

MP 90 S World Cup



MP 90 S World Cup



Uso • Manutenzione • Ricambi

Use • Maintenance • Spare parts

Utilisation • Entretien • Pièces de rechange

Betriebsanleitung • Wartung • Ersatzteilen

Action:

semiautomatic fixed barrel operation

System:

inertial, blow-back

Ammunition:

caliber 22 long rifle / 32 wad cutter

Feed:

sequential loading with magazine

Magazine: 22 L.R. 6 rounds / 32 W.C. 5 rounds

Trigger action:

- fully adjustable single action

- trigger pull:

factory set: g/min 1.000
 1,360 *

Sights:

square section: fixed front sight, rear sight with lateral and vertical adjustment

Rear sights:

standard width: 3.3 mm

available as option: 3.7 - 4 mm

Front sight: 4 mm thick

Safety:

- safety catch which blocks directly the hammer
(only safety lever version)

- ambidextrous drive

Grip:

standard:

- anatomical adjustable, standard size, R.H.

optional:

- anatomical adjustable, standard size, L.H.

- anatomical adjustable, small size, R.H.

- anatomical adjustable, small size, L.H.

Length of sight line:

from rear to front sight 218 mm

Height/width: 132/50 mm

Approximate total weight:

unloaded weapon g 1.100 c.a./1.180 c.a. *

Barrel length: 110 mm

Rifling:

barrel R.H. - pitch 450 mm

grooves n. 8 CAL 22 L.R.

grooves n. 6 CAL 32 W.C.

Cal. 22 L.R. - Cal. 32 W.C. *

WARNING: The actual firearm does not contain any lead; however, it does fire ammunition containing lead or lead compounds known to cause cancer, birth defects and/or reproductive toxicity. Those who discharge a firearm, stand near someone who discharges a firearm or cleans firearms are hereby warned of the dangers presented by lead and lead compounds and should take protective health measures. Avoid exposure to lead while handling and wash your hands after contact. Proper air ventilation is absolutely necessary when shooting indoors.

WARNING: Lead or lead compounds are known to cause cancer, birth defects and/or reproductive toxicity. Those who clean firearms should take protective measures to avoid contact or exposure to such chemicals.

GB

TECHNICAL CHARACTERISTICS

These Benelli pistols were designed to ensure that each component functions perfectly and consistently, in order to eliminate, as much as possible, jamming, breakages, wear and all the other mishaps that, in the heat of competition, can be a serious source of worry to the shooter.

Countless experimental tests and prolonged practical use on target ranges are the best

guarantees of the complete reliability we achieved with these weapons.

This allows the shooter to learn quickly to trust this tool of the trade, the weapon he or she is using. At the psychological level this makes it possible for the shooter to reach to highest level of concentration when competing.

This, therefore, is the bottom line in terms of the results achievable, thanks also to the unique technical characteristics of the Benelli pistols, which can be summarized below:

Line of sight

This is very close (only about 17 mm) to the axis of the barrel, which is perfectly aligned with the forearm and which is located only about 2 mm above the rear portion of the grip that rests on top of the hand between the thumb and index finger. This allows, thanks also to a perfect grip angle, to control a maximum extent muzzle rise, to avoid mistakes due to wrist torsion and to achieve fast and easy re-aiming of the weapon after a round is fired.

Anatomical grip

Fully adjustable and designed, down to the smallest detail, to offer the best solutions to the specific needs of individual shooters, it can be easily personalized since no mechanical parts are housed within it, and since the central tie rod passes through a slot which allows for the grip to be shifted longitudinally, thus changing its position rel-

ative to the trigger. This is made possible by a variable-thickness spacer which is inserted on the back of the frame where it meets the grip, thus obtaining several individualized solutions without having to change the anatomical shape of the grip, but only changing the thickness of the spacer.

Trigger action

Fully adjustable by means of weight distribution and sliding trigger assembly plates, it can satisfy the most sophisticated personal requirements. This is the most innovative feature and one that sets our pistol apart. All the complex adjustment functions are, in fact, carried out in a very simple and ingenious manner by only three basic components that make up the trigger mechanism (hammer, trigger support and disconnecting lever).

This unique technical approach consists of using the disconnecting lever both as a

hammer release cam and as a safety hammer connection lever by simply and automatically varying its purchase on the hammer when it moves from one position to the next.

The trigger pull is thus optimized in a totally personalized manner, obtaining the maximum sensibility required independently of the operating tolerances of the individual components and without the need for any gunsmithing work by simply carrying out the following adjustments (according to the caliber):

- varying the trigger stop position independently from all adjustments (on all calibers);
- varying longitudinally and laterally (in a rotational direction) the position of the trigger without having to change all other adjustments already made (on all calibers);
- varying the trigger's free travel within a wide customization margin (**on .22 LR and .32 Wad Cutter**);

- varying the trigger pull by distributing the overall pull specified by U.I.T.S. between the first portion (free travel) and second portion (trigger release) of the pull, as per individual shooting requirements (**on .22 LR and .32 Wad Cutter**).

Trigger assembly

Completely separated and removable from the weapon without having to be disassembled. This makes it possible for the trigger action to be adjusted and controlled separately from the rest of the pistol. Finally, the trigger assembly allows the shooter to see, with the weapon assembled, if the hammer is cocked or not thanks to a "**cocked hammer indicator**" that works on the lower portion of the trigger guard.

Bolt/slide

Extremely simple and sturdy, it allows the maximum dispersion of residual gases and plentiful clearance for ejection of spent shells. It can be stripped from the weapon without the need of wrenches and/or special tools. It features two convenient guide lugs which can be used for manual opening. It can be held open by means of a practical lateral button which can be easily activated by the same hand that opens the bolt/slide.

Muzzle weight

It is located in the receiver under the barrel. Without altering the appearance of the weapon it is possible to:

- reduce the weight by simply removing the muzzle weight;
- increase the weight by disassembling the muzzle weight and filling it with lead, to the extent desired, the internal compartments.

Stripping the pistol

When carrying out routine maintenance and cleaning, as well as when regulating the trigger action, only as far as the trigger guard assembly is concerned, strip the pistol as follows:

- remove the **magazine clip** by pushing on the clip release button (figure 1);
- open the **bolt/slide** by pulling on the guide lugs and lock it into that position by pushing on the bolt/slide **stop button** (figure 2);
- remove the pin-protection **spacer** for dry firing (figure 3). Make sure that the chamber **is empty** and close **the bolt** (figure 4);
- using any type of punch, push out the trigger guard **retaining pin** (figure 5);
- rotate the trigger guard **downwards** (figure 6) and extract it completely from the weapon by pulling it forward (figure 7).
- grasp the **locking head** pull it slightly forward (figure 8) and extract it completely from the pistol, pulling it upward (figure 9);

- pull the **bolt/slide** back until the guide lugs are free of the receiver's guide slots (figure 10), rotate the lugs upward (figure 11) and pull the bolt **completely** out of the pistol (figure 12);

The pistol is now completely stripped. Any parts that may be involved in detailed checking and cleaning, as well as trigger adjustment, are accessible.

N.B.

It is also possible to strip partially the pistol by stripping either the bolt or the trigger assembly.

For safety reasons, always make sure that the weapon is unloaded before undertaking any take-down operation.

Assembling the pistol

To assemble properly the pistol, following routine maintenance and cleaning or trigger action adjustment, follow these steps in-

structions:

- take **the bolt** and insert its **rear portion** inside the receiver (figure 13), making sure that the **recoil spring** slides inside the receiver (figure 14);
- pull **the bolt** back by pushing on the guide lugs (figure 15). Align the guide lugs with the receiver by rotating the bolt **downward** (figure 16) and insert the lugs **completely** into the slots (figure 17);
- take the **locking head** and place it in its seat in the receiver (figure 18). Push it slightly backwards to align it properly in its seat (figure 19) and, while keeping it aligned, press all the way down until it **snaps** into its proper assembled position (figure 20);
- take the trigger guard, **cock the hammer**, if it isn't already cocked (figure 21), turn the trigger guard towards the receiver so that the rear slot "**A**" faces the corresponding retaining pin "**B**" inside the receiver (figure 22 - drawing A-B) and insert

the trigger guard assembly **all the way** into the receiver (figure 23);

- once the trigger guard assembly is inserted properly in the receiver rotate the front part **upward** (figure 24) until the two parts retention pin holes **are aligned** and push the pin in until it is completely inside the receiver (figure 25);
- take the magazine clip and insert it **completely** into the well until it snaps into place (figure 26).

Maintenance

Due to its extreme simplicity and the accurate choice of materials, the Benelli pistol does not require any special maintenance.

It is advisable, however, to:

- routinely clean the barrel **after shooting**;
- **periodically clean and lubricate** the trigger action, which may be clogged by dust residue that must be eliminated. This is to

be carried out with the assembly taken down.

- **periodically clean and lubricate** the bolt assembly, which may be clogged by dust residue that must be eliminated. This is to be carried out with the assembly taken down.

To protect your gun's condition, keep all parts lightly lubricated.

Benelli Armi oil is recommended (figure 27).

Trigger adjustment system

MP 90S .22 LR Model

MP 90S .32 Wad Cutter Model

In order to adjust the trigger remove the trigger **guard assembly** from the pistol. It is best to reset the adjustment screws (figure 28-29-30) **very gradually** and after having memorized the functions of the different

screws shown below:

Screw A - by turning it clockwise the weight of the first portion of the pull (free travel) **increases**, by turning it counterclockwise it **decreases**.

Screw B - (inside screw C) by turning it clockwise the weight of the second portion of the pull (hammer release) **increases**, by turning it counterclockwise it **decreases**.

Screw C - by turning it clockwise the length of the second portion of the pull becomes **longer**, turning it counterclockwise the pull becomes **shorter** until it disappears altogether.

Screw D - this works as a trigger stop. Turning it clockwise **shortens** the free travel of the trigger after the shot is fired, until it disappears altogether.

Warning: if this screw is turned clockwise too far, the hammer will not be released.

Screw E - this is used only to block screw

C. Unscrew and screw down each time it is adjusted.

Cam pivot F - cam pivot features within it a **part that is eccentric** to its rotational axis. For its adjustment **always refer to the zeroing indexes** shown on the parts. Turning the cam pivot clockwise **decreases** the length of the first portion of the pull, while turning it counterclockwise **increases** it.

In any case the index shown on the pivot must stay always inside the sector which is limited by the two indexes on the guard (fig. 30).

Warning: if the cam pivot is turned clockwise too far, the cocking cam can no longer engage the hammer (the trigger assembly cannot be cocked!).

Screw G - this is used to **shift** longitudinally and rotationally the trigger.

Screw H - this is used only to block cam pivot F. Unscrew and screw down each time it is adjusted.

Varying the pistol's weight

To change the weight of the pistol follow these steps:

- 1 - to decrease the weight, remove the muzzle weight by unscrewing, with the special key, its fastening screw (figure 31) and use the pistol without re-installing it;
- 2 - to increase the weight, ballast the internal compartments of the muzzle weight (figure 32) and assemble it back on the gun, fastening the screw tightly (figure 33).

Stripping the grip

To strip the grip follow these steps:

- unscrew and remove the mobile palm support **fastening screw** (figure 34) holding the pistol horizontally in order to prevent the parts held down by the screw from falling off;

- remove the **mobile palm support** (figure 35);
- remove the mobile palm support **fastening stud** located inside the handle (figure 36);
- unscrew the grip **fastening nut** and pull it off the grip together with its washer (figure 37);
- pull the **grip** off the receiver frame (figure 38);
- pull the grip **adjustment spacer** off the receiver frame (figure 39).

Grip adjustment

It is possible to vary the longitudinal position of the grip relative to the trigger. To take advantage of this feature follow these instructions:

- 1 - **to decrease** the distance between grip and trigger, **remove** the spacer inside the grip;

- 2 - **to increase** the distance between grip and trigger, **insert** the spacer inside the grip;
- 3 - in each of the two cases described above, adjust the trigger to optimize the distance from the grip;
- 4 - if the optimum solution cannot be reached with the possible combinations described above, **gradually** reduce the tickness of the internal spacer.

Assembling the grip

To assemble the grip follow these steps:

- **insert** the grip adjustment spacer on the receiver frame (figure 39). The grip can be assembled without this component if it isn't necessary for optimal adjustment;
- insert **the grip** on the tie rod until it is attached to the receiver frame (figure 40). During this operation make sure that the rear guard retaining pin does not stick out from its hole.

- while holding vertically in your right hand the hex wrench to fasten the grip, place at its top **the fastening nut** with its support washer (figure 41). The washer must mate with the spoked concave part of the nut at the rounded end and have its flat surface facing upward (figure 42);
- keeping the nut and washer balanced vertically on the hex wrench with the left hand, take the receiver **frame/grip** assembly, which you have already joined together and, holding them together, insert the **nut and the washer** inside the grip (figure 43);
- looking through the slot for the mobile palm support screw, check that the nut and washer have remained **in their proper assembly position** (figure 44) and tighten them on the grip tie rod until the grip is tightly fastened.

Warning: take care do not tighten the fastening nut too much because the grip can be spoiled.

- while holding the pistol horizontally, insert the mobile palm support **fastening stud** into the grip, being careful to align the threaded hole with the grip slot (figure 45);
- with the pistol still in a horizontal position, mount the **mobile palm support** onto the grip making sure that the screw hole is aligned vertically with the threaded hole of the stud previously inserted inside the grip (figure 46);
- thread the mobile palm support **fastening screw** into the threaded hole of the stud inside the grip. Tighten until the whole assembly is securely fastened (figure 47).

Safety lever

The trigger guard assembly, if supplied, **is provided with a safety lever** suitable for **both right and left hand** control, which is located on the front part of the finger protection slot.

This safety lever acts directly on the cocking hammer, leaving the trigger to be pressed freely, in this way without decocking it.

To place the cock in safety position, (when the hammer is cocked), rotate the safety lever **anticlockwise** from the position shown in **figure 48** to the position shown in **figure 49**.

The firing position (**figure 50**) is easily recognizable by the **red point** visible in the holes on the safety lever itself.

Warning: the safety lever must **always** be in place when **the hammer is cocked**, only in this way can the hammer be blocked.

Whenever the safety lever is placed in the position shown in figure 49 with the hammer decocked, **it is not possible** to open the breech block manually and consequently, the hammer cannot be cocked.

To re-cock the hammer, it is necessary to replace the safety lever in the position shown in figure 48.

Spare parts list

To order spare parts you must tell us the gauge, the model and the serial number of your gun.

Part numbers here listed refer to respective drawings in illustration section.

GB

WARNING

Altering or modifying parts and/or safeties is dangerous and will void the warranty. This recoil operated semi-automatic pistol was manufactured to perform properly with the original parts as designed. It is your duty to make sure any parts you buy are made for this firearm and are installed correctly and that neither the replacements nor originals are altered or changed. Your gun is a complex precision tool with many parts that must relate correctly to other parts in order for proper and safe operation. Putting a gun together wrong or with incorrect or modified parts can result in a damaged gun, and injury or death to you and others through malfunction. Always have a qualified gunsmith work on your gun or at least check any work not performed by a gunsmith.

Drawing 1

CODE	DESCRIPTION	CODE	DESCRIPTION
001P	Trigger guard assembly	024P	1st pull adjustment pin
002P	Clip button grub	025P	Pin spring
003P	Clip button spring	026P	1st adjustment grub screw
004P	Clip release button	027P	Rear stop grub screw
005P	Trigger guard	028P	Pin
006P	Button pin	029P	Pin
007P	Pin grub	032P	Cartridge support pushbutton
008P	Hammer sprin	033P	Guide pin
009P	Spring guide screw	035P	Clip spring
011P	Guide pin	094P	Clip
014P	Trigger support	096P	Hammer
015P	Trigger	097P	Clip body
016P	Stop screw	098P	Disconnecter
017P	Hammer stop pin	100P	Cartridge support
018P	Cam pin	102P	Clip base
019P	Cam pin stop	108P	Return spring
020P	2nd pull adjustment grub screw	127P	Damper
021P	2nd pull adjustment screw bush		
022P	2nd pull adjustment pin		
023P	Pin spring		

Drawing 2

CODE	DESCRIPTION	
042P	Spring	
043P	Bolt stop	
044P	Stop pin	
045P	Extractor	
046P	Stop pin	
047P	Extractor spring	
048P	Spring guide pin	
049P	Return spring	
050P	Return spring bush	
051P	Firing pin (cal. 32)	
052P	Retaining plate pin	
053P	Retaining plate	
103P	Bolt assembly	
104P	Firing pin (cal. 22)	
105P	Bolt	

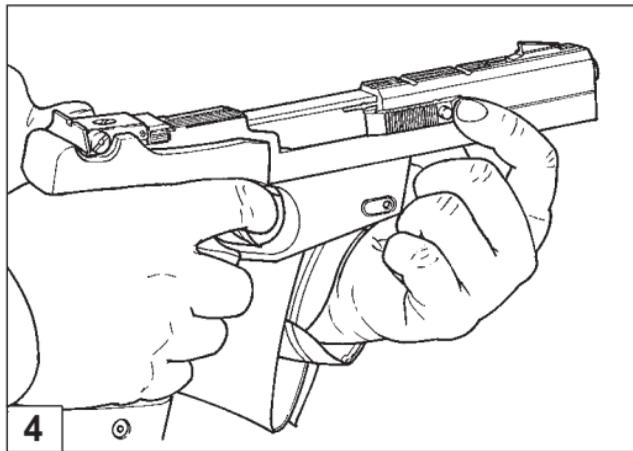
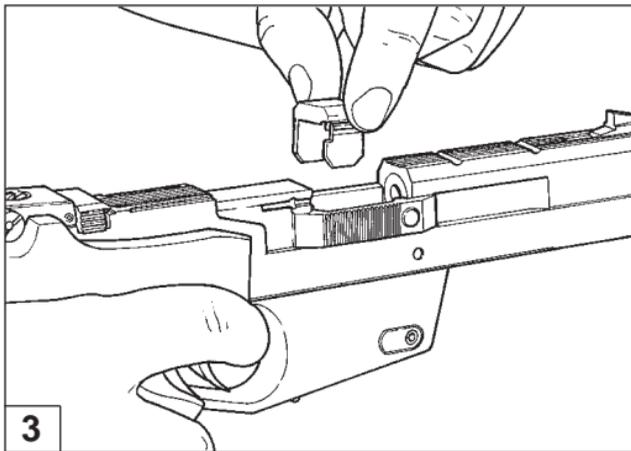
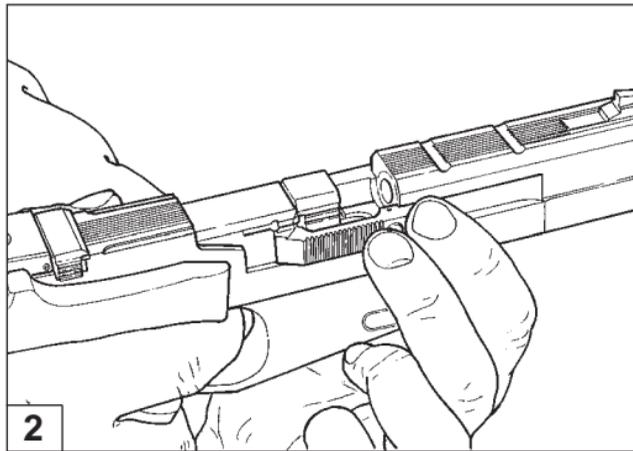
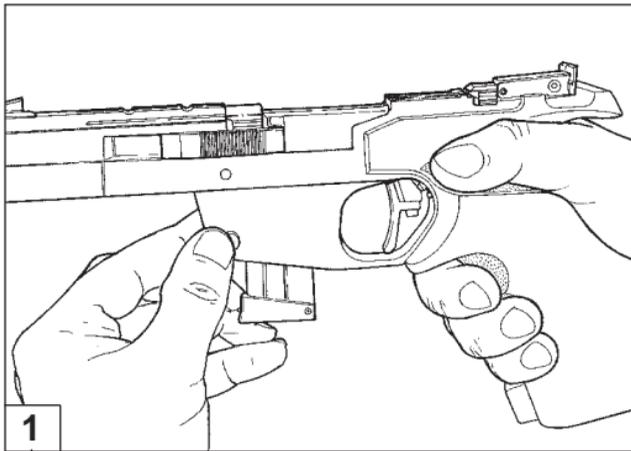
GB

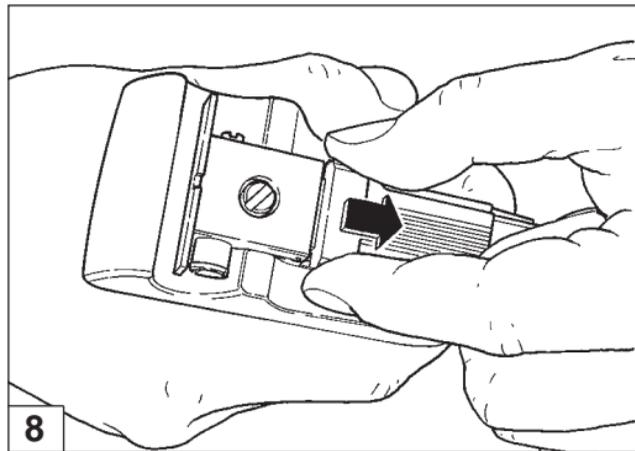
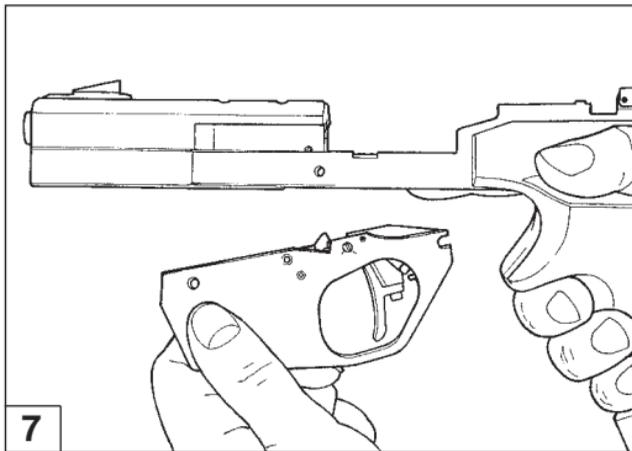
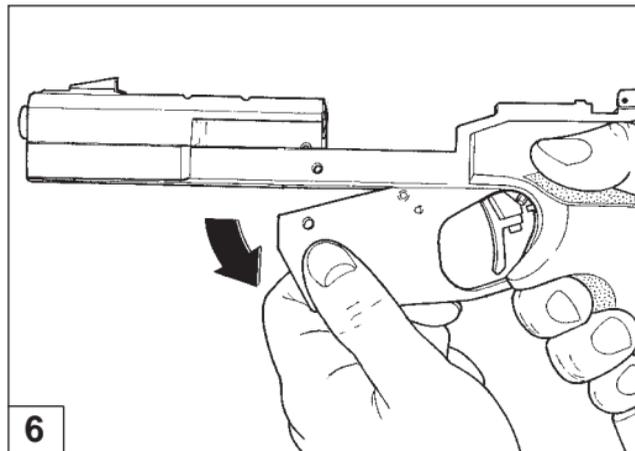
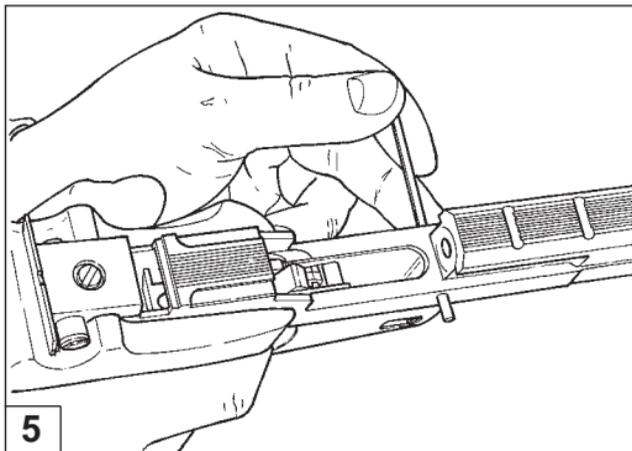
Drawing 3

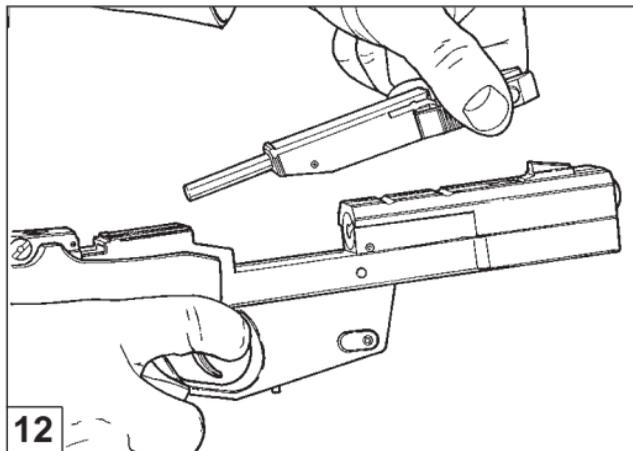
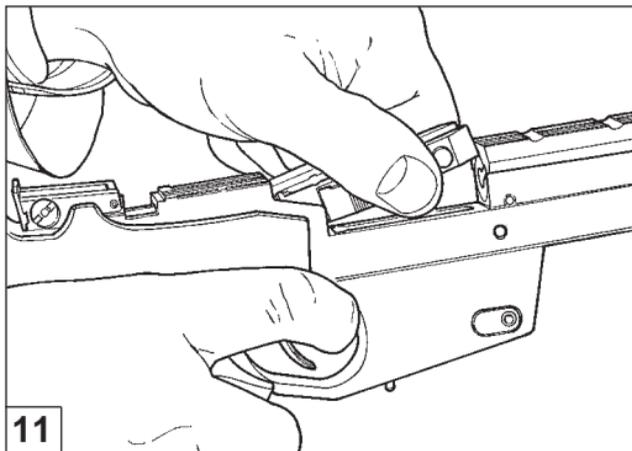
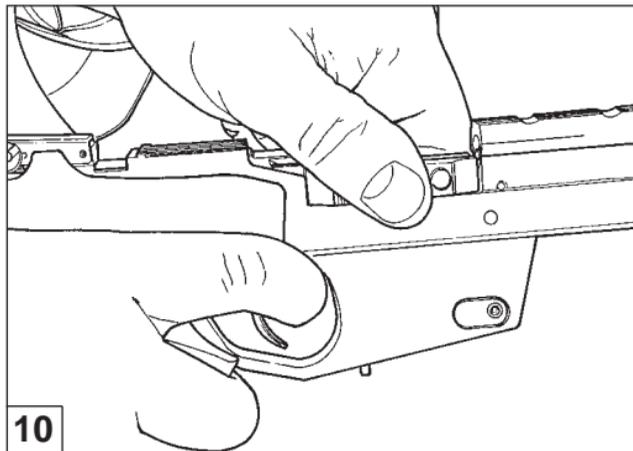
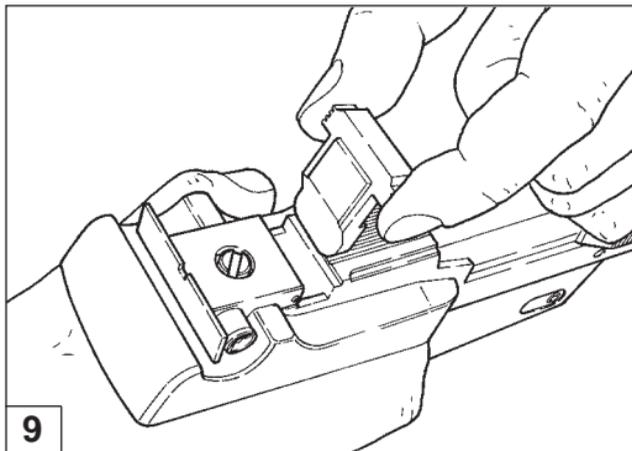
CODE	DESCRIPTION	CODE	DESCRIPTION
060P	Barrel	085P	Right grip mobile support
062P	Front sight	086P	Mobile support fastening screw
063P	Sight fastening screw	087P	Washer
064P	Blank test spacer	088P	Grip fastening nut
065P	Bolt recoil damper	089P	Mobile support fastening pin
066P	Bolt locking support	090P	Adjustable left grip
067P	Fastening pin	091P	Left grip mobile support
068P	Adjustment screw	106P	Weight support
069P	Adjustment spring	107P	Breech
071P	Adjustment screw	109P	Weight g. 40
074P	Adjustment spring	110P	Weight g. 25
075P	Rear sight pin	112P	Rear sight support
076P	Fastening grub screw	113P	Rear sight (A type = 3,3 mm) (B type = 3,7 mm) (C type = 4,0 mm)
077P	Grip spacer		
078P	Grip tie rod pin		
079P	Fastening pin	134P	Right grip assy
080P	Grip fastening pin	135P	Left grip assy
082P	Barrel grub screw		
083P	Fixing screw		
084P	Adjustable right grip		

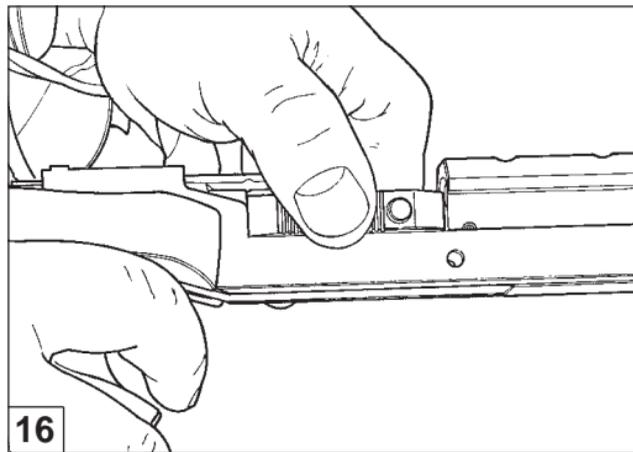
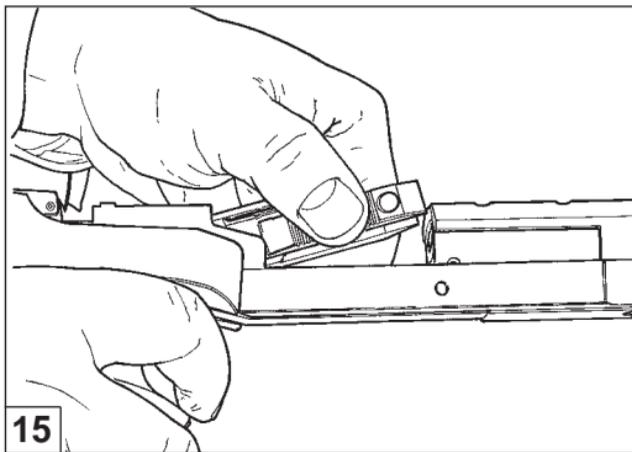
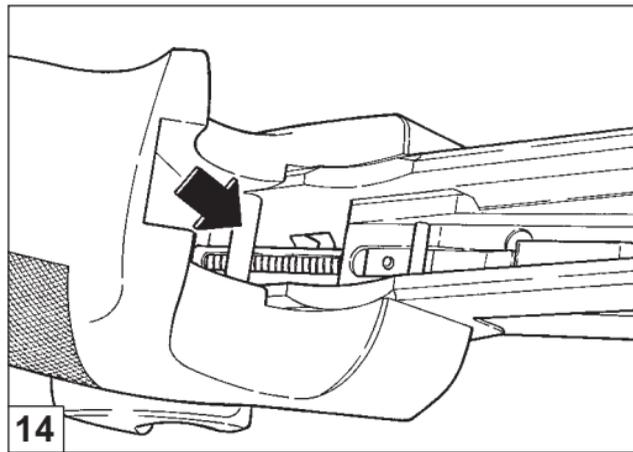
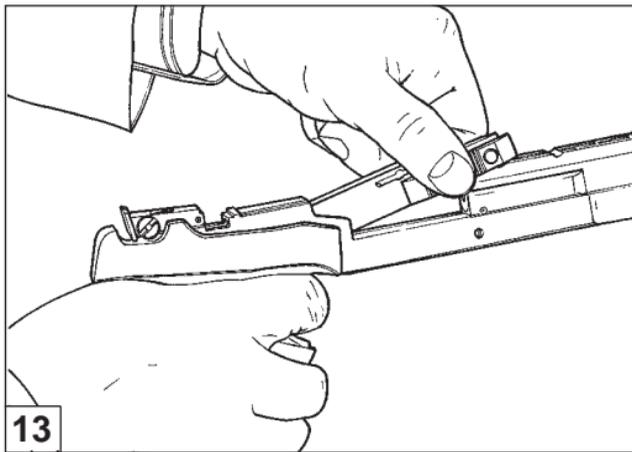
Drawing 4

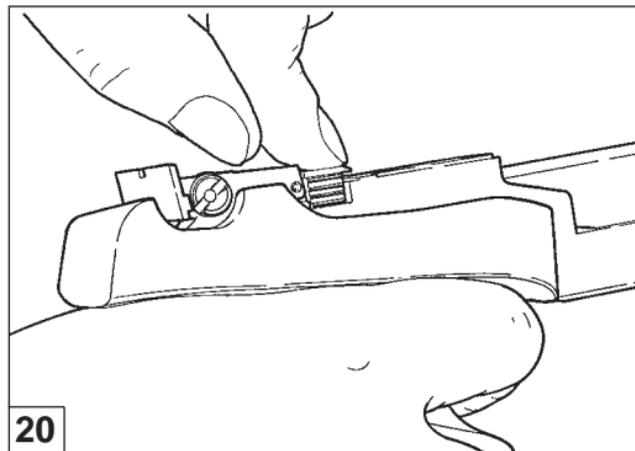
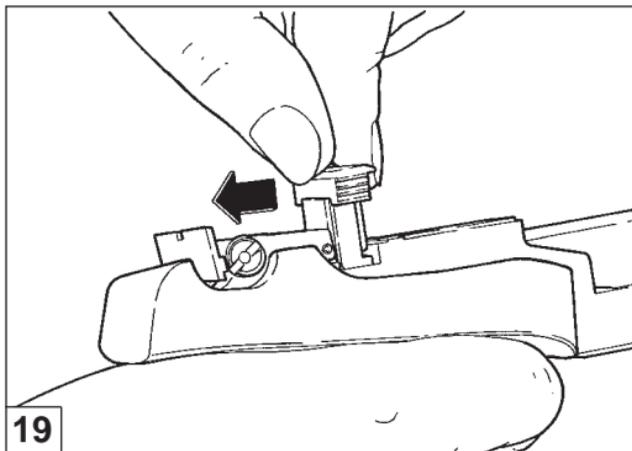
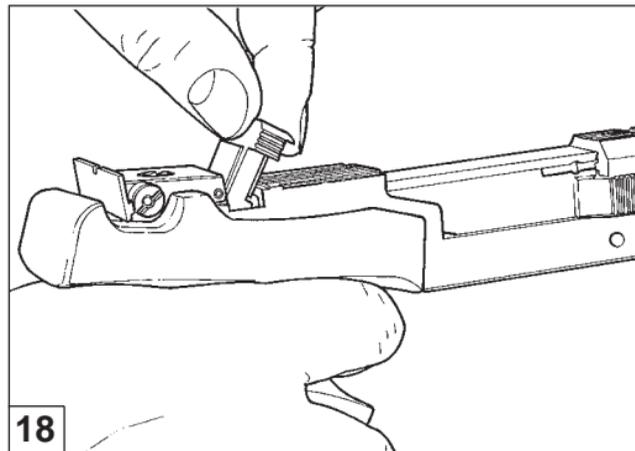
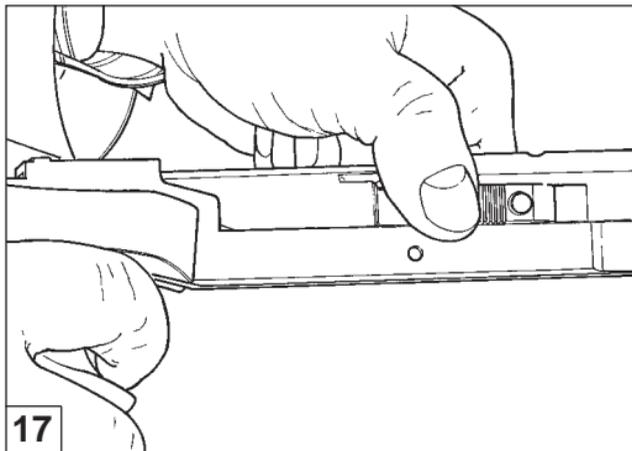
CODE	DESCRIPTION	CODE	DESCRIPTION
001P	Trigger guard assembly	027P	Rear stop grub screw
002P	Clip button grub	028P	Pin
003P	Clip button spring	032P	Cartridge support pushbutton
004P	Clip release button	033P	Mounting pin
005P	Trigger guard	035P	Clip spring
006P	Button pin	094P	Clip
007P	Pin grub	097P	Clip body (9 rounds)
008P	Hammer spring	098P	Disconnecter
009P	Spring guide screw	100P	Cartridge support
011P	Guide pin	102P	Clip base
014P	Trigger support	108P	Return spring
015P	Trigger	117P	Screw
016P	Stop screw	123P	Button
017P	Hammer stop pin	127P	Damper
018P	Cam pin	116Q	Hammer
019P	Cam pin stop	121Q	Safety catch
020P	2nd pull adjustment grub screw	122Q	Pin spring
021P	2nd pull adjustment screw bush	124Q	R.H. lever
022P	2nd pull adjustment pin	125Q	L.H. lever
023P	Pin spring	129Q	Pin
024P	1st pull adjustment pin	131Q	RH lever assy
025P	Pin spring	132Q	LH lever assy
026P	Grub screw	133Q	Safety pin

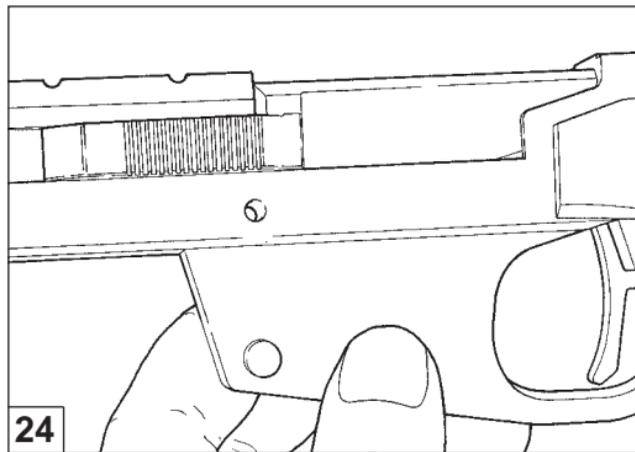
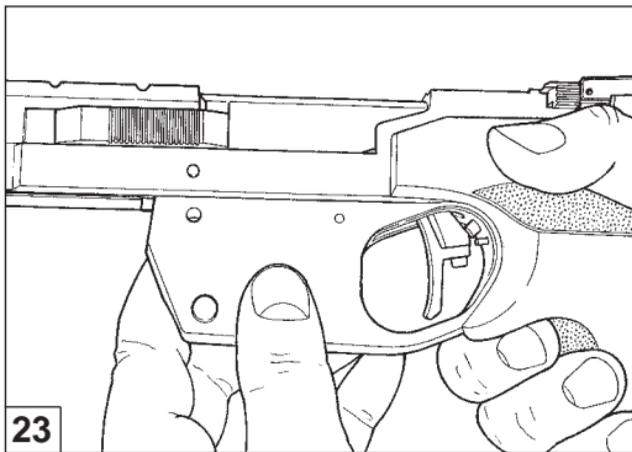
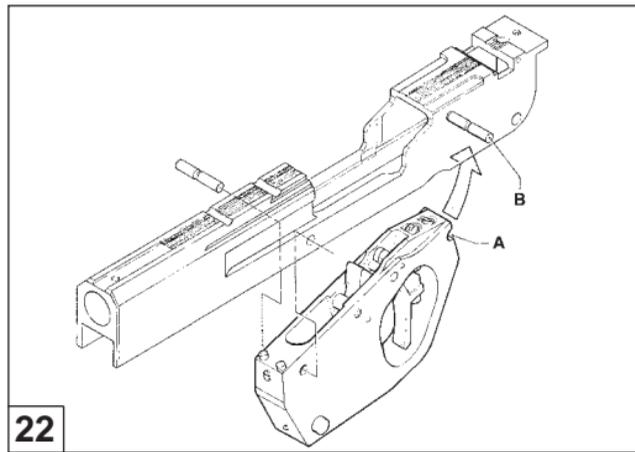
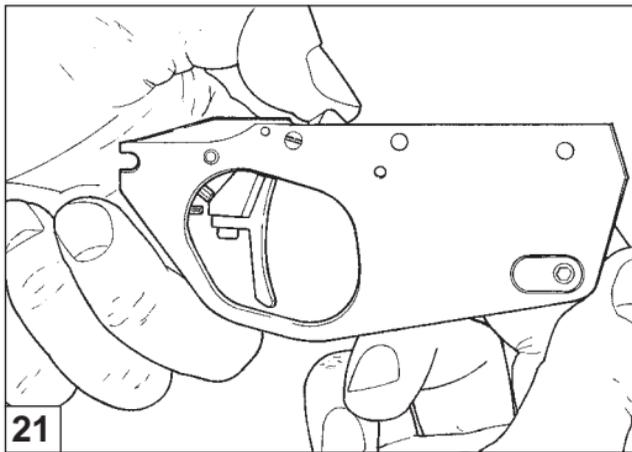


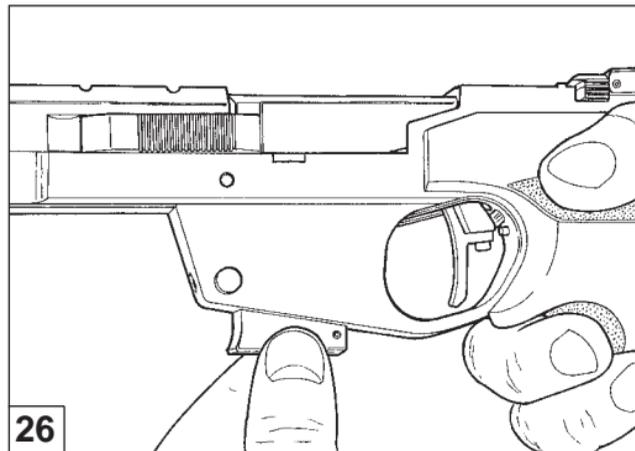
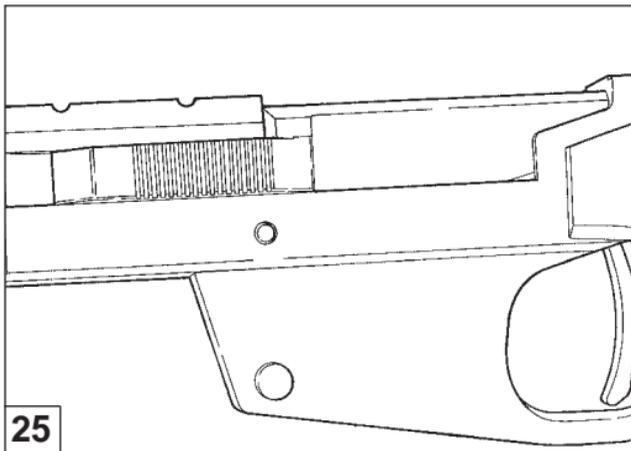


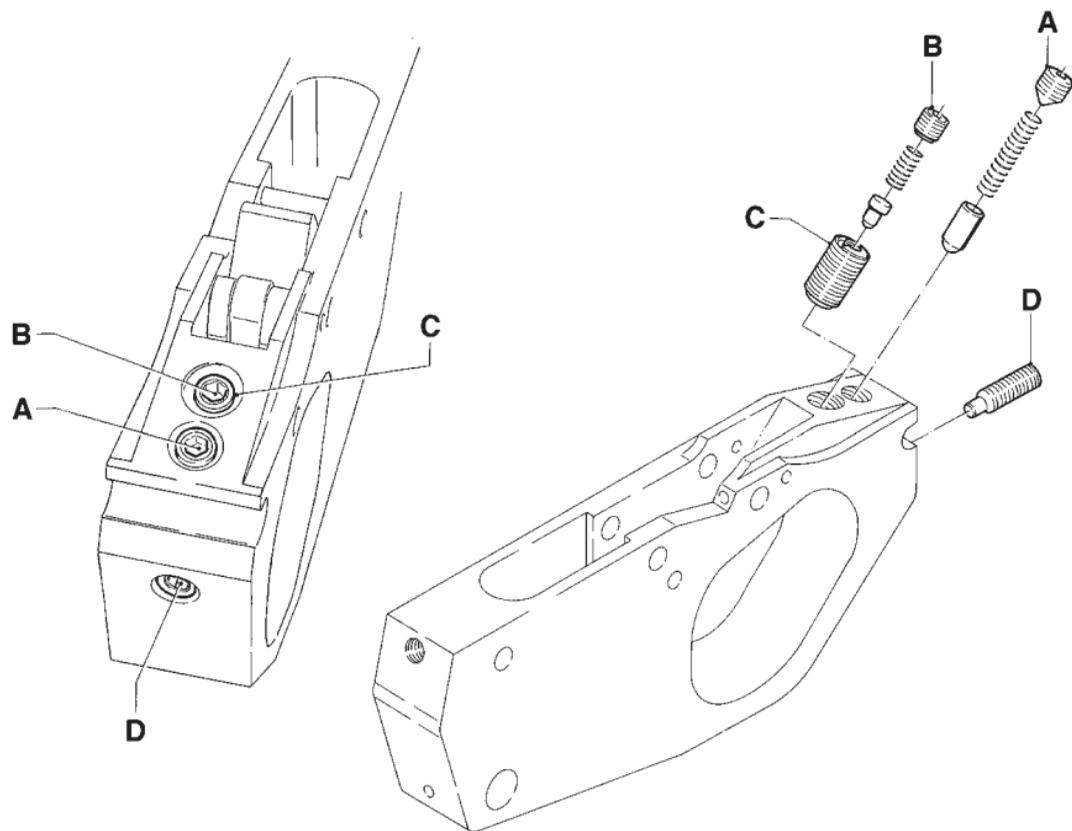


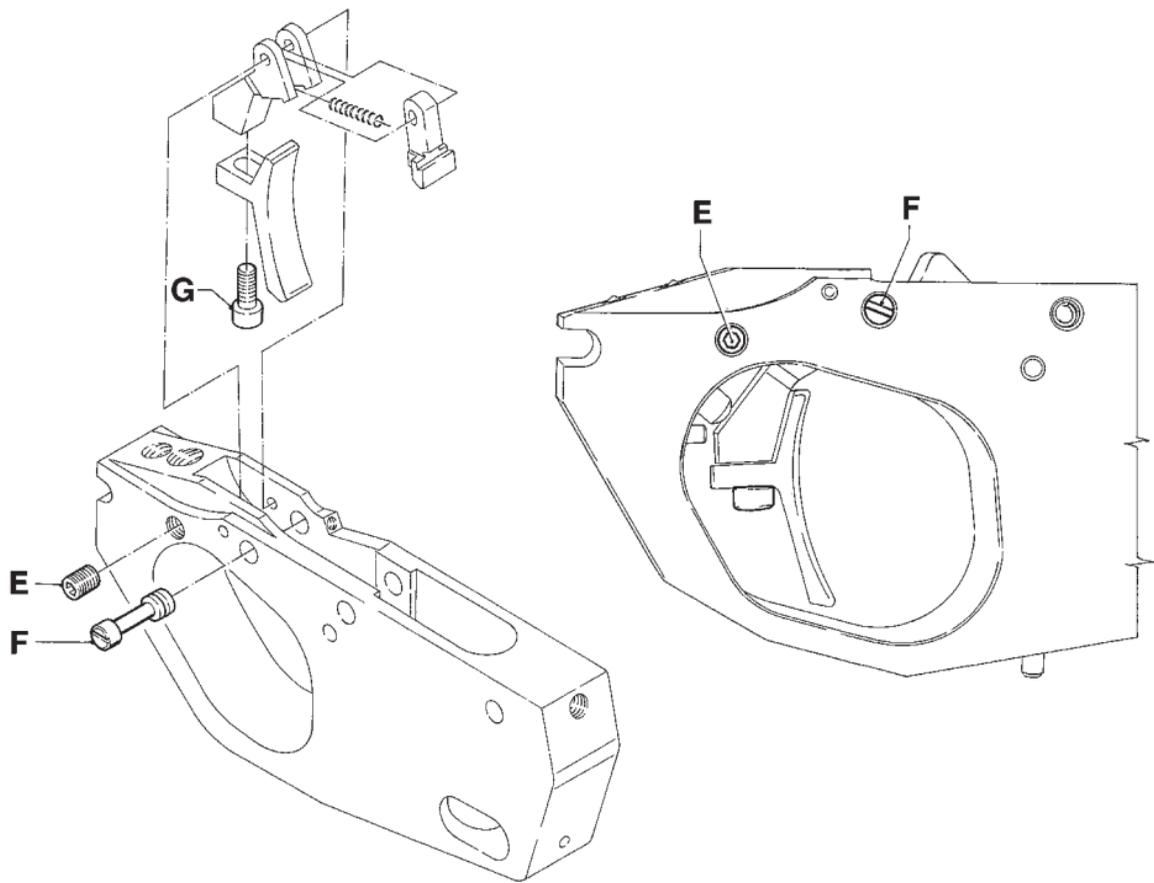


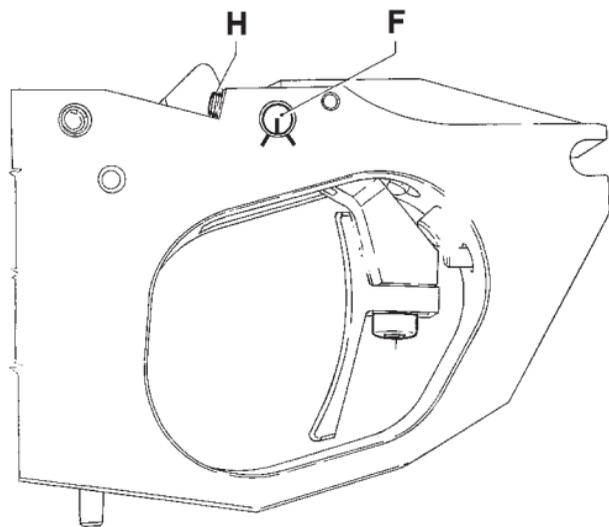
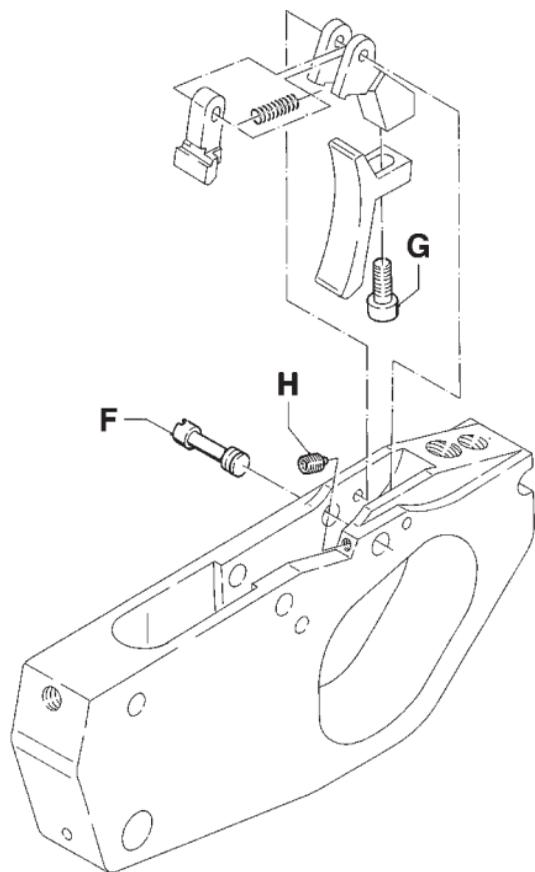


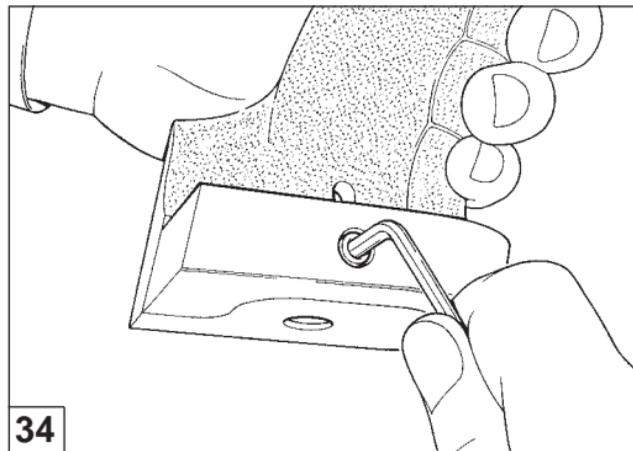
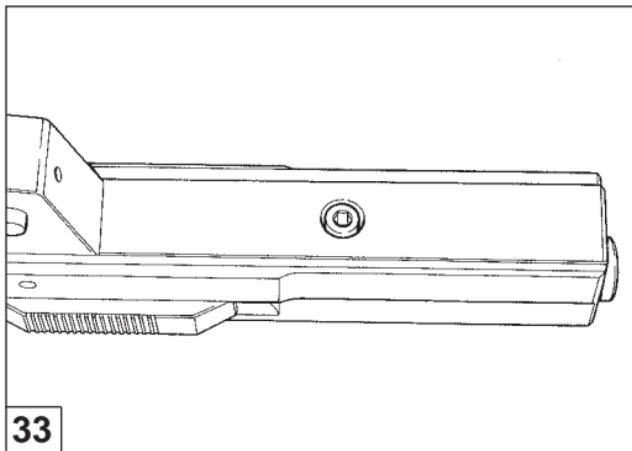
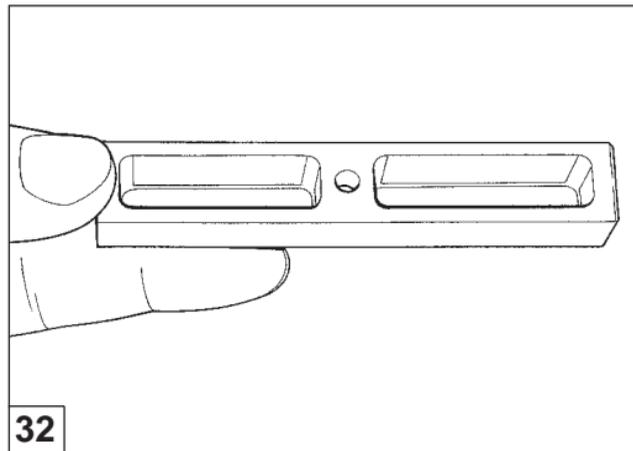
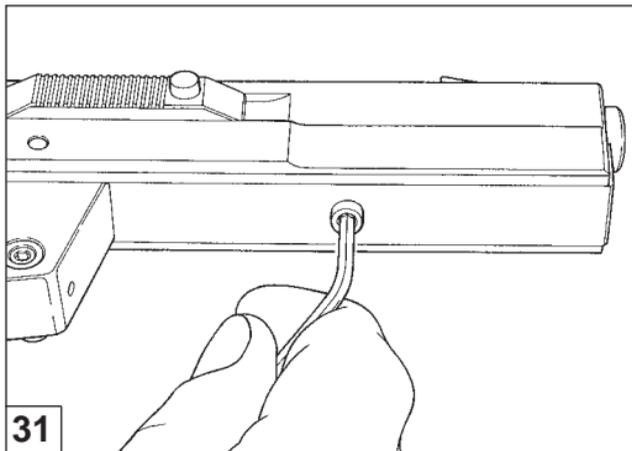


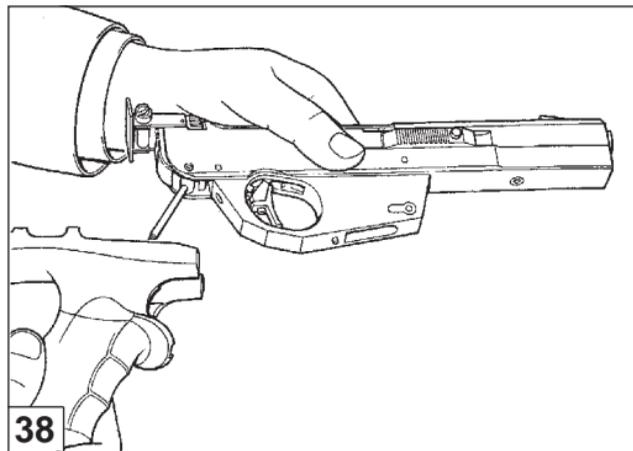
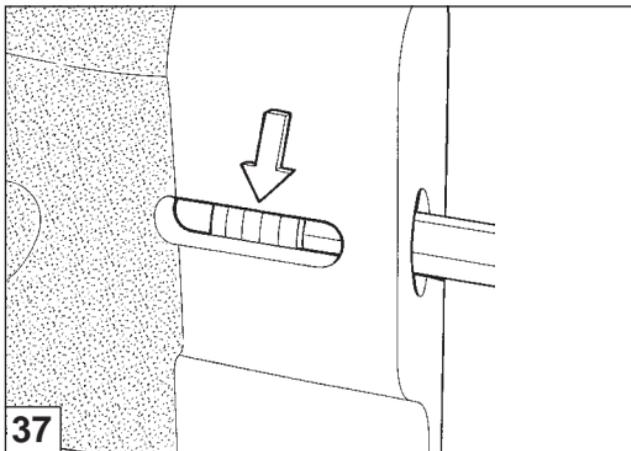
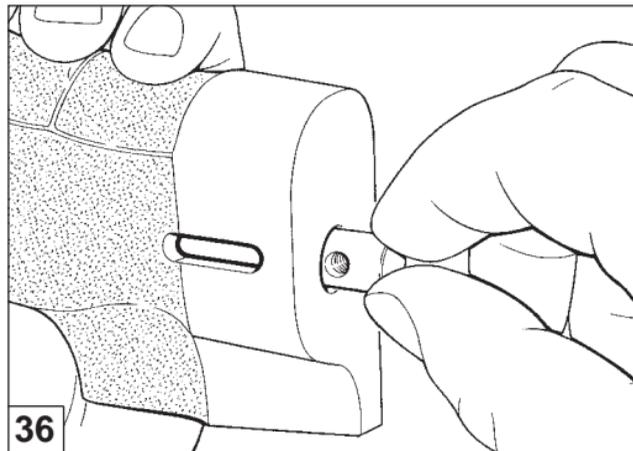
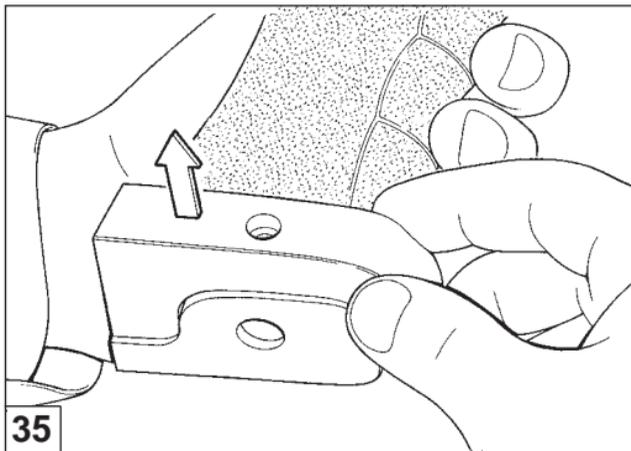


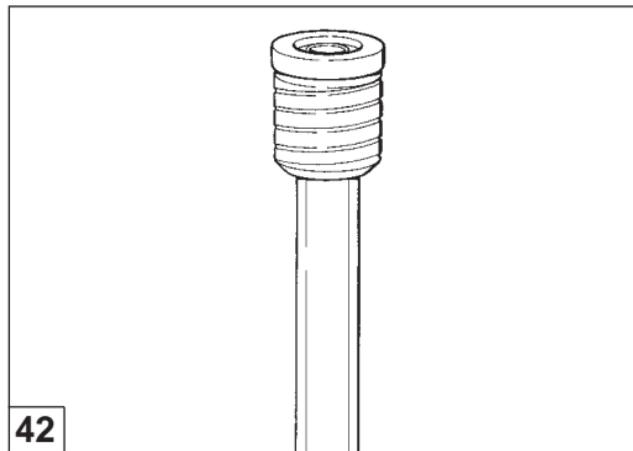
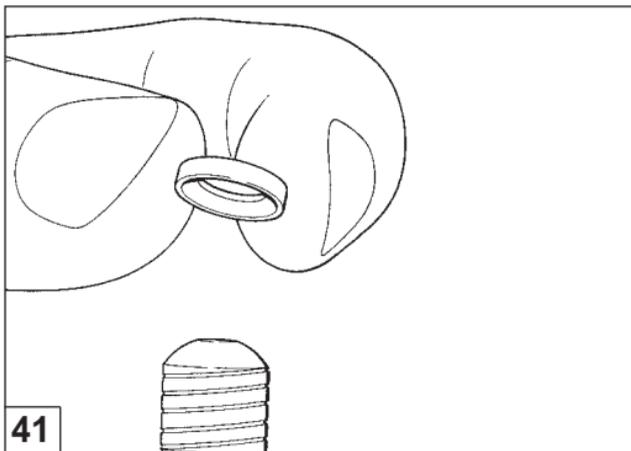
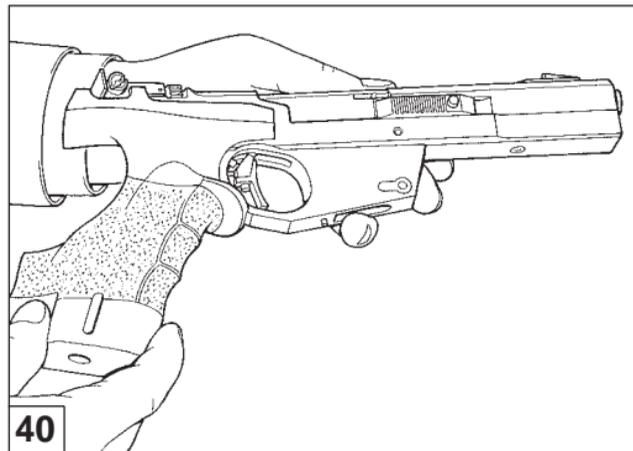
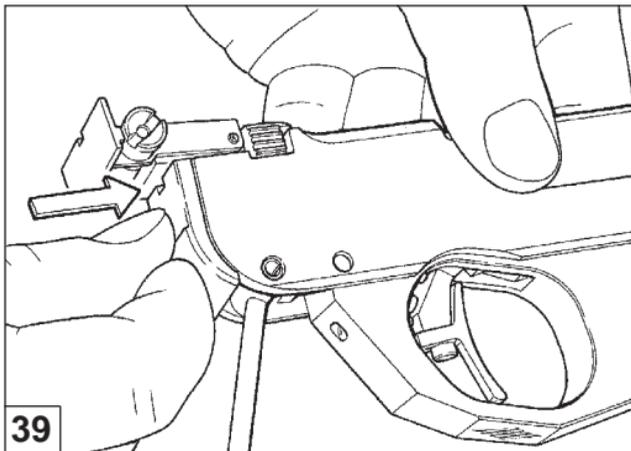


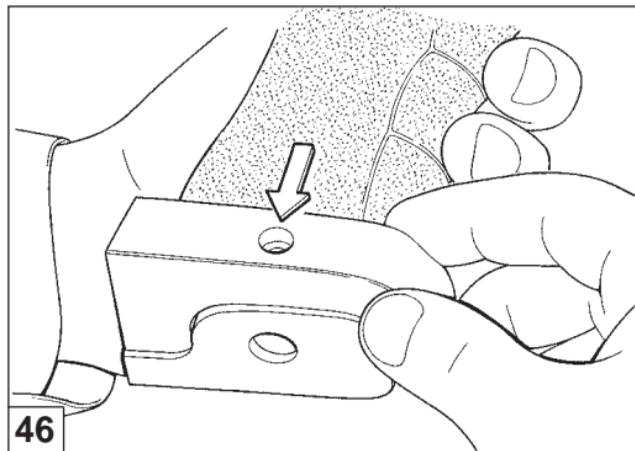
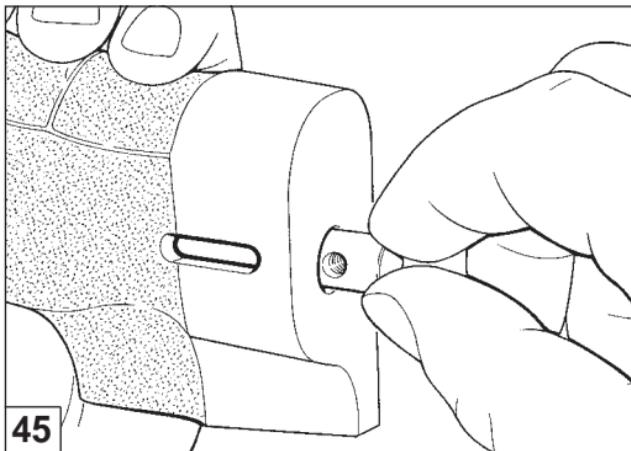
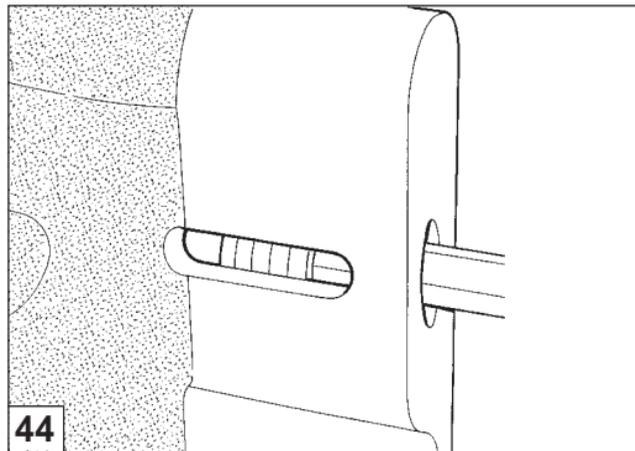
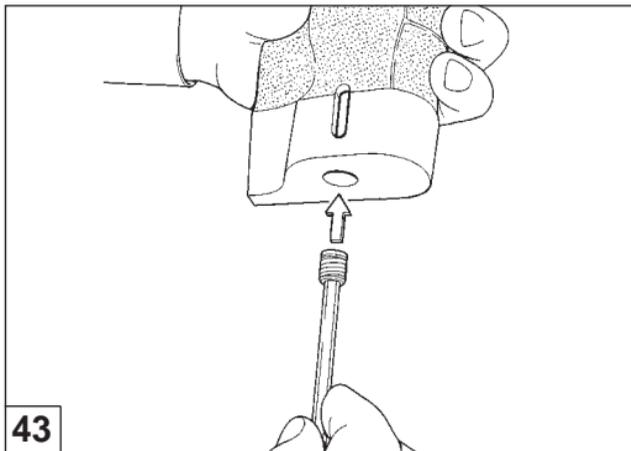


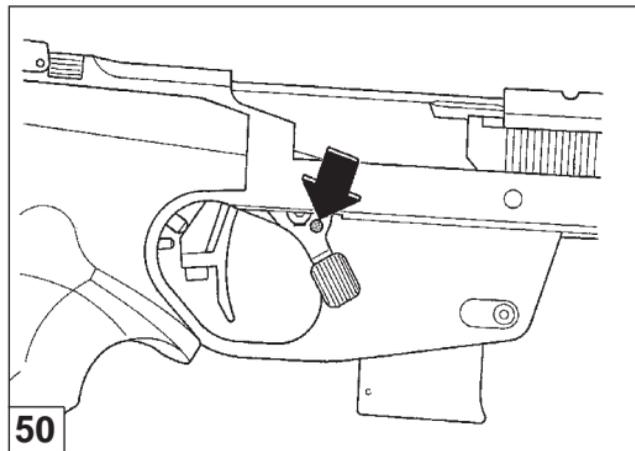
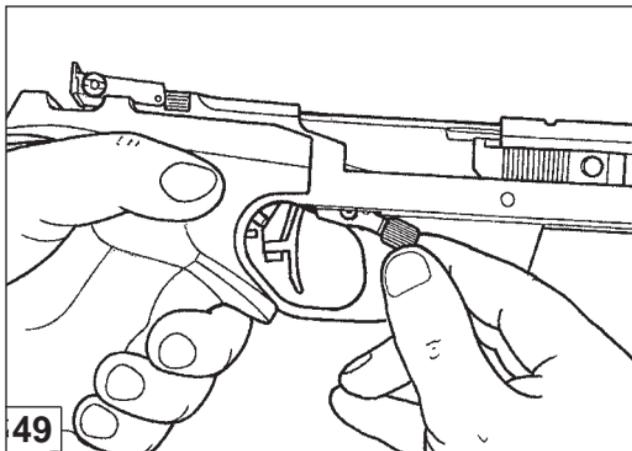
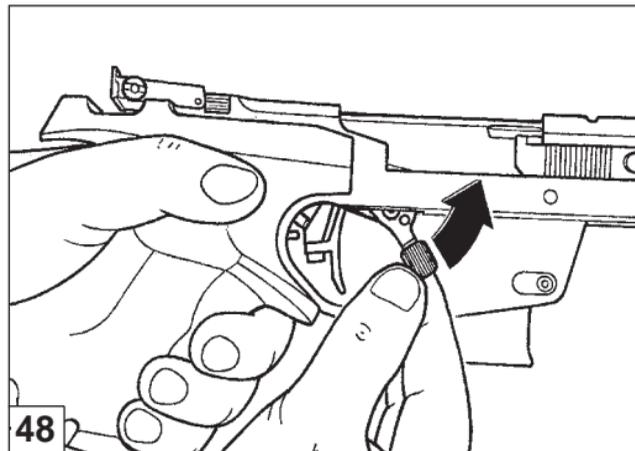
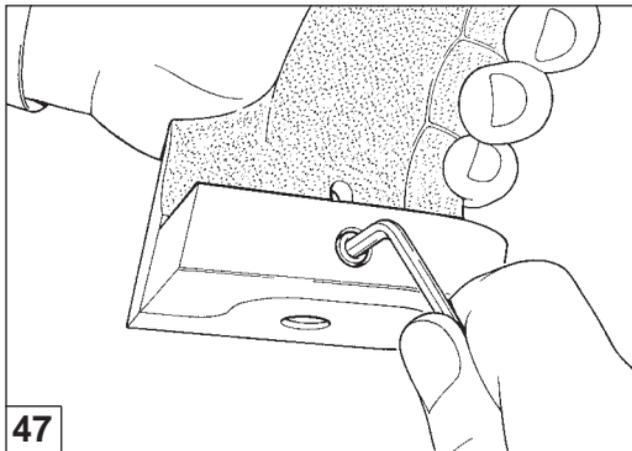




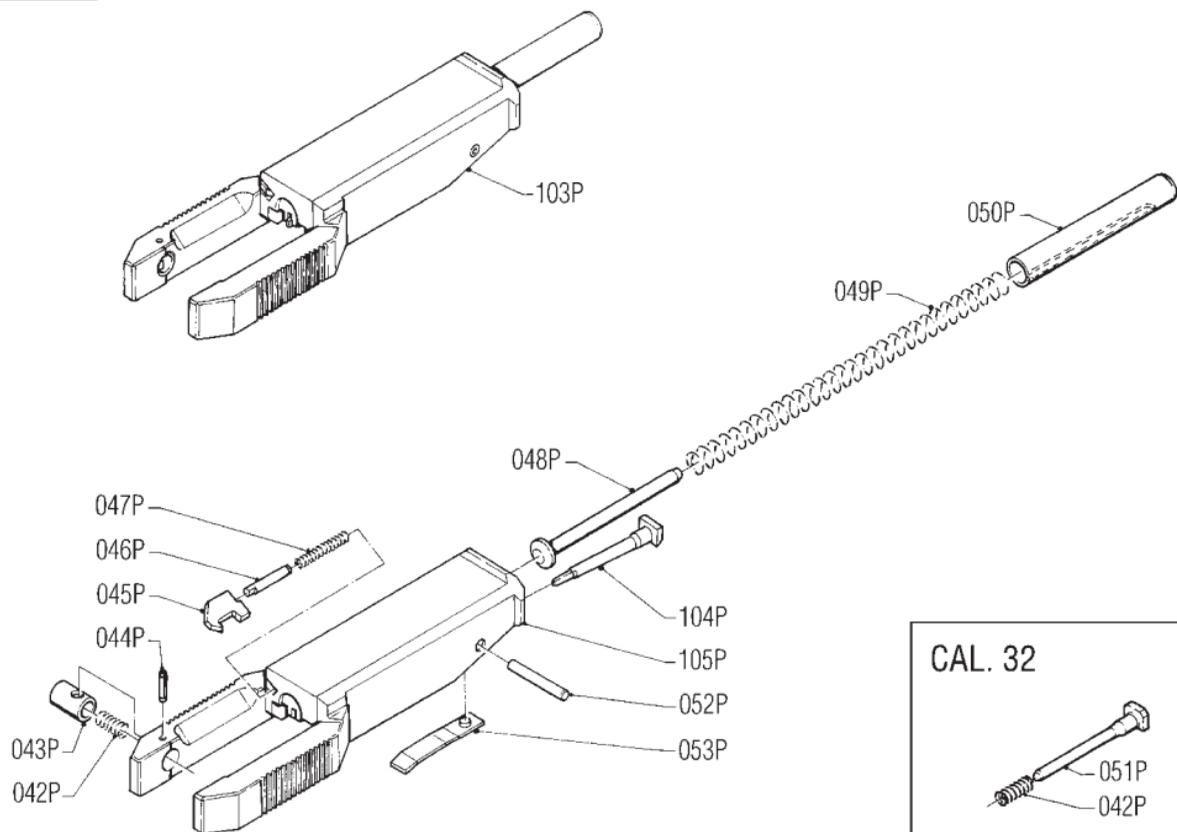




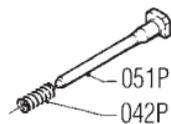




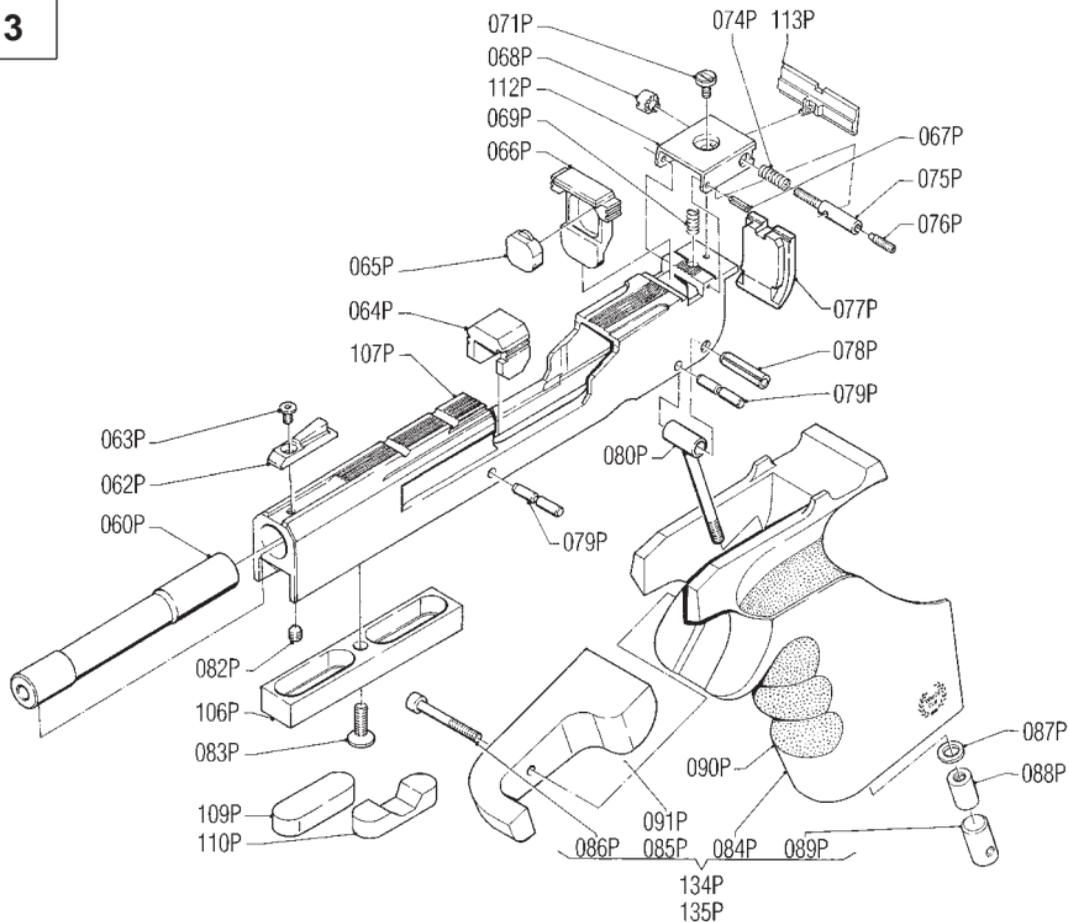
TAV. 2



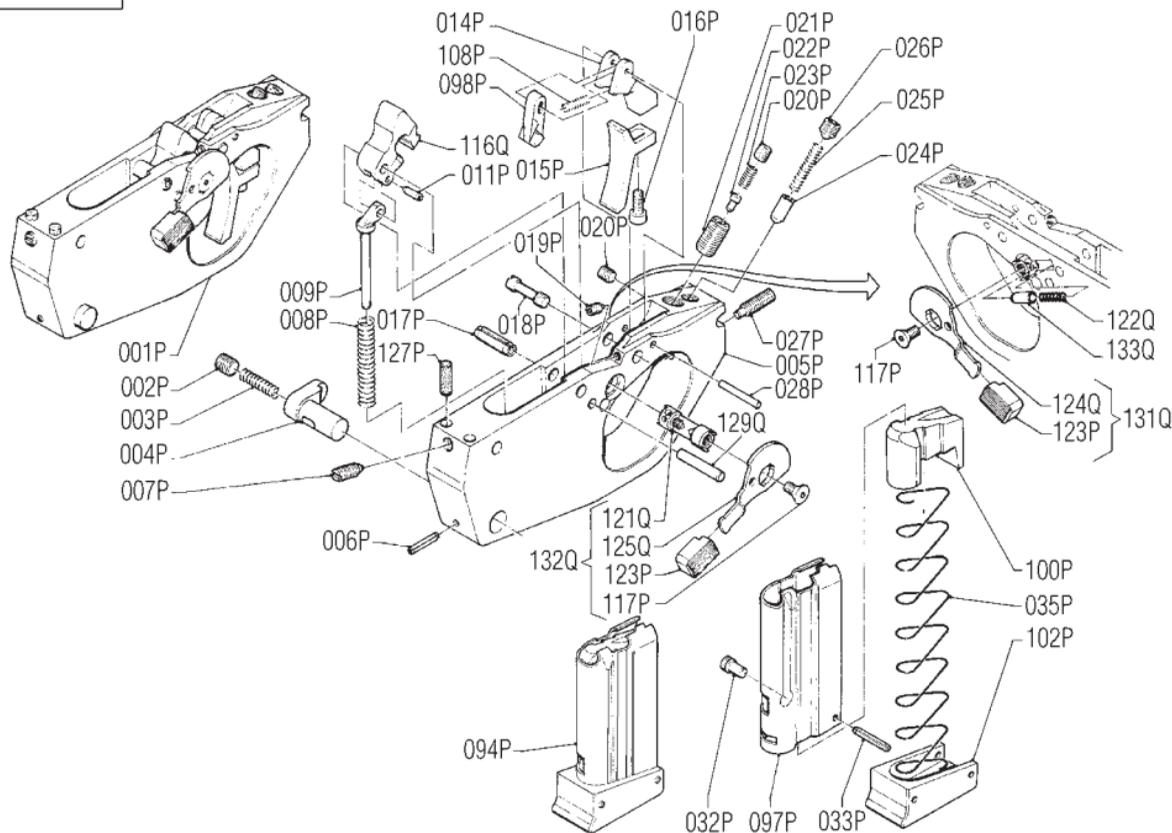
CAL. 32



TAV. 3



TAV. 4



Benelli

Benelli Armi S.p.A.

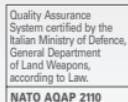
Via della Stazione, 50
61029 URBINO
ITALY

Tel. ++39-0722-3071

Fax ++39-0722-307207

E-mail: marketing@benelli.it

<http://www.benelli.it>



Benelli USA

Benelli U.S.A. Corporation

Head Office:

17603 Indian Head Highway

Accokeek, MD 20607-2501

Ph. 001-301-283-6981 - Fax 001-301-283-6988

E-mail: BENUSA1@aol.com

<http://www.benelli-usa.com>

Warehouse: (to ship merchandise)

801 Broad Street

Pocomoke, MD 21851