

SERVICE MANUAL
СОК-5.РЭ



ТИГР

SELF-LOADING
HUNTING RIFLE

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WARNING: FOR YOUR SAFETY AND THE SAFETY OF OTHERS, READ AND UNDERSTAND THE PRESENT SERVICE MANUAL BEFORE USING THE RIFLE. PAY SPECIAL ATTENTION TO THE SAFETY PRECAUTIONS IN HANDLING THE RIFLE.

The Service Manual (hereinafter referred to as the SM) contains data about the rifle design, principle of operation as well as specifications and information required for proper servicing of the rifle.

Design, principle of operation and specifications of the optical sight are given in the Certificate for the optical sight (when the rifle is delivered complete with an optical sight).

The rifle design ensures its safe operation, provided that requirements of the present SM are adhered to.

The rifle is constantly upgraded, therefore some minor changes in its design may not be reflected in the present SM.

Given in Appendix A are the list and description of the rifle components.

The rifle is subject to compulsory registration in the agency of Ministry of Home Affairs.

1 DESCRIPTION AND OPERATION

1.1 Purpose of Rifle

The “Тигр” self-loading hunting rifle (СОК-5), chambered for the 7.62x54R cartridge, is designed for hunting medium-size and big game under different climatic conditions.

On special order the rifles may be completed with elongated barrel (620mm), gas tube with regulator and elongated flame absorber (of СВД sniper rifle type).

All versions of the rifle may be manufactured as hand-operated ones (reloading manually). The Acceptance Certificate for this rifle contains the “hand-operated” marking.

Design of the hand-operated rifle differs in the following way:

- there are no such components as gas piston, pusher and pusher spring in its design. There is plug instead of these components;
- the rifle is reloaded manually, that is after every shot it is necessary to retract the action till the stop and release it abruptly.

Aside from that design and servicing of the hand-operated rifle are just the same as of the self-loading one.

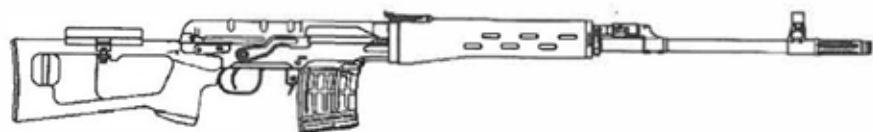


Figure 5 - “Тигр” rifle

1.2 Specifications

The rifle specifications are given in Table 2

Table 2

Parameter	Value
Caliber, mm	7.62
Cartridge used	7.62x54R
Magazine capacity, rounds	10
Sighting range over iron sight, m	300
Close pattern when firing at 100m range with 4-shot group (extreme spread of impacts), mm, max	60
Weight of rifle w/empty magazine w/o optical sight, kg,	4.0
Rifle overall dimensions, mm:	
- length	1220
- width	70
- height	180
Barrel length, mm	620

1.3 Complete set

Complete set of the rifle is given in Table 3

Table 3

Designation	Description	Q-ty
COK-5.C6	“Тигр” self-loading hunting rifle,	1
COK-5.C66	Magazine	1
	Tools and accessories	
COK-Ю-5.C61-03	Accessories in container	1
	Additional set	
COK-Ю-5.C63	Oiler	1
COK-Ю-5.3	Cleaning rod	1
	Package	
ЧУС.C60	Unified sport soft cover	
УК-2.1-1-05	Carton for target and hunting weapon	1

1.4 Design and Principle of Operation

1.4.1 The “Тигр” self-loading hunting rifle, chambered for the 7.62x54R cartridge, comprises the following main components (see Appendix A):

- receiver with barrel assembly;
- bolt support with bolt assembly;
- cover with retracting mechanism assembly;
- trigger and firing mechanism;
- safety;

- butt assembly;
- pistol grip (for rifle with folding butt);
- hand guards;
- flame absorber (front-sight base);
- iron sight;
- magazine;
- optical sight with mount (when the rifle is delivered complete with an optical sight);

The rifle is reloaded automatically due to the energy of powder gases escaping from the barrel bore to the gas cylinder and the energy of the return springs as well.

The bolt is locked by three locking lugs while it turns around its axis by means of the sliding bolt support.

The trigger and firing mechanism of a hammer type provides delivering of fire and setting at safe.

The barrel bore and cartridge chamber are chrome-lined.

Found on the receiver is a rail for optical-sight mount accommodation.

The optical sight (when the rifle is delivered complete with an optical sight) is placed on the mount. The mount design makes it possible to fire over iron sight with optical sight in place.

The iron sight provides delivering of effective fire at 300m range.

1.4.2 Principle of rifle operation:

- while the bolt support with bolt moves forward under tension of the return spring, a cartridge is fed from the magazine to the cartridge chamber. On the bolt turning the barrel bore gets locked, the hammer sets at the sear notch and the extractor engages with a cartridge case rim;

- on pressing the trigger, the hammer disengages from the sear, turns under action of the mainspring and vigorously strikes against the firing pin. A shot is fired;

- while the bolt support with bolt moves rearwards due to the energy of powder gases, the cartridge case is extracted from the cartridge chamber, interacts with the ejector lug and extracted beyond the receiver.

1.4.3 For easy firing over optical sight the “Тигр” rifle, 01 version is equipped with plastic butt with turning cheek which is fixed in two positions.

1.4.5 The “Тигр” rifle, 05 version is made with hand guards and veneer butt. The butt is equipped with detachable cheek to make firing over optical sight easier.

1.5 Marking

Marked on the rifle receiver are Manufacturing plant and country (“Izhamsh”, Russia), rifle description (“Тигр”) and number, as well as the following special signs:

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



- stamp of the test station (Izhevsk, Russia) admitted by Permanent International Committee for testing the hand firearm (CIP) and year of certification tests;

7.62 x 54R - designation of the cartridge, used;

MADE IN RUSSIA - Manufacturing country

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



- Registered stamp of DTG with Italian national proof house

2.1 General Directions

Prior to servicing the rifle, read and understand the SM and study the rifle design. Pay special attention to the safety precautions.

To fire the rifle, use the 7.62x54R cartridges, accompanied with “Certificate of conformity”, containing data on effective date of cartridges.

To begin servicing of the rifle it is necessary to unpack the rifle, accessories and tools, to remove corrosion-preventive compound, to check set of delivery and check that the rifle is serviceable.

WARNING: AFTER THE PRODUCT HAS BEEN DEGREASED INCINERATE ZIRUST INHIBITED POLYETHYLENE FILM, AS IT IS TOXIC.

To prevent the striker from breakage, never do dry shots if no need be.

2.2 Safety Precautions

2.2.1 The rifle design ensures its safe operation provided that the 7.62x54R cartridges are used and proper rules of operation are adhered to.

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

- always handle the rifle as if it is loaded;
- never point the rifle at any person;
- bear in mind that a bullet flight is up to 3 km;
- take the rifle in hands and check to make sure that there are no cartridge in the magazine and in the cartridge chamber, to this end retract the bolt support;
- prior to loading the rifle inspect the barrel bore and cartridge chamber, they should be free of any obstruction;
- in case of misfire, don't open the bolt for 3 min as it may be a "hang fire";
- always keep the rifle with safety engaged in the "Safe" ("II") position to avoid an accidental discharge;
- unload the rifle on approaching a settlement, halt, prior to boarding a vehicle, as well as when crossing the forest;
- store the rifle and cartridges separately;
- keep records of fired shots.

2.2.2 When in service, pay attention to changes in your rifle, which may affect its safety.

When any visible defects of the barrel, receiver or bolt have been detected or when ruptures have appeared in the bottom portion of the cartridge case, stop using the rifle.

2.2.3 The cartridges, used for firing from rifle, should be accompanied with the "Certificate of conformity", containing their effective date.

WARNING: NEVER USE CARTRIDGES OF OTHER BRANDS OR HAND-LOADED ONES.

Bear in mind, that usage of hand-loaded cartridges, expired ones, or those with traces of corrosion or improper may result in damage of the rifle because of impressible high pressure of powder gases.

An unusual sound upon firing, failure of recharging or tight entering of next cartridge into the chamber are signals to cease firing, to unload and disassemble the rifle, to inspect the bore and chamber and then to check that the rifle operates properly.

The cracks, appeared on fired case at 5mm distance from the case rim, on case shoulder and mouth, are not an index of the rifle damage, provided that there is no blow of powder gases between the case body and wall of the cartridge first cone as specifications for the cartridges admit appearing of cracks on fired cases.

WARNING: THE RIFLE MAY BE EQUIPPED WITH A GAS TUBE WITH REGULATOR, PROVIDED FOR TWO FIXED POSITIONS: "1" – WHEN THE GAS PORTS IN THE GAS TUBE ARE OPENED, AND "2" – WHEN THE GAS PORTS ARE CLOSED.

WARNING: THE “ТИГР” RIFLE IS EQUIPPED WITH A SPECIAL ELEMENT IN THE CHAMBER, WHICH IS CHARACTERISTIC FEATURE OF THIS RIFLE ONLY AND REVEALED IN AN ANNULAR IMPRINT NEAR CASE MOUTH AFTER A SHOT. THIS INNOVATION DOESN'T AFFECT THE RIFLE RELIABILITY, OPERATION, SERVICE LIFE AND BALLISTIC CHARACTERISTICS AND DOESN'T A SIGN OF RIFLE DEFECT.

2.2.4 The Manufacturing plant bears no responsibility for breakage of the rifle (damage of main components) as result of non-observance of the safety precautions, laid down in the present Section, by the User.

2.3 Preparing of Rifle for Operation

While preparing the rifle for operation, it is necessary to:

- set the cheek in operating position if the butt is equipped with turning or detachable cheek;
- turn the folding butt, if available, till it gets retained. Disengage the plunger from the latch;
- wipe the barrel bore and cartridge chamber dry to remove grease and powder fouling, if be;
- check that the trigger mechanism and safety are serviceable;
- check that the magazines, attached to the rifle in turn, are reliably held by the latch;
- retract the action by the bolt-support handle till the stop and let it off, do a dry release to check that the rifle is serviceable;

While attaching the optical sight it is required to:

- inspect the sight. Remove dirt, if any, from the surfaces of the eyepiece lenses and objective using a flannel napkin;
- attach the sight to the rifle according to the Instructions for the sight;
- adjust force of a clamp and tightening of the optical-sight mount screws, if need be.

The rifle is ready for operation.

2.4 Operation Procedure

2.4.1 Engagement and disengagement of safety:

- engage the safety - shift the safety up to the "Safe" position. (The "II" letter on the receiver is seen). The trigger is disabled.
- disengage the safety - move the safety downwards to the "Fire" position (The "O" letter on the receiver is seen).

2.4.2 Loading and firing procedure:

- press the magazine latch and moving the magazine downward and forward detach it from the rifle;
- load the magazine with cartridges feeding them one by one under the magazine lips and moving each of them till the stop against the magazine rear wall;
- attach the loaded magazine to the rifle;
- disengage the safety ("O");
- retract the bolt support by its handle till the stop and release it abruptly.

Make sure that the action is found in the utmost front position;

- set the iron sight to the position which corresponds to the firing range ("1", "2" and "3" positions of the sight-leaf slide correspond to 100, 200 and 300m ranges);

The rifle is loaded and ready for firing.

Aim and let off.

To fire the next shot, release the trigger and press it anew.

When the cartridges in the magazine come to an end, the bolt support will remain in the rear position.

Replace the magazine. Retract the bolt support till the stop and release it.

The rifle is loaded and ready for the next shot.

2.4.3 Unloading procedure:

- engage the safety ("II");
- detach the magazine;
- disengage the safety ("O");
- retract the bolt support and withdraw a cartridge from the cartridge chamber;
- move the bolt support to the front position;
- do a control release, pressing the trigger;
- engage the safety ("II");
- empty the magazine;
- attach the magazine to the rifle.

3 MAINTENANCE

3.1 Field Stripping

The rifle is field stripped for its inspection, cleaning and lubrication after firing.

Use a drift from the accessories to facilitate field stripping and reassembling.

Field stripping procedure:

- make sure that the rifle is not loaded. To this end detach the magazine, disengage the safety, retract the action by the bolt-support handle and examine the chamber. Make sure that there is no cartridge in the chamber and feed the action to the front position;

- detach the optical sight (if the rifle is delivered complete with an optical sight), to this end turn the knob of the optical sight clamp counterclockwise till the stop, and remove the optical sight from the receiver rail while moving it rearwards (towards the butt);

- detach the receiver cover with retracting mechanism, to this end turn the receiver cover axle pin clockwise and downwards till the stop. Take the cover rear portion, pull the cover up and detach the cover with springs from the rifle moving it rearwards;

- separate the bolt support with bolt. To this purpose retract the bolt support as far as it will go, move it upward and take it off together with the bolt from the receiver guides;

- detach the trigger and firing mechanism. To this end turn the safety guard up and position its tongue perpendicularly to the receiver guides. Withdraw the safety from the receiver moving it to the right. Take the trigger guard and detach the trigger mechanism turning it downwards;

- detach the bolt from the bolt support. Holding the bolt with bolt support in one hand turn the bolt by the head until the bolt rhomb disengages from the shaped slot of the bolt support. Extract the bolt out of the boltway;

- detach the hand guards. To this end, press the tongue of the fore-end upper ring axle pin (towards the barrel), for this purpose a drift may be used, and turn the axle pin through 180° towards the muzzle portion and shift the fore-end upper ring. Position the rifle upright on its butt, press one of the hand guards downwards along the barrel, move it aside and detach it. Detach the second hand guard in the same manner;

- detach the pusher with spring and piston. While holding the piston, retract the pusher and withdraw its front end out of the seat in the piston. Move the pusher front end aside and withdraw the piston from the gas tube. Then insert the pusher front end in the gas tube till the stop. In so doing the rear end goes out of the pusher rest guide. Compress the pusher spring forwards and rearwards and withdraw the pusher with spring. Take the spring off the pusher.

Reassemble in the reverse order.

WARNING: NEVER INSERT THE BOLT SUPPORT WITH BOLT INTO RECEIVER BEFORE ATTACHING OF THE TRIGGER AN FIRING MECHANISM. THE HAMMER SHOULD BE COCKED.

3.2 Complete Disassembly (only for gunsmith)

Complete disassembly of the rifle is performed when the rifle is too dirty, affected by moisture or when it is placed in the long-term storage.

Complete disassembly procedure:

- carry out field stripping;
- disassemble the bolt. To this end drive out the firing-pin stud with a drift and extract the firing pin with spring and bush out of the bolt passage, push the extractor pin out with the aid of the drift and withdraw the extractor with spring;
- unload and disassemble the magazine. For this purpose sink the locking-plate lug into the magazine-cover hole with the aid of a drift and move the cover along the magazine body. Holding the locking plate, and thus keeping the magazine spring compressed, remove the cover from the body. Gradually releasing the spring from contraction, take it together with the locking plate and follower out of the magazine body;
- disassemble the gas tube. To this end press the latch by the finger and undo the gas tube by means of the container wrench.

3.3 Cleaning and Lubrication

Cleaning is to be performed by means of accessories not later than in one day after firing. In winter carry out cleaning in enclosed premises with temperature of $(20\pm 5)^{\circ}\text{C}$ after the rifle has been warmed up to the indoor temperature. To clean the barrel bore and cartridge chamber, use clean wiping material (cotton wastes, tow) with no sand or hard particles.

Clean proceeding as follows:

- lubricate the barrel bore and cartridge chamber with brush moistened in rifle oil;
- wipe the barrel bore dry by means of the pull-through with wiping material tightly wrapped on it;
- repeat process of lubrication and wiping 8-10 times until fouling is completely removed (this is checked by inspecting of the barrel bore);
- after cleaning lubricate the barrel bore and cartridge chamber with clean rifle oil;

To ensure proper operation of the rifle, it is required to remove fouling from the gas chamber, gas tube and gas piston in due time.

Perform lubrication as per Table 4. Thickening of lubricant in the bolt channel for the firing pin, in seat for extractor, on the mainspring and on the firing-pin spring is impermissible.

Table 4

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

3.4 Rifle Reassembly

Reassembly of the rifle is reverse of disassembly.

3.5 Zeroing of Rifle with Optical Sight (when the rifle is delivered complete with an optical sight)

The rifle optical sight is registered at 100m range, and positions of scales are indicated in the "Acceptance Certificate".

In case this registration does not satisfy the shooter, it is required to register the optical sight anew with the use of the iron sight. For this purpose:

- move the slide of the iron sight to "1" division of the sight leaf;
- put the rifle on a rest and aim it at some point at a 100m range, using the iron sight;
- check position of the optical sight aiming post (cross hairs) relative to the aiming point; in case of misalignment match them by turning of the knobs. While doing this, do not move the rifle;
- check registering performed by firing. If deviation of the bullet holes from the aiming point is not satisfactory, introduce corrections by turning of the optical sight knobs.

Procedure of corrections introducing and knob scale division values are specified in the Certificate for the sight.

If it is necessary to register the optical sight at other distances, do this by turning of the range knob. Make marks, corresponding to the ranges, on the scale against the indicator, and write down the scale division values in Table 5.

Table 5

Range, m	1000	2000	3000	4000	5000
Scale division value					

4 TRANSPORTATION

The rifle may be transported by any kind of transport in covered transportation facilities.

While moving during hunting, the rifle is carried on a sling. The sling should be adjusted so that the rifle does not bump against hard objects of accoutrements. The rifle is carried with the magazine attached or detached.

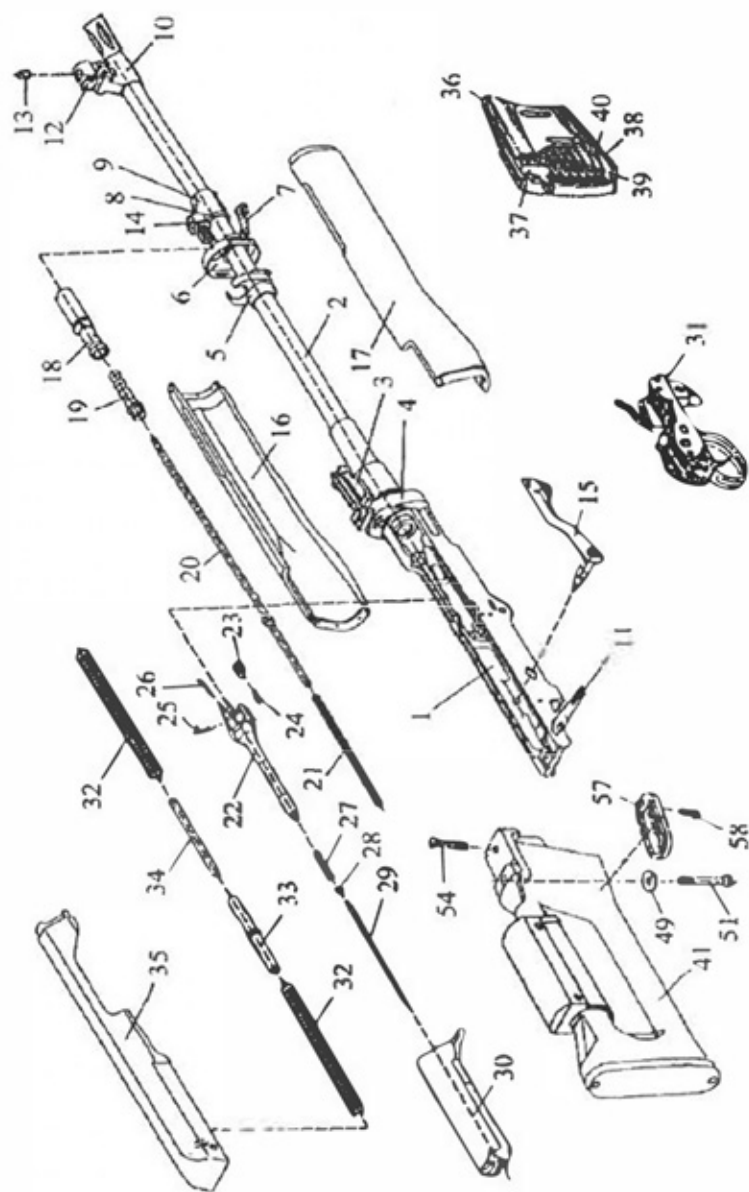
While moving in a vehicle carry the rifle in soft cover preventing it from blows and falls.

5 STORAGE

To keep the rifle in serviceable condition, it should always be clean and lubricated with a thin layer of rifle oil.

Store the rifle in dry premises without sharp temperature fluctuations far from heating devices without aggressive impurities in ambient air.

Keep the hammer uncocked, when storing, to prevent the mainspring from residual strain.



A

B

Receiver with barrel assembly:			
1 - Receiver			
2 - Barrel			
3 - Sight bed assembly			
4 - Lower ring with spring assembly			
5 - Gland assembly			
6 - Upper ring assembly			
7 - Ring axle pin			
8 - Swivel			
9 - Gas cylinder			
10 - Front-sight base			
11 - Cover axle pin			
12 - Front-sight body			
13 - Front sight			
14 - Gas-tube latch			
15 - Accidental discharge safety			
16 - Hand guard, LH			
17 - Hand guard, RH			
Gas motive unit components:			
18 - Gas tube			
19 - Gas piston			
20 - Pusher			
21 - Pusher spring			
Bolt assembly:			
22 - Bolt			
23 - Extractor			
24 - Extractor spring			
25 - Extractor pin			
26 - Firing-pin stud			
27 - Firing-pin spring			
28 - Bush			
29 - Firing pin			
30 - Bolt support			
31 - Trigger and firing mechanism			
Cover with retracting mechanism assembly:			
32 - Return spring (2 pcs)			
33 - Bush, guiding			
34 - Rod, guiding			
35 - Cover assembly			
Magazine:			
36 - Magazine body			
37 - Follower			
38 - Magazine cover			
39 - Locking plate			
40 - Magazine spring			
41 - Butt assembly			
Butt fastenings:			
49 - Spring washer			
51 - Connecting screw			
54 - Butt wood screw			
57 - Cover			
58 - Butt pad wood screw			
Accessories:			
NPZ Optical-sight mount			
Oiler			
Accessories in container			
Cleaning rod			
Soft cover			
Soft-cover sling			

Figure A.1 – Exploded view of “Turp” rifle