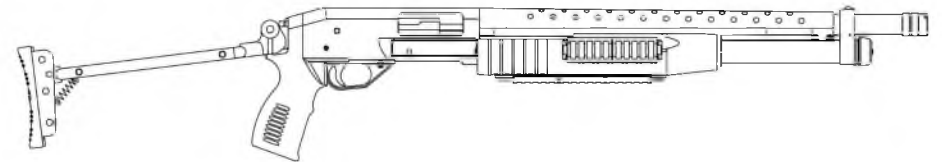


Science Industrial Association



**Pump-action shotgun
Fort - 500 caliber 12/76 mm**

SIA «Fort» of the MIA of Ukraine
600-richchia Street 27
Vinnytsia, 21027, Ukraine
tel. (0432) 46-73-26, fax (0432) 46-80-16
siafort@ukr.net

***Operation
manual***

Attention!

Before conducting operations with shotgun, it is necessary to learn attentively present operational manual.

It is strictly forbidden to load shotgun before you read and understand information stated in present operational manual, as well learning safety regulations, maintenance and storage.

Always operate with shotgun as it is loaded.

Direct the barrel muzzle end of shotgun only in safety direction while any action with shotgun. During storage, the shotgun must be unloaded, handguard must be in front position, hammer must be uncocked, and safety must be in fire position (safety button pressed on the right hand).

This operational manual intended for learning construction, operation principle and operating rules of pump-action shotgun “Fort-500” caliber 12/76 (hereinafter - shotgun), and contains information about operating procedures, storage, safety directions and maintenance, guarantee statement and acceptance certificate.

1 Description and operation of the shotgun

1.1 Function

1.1.2 Shotguns are intended for fire on distances up to 35 m and can be used by law enforcement personnel, as well as by other law enforcement agencies and interested agencies that perform the respective functions assigned to them by law.

1.2 Basic technical data

1.2.1 Shotguns are produced in such modifications:

- Fort-500AS – frame folding up butt stock, barrel length 510 mm, figure 8;
- Fort-500M1S – frame folding up butt stock, barrel length 345 mm, figure 9;
- Fort-500TS – retractable butt stock, barrel length 510 mm, figure 10;
- Fort-500MS – retractable butt stock, barrel length 345 mm, figure 11.

1.2.2. For firing from shotgun, can be used cartridges of caliber 12 mm with bullet, bird shot or buck shot, with length of case no more than 70 mm, or cartridges of Magnum caliber with length of case of no more than 76 mm with a total length of a cartridge no more than 65 mm.

1.2.3 Basic technical data and dimensions are given in table 1.1

Parameter name	Normal feature for shotgun model			
	FORT-500AS	FORT-500TS	FORT-500MS	FORT-500M1S
1 Caliber	12/76			
2 Barrel length, mm	510±1	510±1	345±1	345±1
3 Cartridge chamber length, mm	78,15			
4 Magazine capacity, cartridges	6	6	4	4
5 Trigger pull, N	from 25 to 35			
6 Trigger creep, mm	from 2,0 до 3,0			
7 Butt stock	frame folding up butt stock	retractable butt stock		frame folding up butt stock
8 Dimensions, mm:				
- length with unfolded buttstock	1010	-	-	845
- length with folded buttstock	750	-	-	585
- height with unfolded buttstock	170	180	205	200
- height with folded buttstock	210	-	-	245
- maximum length with retractable buttstock	-	1042	878	-
- minimum length with retractable buttstock	-	940	780	-
- width	53	66	66	64
9 Weight, kg, not more	4,1	4,0	4,1	4,3

1.3 Completeness

Shotguns are delivered in completeness, as stated in the table 1.2.

Table 1.2

Details name	Normal feature for shotgun model			
	FORT-500AS	FORT-500M1S	FORT-500TS	FORT-500MS
Shotgun	+	+	+	+
Belt	+	+	+	+
Protecting screw	+	+	+	+
Device for lock breaking*	+	+	+	+
Device for shooting gas grenades*	+	+	+	+
Fore grip	-	+	-	+
Picantiny rail for fore grip	+	+	+	+
Picantiny rail for tactical flashlight	+	+	+	+
Picantiny rail for sights	-	+	+	+
Tool kit for shotgun maintenance:				
- wrench s 1.5	-	-	+	+
- wrench s 3.0	-	+	+	+
- wrench s 4.0	-	+	-	+
- wrench s 5.0	+	+	+	+
- wrench 7811-0316	-	-	+	+
Cleaning and greasing kit*:				
- folding wiping rod;	+	+	+	+
- metal cleaning brush;	+	+	+	+
- cleaning brush;	+	+	+	+
- puff	+	+	+	+
Operational manual	+	+	+	+
Consumer package	+	+	+	+
Notes: mark "+" - means that detail is included in scope of supply; mark "-" - means that detail is not included in scope of supply; mark "*" - means that detail is supplied on consumer request.				

1.4 Security measures

1.4.1 Before performing any actions with the shotgun read and understand the rules and methods of shooting, operation and maintenance of the shotgun stipulated in this manual. Always handle with the shotgun as with loaded and ready to shoot.

1.4.2 Store the shotgun and ammunition separately and out of reach of unauthorized persons.

1.4.3 Store your shotgun unloaded, handguard is in front position, hammer is uncocked, safety is in fire position.

1.4.4 Do not leave a charged shotgun unattended.

1.4.5 It is strictly forbidden:

- to disassemble the loaded shotgun;
- to use ball ammunition for testing of interaction of shotgun parts and mechanisms;
- to shoot in case of availability in bore pollutants, lubricating oil or other obstructions.
- to use ammunition which aren't intended for this shotgun.

1.4.6 While detecting any defect in loaded shotgun before identification of its reasons, unload the shotgun as stated in 2.5 of this manual.

1.4.7 Be careful while reloading of the shotgun. Empty cartridge cases, which are extracted through ejection slot, can injure shooter or people nearby.

1.5 Design and operation of the shotgun

The shotgun is non-automatic; the muscular force of the shooter performs all reloading operations.

The feeding mechanism that moves the cartridges to the charging line is a magazine type. Breech mechanism, which is intended for locking and unlocking of barrel - sliding breech bolt.

Trigger mechanism, which activates the percussion-primer, is of hammer type.

The appearance of the shotgun and the locations of the controls are shown in Figures 8 - 11, and parts location scheme is shown in Figure 12.

The shotgun consists of the following parts:

- receiver, which connects the main parts of the shotgun: a barrel, magazine, a trigger mechanism, bolt and breech frame, as well as a pistol grip and buttstock;
- a barrel which provides the possibility of shooting with cartridges equipped with a buckshot, a shot, a bullet, as well as ammunition of a special purpose: signal cartridges, gas cartridges, non-lethal action cartridges;
- a button-type safety, which only with cocked hammer, provides the impossibility of a random shot. The safety is located in the front of the trigger bow;
- handguard that includes the magazine and is intended for reloading of the shotgun by the "back-forward" movement, and provides removal after the shot of the case behind the shotgun, feeding of the cartridge from the magazine to the chamber and the cocking of the trigger mechanism;

- a tube-type magazine, located under the barrel and intended for storage of cartridges;

- a trigger mechanism located in the receiver, which contains a trigger, a firing spring, a hammer.

To move the safety to the "safe" position, cock the trigger mechanism by the "back-forward" handguard movement, push the safety button on the left side of the trigger bow until it stops. To move the safety to the "fire" position, press the safety button on the right side of the trigger bow until it stops.

- boit locking lever, which blocks the boit movement, while removal of handguard by "back-forward" movement. The lever is located in the longitudinal groove of the trigger bow rear side;

- Picatinny rail for connection the sighting devices, which is fixed to the upper surface of the receiver;

- Picatinny rail for connection the fore grip, which is fixed to the bottom of the receiver;

- Picatinny rail for connection the tactical flashlight, which is fixed to the sides of the handguard;

- frame folding up butt stock (folded upward in turn) or a retractable butt stock that are fixed to the back of the receiver.

1.6 Shotgun operation concept

The reload of the shotgun is carried out by the muscular force of the shooter by the "back-forward" handguard movement. While moving of the handguard "back", the boit, caught by the trigger bars of the handguard, moves backward, the breech frame moves a recoil lug from the locking with the barrel tang. The boit, continuing to move back, removes by extractor the cartridge case from the chamber, which, when met with the ejector, is removed outside the shotgun through the ejection slot in the receiver; sets the left cutter behind the cartridge, located in the chamber, and then bends the right cutter so that the first cartridge under the pressure of the magazine spring is pushed into the feeding tray and lift to the charging line. At the same time, the breech frame pushes the trigger, which, turning around the axle, compresses the firing spring, catching by the lug for sear and remains in cocked position.

While moving the handguard "forward" - the boit moves forward, pushes the cartridge into the chamber and enters a recoi lug in the hooking wlt h tang, the extractor lug catches the overhung cartridge rim.

A shot from the shotgun is carried out by pressing the trigger, while the trigger bar, connected to the trigger, moves forward, turns the sear and releases the hammer. Under the pressure of the firing spring, the hammer turns around the axis and strikes the firing pin, the sharp end of the firing pin breaks the percussion primer of the cartridge, located in the chamber, and the shot is happen.

1.7 Marking

The following markings are applied on the receiver: manufacturer trademark; designation of shotgun model "Fort-500"; the caliber of the used cartridge and the length of the chamber 12/76; the inscription "Made in Ukraine"; factory number. The barrel contains the factory number of the shotgun and the shotgun modei abbreviation.

1.6 Packing

Shotgun and operation manual are packed in the individual packing which is suitable for storing and transporting of the shotgun.

2 SHOTGUN SHOOTING

2.1 Safety instructions

2.1.1 Carry the checking of shotgun safety in following cases:

- when receiving or transferring the shotgun;
- upon arrival to the place of fire;
- after the shooting;
- before leaving of the shooting range;
- before conducting of maintenance.

2.1.2. For testing the safety of the shotgun, follow the steps below:

- turn the shotgun so that the loading slot stays on top;
- direct the muzzle end in a safe direction;
- press the lever of handguard locking and execute the movement "back" (to itself) by handguard;
- inspect the feeding tray and magazine; make sure there are no cartridges on it and in the magazine;
- inspect the chamber through the ejection slot; make sure that the chamber is empty;
- execute the movement "forward" (from yourself) by handguard;
- press the trigger (control release).

WARNING! While checking of the shotgun safety, touching of the trigger is forbidden!

2.2 Preparing for the shooting

2.2.1 Unfold the buttstock of shotgun with a folding buttstock, turning it around the axis from top to bottom until it locks in a horizontal position.

2.2.2 Set the desired length of the retractable buttstock, for this press the length-fixing button of the buttstock and, pulling the buttstock along the horizontal axis, set the desired length. Release the length-fixing button, and, moving the buttstock back and forth, lock its position.

2.2.3 Inspect the cartridges; make sure they match the caliber indicated on the shotgun receiver.

2.3 Loading

WARNING! While loading of the shotgun, touching of the trigger is forbidden!

Handguard of the shotgun is in the front position; trigger mechanism is uncocked.

Turn the shotgun so that the cartridge loading slot sets on top and direct the muzzle end of the barrel in a safe direction. Push the cartridge by forward part in front through the loading slot, until the overhung cartridge rim is positioned behind the right cutter. Similarly, push the rest of the cartridges until the magazine is fully with cartridges (Figure 1). The magazine is loaded; the shotgun is ready for firing.

Never attempt to exceed the magazine capacity!

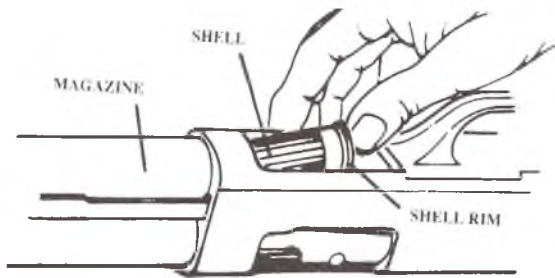


Figure 1

2.4 Shooting

2.4.1 Direct the muzzle end of the barrel in a safe direction. Perform the "back-forward" handguard movement, move the safety to the "safe" position by pressing it on the left side of the shotgun. The shotgun is ready for firing, the cartridge is in the chamber, and the trigger is cocked.

To carry out the shot, move the safety to the "fire" position by pressing it on the right side of the shotgun. Aim and press the trigger. The shotgun will fire.

To continue shooting, reload the shotgun with the "back-forward" handguard movement, hereby the spent case is removing from the shotgun through the ejection slot. The cartridge is feeding from the magazine in a chamber, the trigger cocks. The rifle is ready again for firing.

If, after shooting, the shotgun is still loaded, the cartridge is in the chamber, the trigger is cocked, move the safety to the "safe" position.

If, after shooting, all the cartridges are shot, check the safety of the shotgun, as specified in section 2.1.2 of this manual.

2.5 Unloading

While unloading of the shotgun, direct the muzzle end of the barrei in a safe direction, do not touch the trigger.

Unioading of the shotgun is possible in one of the ways below:

1) place the shotgun so that the cartridge loading slot appears down, press the handguard locking lever and, holding it in that position, perform a "back-forward" handguard movement unti all the cartridges are removed from the shotgun through the ejection slot;

2) piace the shotgun so that the ioading slot appears down. Through the ioading slot press the right cutter with your finger and the cartriges wiii drop out of the magazine through the ioading slot.

After unioading, check the shotgun safety as specified in section 2.1.2 of this operating manual.

2.6 Actions with a shotgun when there is a delay

2.6.1 If, after pressing the trigger, the shot does not fire, wait at least one minute and only then unload the shotgun in the sequence shown in section 2.5 of this manual. Check the cartridge, chamber and bore for pollution availability and damage.

2.6.2 If, during firing, the sound of a regular shot was stronger or weaker than the sound of the previous one, stop firing, unload the shotgun in the sequence specified in section 2.5 of this manual and check the chamber, the bore for pollution availability.

3 MAINTENANCE

3.1 General instructions

Maintenance of the shotgun is carried out immediately after the shooting.

If the shotgun is not used for a long time, you must carry out maintenance every week.

Maintenance is carried out in the following order:

- field strip,
- cleaning of shotgun and magazine,
- lubricating,
- shotshotgun assembly,
- testing of operation.

3.2 Shotgun field strip

3.2.1 Before disassembly, unload the shotgun as specified in section 2.5 of this operating manual.

Check a shotgun safety as specified in section 2.1.2 of this manual.

To disassemble a shotgun, do the following:

- disconnect the barrel;
- disconnect the buttstock;
- disconnect the trigger mechanism;
- disconnect the parts located in the barrei receiver.

3.2.2 Disconnecting of the barrei

Unlock the barrei fixture. Turn the barrei to the left and right, pull it out of the barrei receiver.

3.2.3 Disconnecting of the buttstock

Unscrew the fastening screws of the buttstock and disconnect the buttstock and pistol grip from the barrei receiver.

3.2.4 Disconnecting the trigger mechanism

Place the shotgun so that the trigger bow is on top. Puli out the pin that holds the trigger mechanism and puil the trigger mechanism, lifting its back up (figure 2).

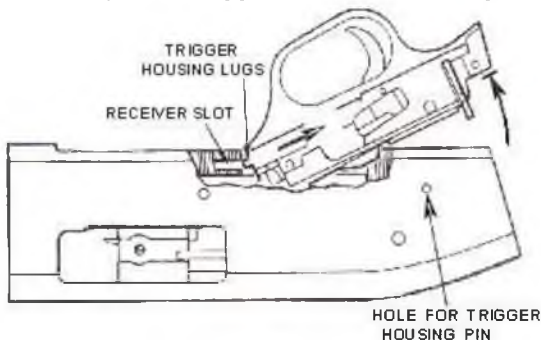


Figure 2

3.2.5 Disconnecting of the parts located in the barrei receiver.

Pay special attention to the relative position of the bolt, the breech frame and trigger bars during disassembly, because these parts must be set exactly during assembly.

Move the handguard back to about halfway through the full stroke and pull out the breech frame (figure 3).

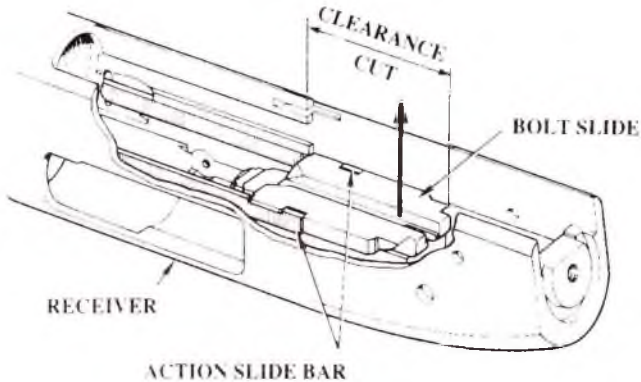


Figure 3

By movement of the handguard forward, remove it from the magazine, remove the bolt from the receiver (figure 4A), and then pull out the feeding tray by squeezing its side surfaces (figure 4B).

3.2.6 The bolt and trigger mechanism are complex units, so further disassembly is not recommended.

Complete disassembly of a shotgun make only in the workshop during repair.

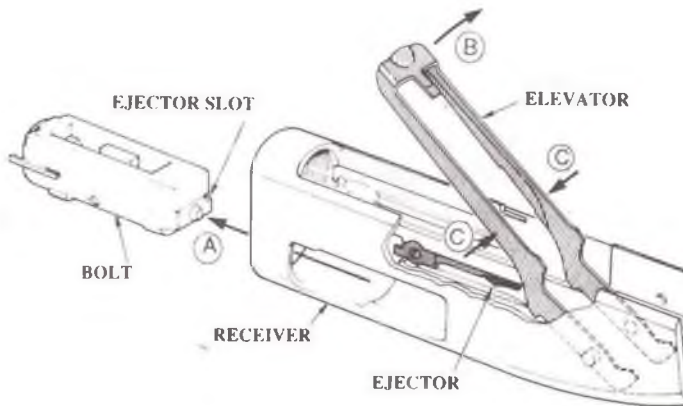


Figure 4

3.3 Assembling

3.3.1 Assembling of the barrel receiver

Place the receiver so that the location of the trigger mechanism sets on the top. Press the feeding tray sides together and slide it into the hole of the receiver, the projection of the feeding tray should enter into the holes of the receiver. Turn the feeding tray so that its fore edge sets in level with the outer edge of the cavity of the receiver.

Backside of the bolt insert into the hole for barrel in the receiver, the recoil lug lock must be located against its upper edge. Press the ejector and slide the bolt until it fully enters into the receiver. The ejector must enter into the bolt groove. Slide the feeding tray down until it fits against the bolt. Place the bolt backside on one level with the rear side of the grooves on the sides of the receiver (figure 5B). Put on the handguard on the magazine, while the trigger bars must enter into the corresponding openings of the receiver (figure 6). Place the trigger bars so that the hook of the trigger bar is on the same level with the grooves on the inner sides of the barrel receiver (figure 5-A). Place the breech frame so that on the top of it is grooves, and hooks are on the lower side. Slide the front part into the trigger bar groove. The overhung part of the breech frame should come into the cutout of the recoil lug. Lower the rear end of the breech frame down (figure 5-B). When performing the "back-forward" handguard movement, the bolt and the breech frame must move in the guides of the receiver smoothly without seals. If their movement is difficult, then do not use force, disassemble and assemble the barrel receiver, paying particular attention to the interconnection of the bolt, the breech frame and trigger bars.

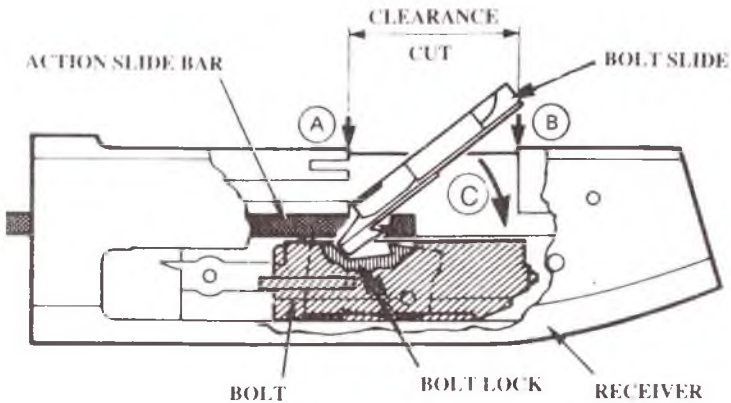


Figure 5

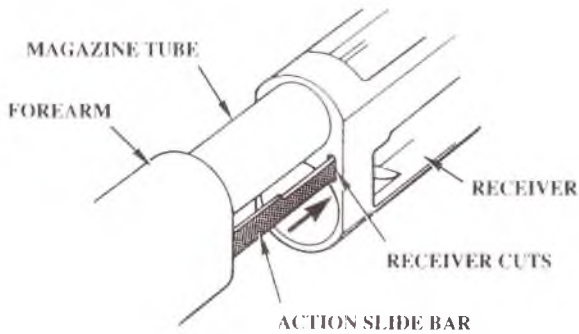


Figure 6

3.3.2 Attaching of the trigger mechanism

Make sure the handguard is in the front position.

Cock the trigger of the trigger mechanism. With one hand holding the left and right cutters, tightening them firmly to the sides of the receiver, hold the trigger mechanism with the second hand (figure 7A).

Insert the front part of the trigger mechanism with its hooks into the grooves on sides of the receiver, then loosen the back part of the trigger mechanism until it stops (figure 7B).

Do not use force!

Adjust the holes of the trigger mechanism and the receiver; insert the fastening pin of the trigger mechanism.

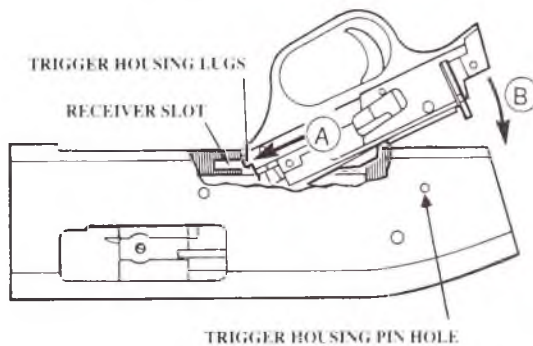


Figure 7

3.3.3 Attaching of the buttstock

Attach the pistol grip and the buttstock to the receiver and tighten the attachment screws.

3.3.4 Attaching of the barrel

Insert the barrel into the receiver and, turning it to the left-to-right, slide it to the stop. Insert the sling mount and tighten the nut of the magazine.

3.4 Cleaning and lubrication

Inspection, field stripping, cleaning, and lubricating of the shotgun must be conducted immediately after firing, and with long-term storage of the shotgun without using - at least once a week.

Conduct field strip of the shotgun as specified in 3.2 of this manual.

Clean the bore with cleaning brush, wetted with alkaline solution, until the powder will completely removed. Deposition of lead plaque is removing from the bore by cleaning brush of thin steel or brass wire, densely greased with liquid weapon oil.

Bolt, trigger mechanism, receiver, as well as the rest of the parts, clean until the traces of carbon, dirt and moisture are completely destroyed with a piece of cloth soaked with liquid weapon oil and pressed.

After cleaning, lubricate the shotgun parts with liquid weapon oil. Apply the weapon oil with a thin layer of cloth moistened with the above-mentioned oil and pressed. Remove streaks of the weapon oil with a dry piece of cloth. Wipe dry the barrel with a dry piece of cloth.

After cleaning and greasing parts, assemble the shotgun as described in 3.3 of this manual.

3.5 Testing of the operation

Press the locking lever and, holding it in this position, perform a "backward-forward" movement several times, make sure it moves smoothly, without tampering. Release the handguard lock lever. Follow the back and forth movement. Set the safety button to the "safe" position. Press the trigger. The hammer is blocked. Remove thumb from the trigger, move the safety button to the "fire" position. Press the trigger. Hammer strikes a firing pin.

If the shotgun does not perform at least one of the above checks, send it to a repair shop.

3.6 Preservation

The manufacturer carries out the preservation of the shotgun. The practical storage life of a shotgun without re-preservation is no more than two years.

For depreservation of the shotgun, disassemble, clean and assemble it in accordance with section 3 of this manual.

Upon reaching practical storage life of a shotgun when stored or has stayed for long-term storage, it is necessary repeated preservation of the shotgun by the method of applying a thick layer of oil to the inner and outer surfaces.

4 POTENTIAL PROBLEMS

Possible failures and ways of their removing are given in Table 4.1.

Table 4.1

Malfunction	Possible cause	Remedy
While pressing the trigger there is no shot	Bolt don't reached of extreme forward position	Calibrate or change the cartridge
Partial feeding of the cartridge from magazine to the cartridge feeder	Magazine pollution	Disassemble and clean the magazine
Duplication of above mentioned failures or other defects	Parts and mechanisms of the shotgun pollution	Check the shotgun mechanism, clean and grease

5 STORAGE OF THE SHOTGUN

While shotgun storage, the trigger mechanism must be uncocked, the handguard is in the forward position.

A preserved and packaged shotgun should be stored in closed warehouses where temperature and humidity fluctuations are considerably less than those in the open air.

To put shotgun for long-term storage it is necessary to hold its preservation. The order of preservation is in accordance with clause 3.6 of this manual.

The maximum storage period of the preserved shotgun is no more than two years from the date of the last preservation.

6 TRANSPORTATION OF SHOTGUN

The shotgun in the manufacturer package is transported by all types of transport at all distances: in covered rail cars, covered vehicles, airtight spaces of aircraft in accordance with transportation rules on the appropriate transport.

When transporting, the stationary position of the boxes should be provided, which excludes the possibility of their strokes to each other.

7 ACCEPTANCE CERTIFICATE

FORT-500AS / FORT-500MS / FORT-500M1S / FORT-500TS, factory number _____, made and accepted in accordance with the mandatory requirements of state standards, operating technical documentation, and recognized as qualified for use.

Executed acceptance _____

P.S. " _____ " _____ 20 _____.

Date of production ' _____ ' _____ _____

P.S.

8 GUARANTEES OF MANUFACTURER

The manufacturer guarantees the quality of the shotgun according to the requirements of the regulatory documents, if user compliances with the operating rules, transportation and storage conditions mentioned in this manual.

Warranty period of shotgun operation 12 months from the date of sell.

The total average period of exploitation of shotgun is at least five years or 3000 shots, depending on the occurrence of the earlier.

The hidden defects detected during the warranty period of exploitation are eliminated free by the SIA "Fort", if user compliances with the operation, transport and storage of the shotguns as mentioned in this manual.

For executing of the warranty repair, the consumer must send the shotgun and this operation manual to SIA "Fort" at the address:

600-richchia, 27, Vinnytsia, 21027, Ukraine

SIA "Fort" repairs the shotgun in the after-warranty period at the buyer's expense.

9 PRESERVATION AND PACKING INFORMATION

FORT-500AS / FORT-500MS / FORT-500M1S / FORT-500TS, factory number _____, preserved and packaged in accordance with the requirements of the current technical documentation.

Preservation completed _____

Packing completed _____

Date of preservation " _____ " _____ _____

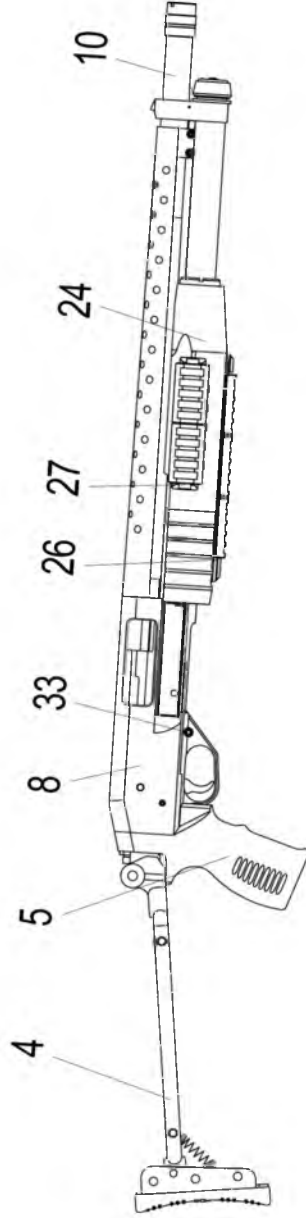


Figure 8 . The appearance of the FORT-500AS

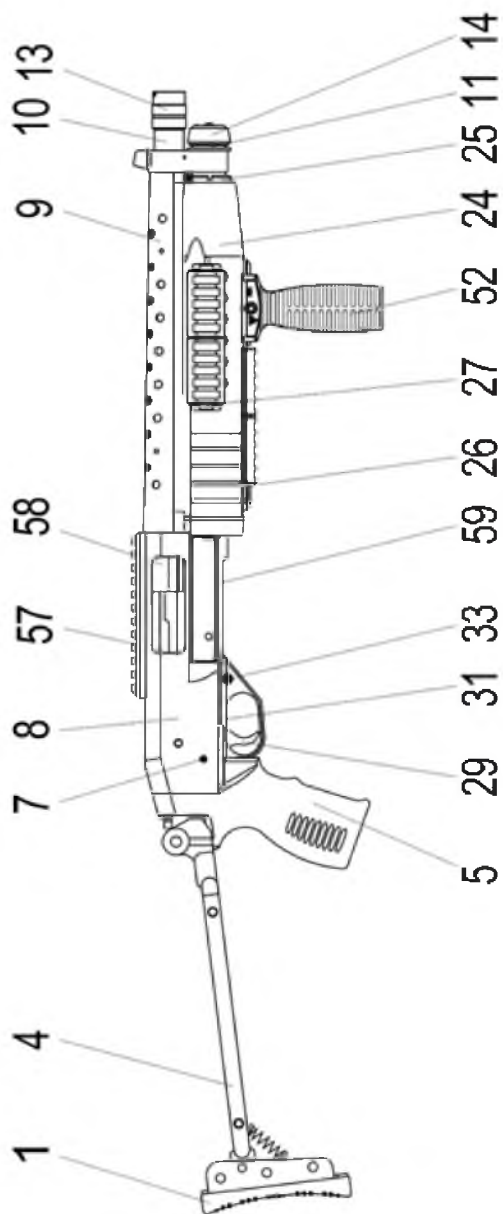


Figure 9 . The appearance of the FORT-500M1S

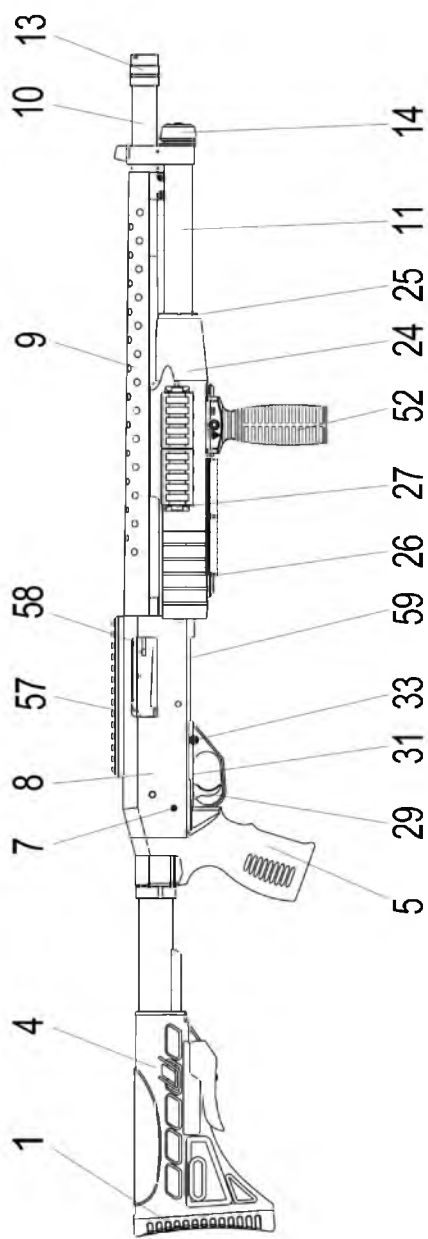


Figure 10. The appearance of the FORT-500TS

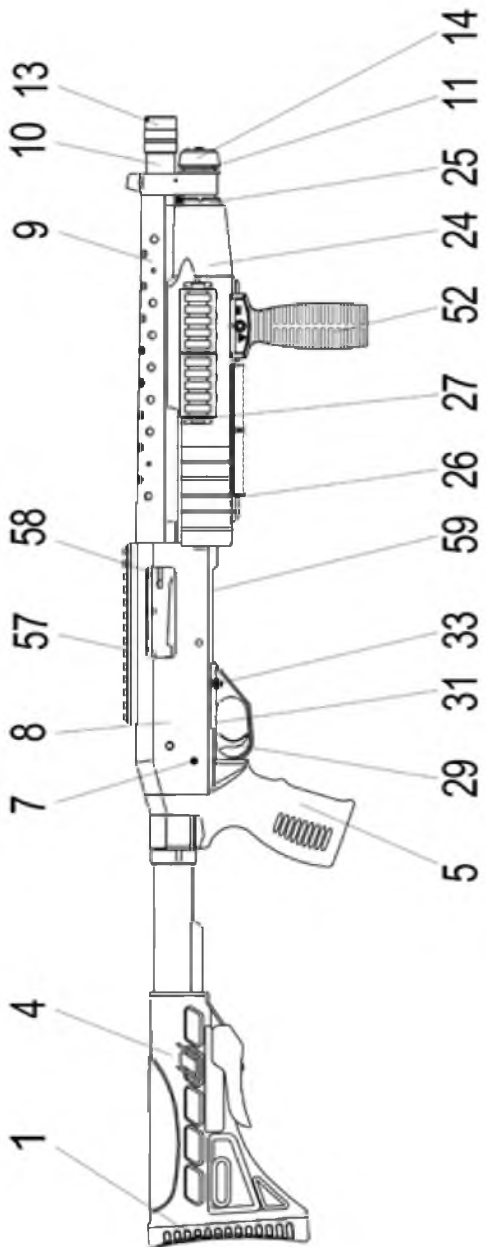
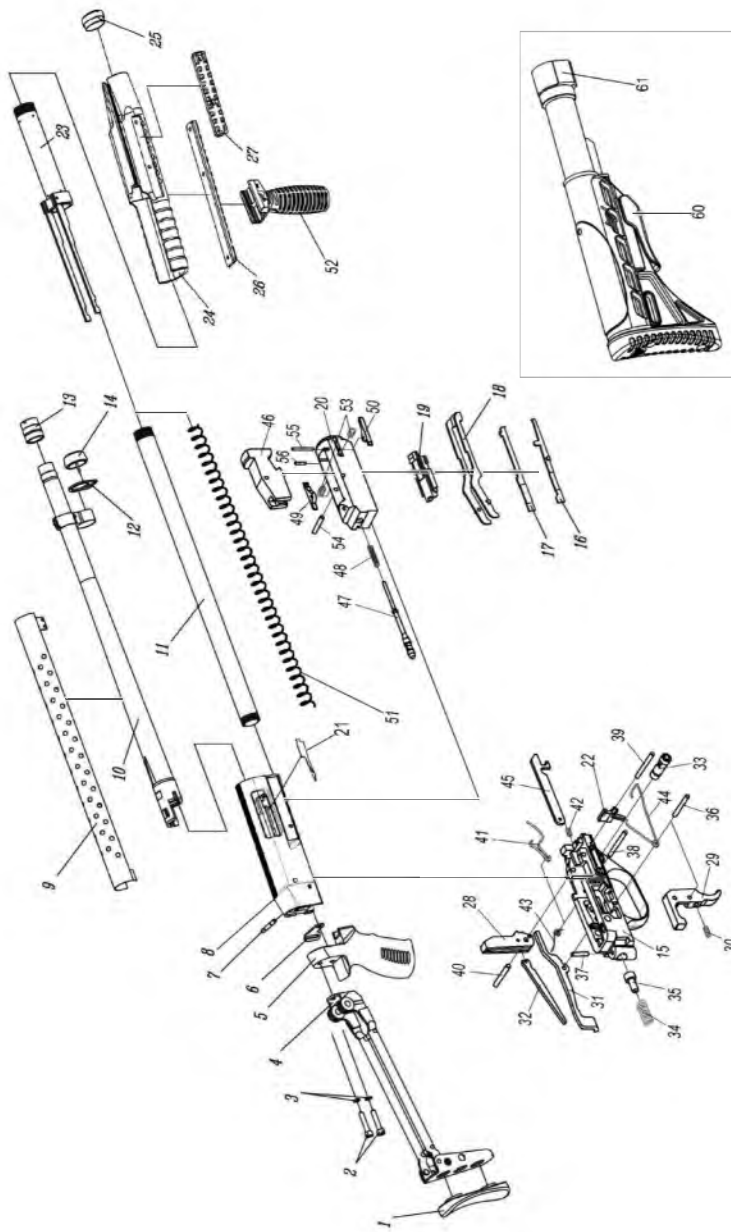


Figure 11. The appearance of the FORT-500MS



b)

Figure 12 . Parts location scheme of the shotgun
 - FORT-500AS, FORT-500M1S 10a);
 - FORT-500TS, FORT-500MS 10b)

Parts list for figures 8, 9, 10, 11, 12

01. butt plate
02. buttstock screw
03. plain washer
04. buttstock
05. pistol grip
06. back sling mount
07. trigger mechanism screw
08. receiver
09. barrel guard
10. barrel
11. magazine
12. front sling mount
13. protecting screw
14. magazine screw
15. trigger mechanism housing
16. left cutter
17. right cutter
18. feeding tray
19. breech frame
20. boit
21. ejector
22. sear
23. handguard body
24. handguard plate
25. handguard screw
26. Picatinny rail for front grip
27. Picatinny rail for tactical flashlight
28. hammer
29. trigger
30. trigger spring
31. bolt locking lever
32. pusher
33. safety
34. firing spring
35. firing spring stop
36. trigger axis
37. firing spring pin
38. pin
39. sear axis
40. hammer axis
41. spring of boit locking lever
42. sear spring
43. spring of bolt locking lever
44. trigger bar spring
45. trigger bar
46. boit stop
47. firing pin
48. spring of firing pin
49. left extractor
50. right extractor
51. magazine spring
52. front grip
53. extractor spring
54. bolt stop axis
55. axis of left extractor
56. axis of right extractor
57. Picatinny rail for sigths
58. ejection slot
59. cartridhe loading siot
60. length-fixing button
61. fixing adapter of retractable buttstock