



PARKER-HALE

7.62 x 51 mm

SNIPER RIFLE

M.85

OPERATING INFORMATION

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GENERAL DESCRIPTION

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INTRODUCTION

1. The bipod is mounted onto a spigot fitted to the forend of the rifle by means of a spring loaded catch. The legs are individually adjustable for length by means of spring loaded catches. The design allows adjustment by the shooter for both swivel and cant.

PHYSICAL DATA

- 2. Weight:- 0.67 kg (1 1/2 lbs)
- Folded length:- legs closed 206 mm (8 1/8")
- legs extended 270 mm (10 5/8")
- Height:- centre of spigot hole to ground legs closed 194 mm (7 5/8")
- centre of spigot hole to ground legs open 248 mm (9 3/4")
- Spigot diameter:- 11.1 mm (7/16 inches)

ATTACHING AND REMOVING THE BIPOD (Fig 4)

3. The bipod is attached to the rifle by depressing the catch on the side of the mounting sleeve and pushing the sleeve over the spigot. Releasing the catch secures the bipod to the spigot. To remove the bipod, depress the catch fully and draw the bipod forward off the spigot.

ADJUSTMENT OF LEG HEIGHT (Fig 1 & 2)

4. To extend bipod leg pull the lower leg assembly along the axis of the upper tube to the desired position. Ensure that the leg catch engages into one of the recesses in the lower leg. To close the leg depress the catch fully and push the inner leg to its closed position.

BRINGING THE BIPOD INTO THE OPERATING POSITION

5. The transit position for the bipod is shown in Fig 3. To bring the bipod into the operating position press the legs slightly towards each other and swing them downwards to form a right angle with the stock. Releasing the legs then locks them in position. To raise the legs press them towards each other as far as they will go and swing them back into the transit position.

NOTE The bipod can be positioned for transit either with the legs pointing rearward as in Fig 3 or pointing forward.

THE BIPOD

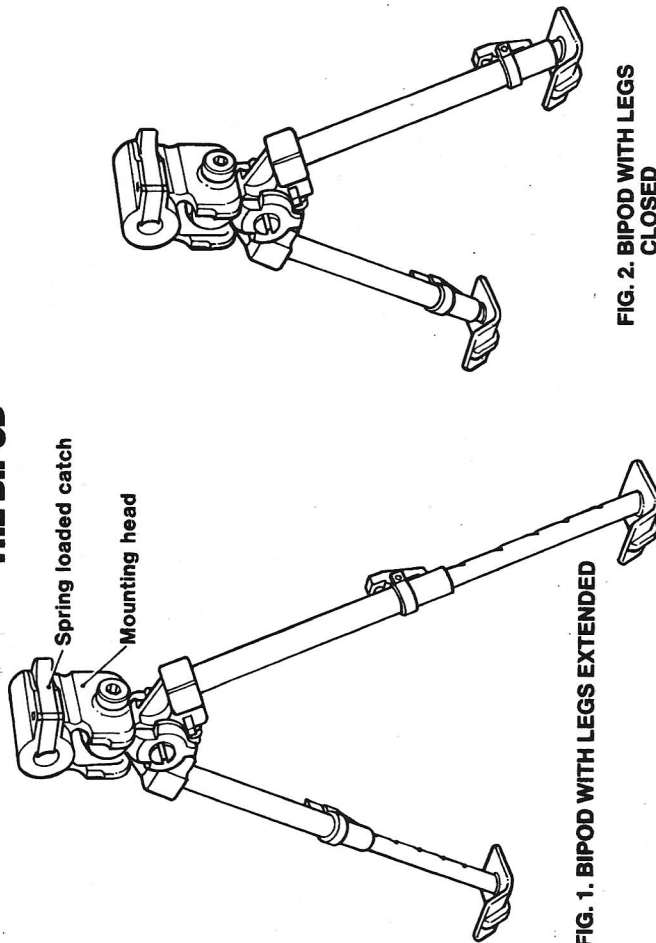


FIG. 1. BIPOD WITH LEGS EXTENDED

FIG. 2. BIPOD WITH LEGS CLOSED

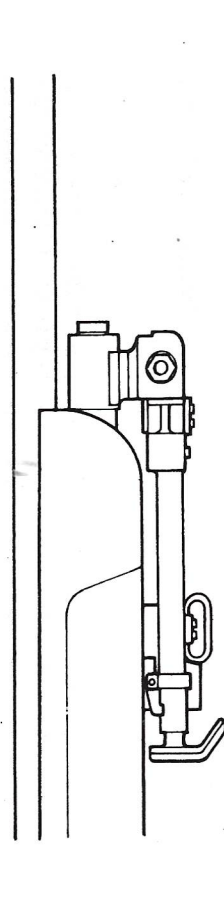


FIG. 3. BIPOD FOLDED FOR TRANSIT

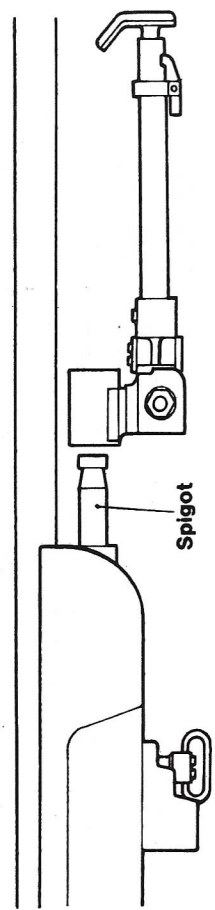


FIG. 4. BIPOD DETACHED

1. INTRODUCTION

The rifle is a magazine fed bolt action weapon developed from the Parker-Hale 1200 Tx Target Rifle and the M82 Sniper Rifle.

2. PHYSICAL DATA

Calibre	7.62 mm
Length	Max Overall 1210 mm (47 1/2") Min Overall 1140 mm (45")
Weight	With Wooden Stock, Telescopic Sight, Empty Magazine, (less Bipod and Sling). 5.7 kg (12 1/2 lbs)
Rifling	Twist RH 1 in 12" Number of grooves 4
Magazine	Trigger Pull 0.9-2.25 kg (2-5 lbs) 10 shot

3. DESCRIPTION

The rifle is made up of five main sub-assemblies, stock, barrel, body, trigger mechanism and bolt.

1. FORWARD ACTION

- 1.1 When the bolt handle is pushed forward, the face of the bolt engages the base of the round and feeds it into the chamber. As the round enters the chamber the extractor engages the cannellure of the cartridge case.
- 1.2 The breech is closed and locked when the bolt handle is turned down FULLY.

NOTE: It is emphasised that it is the FULLY turning down of the bolt to the right which finally closes and locks the breech.

- 1.3 During this forward movement the action is cocked by the sear engaging the bent of the cocking piece, thus holding the cocking piece and striker to the rear and compressing the striker spring.

2. SAFETY CATCH

The safety catch is operable only when the action is cocked. When the safety catch is applied, the sear, trigger and bolt are locked.

3. FIRING ACTION

When the trigger is pressed with the safety catch 'OFF', the sear is released from the bent of the cocking piece, the compressed striker spring reasserts itself forcing the cocking piece and striker forward until the striker contacts the cartridge cap and fires the round.

4. BACKWARD ACTION

- 4.1 When the bolt handle is raised the bolt rotates and is subjected to rearward pressure, which unlocks and withdraws the bolt slightly from the breech, thus effecting primary extraction.
- 4.2 When the bolt is pulled rearward and the extractor draws the cartridge case from the breech, the cartridge case is freed from the extractor and ejected from the rifle by the ejector. Rearward movement of the bolt is limited by the ejector and bolt stop assembly.

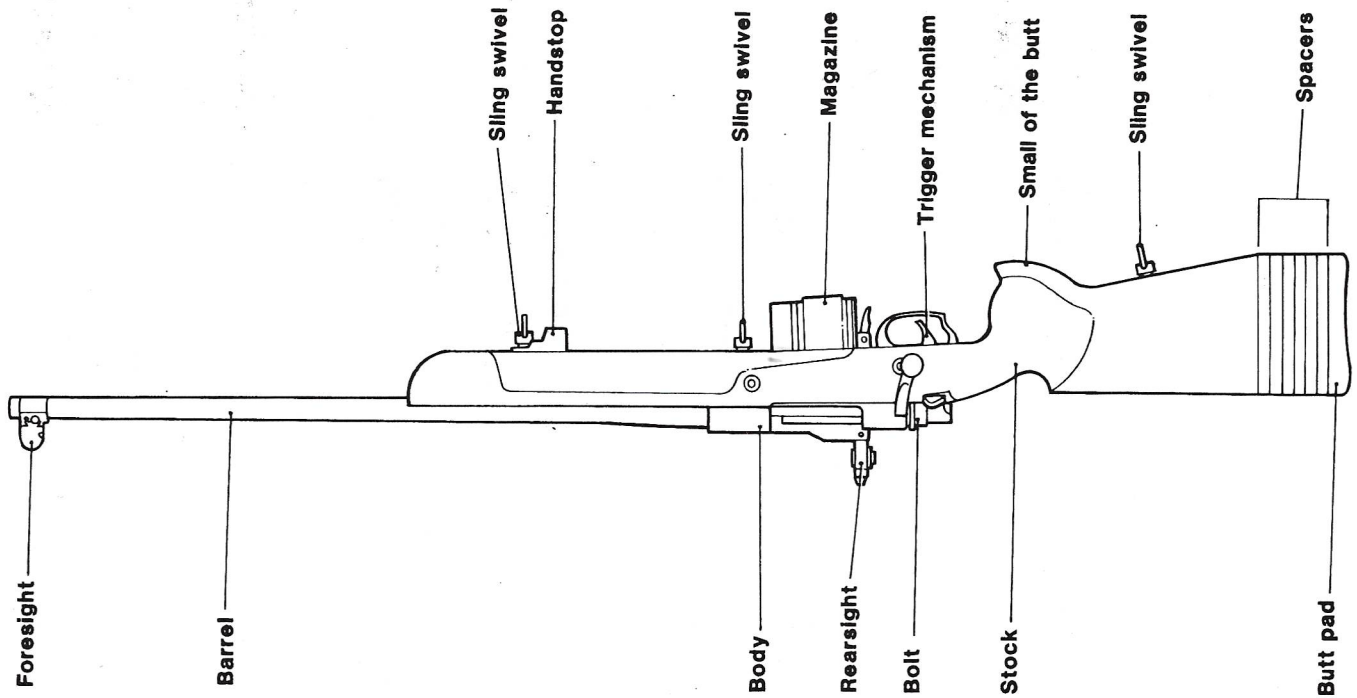


FIG. 1. M.85 SNIPER RIFLE

Chapter 4

PRINCIPLES OF OPERATION

Contents

Paragraph

1. FORWARD ACTION
2. SAFETY CATCH
3. FIRING ACTION
4. BACKWARD ACTION

3.1 STOCK (Fig 1) The one piece stock is available in either walnut or composite material.

3.1.1 A rubber butt pad and six composite spacers secured by two screws are fitted to the butt.

3.1.2 The butt length can be reduced in six decrements of 10 mm (.39") by removing the spacers fitted between the butt and the butt pad. The butt assembly will accommodate a maximum of eight 10 mm spacers.

3.1.3 An adjustable hand stop is fitted into a slide rail mounted on the underside of the stock.

3.1.4 Front and rear sling swivels are provided, the front swivel being incorporated into the hand stop, plus a third swivel is attached forward of the trigger guard.

3.1.5 A bipod is attached to a spigot at the fore-end of the stock. The bipod legs are individually adjustable for height and the design allows some movement of the rifle in all directions without moving the bipod feet. The bipod is quickly detachable by means of a spring loaded catch on the side of the mounting head.
(See Chapter 5)

3.1.6 The rifle serial number is marked on the underside of the small of the butt.

3.2 BARREL (Fig 1) A heavy cold forged 7.62 mm barrel is screwed into the body, it is free floating ahead of the body.

3.2.1 The rear end of the barrel is machined and threaded to receive the body.

3.2.2 A dovetail foresight block is mounted near the front end of the barrel.

3.2.3 The front end of the barrel is threaded to accept a flash eliminator.

CARE AND CLEANING

The greatest enemy of a rifle is neglect. Given the care due to a fine precision instrument the rifle will reward you with a lifetime of accurate service.

CAUTIONS

1. NO ABRASIVE MATERIAL OF ANY KIND IS TO BE USED TO CLEAN ANY PART OF THE RIFLE.
2. INCORRECT USE OF THE PULLTHROUGH CAN RESULT IN UNDUE WEAR AT THE MUZZLE OF THE BARREL

3.1 Daily cleaning and cleaning before firing.

- 3.1.1 A pullthrough and piece of flannelette 100 x 50 mm (4 x 2 inches) or a rod, jag and piece of flannelette 100 x 35 mm (4 x 1 1/2 inches) are normally used to clean the barrel.

NOTE: The pullthrough must be pulled through in one clean movement, do not allow the cord to rub against the edge of the muzzle.

- 3.1.2 The chamber is cleaned by means of a piece of flannelette 100 x 75 mm (4 x 3 inches) fitted to the chamber cleaning stick.

- 3.1.3 The bolt and external metal parts of the rifle must be cleaned with a lightly oiled rag.

NOTE: A cleaning brush may be required to clean in crevices.

- 3.1.4 Carefully inspect and re-oil the barrel and chamber.
 - 3.1.4.1 A piece of oiled flannelette 100 x 35 mm (4 x 1 1/2 inches) fitted to the pullthrough is used to lightly oil the barrel.

- 3.1.4.2 Lightly oil the chamber using a piece of flannelette 100 x 35 mm (4 x 1 1/2 inches) fitted to the chamber stick.

3.2 Cleaning after firing

- 3.2.1 Clean the barrel several times with a lightly oiled bronze brush fitted to the rod or with a piece of oily flannelette fitted to the pullthrough.

- 3.2.2 Clean the bore with dry flannelette until there is no sign of dirt or fouling.

- 3.2.3 Clean the remainder of the rifle as for daily cleaning.

- 3.2.4 Inspect the rifle then lubricate.

- 3.2.5 The rifle bore may sweat for several days after firing. It therefore should be cleaned, inspected and oiled daily during this period.

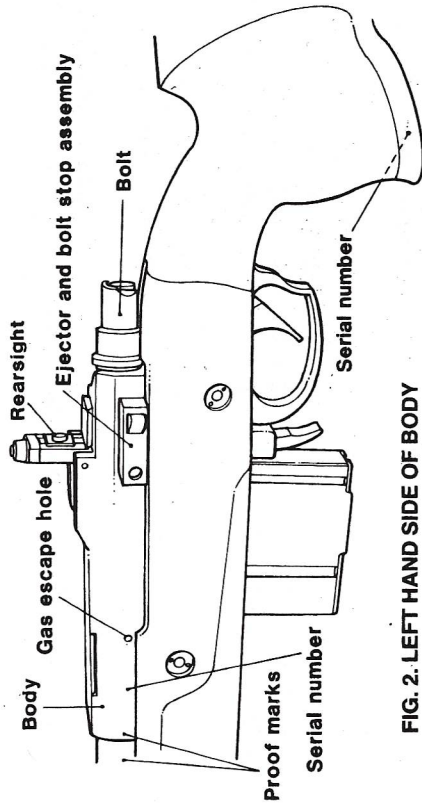


FIG. 2. LEFT HAND SIDE OF BODY

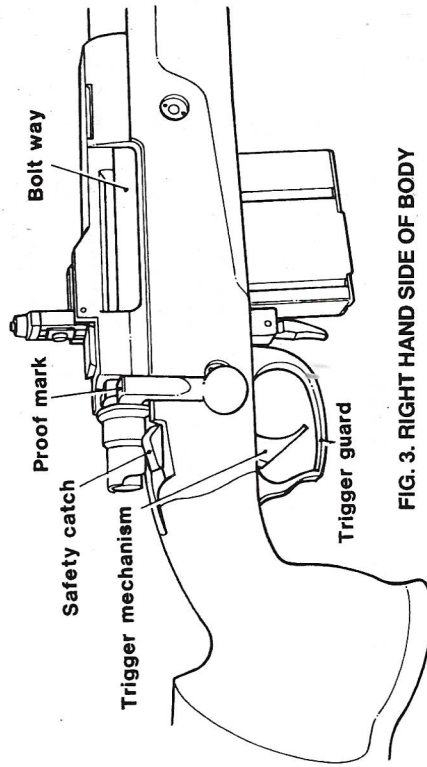


FIG. 3. RIGHT HAND SIDE OF BODY

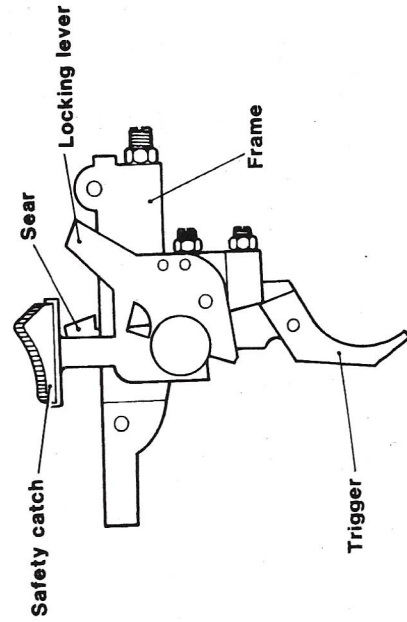
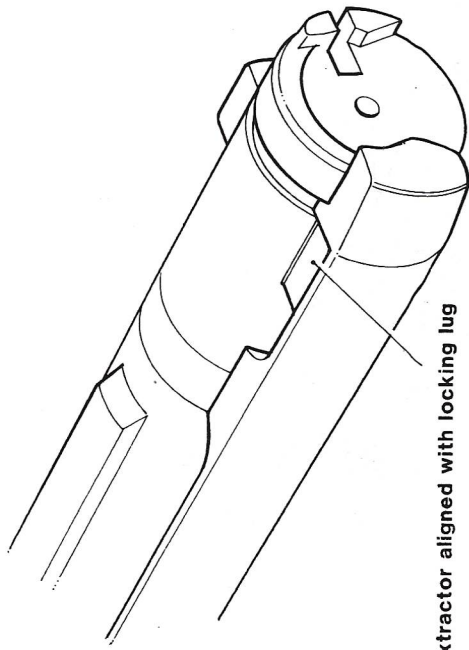


FIG. 4. TRIGGER MECHANISM AND SAFETY CATCH



Extractor aligned with locking lug

FIG. 2. REPLACING THE BOLT

2. ASSEMBLING (Fig 1 & 2)

Ensure that the serial number on the bolt and body are the same and that the rifle is unloaded.

- 2.1 Check that the safety catch is fully forward (off)
- 2.2 Ensure that the extractor is rotated fully to the right (Fig 2)
- 2.3 Fit the bolt into the boltway and slide it forward while holding the bolt stop open with the thumb and close the breech.
- 2.4 Operate the trigger.

NOTE: All instances of broken or unduly worn parts must be reported to an authorised armourer.

3.3 BODY (Fig 2 and 3) The body is cast and machined to form a robust housing for the bolt which is located and locked by guideways and stops machined in the body.

- 3.3.1 The body dovetails machined into its front and rear to accept telescopic sight mounts. Two raised 'ears' at the rear provide mounting and protection for a mechanical sight.
- 3.3.2 The left side of the body has a gas escape hole at its forward end and the rear end is machined and cut away to house the ejector and bolt stop assembly.
- 3.3.3 The right side of the body is cut away to provide for the ejection of the bullet round or empty case.
- 3.3.4 The trigger mechanism assembly and trigger guard are secured to the underside of the body.
- 3.3.5 The safety catch, which is part of the trigger assembly, protrudes at the right rear of the body.
- 3.3.6 The registered serial number and proof marks are marked on the left side of the body.

3.4 TRIGGER MECHANISM (Figs 3 and 4) This assembly comprises a precision cast steel frame which houses the trigger, trigger spring and plunger, the sear, sear spring and safety catch.

- 3.4.1 The trigger is a double stage type and is adjustable for pull off. Screws are also provided to trim out backlash and creep between the sear and trigger.
- 3.4.2 The safety catch is located in its 'ON - OFF' position by a detent and steel ball which are held in position by the detent spring.
- 3.4.3 The safety catch can only be applied when the rifle is cocked. When applied the safety locks the sear, trigger and bolt.

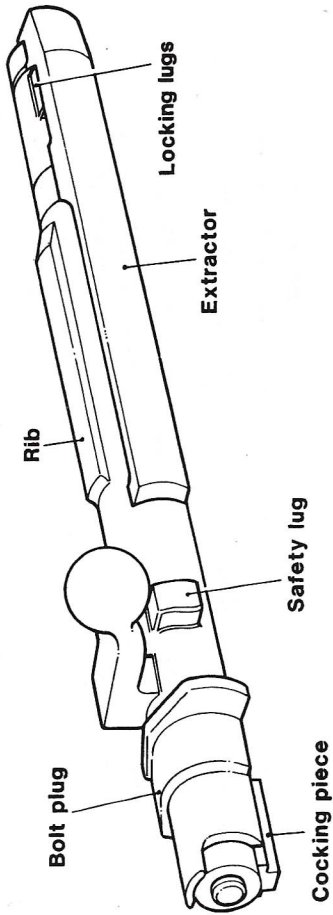


FIG. 5. BOLT

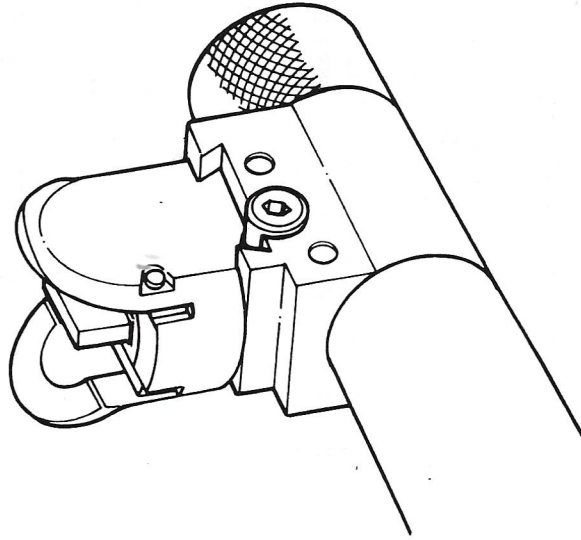


FIG. 6. FORESIGHT

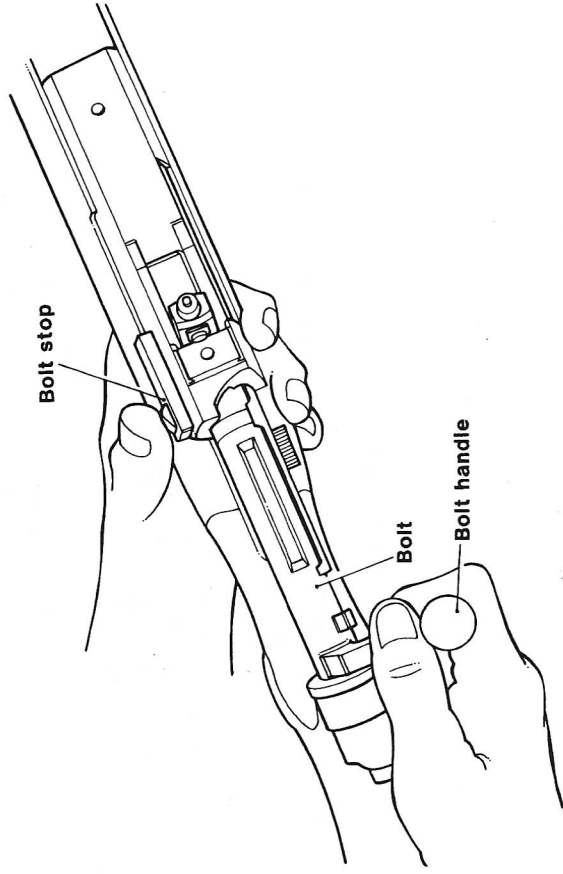


FIG. 1. REMOVING THE BOLT

1.

STRIPPING (Fig 1)

Before stripping the rifle ensure that it is unloaded and that the serial number on the bolt and body are the same.

- 1.1 Raise the bolt handle and slide the bolt rearward while holding the bolt stop open with thumb (Fig. 1)

NOTE: Any further stripping of the rifle should be carried out by qualified personnel.

Chapter 3

USER MAINTENANCE

Contents

Paragraph

1. STRIPPING
2. ASSEMBLING
3. CARE AND CLEANING

Figure

- 1 Removing or replacing the bolt
- 2 Replacing the bolt.

- 3.5 BOLT (Fig 5) The Mauser-type bolt is machined to locate and lock into the guideways and stops in the body.
 - 3.5.1 The bolt is drilled internally to house the striker and striker spring. The bolt face has a hole drilled centrally to allow the striker to protrude and fire the round.
 - 3.5.2 Externally the bolt is formed with a bolt rib, two forward locking lugs and a rear safety lug.
 - 3.5.3 Machined into the bolt are one or more gas escape ports and a small recess which receives the safety catch locking lever when the safety catch is applied.
 - 3.5.4 The extractor is attached to the bolt by a rotating collar and locked into position in a groove machined just forward of the locking lugs.
 - 3.5.5 At the rear end of the bolt is the cocking piece to which is attached the striker and striker spring. Located on the underside of the cocking piece is the bent.
 - 3.5.6 The registered serial number is engraved on the bolt handle and the proof mark is stamped on the handle.

3.6 SIGHTS

- 3.6.1 Foresight (Fig 6) A blade type foresight is fitted which is adjustable for elevation and windage and is protected by integral 'ears'.
 - 3.6.1.1 The sight housing is attached to a dovetail seating at the forward end of the barrel by two socket head cap screws.

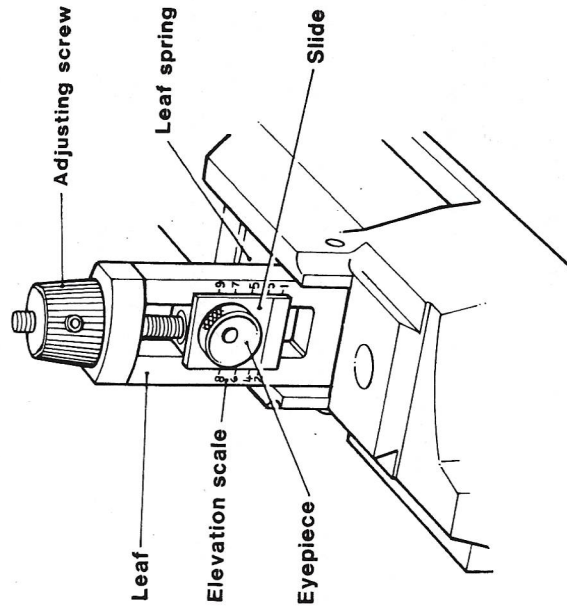


FIG. 7. REARSIGHT

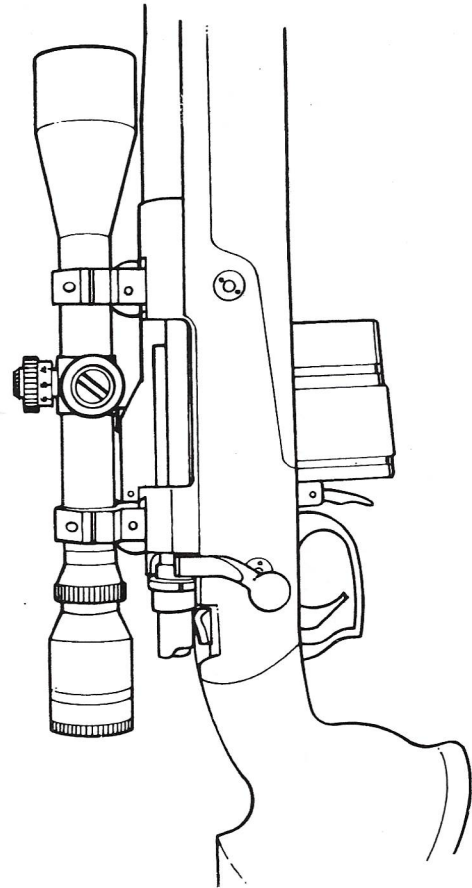


FIG. 8. TELESCOPIC SIGHT

- 3.3 Telescopic Sight 6 x 44 (Fig 8)
- 3.3.1 Adjustments for elevation are made by means of the elevation drum on top of the telescope. The upper scale is graduated 2 to 9 the divisions represent 100 metres each, i.e. total scale is 200 to 900 metres. The lower scale registers 0 – 32 in click increments each of which represents one sight minute (54 mils).
- 3.3.2 Adjustments for wind are made by means of the drum on the right side of the telescope. The drum is graduated 0 – 16 L and 0 – 16 R in click increments each of which represent one sight minute (54 mils).
4. **HANDSTOP (Fig 9)**
To adjust the handstop.
- 4.1 Use a coin, or suitable tool to rotate the screw in the sling swivel one half turn anti-clockwise.
- 4.2 Position the handstop as required.
- 4.3 Tighten the screw. Do not apply excessive pressure on the screw.

5. **BUTT LENGTH (Fig 10)**

To adjust the butt length

- 5.1 Using a 3/16" wrench key.
- 5.1.1 Remove the two securing screws in the butt pad.
- 5.1.2 Remove or replace required number of spacers.
- 5.1.3 Replace and tighten securing screws.

NOTE: No more than eight spacers to be fitted to a rifle.
Ensure butt length provides sufficient eye relief.

6. **TRIGGER ADJUSTMENT**

Trigger adjustment must only be carried out by qualified personnel. (see repair instructions).

7. **ZEROING**

Zeroing adjustments for elevation and line are carried out on the foresight.

- 7.1 Set the rear sight slide to the range required.
- 7.2 Adjust the foresight for elevation as described in para 3.1.2.3 or 3.1.3.3
- 7.3 The rifle may be zeroed for line by adjusting the foresight as described in para. 3.1.2.1 or 3.1.3.1.

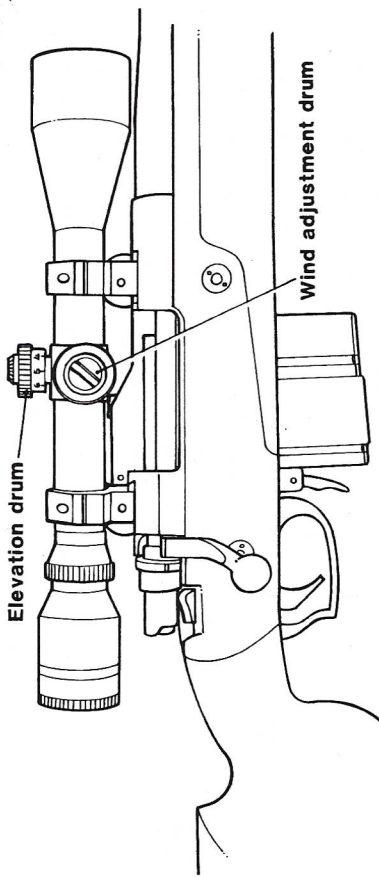


FIG. 8. TELESCOPIC SIGHT

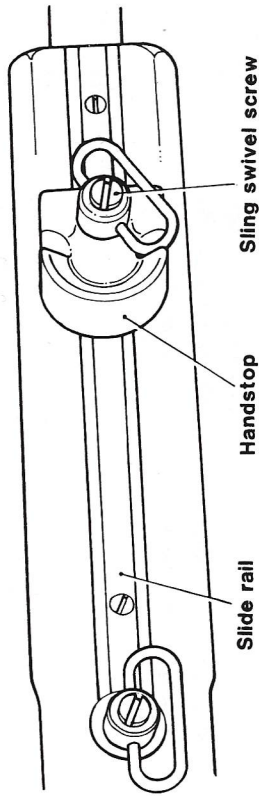
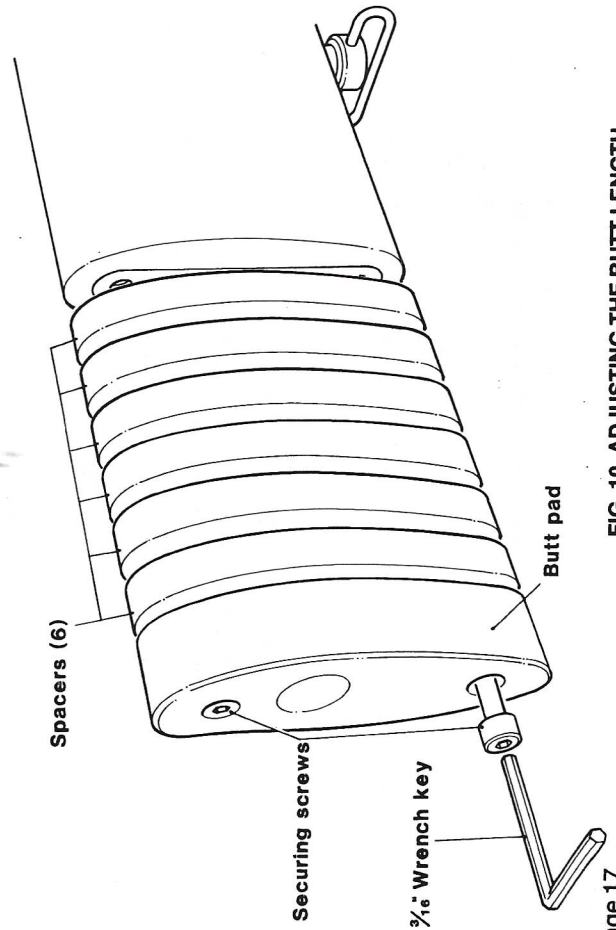


FIG. 9. HANDSTOP



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FIG. 10. ADJUSTING THE BUTT LENGTH

3.6.2 REARSIGHT (Fig 7) The rearsight comprises a leaf with a slide carrying a replaceable eyepiece, elevation scale and adjusting screw.

3.6.2.1 The leaf is graduated in 100 metre divisions from 100 to 900 metres.

3.6.2.2 The sight operates on a leaf spring to form a right angle to the barrel axis when in use and folds forward readily to prevent damage when not in use.

3.6.3 TELESCOPIC SIGHT (Fig 8) A choice of telescopic sights is available. The model illustrated is a 6 x 44 special purpose scope calibrated for the 146 gr. NATO bullet. It is secured to the body dovetails by clamping screws which are also provided with a 'coinslot' for additional security.

Chapter 2

OPERATING INSTRUCTIONS

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1.	CAUTION
2.	LOADING AND UNLOADING
3.	SIGHTS
3.1 Foresight
3.2 Rearsight
3.3 Telescopic Sight
4.	HANDSTOP
5.	BUTT LENGTH
6.	TRIGGER ADJUSTMENT
7.	ZEROING

3. SIGHTS

- 3.1 Foresight (Fig 5 and 5a) Two types of foresight have been fitted.
 - 3.1.2 Type 1 (Fig 5)
 - 3.1.2.1 Adjustments for wind may be made by the two socket head cap screws. By slackening the left hand screw and tightening the right hand screw the foresight will move to the left and vice versa.

NOTE: Failure to loosen one screw before tightening the other may lead to damage to the mechanism.

- 3.1.2.2 Adjustments for elevation are made by screwing the foresight blade in or out.
- 3.1.2.3 Lift the U shaped clamp and screw the blade up or down as required. This adjustment is for zeroing only.
- 3.1.2.4 Replace the U shaped clamp and click into position.

3.1.3 Type 2 (Fig 5a)

- 3.1.3.1 Adjustments for wind may be made by the two socket head cap screws. By slackening the left hand screw and tightening the right hand screw the foresight will move to the left and vice versa.

NOTE: Failure to loosen one screw before tightening the other may lead to damage to the mechanism.

- 3.1.3.2 Adjustments for elevation are made by screwing the foresight blade in or out.
- 3.1.3.3 Depress the spring loaded plunger under the foresight bead and screw the bead up or down as required. This adjustment is for zeroing only.
- 3.1.3.4 Ensure spring loaded plunger engages in one of the four slots in the bead to lock the setting.
- 3.1.3.5 A special tool can be provided for this task. (Parker-Hale part no. 556/77 Fig 6)

3.2 Rearsight (Fig 7)

- 3.2.1 Adjustments for elevation are made by means of the elevation knob. Clockwise rotation of the knob moves the slide up and the required range is obtained by setting the range indicator on the slide opposite the required graduation on the leaf. The knob moves in clicks and the sight can be set at finer adjustments than 100 metres.

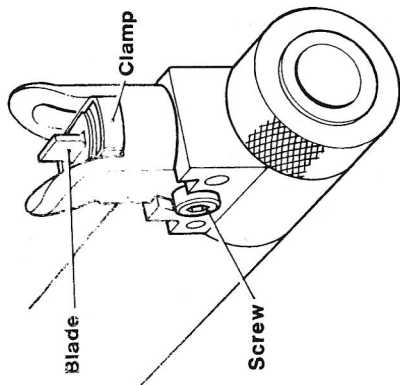


FIG. 5. FORESIGHT

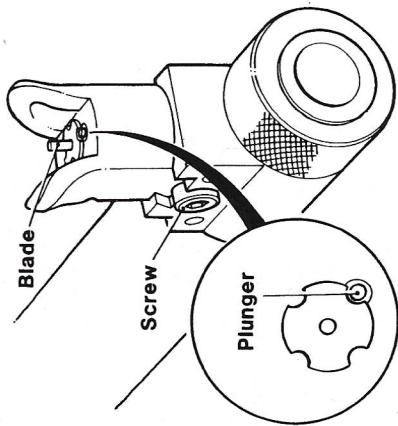


FIG. 5a. FORESIGHT

Figure

- 1 Magazine
- 2 Magazine aperture
- 3 Feeding the rounds
- 4 Unloading live rounds
- 5 and 5a. Foresight
- 6 Key 556/77
- 7 Rearsight
- 8 Telescopic Sight
- 9 Handstop
- 10 Adjusting the butt length.

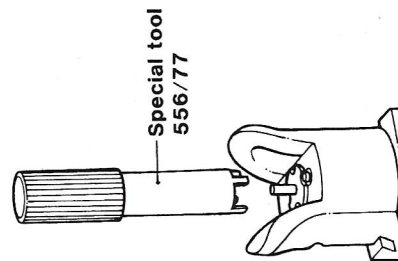


FIG. 6. KEY

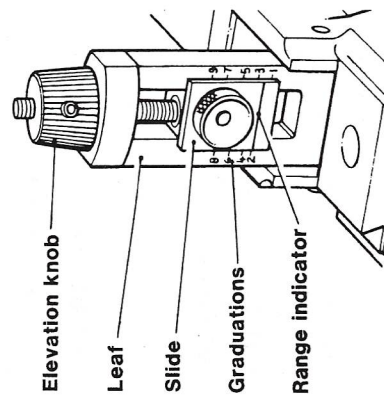


FIG. 7. REARSIGHT

1. **CAUTION**

- 1.1 THE SAFETY CATCH IS ONLY OPERABLE WHEN THE ACTION IS COCKED
- 1.2 NO ATTEMPT SHOULD BE MADE TO APPLY THE SAFETY CATCH WHEN THE BOLT IS CLOSED WITH THE ACTION UNCOCKED
- 1.3 DO NOT APPLY THE SAFETY CATCH WHEN THE BOLT IS OPEN. THIS MAY RESULT IN DAMAGE TO THE SAFETY MECHANISM IF THE BOLT IS CLOSED WHILE THE SAFETY CATCH IS APPLIED.

2. LOADING AND UNLOADING

2.1 The magazine is filled by pushing the rounds into the aperture at the top (Fig. 1). The rounds are held in the magazine by the spring loaded platform pushing the round against the underside of the 'lips'. The magazine is designed to hold ten rounds, no attempt should be made to insert more than ten rounds.

2.2 Fitting the magazine to the rifle.

2.2.1 Close the bolt

2.2.2 Insert the magazine through the aperture in the underside of the stock (Fig 2).

2.2.3 Ensure the magazine catch is fully engaged to secure the magazine.

2.2.4 The magazine is released by pushing the magazine catch forward and simultaneously pulling the magazine downwards.

2.3 Feeding the rounds (Fig 3)

2.3.1 Open the bolt and draw it to the rear. This allows a round to feed up into the body.

2.3.2 Feed the round into the chamber by sliding the bolt forward and close the breech. The safety catch may now be applied if necessary.

2.3.3 After firing the empty case is unloaded by opening the bolt, drawing it sharply to the rear, thus ejecting the empty case.

2.3.4 Following ejection a further round will feed into the body. Repeat operations 2.3.2 and 2.3.3 until the magazine is empty.

2.4 To unload live cartridges (Fig 4)

2.4.1 Remove magazine.

2.4.2 If the safety catch has been applied, push it forward to the 'OFF' position.

2.4.3 Open the bolt, pull it slowly to the rear and position a hand to catch the ejected live round.

2.4.4 Look or feel to ensure the chamber is empty.

2.4.5 Close the breech and operate the trigger.

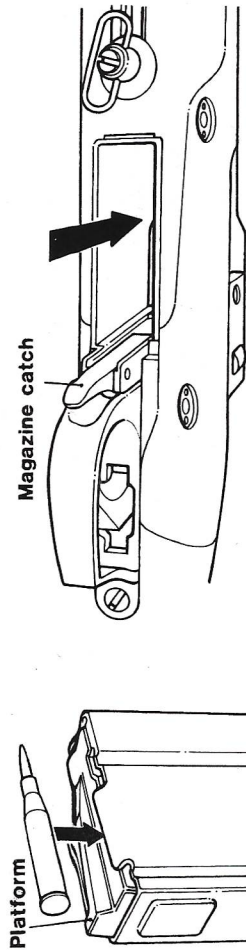


FIG. 2. MAGAZINE APERTURE

FIG. 1. MAGAZINE

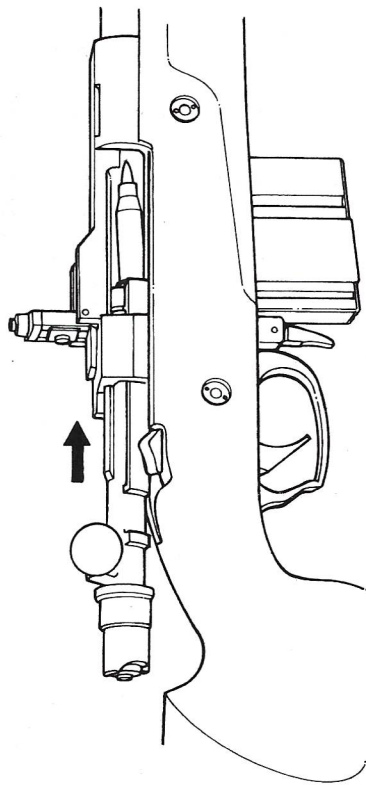


FIG. 3. FEEDING THE ROUNDS

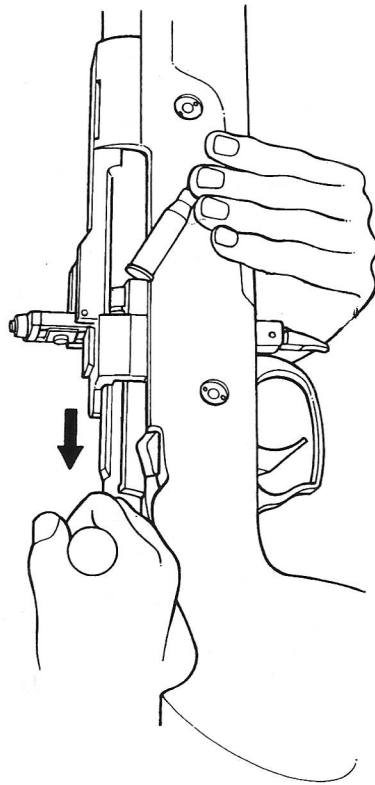


FIG. 4. UNLOADING LIVE ROUNDS