

## Rifle Cleaning

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Anschutz Rifle Manual - [Click Here](#)

Izhmash 7-3 Rifle Manual - [Click Here](#) then click on the green download button...

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Biathlon rifles should be cleaned after about 100 to 200 rounds of firing or after every two uses as a minimum. After every use, all exterior metal parts need to be wiped down with a light coat of oil to prevent rust caused by fingerprints or moisture. Keeping your rifle clean, all the various fasteners tightened and careful treatment during practice and competition will keep your rifle accurate and working properly for years. Most malfunctions and loss of accuracy are due to dirty or improperly cleaned rifles.

### Cleaning Equipment

- Cleaning rod: spring steel, stainless steel or carbon fibre cleaning rod - only use a one-piece rod. Avoid using "snakes".
- 0.22 calibre brass jag- a pointed attachment for the cleaning rod that holds a cloth patch. Don't use "loops" as they don't apply equal pressure around the circumference of the patch.



- 0.22 calibre nylon and brass brushes for the cleaning rod. These will wear out fairly rapidly so replace as needed.

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- Lots of 0.22 sized cloth cleaning patches.



- Gun oil with preservative (e.g. Break Free, Hoppe's, Shooters Choice).

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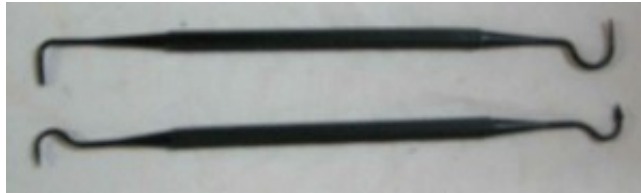
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- Lint free cloth for an oil rag.
- Dentist picks for cleaning out the chamber and breach area.



- Cleaning brushes for all around scrubbing (toothbrushes are fine; bend the handle back on one toothbrush with some heat to make for easier cleaning).
- Bore guide for your rifle. This replaces the bolt in the receiver and guides the rod into the chamber as well as keeping debris out of the mechanism. This is a very important tool for cleaning – rod alignment will create an even cleaning action and help maintain accuracy. These are specific to each model of rifle. An Anschutz bore guide won't work for Izhmash rifles as the rifle bore centreline and bolt centreline are significantly offset.



- Tools for removing or tightening cheek pieces, bedding screws, etc.
- Rifle clamp or stand (you don't want to clean a rifle on your lap!).



## Cleaning Procedure

Always clean from the breach end—never from the muzzle end. Be extra careful with the crown of the barrel – if you scratch or damage this area, your accuracy will be compromised.

### 1) General Cleaning Procedure

o Remove the bolt and replace with bore guide (on Izhmash, an Anschutz bore guide will not work. You will have to remove the rear sight in order to remove the bolt - make sure to note the position of the sight on the sight rail before you remove it - a piece of tape placed just ahead of the sight can help you reposition it later, as shown below).

#### Steps to remove Izhmash Bolt:

1) Mark position of sight using tape - so you can put it back exactly where it was before you started cleaning

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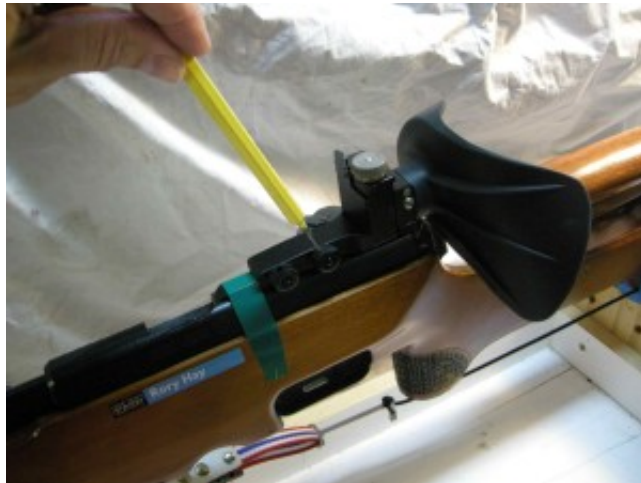
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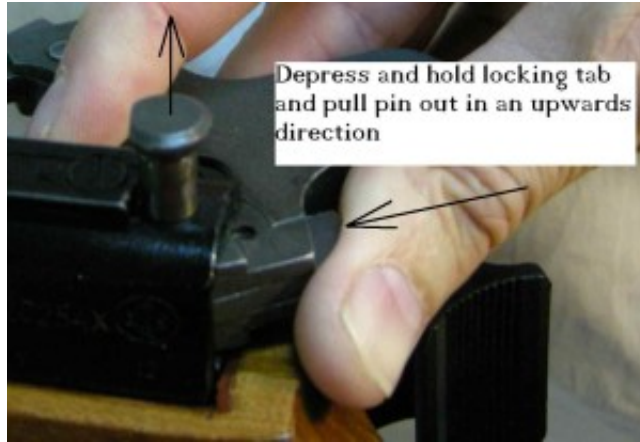
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2) remove sight from sight rail First loosen two side screws, then slide off rail towards rear.



3) now remove retaining pin at rear of bolt. You must simultaneously depress the release tab on the bolt while pulling the pin upwards. Clean the pin with an oily cloth, then set aside in clean area.



4) remove bolt sliding it out in a rearward direction.



5) set bolt aside in clean area



**Steps to remove Anschutz Bolt:**

1) Mark position of sight using tape - so you can put it back exactly where it was before you started cleaning

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2) remove sight from sight rail First loosen two side screws, then slide off rail towards rear.



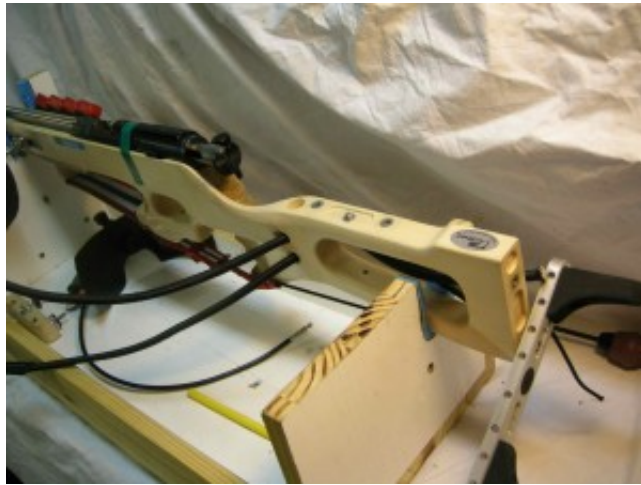
3) mark location of cheek piece and butt plate so you can reinstall them in the exact same position (this will vary by stock manufacturer - Bear stock shown in these pictures)







4) remove cheek piece and remove or swing butt plate out of way



5) Begin to remove bolt. First pull back and rotate end cap until the slot aligns with the key.

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6) slide out key rearwards



7) unscrew retainer by turning counter clockwise



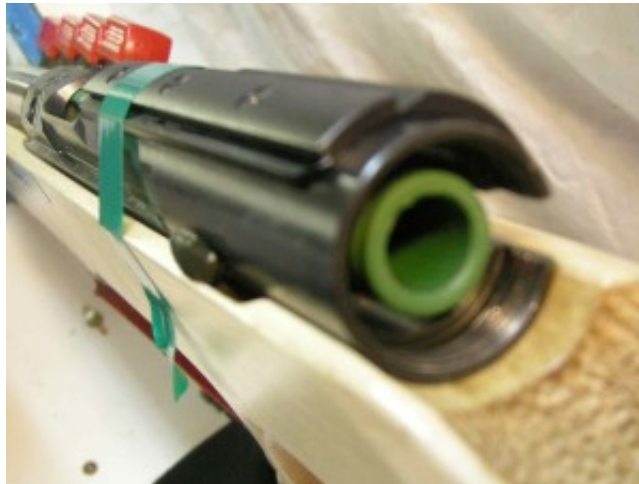
8) To remove bolt, you have to simultaneously pull the cocking lever backwards while pushing against the end cap with one hand - this will release the ball bearings and allow you to slide the bolt out. Don't force the ball bearings over the screw threads - if you do this step correctly, the bolt will come out easily.



9) Disassemble bolt, ready for cleaning. Simply unscrew the black locking ring while keeping both front and rear elements of the bolt from turning and the bolt will come apart. I use Anschutz Ceramic Coat to lubricate the bolt elements after wiping clean. Always inspect the firing pin for damage.



10) Insert the plastic bore guide into the bore, pressing gently into position against the chamber face.



### **NOW YOU ARE READY TO CLEAN THE BORE OF YOUR RIFLE (Izhmash or Anschutz)**

o Wet a swab with oil and push through the bore guide and bore with the jag attached to the cleaning rod (note: according to Anschutz, *you should avoid using solvents entirely for bore cleaning and only use oil* – for some reason, the use of solvents may cause the rifle to lose accuracy). However, this is up to you. Some folks strongly recommend using an appropriate rifle solvent to aid cleaning, some recommend just using good gun oil, some even recommend never cleaning the rifle. Remember, we only use lead projectiles so there is no copper fouling, and lead is easily removed with your brass brush during cleaning. Do some reading, talk to some pros and you decide what is best for you. If you use solvent, then run a wet solvent soaked swab through the bore, then use solvent in the step below with your cleaning brush. Wear proper protective

gloves to keep solvent off your skin. **This cleaning guide does not recommend the use of solvent, only gun oil.**

Always push the rod through from the breech end, never from the muzzle end. Remove the patch when it emerges from the muzzle and discard, then carefully pull the cleaning rod back out of the barrel. Wipe the cleaning rod along its entire length with a clean cloth.



o Wet the nylon brush with oil (not solvent) and push completely through the bore guide and bore from the breech end. Don't pull the brush back through the barrel – unscrew the brush before pulling the rod back out. Repeat this step about 2 or 3 times (but only apply oil for the first pass through). Make sure to wipe the cleaning rod with a clean cloth. Now switch to your brass brush and repeat the procedure (no oil) 7 or 8 more times to thoroughly dislodge any powder residue or fouling.



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o Carefully clean the crown of the rifle. You can use a clean patch to do this. This is a sensitive area - you do not want any damage to occur here or your rifle's accuracy will be compromised.



o Clean the chamber face using patches and dental picks - pay particular attention to area where extractors go.



o Using a jag, push a patch through from the breech end. Discard the patch when it emerges from the muzzle and carefully pull the rod back out of the bore guide. Repeat using new, dry patches to continue to clean until the patches come out clean. This may take a lot of patches, so be patient and do it right. Make sure to wipe the cleaning rod with a clean cloth every few passes.



o Scrub the bolt face with oil/toothbrush (only use powder solvent solvent if black carbon will not come off), wipe clean, then wipe with a light coat of oil. Wipe dry after this step to remove excess oil. Periodically disassemble the bolt at least partially and clean all interior parts. Coat the outer cylindrical surfaces of the bolt with a very light layer of oil (prevents burring or wear on the sliding surfaces), then wipe dry to remove excess oil.

o Clean the exterior of the magazines, the interior of the breech and the trigger area with cleaning brushes (use picks if needed to get into small areas). Pay particular attention to the sockets that receive the extractors of the bolt that are located on either side of the chamber. You may need to run another patch down the bore following this step to remove any debris that may have entered the bore.

o If you are concerned about moisture where you store your rifle, you can run another patch with some oil to protect the bore, but you must remember to run clean patches through the rifle again prior to use.

o Coat all exterior metal surfaces with a very light coat of oil - just enough to remove fingerprints and protect the surfaces from rust.

[Click here to watch a video](#) for an important cleaning tip.

o Now reassemble the rifle, following everything you've done in the reverse order. The tape will allow you to mount the sight in the exact same location along the sight rail.

## 2) Race Day Cleaning

o Between sequential race days, it is usually enough to run several dry patches through the bore, tighten screws as noted below, and then wipe the exterior metal parts with a light coat of oil. Make sure you store your rifle in a clean, dry area with the snow covers open. This should result in zero groups on subsequent days very similar to the first day.

## Other Maintenance

o Don't attempt to adjust, tighten or otherwise remove screws, springs and levers of the trigger group (other than the clamp that holds the trigger itself in place – you can gently tighten that). Do not use any solvents on the trigger mechanism, either blow off with compressed air, clean with a soft cleaning brush or get help cleaning and lubricating the parts from a competent gunsmith. Keep the two screws that hold the trigger group to the receiver and the two screws that hold the magazine well to the receiver tightened.

o Occasionally remove the action from the stock and clean hidden areas thoroughly using the procedures noted above. Tighten both bedding screws to 5 N-m of torque. To get consistent results, always use the same amount of torque applied with an accurate torque wrench.

o Check all sight screws, clamps, apertures and collars for tightness (front and rear).