Report Number [generated by the Design Repository]**.**The Form 10 Cell shall endeavour to identify the Project Team / Individual Sponsor.**
  - 1.4 The **Date the Form 10 was E-Mailed** to the Sponsor/Project team and record each stage on their Excel Spreadsheet.

**SPONSOR/PROJECT TEAM RESPONSE TO COMMENTS:**

1. The **Sponsor** shall:
  - 1.1 Enter their **Name [if different to the name entered by the Form 10 Cell]**.
  - 1.2 Enter their **E-Mail details**.
  - 1.3 Enter their **Phone number**.
  - 1.4 Enter the **date they received the Form 10**.
  - 1.5 Enter details in the non-mandatory field if relevant.
  - 1.6 Acknowledge receipt of the **Form 10 by return of E-Mail**, or by **Marking the Form 10 with an X in the Under investigation cell** and returning it by E-Mail to the Form 10 Cell within one week of receiving it.
2. **The Sponsor shall then:**
  - 2.1 **Assess** the content of the comment(s) submitted by the originator.
  - 2.2 **Mark the box** to indicate the action being taken by the sponsor.
  - 2.3 **Fill in the remarks** to explain the reason for the actions being taken.
  - 2.4 **Mark the box** to indicate that the sponsor will notify the originator of the actions taken against the comment(s) raised. **There are only 10 lines available to enter text.**
  - 2.5 **Enter the date** to indicate when the sponsor responded to the Form Comment(s).
  - 2.6 **E-Mail** a copy of the completed Form 10 to the Form 10 Cell & Originator of the Form 10.  
**The Form 10 is to be assessed and the response sent to the Form 10 Cell & Originator of the Form 10 within 6 weeks of the Sponsor receiving the Form 10 request.**

**FORM 10 CELL USE:**

1. The **Form 10 Cell** shall record the final stages of the **Form 10 process** on their **Spreadsheet**.
2. The **E2E audit trail** of the **Form 10** is now complete and closed on a single form.

**COMMENT(S) ON AESP**

<b>IDENTIFICATION:</b>	
<b>AESP/EMER NUMBER:</b>	<b>IS THIS SAFETY RELATED?:</b>

<b>Send To:</b>	<b>Form 10 Cell BFPO 794</b>	<b>Notice: This Form 10 (Issue 6.0) replaces any previous versions of the Form 10/45.</b>
		<b>Tel:</b> 030 679 82542 or 9679 82542
		<b>Email:</b> <u>DESLEPPS-EngPol-Pubs@mod.uk</u>

<b>ORIGINATORS DETAILS:</b>	
<b>[SENDERS REFERENCE MUST BE UNIQUE]</b>	
<b>*Address</b>	<b>*Name</b>
	<b>Rank / Grade</b>
	<b>*Phone</b>
	<b>*Senders Reference</b>
	<b>*Date Raised</b>
<b>*UK E-Mail</b>	<b>Eqpt Asset Code <u>if applicable</u></b>

<b>AESP/EMER DETAILS:</b>							
<b>*Full Title of AESP/EMER (Not the AESP/EMER Number)</b>							
<b>*Edition</b>	<b>*Amendment</b>	<b>*Chapter</b>	<b>*Paragraph</b>	<b>*Page</b>	<b>Figure</b>	<b>Instruction</b>	<b>Other</b>
<b>*Comments: If additional information is to be supplied, please e-mail with the Form 10 as separate attachments.</b>							

<b>FORM 10 CELL USE:</b>			
<b>*Date Received</b>		<b>*Form 10 Reference</b>	
<b>*Project Team (PT) / SME</b>		<b>Sponsors Name</b>	
<b>*Date Sent to PT / SME</b>		<b>*Problem Report</b>	

<b>PROJECT TEAM / SME RESPONSE TO COMMENTS:</b>			
<b>*Email</b>		<b>Rank / Grade</b>	
<b>*Phone</b>		<b>*Date Received</b>	
<b>*The following action is being taken</b>	<b>Mark:</b>		<b>Mark:</b>
Issue a revised/amended AESP/EMER:		Under investigation:	
Incorporate comment(s) in future amendments:		No action required:	
<b>Remarks:</b>			
<b>*SPONSOR/PT FINAL CLOSURE STEPS</b>	<b>Mark:</b>		<b>Date:</b>
<b>Form 10 Originator notified of the action taken:</b>		<b>Form 10 Cell notified of the action taken</b>	



# Ministry of Defence

**RIFLE .22 in. No.8 Mk 1**  
1005-99-961-9008 (long butt)  
1005-99-961-9009 (normal butt)  
1005-99-961-9010 (short butt)

## TECHNICAL DESCRIPTION

Sponsored for use in the  
UNITED KINGDOM MINISTRY OF DEFENCE  
AND ARMED FORCES  
by

SOLDIER SYSTEMS PROGRAM LETHALITY  
PROJECT TEAM  
KD4Q8

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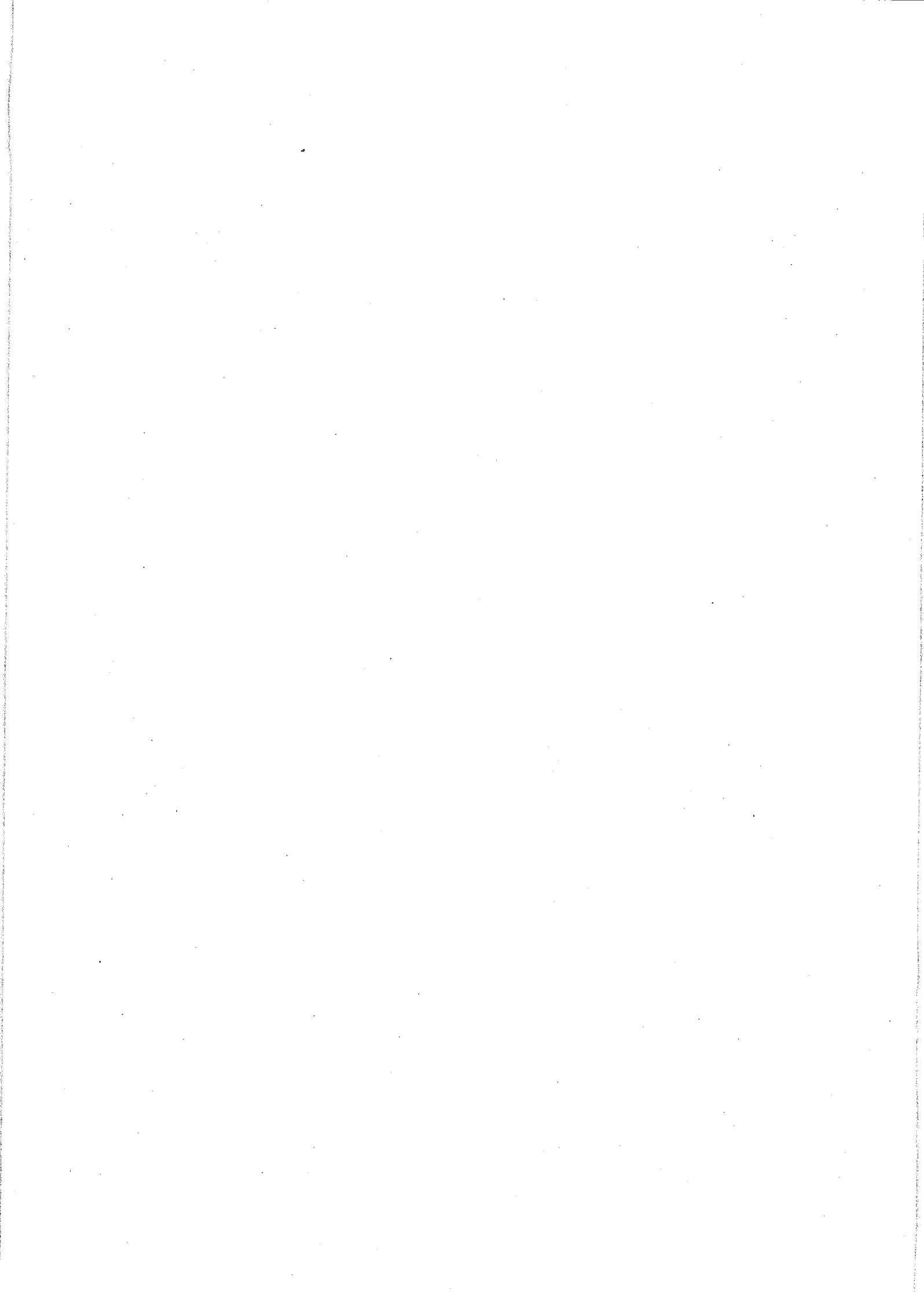
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**AMENDMENT RECORD**

<b>Amdt No.</b>	<b>Incorporated By (Signature)</b>	<b>Date</b>
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  - Physical description
  - 3 Furniture and external fittings
  - 4 Service sights
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## PREFACE

Sponsor: SSP Lethality  
 Project Number: -  
 File Ref: -

Publication Authority: SSP Lethality

## INTRODUCTION

1 Any comments by service users on this publication should be forwarded through the channels prescribed in Army Equipment Support Publication (AESP) 0100-P-011-013. An AESP Form 10 is provided at the end of this publication; it should be photocopied and used for forwarding comments on this AESP.

2 AESPs are issued under UK MOD authority and where AESPs specify action is to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores, subject to the provisions of Para 3 below.

3 The subject matter of this publication may be affected by Defence Instructions and Notices (DINs), Standard Operating Procedures (SOPs) or by local regulations. When any such instruction, Order or Regulation contradicts any portion of this publication it is to be taken as the overriding authority.

## RELATED AND ASSOCIATED PUBLICATIONS

## Related publications

4 The Octad for the subject equipment consists of the publications shown below. All references are prefixed with the first eight digits of this publication. The availability of the publications can be checked by reference to the relevant Group Index (see AESP 0100-A-001-013).

Category/Sub-category			Information Level			
			1 User/Operator	2 Unit Maintenance	3 Field Maintenance	4 Base Maintenance
1	0	Purpose and Planning Information	101	101	*	*
	1	Equipment Support Policy Directive	111	111	*	*
2	0	Operating Information	201	201	*	*
	1	Aide Memoire	*	*	*	*
	2	Training Aids	*	*	*	*
3		Technical Description	201	302	302	302
4	1	Installation Instructions	*	*	*	*
	2	Preparation for Special Environments	*	*	*	*
5	1	Failure Diagnosis	201	522	522	522
	2	Maintenance Instructions	201	522	522	522
	3	Inspection Standards	*	532	532	532
	4	Calibration Procedures	*	*	*	*
6		Maintenance Schedules	*	*	*	*
7	1	Illustrated Parts Catalogues	711	711	711	711
	2	Commercial Parts Lists	*	*	*	*
	3	Complete Equipment Schedule, Production	*	*	*	*
	4	Complete Equipment Schedule, Service Edition (Simple Equipment)	*	*	*	*
	5	Complete Equipment Schedule, Service Edition (Complex Equipment)	*	*	*	*
8	1	Modification Instructions	*	*	*	*
	2	General Instructions, Special Technical Instructions and Servicing Instructions	*	*	*	*
	3	Service Engineered Modification Instructions (RAF only)	*	*	*	*

\*Category/sub-category not published.

**Associated publications**

5 There are no associated publications for this Category.

**WARNINGS AND CAUTIONS**

**WARNING**

**RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON. REFER TO 1005-L-203-201 CHAP 2.**

**CAUTIONS**

NA

## LIST OF ABBREVIATIONS

Abbreviation	Definition
AESP	Army Equipment Support Publication
B.A.	British Association
B.S.F.	British Standard Fine
B.S.W.	British Standard Whitworth
Fig	Figure
i.e.	id est (that is)
in.	Inch(es)
lb(s)	Pound(s)
Mk	Mark
MOD	Ministry of Defence
NATO	North Atlantic Treaty Organisation
NC	Nitrocellulose
No.	Number
NSN	NATO Stock Number
NSP	Normal Safety Precautions
oz	Ounce
Para	Paragraph
RF	Rim Fire
SOP	Standard Operating Procedures
UK	United Kingdom
yds	yards

**INTRODUCTION**

**WARNING**

**RISK OF INJURY OR DEATH. NORMAL SAFETY PRECAUTIONS MUST BE OBSERVED BEFORE OPERATION, INSPECTION OR REPAIR OF THIS WEAPON. REFER TO 1005-L-203-201 CHAP 3.**

1 Designed for use as a training rifle and also for competition shooting, the No.8 Mk 1 rifle (the rifle) is a hand-operated, bolt-action rifle available in three different lengths. It is a single shot weapon that fires a .22 in. round and has no magazine. The trigger can be adjusted to give either the service (double) pull or a single pull. The weight of the pull can be adjusted in either case. The rifle is installed with a blade foresight and an aperture backsight which has graduations of 25, 50 and 100 yds.

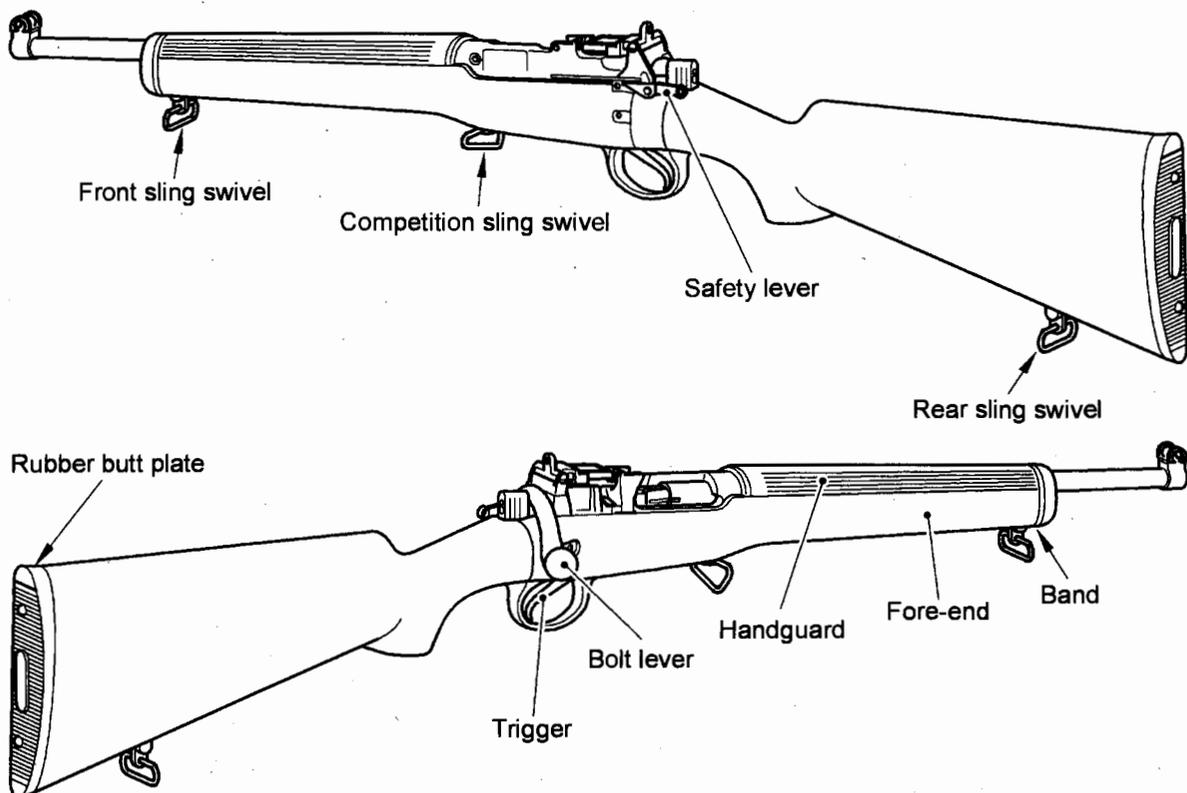


Fig 1 Rifle, .22 in., No.8, Mk 1

**PHYSICAL DATA**

2 Dimensions and general characteristics are described in Table 1.

**TABLE 1 DIMENSIONS AND GENERAL CHARACTERISTICS**

Serial (1)	Characteristic (2)	Data (3)
	<b>General</b>	
1	Length of rifle (normal butt)	41.05 in.
2	Weight of rifle	8 lb. 14 oz.
3	Cartridge head space	0.045 in. to 0.047 in.
4	Striker protrusion	0.034 in. to 0.038 in.
5	Screw thread system	B.A., B.S.F., B.S.W.
	<b>Barrel</b>	
6	Length	23.3 in.
7	Diameter of bore	0.216 in. to 0.2165 in.
	<b>Rifling</b>	
8	Form	Concentric tapering
9	Number of grooves	6
10	Direction of twist	Right hand
11	Pitch	One turn in 16 in.
12	Width of grooves	0.055 in. (+0.01 in. - 0.0 in.)
13	Depth of grooves at breech end	0.000275 in. to 0.004 in.
14	Uniform taper on groove diameter decreasing towards muzzle	0.0002 in. per inch
15	Chamber	0.22 in. service ammunition
	<b>Sights</b>	
16	Fore: Blade type issued in eight heights:	-0.03 in., -0.015 in., .0 in., 0.015 in., 0.030 in., 0.045 in., 0.060 in., 0.075 in.
17	Back:	Aperture type located at the rear of the body and graduated for 25, 50 and 100 yds, and also a harmonisation position.
18	Mean sight radius	26.95 in.

## PHYSICAL DESCRIPTION

### Furniture and external fittings

3 Fig 1 refers. Any of the approved hardwoods are used for the furniture, i.e., Walnut, Beech or Birch. The stock butt is available in three sizes, long, normal and short. Front and rear sling swivels are provided plus an additional combination swivel and front trigger guard screw which can be used for the fitting of a match shooting sling.

### Service sights

4 The foresight, Fig 2, is a blade type mounted in a dovetail seating in a removable foresight protector. The protector is dovetailed to fit the foresight block and is removed when fitting a match foresight. The backsight is a folding leaf and slide pattern. The slide is adjustable and has an aperture. Graduations on the leaf are for ranges of 25, 50 and 100 metres with an additional harmonization (H) position provided for landscape target practices.

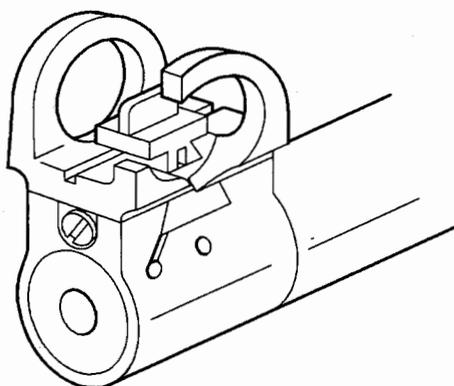


Fig 2 Foresight

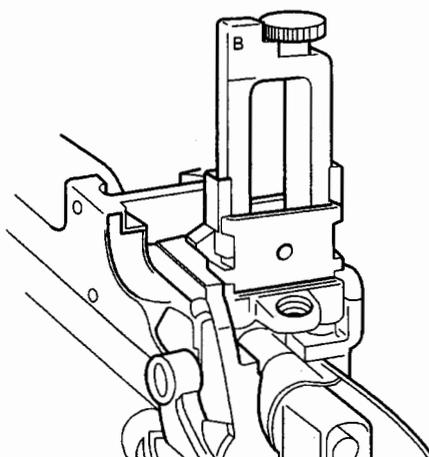


Fig 3 Backsight

### Match sights

5 The standardised dovetail in the foresight block facilitates quick replacement of the service foresight with standard commercial pattern match foresights. Tapped holes in the rifle body are provided for the fitting of a commercial-type match backsight.

**Bolt**

6 Fig 4 refers. Cocking action is achieved by raising and lowering the bolt lever. Although it is necessary to draw the bolt to the rear to load, it is not necessary to do so merely to re-cock the rifle. The rear end of the bolt houses a single cocking cam. When in the withdrawn position the cocking piece is held to the rear against the end of the bolt. A striker attached to the cocking piece and housed in the bolt drives forward an independent firing pin housed in the bolt head. The firing pin is offset radially to suit the rim-fire .22 inch cartridge. The striker is enclosed by a strong spring which provides the impetus for the forward movement and the firing pin has a smaller and weaker spring acting in the opposite direction. This withdraws the firing pin from the face of the bolt head when the cocking piece and striker are withdrawn to the rear.

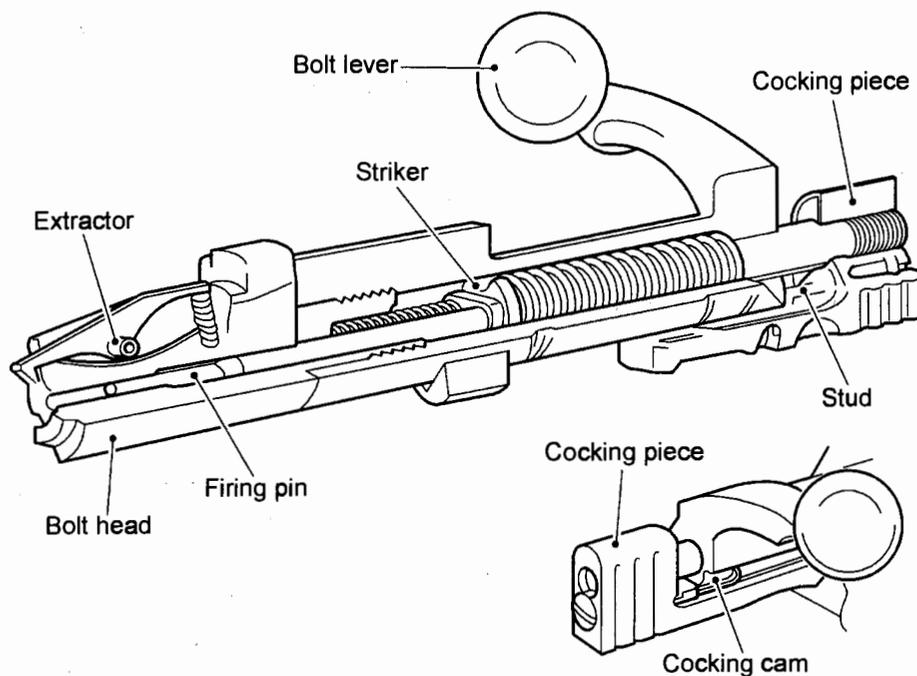


Fig 4 Bolt

**Barrel and body**

7 The barrel is relatively short and heavy. Its heavy weight reduces to a minimum the vibrations set up in firing and ensures a high degree of accuracy. The breech end of the barrel protrudes into the body to bring the chamber further to the rear to permit quick loading in the lying position. The chamber has a plain taper and the breech face is counterbored to take the rim of the cartridge and front of the bolt head. Immediately to the rear of the chamber is the cartridge platform which is securely pinned between the sides of the body. Integral with the platform is the ejector. The rifling is tapered, being deepest at the breech end and running out to almost bore diameter at the muzzle. The tapering of the rifling gives an improved gas seal and also removes the initial engraving from the bullet by the time it leaves the muzzle. The purpose of this is to improve the standard of accuracy with various brands of ammunition.

**Trigger mechanism**

8 The trigger can be adjusted to either the service double pressure or a single match pressure. The weight and length of the pressure can be adjusted in both cases. During release of the sear the cocking piece is supported by the sear cradle. This eliminates drag between the sear and cocking piece bends and ensures a clean and crisp let-off.

**Safety devices**

9 Applied and mechanical safety devices are incorporated in the rifle as follows. Fig 5 refers:

9.1 **Applied safety.** With the action cocked and safety applied, the safety catch engages with a hole in the bolt preventing it from being raised and the locking bolt engages with the forward recess in the cocking piece drawing it rearwards away from the sear. With the action in the fired position the safety catch again engages with the hole in the bolt but the locking bolt engages in the rear recess of the cocking piece; due to the semi-circular shape of the rear recess the cocking piece is not drawn rearwards.

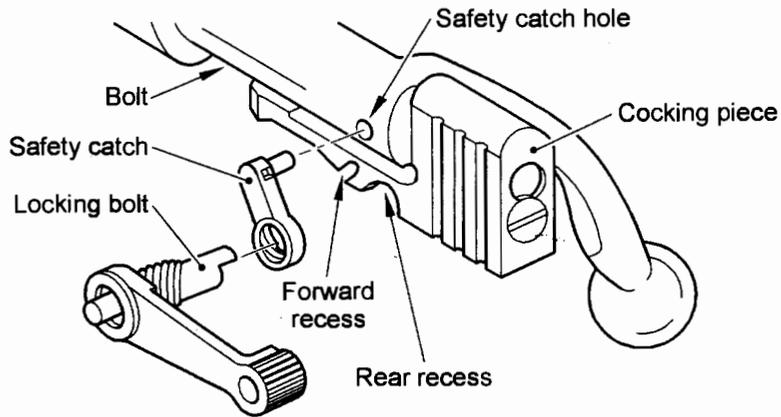


Fig 5 Safety devices

9.2 **Mechanical safety.** Mechanical safety is effected by a stud on the cocking piece, working in conjunction with a cam shaped recess on the underside of the bolt, ensuring that the rifle cannot be fired unless and until the breech is closed. Should the cocking piece be released before the bolt is turned fully down to the right, the stud engaging in the cam shaped groove fully closes the breech before the round can be fired.

**Cartridge platform and ejector**

10 Fig 6 refers. There is no magazine. A cartridge platform is situated just in the rear of the chamber. The ejector is integral with the cartridge platform.

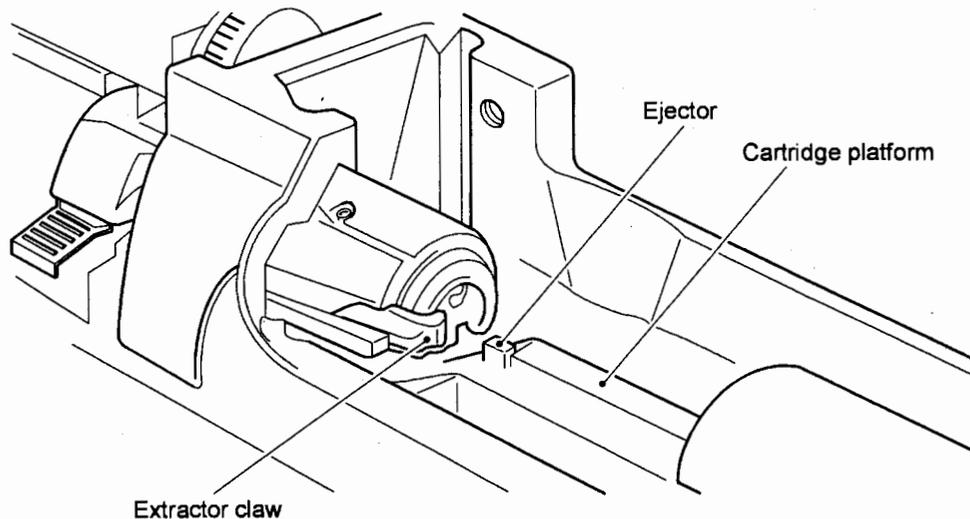


Fig 6 Cartridge platform and ejector

### Stock bearings

11 The bearings are, the body seating, the reinforce, the middle of the barrel and the muzzle; the middle barrel bearing is no longer mandatory.

### Ammunition

12 Fig 7 refers. The ammunition used with the rifle is the Cartridge, Rim-fire, .22 in., Ball, Mk 2. This round comprises a bullet, cartridge case and filling, and is approximately 55 grains in weight. The case is press fitted to the bullet.

12.1 **Bullet.** The bullet is made of lead, antimony and tin alloy and is normally 40 grains in weight. The bullet is round headed and three grooves cut in the periphery are filled with a wax lubricant.

12.2 **Cartridge case and filling.** The case is made from cartridge brass or gilding metal. The base of the case is widened to form a hollow rim which is filled with a quantity of rim fire composition. The main charge consists of a quantity of NC propellant.

12.3 **Markings.** The contractor's initials or recognised trade mark is stamped on the base of the cartridge case.

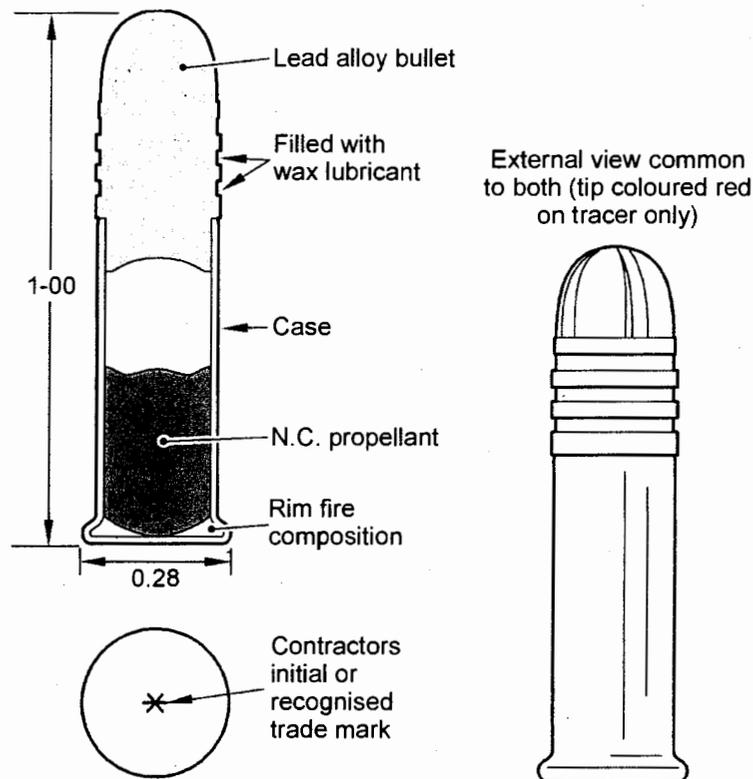


Fig 7 Cartridge, Rim-Fire, .22 in. Ball, Mk 2

### FUNCTIONAL DESCRIPTION

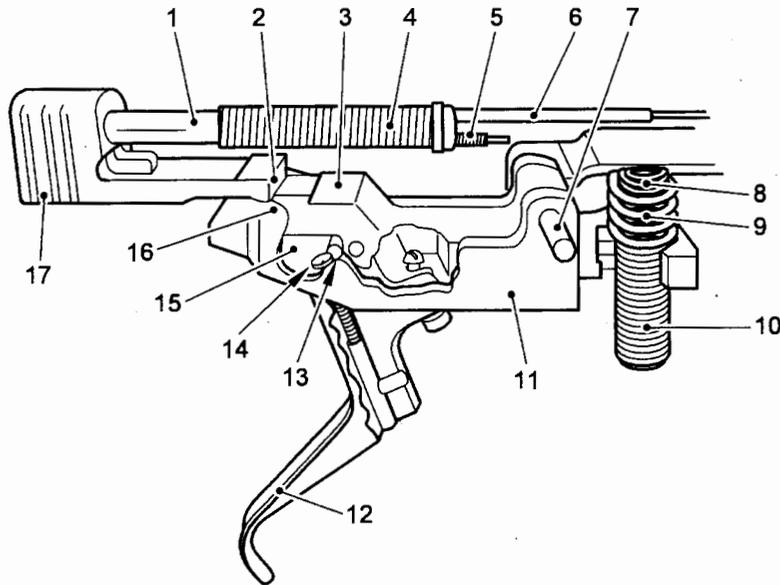
#### Loading

13 As there is no magazine, the rifle is loaded by hand for each shot as follows:

13.1 The safety catch is pushed fully forward, the bolt lever raised and the bolt drawn fully to the rear. A round is then manually inserted into the groove of the cartridge platform and pressed fully forward until the round has entered the chamber and resistance is felt. Using the bolt lever, the bolt is pushed forward as far as it will go and then locked in position.

**Trigger mechanism**

14 Fig 8 refers. When, with the weapon cocked, the trigger (12) is pressed, the trigger rotates initially about the cradle pin (13) as a fulcrum, levering down the sear (3) in its cradle (11) and rotating it about its axis pin (7). This compresses the inner and outer sear springs (8 and 9), and produces the first pressure. Continued pressure on the trigger causes the protruding end of the pressure setting screw (14) to contact the flat on the underside of the sear cradle (15), to which the fulcrum point is then transferred and the leverage altered. This produces the second pressure.



- |   |                       |    |                                    |
|---|-----------------------|----|------------------------------------|
| 1 | Striker               | 10 | Sear spring cup                    |
| 2 | Bent of cocking piece | 11 | Sear cradle                        |
| 3 | Sear                  | 12 | Trigger                            |
| 4 | Striker spring        | 13 | Cradle pin                         |
| 5 | Firing pin spring     | 14 | Setting screw                      |
| 6 | Firing pin            | 15 | Flat of sear cradle<br>(underside) |
| 7 | Axis pin, sear        | 16 | Sear cradle pads                   |
| 8 | Sear spring, inner    | 17 | Cocking piece                      |
| 9 | Sear spring, outer    |    |                                    |

Fig 8 Trigger mechanism

**Sear release**

15 Fig 9 refers. The pressure exerted by the compressed sear springs (4 and 5), transferred via the sear (3) and trigger (6), combined with the direct pressure on the trigger, produces an upward thrust through the sear cradle pads (11) on to the base of the sear on the bent of the cocking piece (1). This upward thrust counterbalances the downward drag of the bent of the sear on the bent of the cocking piece (2) and prevents any axial movement of the bolt. When the sear is released, the striker spring (10) carries forward the cocking piece and striker (1 and 9) to drive the firing pin (7) forward on to the rim of the cartridge, compressing the firing pin spring (8) in doing so.

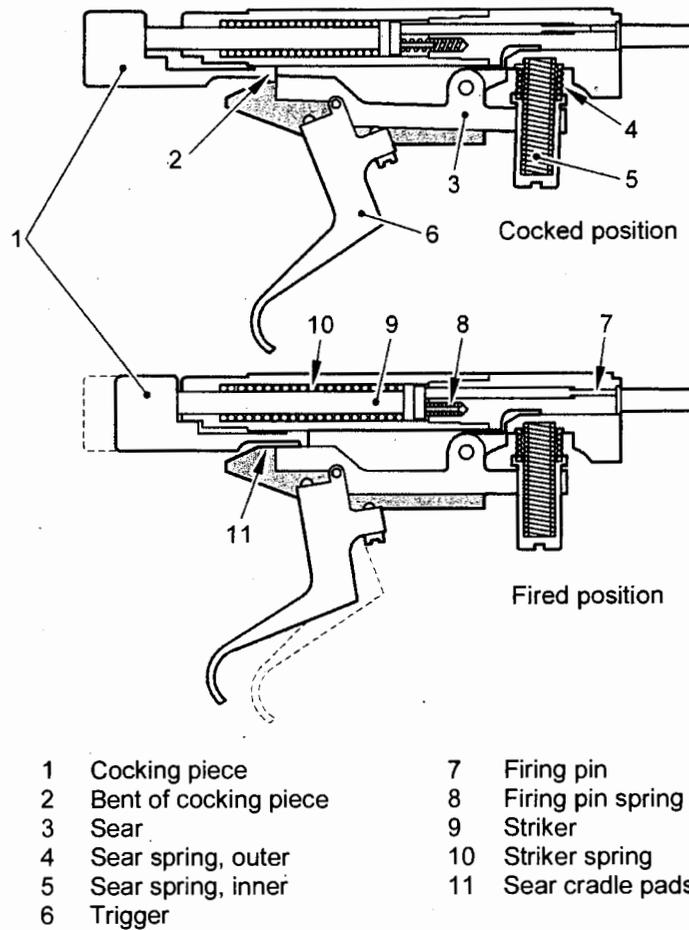


Fig 9 Sear release

**Withdrawal of the firing pin**

16 Fig 9 refers. When, after firing, the bolt lever is raised, the striker (9) and cocking piece (1) are withdrawn by the action of the stud on the cocking piece in the cam slot of the bolt. The withdrawal of the striker allows the firing pin spring (8) to re-assert itself and withdraw the firing pin.

**Extraction and ejection**

17 Fig 6 refers. When the bolt lever is raised and the bolt withdrawn, the empty case is removed from the chamber by the claw of the extractor pulling on the rim of the case. The empty case is held between the claw of the extractor and the face of the bolt during withdrawal of the bolt until the ejector strikes the rim of the case and ejects it from the rifle.

## COMMENT(S) ON AESP

### THE ORIGINATOR OF THE FORM 10 SHALL ENTER THE FOLLOWING DETAILS:

#### **IDENTIFICATION:**

1. In the **AESP/EMER NUMBER cell**: enter the full document number eg. **AESP 1357-L-438-711**.
2. In the **IS THIS SAFETY RELATED? cell**: enter **YES** or **NO** as appropriate.

#### **ORIGINATORS DETAILS:**

1. In the **Address cell** enter the full address of the originator including Post Code/BFPO No.
2. In the **E-Mail cell** enter the originators E-Mail.
3. Enter details in all the other mandatory cells. **[The Senders Reference must be unique]**.
4. Enter details in non-mandatory cells if relevant.

#### **AESP/EMER DETAILS:**

1. In the **Full Title of AESP/EMER cell** enter the Full Title of the **AESP** or **EMER**.  
**[Do not state the AESP/EMER number in this cell]**
2. Enter details in all the other mandatory cells.
3. Enter details in non-mandatory cells if relevant.
4. In the comments cell the Form 10 Originator is to enter their comments/concerns/questions.
5. **There is a maximum of 15 lines available to enter text.**  
**[Additional information relating to the comments [additional text / photographs etc.] is to be E-Mailed at the same time as the Form 10 as separate attachments].**

### **FORM 10 CELL USE:**

1. The **Form 10 Cell** shall enter on the Form 10 received:
  - 1.1 The **Date Received**.
  - 1.2 The **Form 10 Reference**.
  - 1.3 The **Problem Report Number [generated by the Design Repository]**.  
**The Form 10 Cell shall endeavour to identify the Project Team / Individual Sponsor.**
  - 1.4 The **Date the Form 10 was E-Mailed** to the Sponsor/Project team and record each stage on their Excel Spreadsheet.

### **SPONSOR/PROJECT TEAM RESPONSE TO COMMENTS:**

1. The **Sponsor** shall:
  - 1.1 Enter their **Name [if different to the name entered by the Form 10 Cell]**.
  - 1.2 Enter their **E-Mail details**.
  - 1.3 Enter their **Phone number**.
  - 1.4 Enter the **date they received the Form 10**.
  - 1.5 Enter details in the non-mandatory field if relevant.
  - 1.6 Acknowledge receipt of the **Form 10 by return of E-Mail**, or by **Marking the Form 10 with an X in the Under investigation cell** and returning it by E-Mail to the Form 10 Cell within one week of receiving it.
2. **The Sponsor shall then:**
  - 2.1 **Assess** the content of the comment(s) submitted by the originator.
  - 2.2 **Mark the box** to indicate the action being taken by the sponsor.
  - 2.3 **Fill in the remarks** to explain the reason for the actions being taken.
  - 2.4 **Mark the box** to indicate that the sponsor will notify the originator of the actions taken against the comment(s) raised. **There are only 10 lines available to enter text.**
  - 2.5 **Enter the date** to indicate when the sponsor responded to the Form Comment(s).
  - 2.6 **E-Mail** a copy of the completed Form 10 to the Form 10 Cell & Originator of the Form 10.  
**The Form 10 is to be assessed and the response sent to the Form 10 Cell & Originator of the Form 10 within 6 weeks of the Sponsor receiving the Form 10 request.**

### **FORM 10 CELL USE:**

1. The **Form 10 Cell** shall record the final stages of the Form 10 process on their Spreadsheet.
2. The E2E audit trail of the Form 10 is now complete and closed on a single form.

**COMMENT(S) ON AESP**

<b>IDENTIFICATION:</b>	
<b>AESP/EMER NUMBER:</b>	<b>IS THIS SAFETY RELATED?:</b>

<b>Send To:</b>	<b>Form 10 Cell BFPO 794</b>	<b>Notice: This Form 10 (Issue 6.0) replaces any previous versions of the Form 10/45.</b>	
		<b>Tel:</b>	<b>030 679 82542 or 9679 82542</b>
		<b>Email:</b>	<b><u>DESLEPPS-EngPol-Pubs@mod.uk</u></b>

<b>ORIGINATORS DETAILS:</b>			
<b>[SENDERS REFERENCE MUST BE UNIQUE]</b>			
<b>*Address</b>			<b>*Name</b>
			<b>Rank / Grade</b>
			<b>*Phone</b>
			<b>*Senders Reference</b>
			<b>*Date Raised</b>
<b>*UK E-Mail</b>			<b>Eqpt Asset Code <u>if applicable</u></b>

<b>AESP/EMER DETAILS:</b>							
<b>*Full Title of AESP/EMER (Not the AESP/EMER Number)</b>							
<b>*Edition</b>	<b>*Amendment</b>	<b>*Chapter</b>	<b>*Paragraph</b>	<b>*Page</b>	<b>Figure</b>	<b>Instruction</b>	<b>Other</b>
<b>*Comments: If additional information is to be supplied, please e-mail with the Form 10 as separate attachments.</b>							

<b>FORM 10 CELL USE:</b>			
<b>*Date Received</b>		<b>*Form 10 Reference</b>	
<b>*Project Team (PT) / SME</b>		<b>Sponsors Name</b>	
<b>*Date Sent to PT / SME</b>		<b>*Problem Report</b>	

<b>PROJECT TEAM / SME RESPONSE TO COMMENTS:</b>			
<b>*Email</b>		<b>Rank / Grade</b>	
<b>*Phone</b>		<b>*Date Received</b>	
<b>*The following action is being taken</b>	<b>Mark:</b>		<b>Mark:</b>
Issue a revised/amended AESP/EMER:		Under investigation:	
Incorporate comment(s) in future amendments:		No action required:	

<b>Remarks:</b>			
<b>*SPONSOR/PT FINAL CLOSURE STEPS</b>	<b>Mark:</b>		<b>Date:</b>
<b>Form 10 Originator notified of the action taken:</b>		<b>Form 10 Cell notified of the action taken</b>	