

# IZH-46 and IZH-46M STANDARD AIR PISTOLS CERTIFICATE

## 1 INTRODUCTION

1.1 Before using the pistol, familiarize yourself with this Certificate. The Certificate describes briefly the main technical data, design and operating instructions for the pistol.

1.2 For the designation of assembly units and parts refer to corresponding tables and figures.

1.3 Since the pistol design is continuously refined to improve its reliability and performance, it is subject to change without special notice.

## 2 PURPOSE

2.1 The IZH-46 (Fig. A.1) and IZH-46M (Fig. A.2) Standard Air Pistols are intended for fixed target shooting at a distance of 10 m. Note – The IZH-46M differs from the IZH-46 in having higher initial pellet velocity.

2.2 The pistol should be fired under conditions of shooting rooms and ranges using the RWS or MATCH pellets.

2.3 The pistol design allows dry shooting having no effect upon pistol performance.

## 3 SPECIFICATIONS

Table 1

Parameter	Value	
	IZH-46	IZH-46M
Caliber, mm	4.5	4.5
Overall dimensions, mm	420x200x50	
Barrel length, mm	280	200
Sight radius, mm	365	365
Weight, kg, approx.	1.2	1.3
Trigger pull weight, N, adjustable	3.9 to 9.8	
Trigger let-off travel length, mm, adjustable	0.2 to 2.0	
Cocking effort, N, approx.	69.0	78.4
Pellet velocity, m/s	120	140

## 4 LIST OF ASSEMBLY UNITS AND PARTS. SET OF DELIVERED ITEMS

4.1 For the list of the IZH-46 and IZH-46M assembly units and parts refer to Table 2.

Table 2

Ref. nos in Fig. A.3, Fig. A.4	Description	Qty
1	2	3
1	Frame	1
2	Slide	1
3	Locking lever	1
4	Locking lever spring	1
5	Piston cup	1
6	Piston	1
7	Slide bar	1
8	Hinge pin	2
9	Valve	1
10	Front sight base	1
11	Front sight	1
12	Slidespring	1
13	Valve spring	1
14	Valve sear	1
15	Trigger sear	1
16	Sear spring	2
17	Valve plunger	1
18	Trigger lever	1
19	O-ring	2
20	Screw	1
21	Yoke	2
22	Spring	1
23	Plug	1
24	Grip, left	1
25	Grip, right	1
26	Insert	1
27	Screw	1
28	Washer	4
29	Cylinder	1
30	Valve seat	1
31	Locking piece	1
32	Bushing	1
33	Trigger guard	1
34	Screw	1
35	O-ring	1
36	Screw	1
37	Dowel	2
38	Rear sight base	1
39	Pin	1
40	Sight leaf	1
41	Rear sight latch	1
42	Rear sight notched blade	1
43	Pumping lever	1

Continued

1	2	3
44	Latch	1
45	Spring	2
46	Dowel	2
47	Pumping lever handle	1
48	Screw	1
49	Washer	1
50	Hinge	1
51	Connecting rod	1
52	Roller	2
53	Pin	1
54	Cylinder cup	1
55	Dowel	1
56	Retainer	1
57	Breech block lever	1
58	Breech block	1
59	Spring	1
60	Dowel	1
61	Trigger plate	1
62	Trigger	1
63	Trigger screw	1
64	Screw	2
65	Breech block bar	1
66	Screw	3
67	Nut	1
68	Washer	4
69	Dowel	7
70	Screw	1
71	Screw	1
72	Screw	2
73	Rear sight nut	1
74	Rear sight screw	1
75	Rear sight latch spring	1
76	Pulm rest	1
77	Clamping plate	1
78	Washer	2
79	Screw	2
80	Screw	1
81	Ball	2
82	Spring	2
83	Washer	1

Note – The IZH-46M parts 7, 29, 43, 50, 51 illustrated in Fig. A.4 differs from the original IZH-46 in design.

4.2 For the set of delivered items refer to Table 3.

Table 3

Description	Qty
Pistol	1
Screwdriver	1
Punch	1
Cleaning rod	1
Piston cup	1
O-ring	2
Rear sight notched blade	1
Front sight	2
Certificate	1
Packing case	1

## **5 DESIGN AND PRINCIPLE OF OPERATION**

5.1 The pistol mechanisms are illustrated in Fig. A.5.

5.2 The pistol operates on precompressed air inside the compression cylinder.

5.3 The rear sight allows accurate adjustments of fire: the screw A adjusts for elevation, the nut B adjusts for windage (Fig. A.6).

5.4 The trigger mechanism is adjustable for the trigger position, trigger pull weight, trigger travel length (take-up and let-off) and overtravel (Fig. A.7).

5.5 Safety devices are designed for safe handling the pistol.

## **6 SAFETY PRECAUTIONS**

6.1 Any sporting arm, though it has various safety devices, may become dangerous for people, if to handle it carelessly. Take all safety precautions and remember that ignorance of the safety rules may cause serious injury.

6.2 Follow the instructions of item 7 "Operational Procedure" and item 8 "Maintenance" closely.

6.3 When firing:

1) do not point the muzzle of an air pistol at people;

2) do not leave or store your air pistol loaded or with air pumped in the cylinder;

3) do not disassemble your pistol loaded or with air pumped in the cylinder.

6.4 After firing, make sure a pistol is unloaded.

## **7 OPERATIONAL PROCEDURE**

7.1 Remove a preservative grease out of the barrel bore and outer surfaces of your air pistol.

7.2 Check the trigger mechanism for functioning. Adjust it, if necessary.

7.3 Prepare your air pistol for fire as follows:

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1) swing the pumping lever to its fully forward position (Fig. A.8).

Turn the breech block up through 90 degrees to open the barrel breech;

2) return the pumping lever to its initial position (Fig. A.9);

3) insert a pellet into the barrel bore (Fig. A.10);

4) turn the breech block until it locks in its initial position (Fig. A.11).

7.4 The pistol is ready for fire now.

7.5 Interaction between pistol parts and mechanisms.

7.5.1 While swinging the pumping lever fully forward, the following is occurring:

1) the piston with cup takes its forward position;

2) air is forced into the compression cylinder;

3) the valve mechanism and trigger mechanism are cocked;

4) the barrel breech opens.

7.5.2 When the pumping lever goes back to its initial position, the compressed air inside the compression cylinder returns the piston with cup.

7.5.3 The barrel is closed by returning the breech block to its initial position.

7.6 The air pistol is fired by pulling the trigger.

7.7 Dry shooting can be conducted in the same order but without a pellet loaded in the barrel.

## 8 MAINTENANCE

8.1 Proper handling and maintenance extend the service life of your air pistol and ensure its trouble-free operation. Do not disassemble the pistol fully if not required.

8.2 Strip the pistol as follows (Fig. A.5):

- unscrew the screws 2 and detach the grip 1;
- unscrew the screw 12 and remove the front sight base 11;
- move the slide 4 fully forward and remove the slide bar 5;
- remove the washers 13, drive out the pins 14 and detach the pumping lever 15;
- unscrew the screw 9, remove the yoke 8 and take the plug 10, insert 13 and hinge with piston 16 connected to it out of the cylinder;
- unscrew the screw 4, detach the breech block bar 3 and remove the slide with spring 3 from the barrel.

8.3 Reassemble in reverse order.

Note – When reassembling the piston and cylinder as a single unit, you should slightly press the front face of the piston cup through the side openings in the cylinder.

8.4 Adjustment of the trigger mechanism (Fig. A.7):

8.4.1 Adjust the trigger take-up travel length with the screw  $\tilde{A}$ .

8.4.2 Adjust the trigger let-off travel length with the screw  $\acute{A}$ ;

8.4.3 Adjust the trigger pull weight with the screw B.

8.4.4 Adjust the trigger overtravel with the screw A.

8.5 Adjustment of the trigger position (Fig. A.5).

For adjustment of the trigger position, you should loose the trigger 11

screw  $\bar{A}$  (Fig. A.7), pull the trigger to the required position along the trigger plate guides and tighten the screw  $\bar{A}$ .

8.6 If excessive force is applied on the pumping lever, you should lubricate the cup as indicated below:

- swing the pumping lever to the position where the cup becomes accessible through the slot cut in the cylinder;
- lubricate the cup through the cylinder slot;
- swing the pumping lever to its initial position, turn the breech block to the initial position and pull the trigger (i.e. produce a dry shot).

Repeat this operation until the lubricant spreads around the cylinder inner surface.

Note – When the pistol is loaded, swing the pumping lever forward, if it is absolutely necessary.

8.7 Clean and lubricate the barrel just after shooting. The remaining parts should be lubricated when necessary.

8.8 Wipe the pistol parts with a clean cloth and use any gun lubricant to lubricate the pistol.

## **9 ACCEPTANCE CERTIFICATE**

**The IZH-46** (IZH-46M) Standard Air Pistol No. \_\_\_\_\_ meets the criminalistical requirements of the Russian Ministry of Internal Affairs and proved to be serviceable.

The IZH-46M Standard Air Pistol has been certified as to be in conformity with the safety requirements and carries the Safety Certificate **POCC RU. MЖ03**.B00002 which validity is from April 21, 2003 to April 20, 2006.

This Safety Certificate has been granted by the Agency for Certification of Civil and Service Weapon and Ammunition of the Udmurt Center of Standardization and Metrology, reg. No. **POCC RU.0001. MЖ03**.

Date of manufacture \_\_\_\_\_

Term of preservation without reprereservation 24 months

Accepted by \_\_\_\_\_

Signature

## **10 PRESERVATION AND STORAGE**

The IZH-46 (IZH-46M) Standard Air Pistol has been given a preservative treatment.

Date of preservation \_\_\_\_\_

Preserved by \_\_\_\_\_

Store this Standard Air Pistol in locked-in rooms or other air ventilated places under various microclimatic conditions.

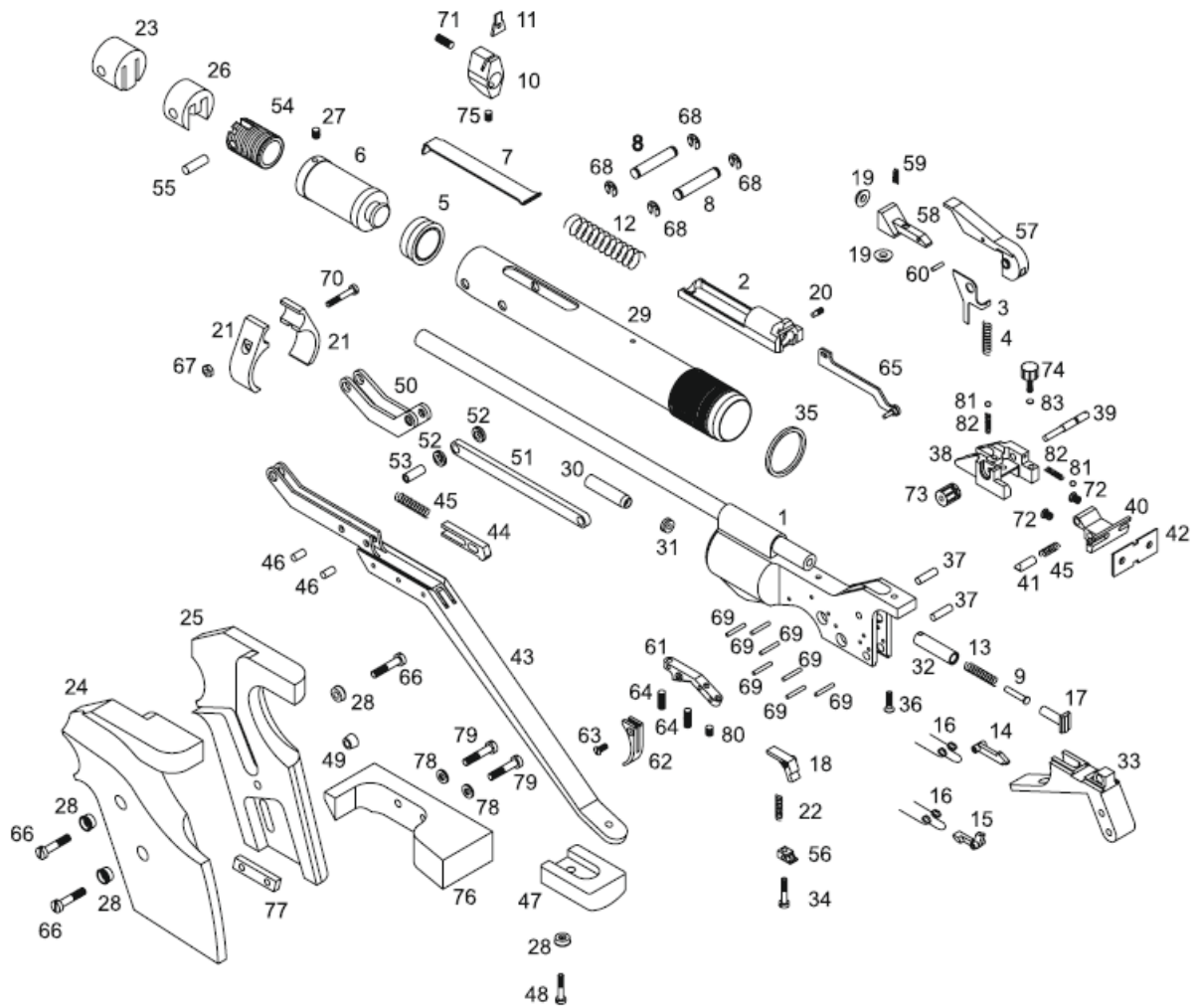
**APPENDIZ A (reference)**



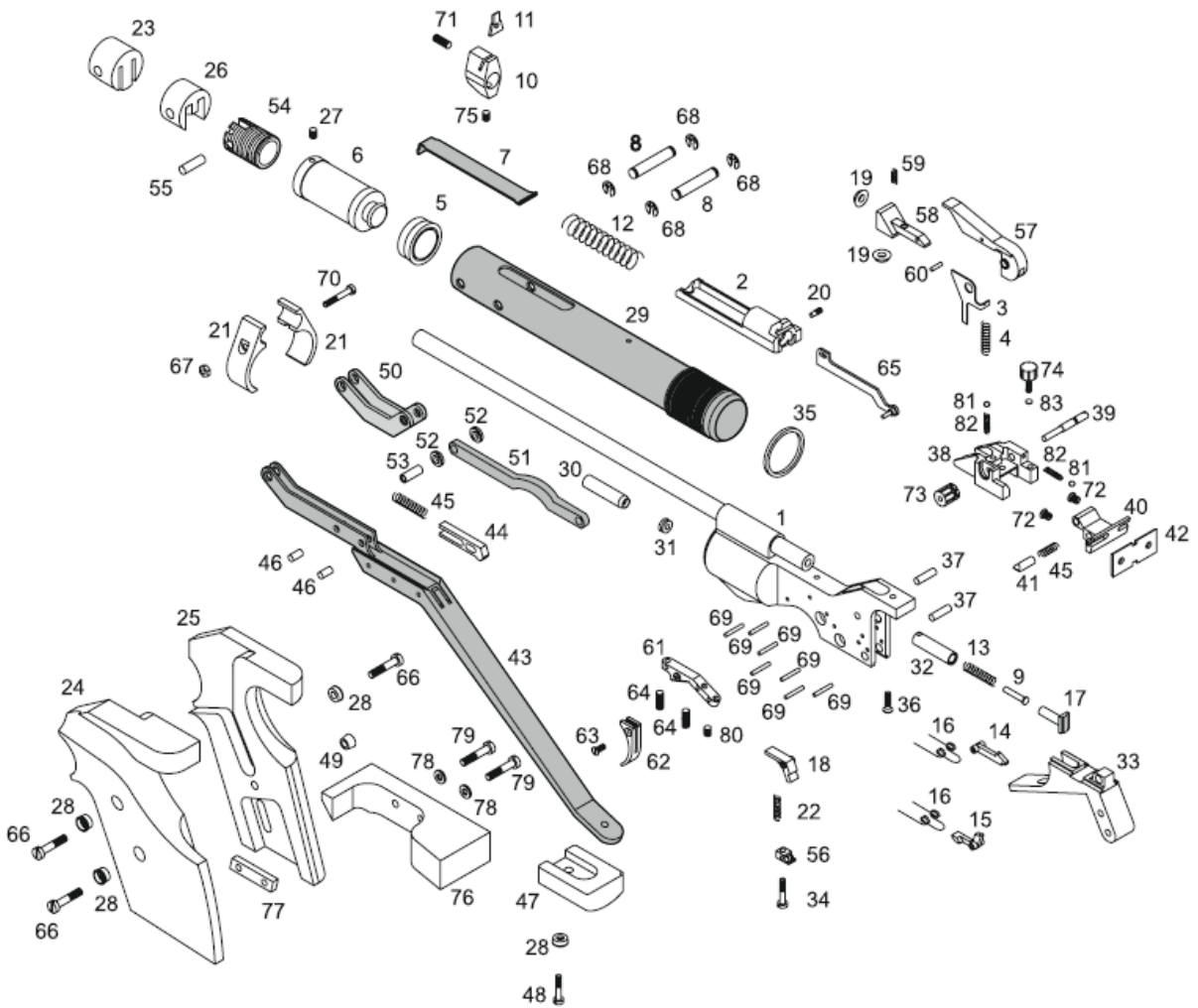
**Fig. A.1 – External Appearance of the IZH-46**



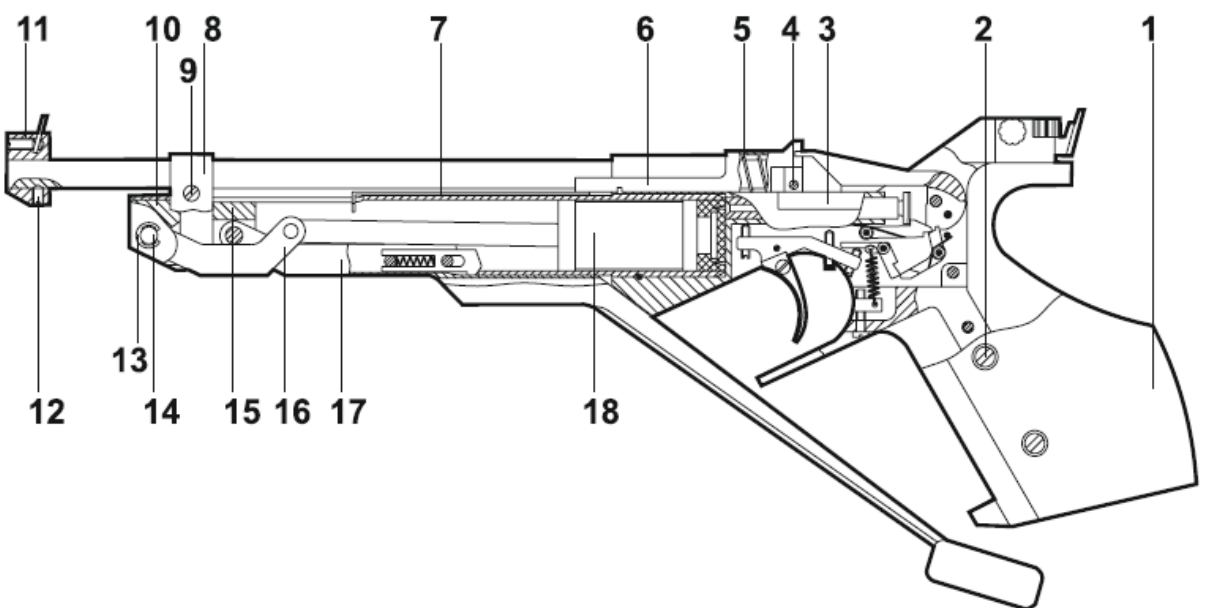
**Fig. A.2 – External Appearance of the IZH-46M**



**Fig. A.3 – IZH-46 Assembly Units and Parts**



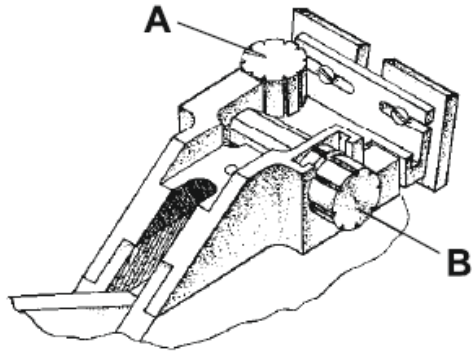
**Fig. A.4 – IZH-46M Assembly Units and Parts**



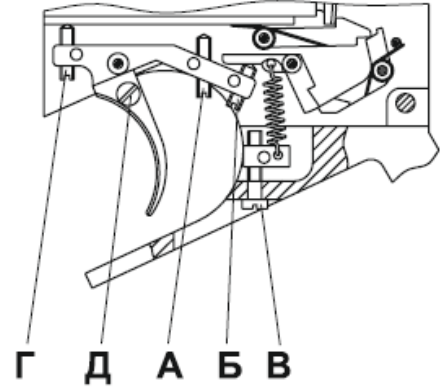
**1 – grip; 2 – screw; 3 – breech block bar; 4 – screw; 5 – slider spring; 6 – slider; 7 – connecting**



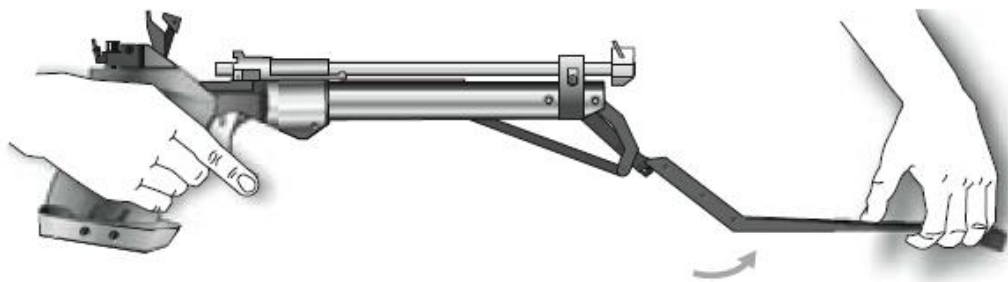
rod; 8 – yoke; 9 – screw; 10 – plug; 11 – front sight base; 12 – screw; 13 – washer; 14 – hinge pin; 15 – insert; 16 – hinge; 17 – pumping lever; 18 – piston.  
**Fig. A.5 – Pistol Mechanisms**



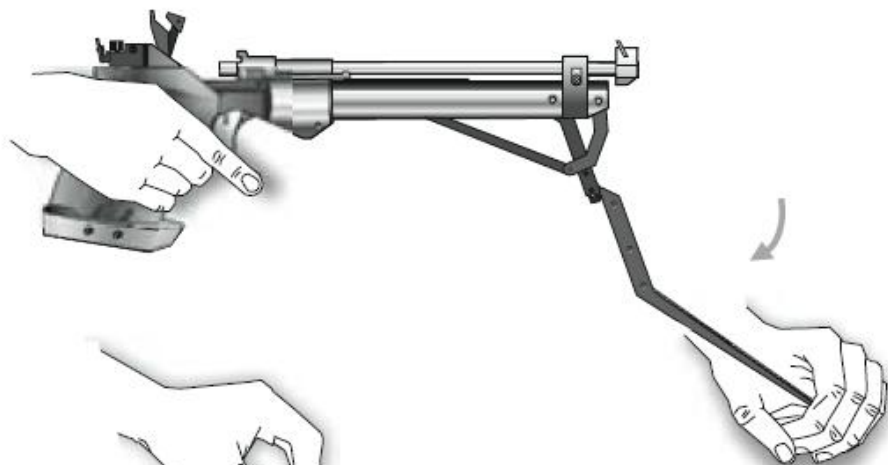
**Fig. A.6 – Adjustments of Rear sight**



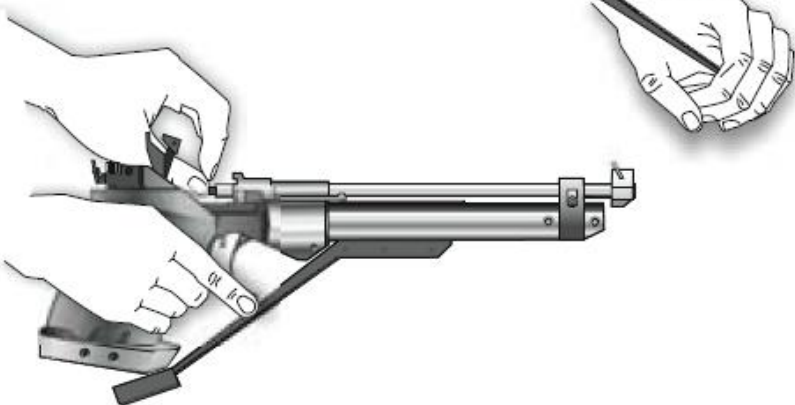
**Fig. A.7 – Adjustments of Trigger Mechanisms**



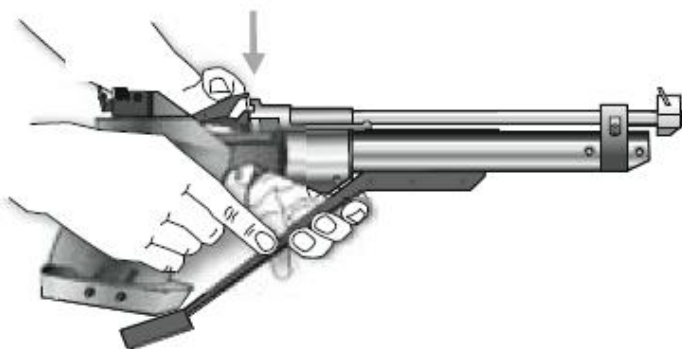
**Fig. A.8**



**Fig. A.9**



**Fig. A.10**



**Fig. A.11**



**Fig. A.12**