6. <u>Weapon functions</u>

6.1. Function of the trigger assembly

6.1.1. Weapon loaded, hammer decocked

With the weapon loaded and the hammer decocked, a shot can be fired with the double-action trigger.

By squeezing the trigger (20), the trigger bar (22) is drawn forward and cocks the hammer (29). The trigger bar (22) also operates the safety lever (28) to lift the safety lock (13). The safety lever (28) draws the sear (24) out of register with the hammer (29) whilst the safety lock (13) liberates the firing pin (11).

Continued movement of the trigger (20) causes the trigger bar (22) to release the hammer (29) which strikes the firing pin (11) and detonates the cartridge primer.



Function of the trigger assembly

- 11 Firing pin 13 Safety lock
- 24 Sear
- 28 Safety Lever

Hammer

- 20 Trigger
- 29
- 22 Trigger bar

6.1.2. Automatic interruption of trigger function

Upon firing

After firing, the blowback reaction thrusts the slide (4) rearward. The slide (4) depresses the trigger bar (22), disconnecting it from the safety lever (28) and hence releasing the sear (24). The sear, under pressure of its spring (25), returns to its initial position and arrests the hammer (29).

In order to fire the next shot the trigger (20) must be released to allow the trigger bar (22) and safety lever (28) to engage again.

If the trigger (20) is squeezed once more while in the final third of its stroke, then the trigger bar (22) actuates the safety lever (28) which lifts the safety lock (13) to liberate the firing pin (11) and also withdraws the sear (24) to release the hammer (29).

Incomplete locking

If the slide (4) does not return to the full battery position due to a weapon, magazine or ammunition malfunction, connection between the firing pin lock and safety lever (28) is not made. Therefore, de-activation of the safety lock (13) is automatically prevented.

In this disconnected state, the slide (4) also cams down the trigger bar (22) and effectively interrupts subsequent trigger functions.



4 Slide 11 Firing pin 13 Safety lock 20 Trigger

- 22 Trigger bar
- 24 Sear
- 28 Safety lever
- 29 Hammer

6.1.3. Decocking lever: and hammer safety notch

The decocking lever (40) allows the cocked hammer (29) to be safely lowered into the safety intercept notch. In this condition the weapon can be carried with a cartridge in the chamber, ready for immediate use.

The safety intercept notch is the rest position of the hammer (29). It also becomes effective in case of inadvertent hammer tripping when thumbcocking the weapon.

Thumbing down the decocking lever (40) takes the sear (24) out of register with the full,-cock hammer notch. The hammer (29) drops forward, returning the decocking lever (40) to its original position, and is arrested by the sear (24) engaging in the safety intercept notch.

During this operation the safety lever (28) remains in its rest position and does not lift the safety lock (13). Hence, during and after decocking, the firing pin (11) remains constantly locked. By this means, even dropping the weapon cannot cause inadvertent discharge of a cartridge.



Function of the decocking lever and safety notch

11	Firing	pin	28	Safety Lever
13	Safety	lock	29	Hammer
24	Sear		40	Decocking lever

6.1.4. Firing pin lock

In order to achieve optimum safety the firing pin (11) is locked in the slide by the safety lock (13). Immediate first-shot potential is ensured by the trigger action. During which the trigger bar (22) pivots the safety lever (28) to raise the safety lock (13) (thus liberating the firing pin) immediately prior to tripping the hammer (29).



Function of the firing pin lock

4 8	Slide	22	Trigger bar
11	Firing pin	24	Sear
13	Safety lock	28	Safety Lever
20	Trigger	29	Hammer

6.1.5. Weabon loaded, hammer cocked

By squeezing the trigger (single-action) (20) the trigger bar (22) is drawn forward.

The trigger bar (22) pivots the safety lever (28) which lifts the safety lock (13) to liberate the firing pin (11) and also moves the sear (24) to trip the hammer (29).

6.2. Unlocking, recoil movement and locking

At the instant of firing, the weapon is locked, i.e. the barrel (1) is seated on the locking insert (17) in the frame (1.5) and is locked with the slide (4).

Blowback reaction thrusts the barrel/slide system rearward against the recoil spring (3). After recoiling about 3 mm the barrel (1) is forced down and arrested by the locking insert (17).

The pistol is unlocked.

The slide (4) continues rearward, cocks the hammer(29), extracts and ejects the spent case and compresses the recoil spring (3) further.

The recoil movement is arrested by the slide stop in the frame.

The compressed recoil spring (3) thrusts the slide (4) forward, stripping a round from the magazine (51) and chambering it on the way to the battery position.

Just before reaching the forward end position, the slide (4) again locks up with the barrel (1).



Barrel locked with the slide

a) Locking surfaces



Barrel unlocked

b) Ejection portc) Guide surfaces

6.3 Arrestingmechanism (slide catch, lever)

After firing of the last shot, the slide (4) is arrested in the open position.

The feeder (53) of the empty magazine (51) raises the slide catch lever (18) which engages the arresting notch of the slide (4) and prevents its further movement. Upon thumbing down the slide catch lever (18) the moving parts are released and spring forward.

7. Gunsmithing work

(Further dismantling for parts replacement and maintenance)

7.1 <u>Maqazine</u> (51)

7.1.1 Dismantling the magazine (51)

Sequence of operations

- 1) Force the insert, magazine (55) inwards with punch
- 2) Draw out the floorplate (54) in the direction of the protruding flange, using the index finger of one hand to ensure that the spring, magazine (52) does not jump out.
- 3) Remove the spring, magazine (52) and feeder (53) from the magazine tube (51).

7.1.2 Assembling the magazine (51)

The magazine is assembled in the reverse order to dismantling.

After inserting the floorplate (54), ensure that the insert, magazine (55) engages the hole of the floorplate (54) to secure it.



7.2 Breechblock(9) in the slide (4)

7.2.1 Removal and dismantlina of the breechblock (9)

Sequence of operations:

- 1) Place the slide (4) on a suitable underlay
- 2) Knock out the pin H.D. (7,8) with punch
- 3) Remove the breechblock (9) from the slide (4)
- 4) Press in the firing pin (11) forward and extract the safety lock (73) and its spring (74) from the side
- 5) Relax the firing pin (11) and remove it together with its spring (12)
- 6) Loosen the extractor (10) at its rear end by means of a screwdriver "3 mm" and, guiding the claw, remove it sideways from the breechblock (9)
- 7) By simultaneous turning and pulling, remove the spring, firing pin (12) from the firing pin (11)
- 8) Remove the spring, safety lock (14)

7.2.2 Assembly and insertion of the breechblock (9)

Sequence of operations :

- 1) Take the spring, safety lock (14) and return it to the safety lock (13)
- 2) With its narrower end leading, push the spring, firing pin (12) onto the firing pin (11)
- 3) Insert the extractor (10) parallel 'from the side until the rear rectangular end is properly seated
- 4) Insert the firing pin (11) into the breechblock (9) bore, with the cut-out uppermost
- 5) Push the firing pin (11) forward, insert the safety lock (13) from the side and press it down
- 6) Install the breechblock (9) in the slide
- 7) Top in the pins H.D.(7,8), with the slot of the outer pin (8) pointing upwards
- 8) Push the firing pin (11) forward so it is at least flush with the rear face of the breechblock (9). The rear limit of the firing pin (11) is the inner/outer pin H .D. (7,8) and not the safety lock (13)! If it is touching the safety lock (13) the firing pin (11) will be damaged by the inner/outer pin H.D. (7,8)!
- 9) Check to ensure that the firing pin safety device function properly



Breechblock removed and dismantled

4	Slide	11	Firing pin
7/8	Inner and outer pin H.D.	12	Spring, firing pin
9	Breechblock	13	Safety lock
10	Extractor	14	Spring, safety lock

14 Spring, safety lock

7.3. Locking insert (17)

7.3.1 Removal of the locking insert (17)

Sequence of operations :

- 1) Remove the slide (4) from the frame (15)
- 2) Decock the hammer (29) using the decocking lever (40)
- 3) Rotate the takedown lever (16) upwards to the vertical position and extract it
- 4) Push forward the locking insert (17) and spring, slide catch lever (19), removing them from the frame (15)
- 5) Take off the spring, slide catch lever (19)

7.3.2 Installing the locking insert (17)

Sequence of operations :

- 1) Insert the spring, slide catch lever (19), with its hook in the hole of the locking insert (17)
- 2) Position the pivot trigger (21) so that the slots point forward and the ribs on the left side are horizontal
- 3) Insert the locking insert (17) into the frame (15) from the front until the holes for the takedown lever (16) are aligned
- 4) Insert the takedown lever (16) vertically upward and, by turning and simultaneous pushing, seat it correctly



Locking insert with spring, slide catch lever

- 15 Frame
- 16 Takedown lever
- 17 Locking insert
- 19 Spring, slide catch Lever
- 27 Pivot trigger

7.4 Grip plates,' left and right (48/49)

7.4.1 Removal of the grip plates (48/49)

Sequence of operations :

- 1) Using a screwdriver, remove the grip plate screws (50)
- 2) Carefully raise the grip plates (48/49)
- 3) Remove the left and right grip plates (48/49)

7.4.2 installing the grip plates (48/49)

To install, reverse the order used for removal

7.5 <u>Trigger assembly</u>

7.5.1 Dismantling the trigger assembly

Sequence of operations:

- 1) Remove the locking insert (17)
- 2) Remove the left and right grip plates (48/49)
- 3) Unhook the spring, trigger bar (23) and remove it
- 4) Push out the pivot, trigger (21) towards the left
- 5) Remove the slide catch lever, (18)
- 6) Remove the trigger (20) and trigger bar from the frame (15), diagonally to the front and side
- 7) Disconnect the trigger bar (22) from the trigger (20)
- 8) Unhook the spring, decocking lever (42) and remove it
- 9) Extract the decocking lever (40) and its bearing (41)



Trigger assembly

- 18 Slide catch lever
- 20 Trigger
- 21 Pivot, trigger
- 22 Trigger bar
- 23 Spring, trigger bar
- 40 Decocking lever

- 41 Bearing, decocking lever
- 42 Spring, decocking lever
- 49 Left grip plate
- 50 Screw

7.5.2 Reassembly

Sequence of operations :

- 1) Insert the bearing, decocking lever (41) into the frame, (15) from the right, and hold it there
- 2) Insert the decocking lever (40) from the left
- 3) Insert the spring, decocking lever (42), with its off-set end in the slot of the bearing, decocking lever (41). Tension the spring in an anticlockwise direction and insert it in the hole of the decocking lever (40)
- 4) Connect the trigger bar (22) and the trigger (20), and place them in the frame (15)
- 5) Insert the pivot, trigger (21) from the right, slots at the front and ribs of the left side horizontal
- 6) Insert the slide catch lever (18) centering it on the bore of the pivot, trigger (21)
- 7) insert the spring, trigger bar (23) in the hole of the frame (15) and hook the other end onto the trigger bar (22)
- 8) Fit the grip plates (48/49)
- 9) Install the locking insert (17)

- 7.6. Stop hammer in the frame
- 7.6.1. Removal of the stop in the frame

Sequence of operations :

- 1) Push out the pin (39)
- 2) Remove the stop, hammer (37)
- 3) Remove the spring, reset (36)

7.6.2. Installing the stop in the frame

To install, reverse the sequence used for removal. Ensure that the arm of the spring, reset (38) rests on the hammer strut, pin (30).



Stop, hammer in the frame

- 15 Frame
- 37 Stop, hammer
- 38 Spring, reset
- 39 Pin

7.7. Strut, Hammer (33) main spring (34) and seat, main spring (36)

7.7.1. Dismantling

Sequence of operations :

- 1) Remove the grip plates (48/49)
- 2) Press the seat, main spring (36) upwards until it is free from its mounting in the frame (15)
- 3) Remove the seat, main spring (36), main spring (34) and strut, hammer (33)
- 4) Force out the spring pin (35) from the strut, hammer (33)

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5) Separate the seat, main spring, (36) main spring (34) and strut hammer (33)
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7.7.2. Reassembly

For reassembly, reverse the sequence used for dismantling



Hammer strut with main spring and main spring seat

- 33 Strut, hammer
- 34 Main spring
- 35 Spring pin
- 36 Seat, main spring

7.8. Hammer (29) assembly

7.8.1 Dismantling of the hammer (29) assembly

Sequence of operations :

- 1) Remove the locking insert (17), grip plates (48/49), trigger (20) assembly and stop, hammer (37)
- 2) Press the seat, main spring (36) upwards until it is free from its mounting
- 3) Remove the seat, main spring (36), main spring (34) and strut, hammer (33)
- 4) Relax the spring, sear (25)
- 5) Push out the shaft, sear (26) and safety lever (28)
- 6) Remove the safety lever (28), sear (24) and spring, sear (25)
- 7) Remove the ejector (32)
- 8) Push out the hammer pivot pin (31) from the hammer (29)
- 9)' Remove the hammer (29)

7.8.2 Reassembly

Sequence of operations :

- 1) Install the hammer (29)
- 2) Install the ejector (32)
- 3) Push in the shaft, sear (26), from the right, insert the safety lever (28) and anchor it with the shaft, sear (26)
- 4) Insert the sear (24) from below. Push in the shaft, sear (26) further until the sear (24) is secured
- 5) Fit the spring sear (25). Push in the shaft, sear (26) completely
- 6) Using a screwdriver, tension the spring, sear (25) and position its end beneath the spring, pin H \cdot D. (27)
- 7) Introduce the strut, hammer (33), main spring (34), seat, main spring (36) to the hammer (29) (preferably with the hammer in the safety notch)
- 8) Tension the main spring (34) somewhat and position the seat, main spring (36) in its mounting in the frame (15)
- 9) Replace the trigger (20) assembly, stop, hammer (37), grip plates (48/49) and locking insert (17)

Hammer assembly

24	Sear	29	Hammer
25	Spring, sear	31	Hammer pivot pin
26	Shaft, sear	32	Ejector
28	Safety lever		





7.9. Maqazine catch (43)

7.9.1 Removal of the magazine catch

Sequence of operations :

- 1) Remove the left grip plate (49)
- 2) Press the stop, magazine catch (46) inwards
- 3) Remove the stop, magazine catch (46) and spring, magazine stop (47)
- 4) Take out the magazine catch (43) and spring, magazine catch (45)

7.9.2 Reassembly of the magazine catch

For reassembly, reverse the sequence used for removal



7.9.3 Chanqing over the maqazine catch from left to right

- 1) Remove the magazine catch (43) as per 7.9.1
- 2) Remove the right grip plate (48)
- 3) Remove spring, trigger bar (23)
- 4) Remove support plate (44) and reinstall it on the left-hand side
- 5) Install the magazine catch (43) and spring, magazine catch (45)
- 6) Install the stop, magazine catch (46) and spring, magazine stop (47)
- 7) Fit spring, trigger bar (23)
- 8) Install right- and left-hand grip plate (48/49)



- 23 Spring, trigger bar
- 44 Support plate

8. Inspection

8.1. General

The gunsmith should carry out the following inspections:

- function inspection
- parts inspection

8.2. <u>Function inspection</u>

A functions check is to be carried out on the assembled weapon:

- to determine causes of malfunction
- after repair work
- following after-use cleaning and during weapon inspections as well as after parts inspection and lubrication

8.2.1. Unload

Unload the weapon and remove the magazine

8.2.2. <u>Recoil spring</u>

Check the force of the recoil spring and smooth cycling of the slide. Carry out loading movement and check that the slide/ barrel system springs forward smartly and locks. Repeat once.

8.2.3. Trigger and hammer mechanisms

a) **Double action function**

with hammer decocked, squeeze the trigger

check that the hammer cocks properly and then drops forcefully, coming to rest in the safety intercept notch

b) Interruption of trigger function

with decocked hammer and trigger fully pulled, carry out a loading movement

check that the hammer is retained in the cocked position (trigger remains fully pulled)

c) Single-action function

release the trigger fully and simultaneously....

check that the trigger bar engages once more and that, upon squeezing the trigger again, the hammer is operated

d) Safety notch on the hammer

cock the hammer and then decock using the decocking lever but without touching the trigger

check that the hammer is intercepted before reaching the extreme dropped position

e) Decocking lever

cock the hammer

thumb down the decocking lever and check that the trigger and hammer are brought to their rest position

8.2.4 Maaazine

- condition of the magazine tube, the lips and of the floorplate
- correct securing of the floorplate by the insert
- smooth movement and springing of the feeder
- easy insertion of the magazine into the frame
- correct in and out movement of the magazine catch

8.2.5 Lever, slide catch

- with an empty magazine in place, carry out a loading movement. The slide must be arrested in the rear position by the lever, slide catch
- thumb down the lever, slide catch and check that the slide is released and forcefully springs forward
- thumb down the decocking lever

8.2.6 External condition of the weapon

- condition of the front and rear sights, grip plates and take down lever as well as tight seating of the sights and plates

8.2.7 Insoection of the numbered parts

- argeement of the numbers on the barrel, slide and frame

8.3 Parts inspection

8.3.1 General

This inspection includes a close check of individual parts in respect of damage such as cracks, unacceptable deformation, smoothness and condition of all sliding and bearing surfaces, as well as function and condition of all springs.

Parts inspection is to be carried out with the weapon dismantled and cleaned:

- to determine causes of malfunction
- to examine carefully all stressed parts with a view to their replacement
- during maintenance work
- during weapon inspection

8.3.2 Parts inspection covers :

a) Barrel (1)

bore and chamber

- locking surfaces
- b) Recoil spring (3) and guide, recoil spring (2)
- c) Slide (4)
 - ejection port, locking surface
 extractor (10) (claw and spring)
 firing pin hole
 - arresting notch for the slide catch lever (18)
 pin H .D. of the breechblock (7,8)
 - safety lock (13), spring and function projection of the firing pin
 - front and rear sights (5,6), contrast markings

d) Frame (15)

takedown lever (16) locking insert (17) trigger (20) decocking lever (40) slide catch lever (18) ejector (32) safety lever (28) and sear (24) hammer (29) stop, hammer (37) magazine catch (43) grip plates (48,49) and screws (50)

e) Magazine (51)

magazine tube and lip (51) floorplate, magazine (54) insert magazine (55) spring , magazine (52) feeder (53) 9. Zeroing

For zeroing the pistol, the following front and rear sights are available:

Rear sight: sizes 5 - IO

The sizes differ in height in increments of 0.28 mm.

Target distance should be 25 meters. Zeroing is carried out on the basis of "sighting point equals point of impact".

Windage correction :

Shifting the rear sight 1 mm alters the point of impact by 15.62 cm at 25 meters.

If the hits are to the left then the rear sight must be shifted to the right.

Elevation correction :

Replacing the rear sight by the next size alters the point of impact by 4.8 cm at 25 meters.

If the hits are too high then a rear sight of the next lower size must be selected.

Front sight 5 - 9

The sizes differ in height in increments of 0.14 mm

Elevation correction :

Replacing the front sight by the next size alters the point of impact by 2.4 cm at 25 meters.

10. Malfunctions and their rectification

10.1. General

In a well kept and properly maintained weapon, malfunctions rarely occur.

10.2. Initial action upon malfunctioning

If malfunctioning occurs during shooting, proceed as follows:

- 1) Keep the pistol in the firing direction
- 2) Pull the trigger again
- 3) If cycling the slide also does not help, then unload the pistol
- 4) Identify the cause of the malfunction

10.3 Different types of malfunction and their rectification

10.3.1 Feed problems

No cartridge fed into

the chamber although

the slide has returned

Cartridge blocks with its tip at the breech of

Slide does not close

Malfunction

forward

the chamber

completely

Cause

- magazine not seated properly
 - magazine deformed or very dirty
 - cartridge incorrectly fed
 - weapon too heavily lubricated and dirty
 - cartridge dirty or grease ring is frozen
 - jamming in the slide guides, possibly damage
 - recoil spring weak or broken
 - foreign object between the guides and locking insert

Rectification

- insert magazine properly

 insert fresh magazine; clean or repair the removed magazine

- pull back the slide somewhat, line up the cartridge correctly, allow slide to spring forward
- remove grease, clean and lubricate as per specification
- clean chamber and cartridge (in extreme low temperatures, remove the grease ring)
- adjust for smooth sliding
- replace recoil spring
- clean and lubricate as per specification

10.3.2 Ignition problems

Malfunction	Cause	Rectification
Hammer springs forward but cartridge not ignited	- firing pin jammed in its bore	 squeeze trigger several times. If cartridge still not ignited, dismantle and correct breechblock assembly
	- firing pin broken	 replace firing pin
	 main spring weak or broken 	- replace main spring
	- lever, safetv defec-	- replace lever, safety

tive, firing pin is not liberated

10. 3.3 Extraction and ejection problems

Malfunction	Cause	Rectification
Slide has sprung forward but spent case sticks in chamber	 too little rearward movement due to dirt, frozen grease or guide damage 	- clean, correct the guides
Spent case jammed in the ejection port	 extractor defective ejector defective extractor weak 	 replace extractor (10) replace ejector (32) replace extractor (10)
10.3.4 <u>Other malfunctions</u>		
Malfunction	Cause	Rectification
After being squeezed, the trigger remains in the end position and is no longer under spring pressure	 trigger bar spring out of position or broken 	 replace or correctly mount spring, trigger bar (23)
The cocked hammer cannot be tripped by the trigger	 cam on lever, safety broken off 	- replace safety lever (28)
Slide is arrested be- fore the last round	 spring, slide catch weak or broken 	 replace spring, slide catch
Slide is not arrested after the last round	 notch on the slide cr lever, slide catch defective 	 replace slide catch lever (18) repair arresting notch on slide
	 feeder jammed in upper part of magazine 	- repair magazine (51)
Oecocking lever does not spring back	 spring, decocking lever out of position or defective 	 replace or correctly mount spring, decocking lever (42)
Hammer is not cocked by the loading movement (returns forward with the slide)	 arm of the spring, sear above the spring pin H.D. or broken 	 install the spring, sear (25) correctly or replace it
	 hammer or sear de- fective 	 replace hammer (29) or sear (24)

11. <u>Safety precautions</u>

11.1 General safety precautions

The weapon is always to be regarded as loaded until the user has assured himself of the contrary by carrying out the unloading procedure.

During manipulations, no one is to be in front of the weapon. The muzzle of the pistol is to be pointed forward, in the direction of firing or diagonally towards the floor.

For weapons handling practice, live ammunition may not be used.

During shooting and aiming practice, all marksmen are to be in one line abreast, spaced at intervals.

During shooting breaks, the hammer is to be de-cocked using the decocking lever.

Before a shooter moves away from the firing line, the pistol must be unloaded.

If a malfunction occurs during shooting, the user is to remain in position until the malfunction has been rectified.

When shooting with combat ammunition, ear protectors and glasses must always be employed.

12. Exploded drawing



13. List of parts

Pos.	Designation	Pos.	Designation
1	Barrel	30	Hammer strut pin
2	Guide, recoil spring	31	Hammer pivot pin
3	Recoil spring	32	Ejector
4	Slide	33	Strut, hammer
5	Front sight 5/6/7/8/9/10	34	Main spring
6	Rear sight 5/6/7/8/9/10	35	Spring pin
7	Inner pin H.D.	36	Seat, main spring
8	Outer pin H.D.	37	Stop, hammer
9	Breechblock	38	Spring, reset
10	Extractor	39	Pin
11	Firing pin	40	Decocking lever
12	Spring, firing pin	4 1	Bearing, decocking lever
13	Safety lock	42	Spring, decocking lever
14	Spring, safety lock	43	Magazine catch
15	Frame	44	Support plate
76	Takedown lever	45	Spring, magazine catch
17	Locking insert	46	Stop, magazine catch
18	Slide catch lever	47	Spring, magazine stop
79	Spring, slide catch	48	Right grip plate
20	Trigger	49	Left grip plate
21	Pivot, trigger	50	Screw
22	Trigger bar	51	Magazine tube
23	Spring, trigger bar	52	Spring, magazine
24	Sear	53	Feeder
25	Spring, sear	54	Floorplate, magazine
26	Shaft, sear	55	Insert, magazine
27	Spring pin H .D.		
28	Safety lever		
29	Hammer		

For further informations and spare parts please contact: