SERVICE MANUAL
ИЖ-9х19 РЭ

«САЙГА-9»

SERVICE MANUAL

CONTENTS

WARNING! FOR YOUR SAFETY AND THE SAFETY OF OTHERS, THIS SERVICE MANUAL CONTAINS WARNING AND SAFTY PROCEDURES THAT MUST BE UNDERSTOOD BEFORE USING САЙГА-9 SELF-LOADING HUNTING CARBINE (HEREINAFTER REFERRED TO AS CARBINE)

The Service Manual (hereinafter referred to as SM) contains information which is necessary for correct and safe operation of the pistol/rifle.

The pistol/rifle construction ensures safe functioning, provided the requirements of this SM are followed.

It is possible that some construction changes are not present in the SM because the carbine is being constantly modernized.

Given in Appendix A are the carbine components with their designation.

1 DESCRIPTION AND OPERATION

1.1 Carbine application

The Cаĭra-9 self- loading pistol/rifle is chambered for 9 mm Luger (9x19) cartridge. It is produced for EU market (Italy excluded) in two basic models different in barrel length only. For Italian market only minimum barrel length (including non removable dedicated muzzle brake) is 306mm. On request stock can be fixed.

The general overview is given in Figures 1.1 and 1.2.

Figure 1.1 - Cаĭra-9 carbine

Figure 1.2 - Cаĭra-9 carbine with extended barrel

1.2 Specifications

Specifications of the carbine are given in Table 1.1.

Table 1.1.

Parameter	Value	
	Сайга-9 with barrel length, mm	
	237.5	367
Caliber, mm	9	
Cartridge	9x19 (9 mm «Luger»)	
Magazine capacity, rounds	10	
Сайга-9 overall dimensions, mm, not exceeding		
- length	700	830
- length with folded buttstock	475	610
Carbine weight with empty magazine, kg, not exceeding	2.9	3.1

1.3 Complete set

The carbine consists of the following main components (refer to Appendix A):

- carbine;
- n . l magazine;
- cleaning rod;

1.4. Design and operation

Automatic reloading of the carbine is based on the recoil energy of the open bolt.

The barrel bore and cartridge chamber are chrome-lined.

The trigger and firing mechanism of a hammer type makes it possible to deliver single-shot fire.

The iron (open sight) consists of a front sight and a rear-sight leaf.

The metal buttstock of a frame type and the fore end are made of high-strength plastic.

The firearm has a Picatinny rail on the receiver cover to accommodate red-dot and optical sights.

Operating principles of the carbine:

- when the bolt moves forward under the tension of the return spring, the bolt directs a cartridge from the magazine to the cartridge chamber and locks the barrel bore, getting the hammer in the cocked position, and engaging the extractor with the cartridge case rim.
- when pressing the trigger the hammer disengages from the hammer hook, turns under the action of the mainspring and vigorously strikes against the firing pin. A shot is fired.
- on firing powder gases bring pressure to the bottom of the cartridge case. The bolt together with the cartridge case moves backwards, but taking into account that its weight is much bigger that the bullet's weight, the bolt's displacement is insignificant when the bullet comes out from the barrel bore and the cartridge case does not break apart under the pressure of powder gases. When the bullet comes out from the barrel bore, the bolt recoils by inertia.
- on recoiling the cartridge case is extracted from the cartridge chamber with the extractor and it comes out from the receiver by means of ejector. At the same time the bolt catches the retracting mechanism spring. The hammer gets cocked and caught by the scar notch. The bolt moves back to the front position under the tension of the retracting mechanism, and directs the cartridge from the magazine to the cartridge chamber and locks the barrel bore. Being at the front position the bolt rotates the trip and releases the trip of the sear from the cock. The hammer, being rotated under the pressure of the mainspring, gets caught by the sear of single shot fire.
- on releasing the trigger, the hammer disengages from the sear and the hammer setson the hammer hook cock. Torepeat thecycle, press the trigger again.

The firearm is produced in different versions:

- with extended barrel (overall carbine length is less than 800 mm);
- with trigger mechanism blocking (firing is possible with the buttstock thrown back only)
- with foldable and not foldable buttstock
- with non removable dedicated muzzlebrake (Italy)

1.5. Marking

Marked on the carbine receiver is information on the model, firm and manufacturing country, product number, as well as the following special signs as requested by EU directive 853/17 on marking and stamps:

9x19 - designation of the cartridge to be used;

- stamp of the state center of civil and service weapon (Izhevsk, Russia), acknowledge by the Pennanent International committee for testing hand fircanns (CIP) and the year of carbine testing (the last two figures).

- sign (stamp) of weapon stress test with high pressure cartridges.

CIP unified mark of the Permanent International Commission
N for the proof of firearm (CIP)

MADE IN RUSSIA - Manufacturing country

ITYY - Lost two digit of the year of import in EU

- Registered stamp of DTG with Italian national proof house

2.1 Operating limitations

Prior to operating the carbine, it is necessary to read and understand the SM and study the carbine design. Pay special attention to the safety precautions.

To put the carbine into operation, unpack the carbine, tools and accessories, remove protective grease, check for delivery in full and make sure that the carbine functions.

WARNING: PAKING PAPER AND FILM ARE TO BE IMMEDIATELY DISPOSED DUE TO THEIR TOXICOLOGICAL CHARACTERISTICS.

2.2. Preparing the carbine for operation

2.2.1 Safety precautions

The carbine design ensures its safe functioning when properly operated and the cartridges mentioned in paragraph 1.1 are used.

Cartridges of different manufacturing companies differ in ballistic characteristics. That is why it is required to use cartridges that fit your weapon most accurately ensuring reliable operation and meet your requirements.

To ensure safety in handling the carbine, it is necessary to follow precautions below:

- always handle the carbine as if it is loaded;
- never point the carbine at a person;
- when taking the carbine in hands, make sure that there are no cartridges in a magazine or a cartridge chamber. To this end detach the magazine form the carbine and retract the bolt;
- do not fire blank shots if not needed in order to avoid point of firing pin breakdown;
- prior to loading the carbine be sure to inspect the barrel bore and the cartridge chamber for absence of obstruction;
- when loading and unloading always be sure the barrel is pointed in a safe direction;
- always keep the carbine with the safety engaged in the "Safe" ("S") position to avoid an accidental discharge. Do not put your finger on a trigger with the exception of cases when you are going to deliver fire.
- bear in mind the possibility of bound shot from solid flat surfaces or water;
- in case of misfire, do not open the bolt for one minute to avoid the possibility of hangfire;
- unload the carbine prior to boarding on a vehicle;
- always unload weapon prior to transportation
- store the carbine and cartridges separately;
- keep records of fired shots.

In case of detecting any visible defects of the barrel, receiver or bolt, or when ruptures have appeared in the bottom portion of the cartridge case, stop using the carbine.

If the shot's sound is not common, there is no reloading after a shot or feeding of cartridges to the chamber is not smooth, stop delivering fire, unload and disassemble the carbine, inspect the barrel bore and the cartridge chamber, and check the carbine's functioning.

For carbine shooting, it is necessary to use cartridges of industrial filling with no traces of corrosion and not expired ones.

WARNING: IT IS STRICTLY PROHIBITED TO USE CARTRIDGES OF UNSUITABLE CALIBER AND CARTRIDGES OF NON-IDUSTRIAL FILLING!

Bear in mind that the usage of the cartridges of non-industrial filling, or the expired ones, or those with traces of corrosion or cartridges of unsuitable caliber, may result in breakage of the carbine for high pressure of the powder gases.

The manufacture is not responsible for the carbine's breakdown (breakdown of the main parts) which is the result of non-compliance with safety precautions given in this section.

2.2.2 Preparing the carbine for operation

When preparing the carbine for operation it is necessary:

- wipe the barrel bore and cartridge chamber dry to remove grease and powder fouling;
- check the trigger mechanism and the safety for functioning;
- make sure that the magazines, attached to the carbine in turns, are reliably held by the latch;
- check the carbine for functioning by retracting the bolt as far as it can go and let it off. Make a control descent by pressing the trigger.

It is necessary to check the trigger blocking of the carbines with trigger mechanisms blocking. To this end, it is necessary to:

- shift the safety to the "Safe" (S) position pressing the locking plug of the buttstock and rotate the buttstock by 90 degrees towards the carbine's axis.
- rotate the safety downwards as far as it can go;
- press the trigger.

The trigger should not function.

The carbine is ready for operation.

2.3. Operation procedure

Engagement and disengagement of the safety.

- engage the safety – shift the safety up to the "Safe" (S) position. The trigger is disabled;
- disengage the safety – shift the safety down to the "Fire" (F) position.

Loading and firing procedure:

- press the magazine latch and moving the magazine downward detach it form the carbine;
- load the magazine with cartridges feeding them one by one under the magazine lips and moving each of them as far as they can go against the magazine rear wall;
- attach the loaded magazine to the carbine;
- disengage the safety;
- retract the bolt as far as it cango and let if off abruptly. Make sure that the bolt is at the utmost front position. The carbine is loaded and ready for firing;
- take aim and press the trigger;
- to fire the next shot, release the trigger and press it again;
- replace the empty magazine with the loaded one;
- retract the moving parts as far as they can go and release them. The carbine is loaded and ready for the next shot.

Unloading procedure:
- engage the safety;
- separate the magazine;
- disengage the safety;
- retract the bolt and extract a cartridge from the cartridge chamber;
- move the bolt to the front position;
- do a control release pressing the trigger;
- engage the safety;
- empty the magazine from cartridges;
- attach the empty magazine to the carbine.

3 MAINTENANCE

3.1 General instructions

3.1.1 Maintenance includes inspection, cleaning and lubrication of the carbine by partial and complete disassembly, and also adjustment of sighting devices. Partial disassembly is carried out to inspect, clean and lubricate the carbine after firing. Complete disassembly is carried out to clean the carbine if there is heavy dirt, moisture impact, if a new type of lubrication is being used or when doing repair works.

3.1.2 Disassembly and assembly of the carbine is to be carried out on the table. The carbine part and components should be put on the table in the right order. Do not put one upon another.

Handle them carefully, do not use too much force, and avoid sharp impacts.

3.1.3 Disassembly and assembly of the firing and trigger mechanism is to be carried out in a specialized repair organization only.

3.1.4 WARNING: DO NOT USE UNKNOWN AND UNRECOMMENDED CHEMICAL SUBSTANCES TO CLEAN AND LUBRICATE THE CARBINE. THEY CAN DAMAGE THE CARBINE PARTS AND COMPONENTS.

3.2 Safety precautions

WARNING: MAKE SURE THAT THE CARBINE IS NOT LOADED BEFORE DISASSEMBLY

To this end, it is necessary to detach the magazine, disengage the safety, retract the bolt backwards with the handle, examine the cartridge chamber. Make sure that there are no cartridges in the cartridge chamber and direct the bolt to the front position.

3.3 Partial disassembly

Partial disassembly is carried out to inspect, clean and lubricate the carbine after firing.

For convenience in effecting partial disassembly and assembly, it is possible to use the drift from the accessories.

Partial disassembly procedure:

- make sure that the carbine is not loaded. To this end, detach the magazine, disengage the safety, retract the bolt and examine the chamber. Make sure that there are no cartridges on the chamber and direct the bolt the front position.

- detach the retracting mechanism. To this end, take the cover rear portion with the right hand, sink the retracting mechanism lug, pull the cover upward and rotate it moving it forward , then detach the retracting mechanism;

- detach the bolt. To this end, retract the bolt backwards as far as it can go and remove from the receiver guides by moving it upwards.

- detach the hand guard. To this end, rotate the axle pin upwards till the axle pin slot matches the rear sight base slot and detach the hand guard by moving it upwards;

- detach the fore-end. To this end, rotate the axle pin of the fore-end ring by 180 degree and move the fore-end ring forward, then detach the fore-end by moving it forward and downwards.

- Detach the muzzle break. To this end, press and sink the locking plug with the drift and unscrew the muzzle break.

3.3.2 Complete disassembly (only for gunsmith)

Complete disassembly is carried out in case of heavy dirt, moisture impact or when placing it for long-term storage.

Complete disassembly procedure:

- carry out partial disassembly;

- disassemble the bolt. To this end, holding the firing pin drive out the stud with the drift and extract the firing pin with a spring and a bush out of the bolt passage. Drive out the extractor pin with the drift and withdraw the extractor with a spring;

- disassemble the magazine. To this end, sink the lock-plate protrusion into the magazine-cap hole with the drift and move the cap along the magazine body. Holding the lock plate, and by this keeping the magazine spring compressed, remove the cap from the body. Gradually releasing the spring from the contraction, take it together with the lock plate and follower out of the magazine body.

Do not take the follower out of the magazine which capacity is limited by cross pin.

3.3.3 Cleaning and lubrication

Cleaning is to be perfonned with accessories included in carbine's set, not later than one day after firing. In winter lubrication is to be perfonned indoors at the air temperature of (20 ± 5) °C after the carbine has been warmed up to the indoor temperature. Clean wiping material (cotton wastes, tow) with no sand or hard particles is to be used for cleaning.

Clean in the following sequence:

- lubricate the barrel bore, cartridge chamber and muzzle break with the cleaning brush preliminary immersed in the rifle oil;
- wipe the barrel bore, cartridge chamber and muzzle break dry with the cleaning brush with wiping material tightly wrapped on it;
- repeat the process of lubrication and wiping several times until the fouling is completely removed (checked by inspection);
- after cleaning lubricate the barrel bore, cartridge chamber and muzzle break with clean rifle oil.

Lubricate according too the Table 3.1. Thickening of the lubricant in the bolt channel for the firing pin, in the seat for extractor, on the mainspring and on the firing spring is not allowed.

Table 3.1

Name of lubricant	Lubrication point	Method of lubricant application
Rifle oil corresponding to temperature conditions	Barrel bore and cartridge chamber	Lubricate the barrel bore with cleaning brush preliminary immersed into the rifle oil (two –three double travels of the cleaning rod along the entire length of the barrel bore)
Rifle oil corresponding to temperature conditions	Bolt, receiver guides	Wipe the components with wiping material, preliminary moistened with the rifle oil and wrung out from extra oil.

3.4 Open sight adjustment

Accuracy of fire adjustment (if needed) is perfonned by shifting the front-sight base to the right and to the left and by turning the front sight upward and downward. When adjusting, the fore sight is to be shifted in the direction of the impact point. Sighting is carried out at the distance of 50 m.

4 STORAGE

To preserve the carbine serviceability, it should be kept in a piece cover if possibly; it should always be clean and lubricated with a thin layer of rifle oil.

Store the carbine in dry premises without sharp temperature fluctuations, far from heating devices and without aggressive impurities in the air.

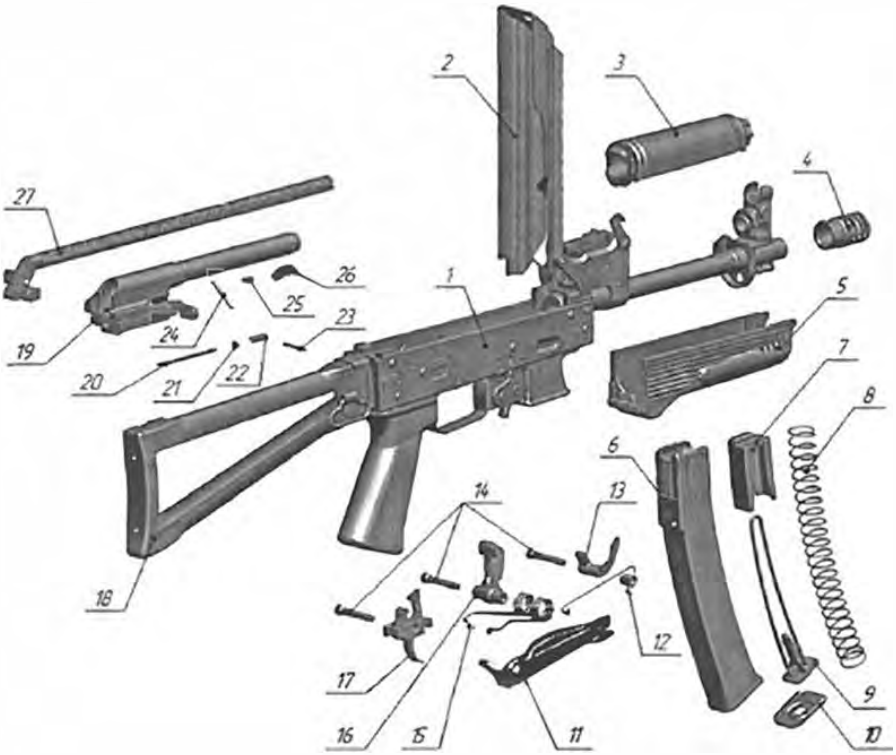
The carbine should always be unloaded with the magazine detached, the trigger released and the safety in "S" position.

5 TRANSPORTATION

The carbine may be shipped by all means of transport in the covered transportation equipment. The carbine should be shipped in a piece cover which protects the carbine from bumps and falls.

When moving the carbine is carried on a sling with or without magazine.

Appendix A
(compulsory)



1 Receiver and barrel assembly
2 Receiver cover
3 Hand guard
4 Muzzle break
5 Fore end
6 Magazine body
7 Follower
8 Magazine spring
9 Locking plate
10 Magazine cover
11 Fire control switch
12 Disconnector spring
13 Disconnector
14 Fire an trigger mechanism pin
15 Mainspring
16 Hammer
17 Trigger mechanism
18 Buttstock
19 Bolt assembly
20 Firing pin
21 Bush
22 Firing pin spring
23 Firing pin stud
24 Extractor pin
25 Extractor spring
26 Extractor
27 Retracting mechanism

Figure A.1 - Сайга-9 self-loading hunting carbine components

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