

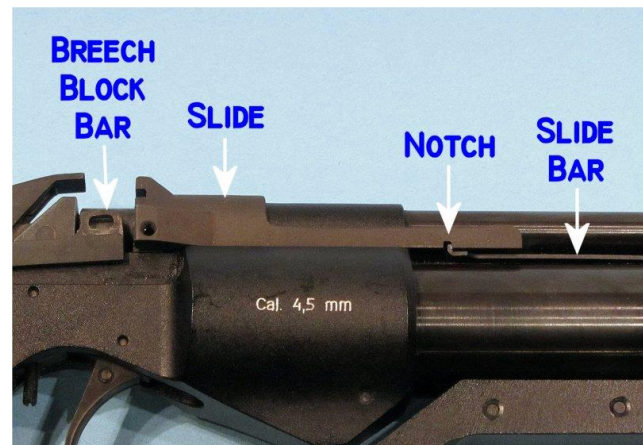
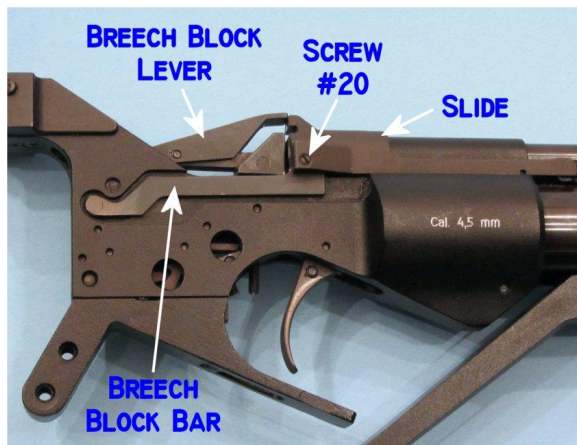
IZH-46M Breech Lever Disassembly & Repair

Doug White, MIT Sport Pistol Club

General Breech Lever Disassembly: I had to repair an IZH with bits of pellet jammed in the firing system. I had to remove the breech block assembly, which can be a bit of an adventure to get back in place.

Step 1: Remove the grips, which have two screws on the right side, and one on the left. You actually only need to remove the top screws on each side to slide the grips off as a unit. The lower one on the right holds the two halves together.

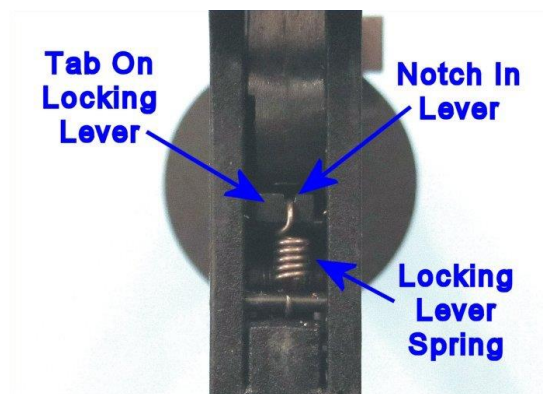
Step 2: Remove screw #20, which links the breech block bar (#65) to the slide (#2). See photo, below (left). This requires a very small regular screwdriver. It should be fairly tight to avoid loosening in use, so a bit of torque is required to remove it.



Step 3: The slide is under spring tension, and you can lock it out of the way by moving it forward until you can swing the slide bar (#7) to the right to catch in a notch in the slide. (see photo, above right)

Step 4: Remove the breech block bar (#65) by lifting it off the right side of the action.

Step 5: Unhook the locking lever spring (#4) from the end of the locking lever (#3). The best approach seems to be to use a pair of fine needle nose pliers to lift it out of the notch in the tab and slide it off the end of the tab to the right.



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Step 6: Using a nylon bench block and suitable punch, drift the dowel pin (#7) out that is holding the breech block lever (#57) and locking lever (#3) in place. You don't have to drive the pin all the way out, just far enough to free the breech block lever. I drove it from right to left, but I don't think it matters.

Step 7: Lift the breech block lever (#57) and locking lever (#3) straight up out of the top of the action. The breech block lever needs to be near vertical, but not completely, so it isn't applying pressure on the valve plunger (#17).

At this point, six very crushed bits of pellets fell out of the action.

NOTE: If the breech block lever is removed and the mechanism is fully cocked, tripping the trigger mechanism will launch the valve plunger (#17) across the room. (Don't ask me how I know this!).

Re-assembly:

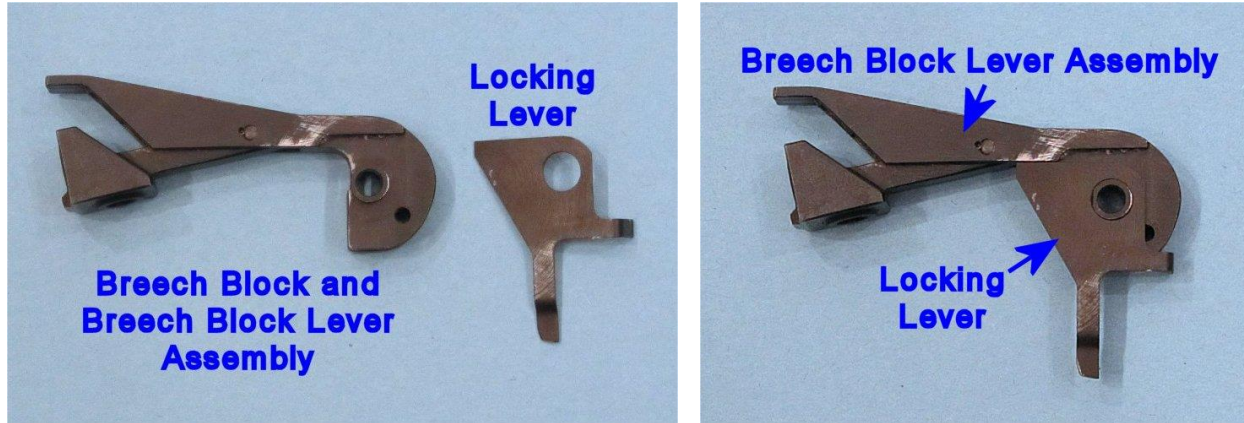
Step 1: In order to get the breech block lever (#57) and locking lever (#3) back in place, you have to make sure that the various pieces are cocked. Start by pushing the valve plunger (#17) forward. You have to hold the valve sear (#14) down in order to do this. The plunger has to be pushed all the way forward until it is latched by the valve sear. (It may not be entirely necessary to have it all the way forward, but I don't think you can do the next step if it isn't.)

NOTE: The valve plunger should go in with the rounded portion on the bottom, this is that camming surface where the breech block lever pushes the plunger forward during the cocking process.

Step 2: You also have to latch the trigger sear (#15) in place, which is done through one of the side holes in the action. Push it down until the trigger lever (#18) snaps above it, holding it in place.

Step 3: Lubricate the locking lever (#3), and install it on the boss of the left side of the breech block lever (#57). Slide this assembly down into the action from above. The breech block lever should be rotated almost horizontal, and the leg that sticks down from the locking lever should go in roughly vertically. It has a small sideways bend near the bottom end, and this has to go down past the side of the valve plunger (#17). In operation, this leg rotates forward to push the trigger sear (#15) into place during the cocking process.

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Step 4: Locate the breech block lever (#57) so the hole aligns with the dowel pin. You can use a #22 drill shank as an alignment pin, and to test the function of the action. Some grease in the hole in the breech block lever is probably a good idea. A #22 drill blank could be cut into several dummy pins to make this process a little easier.

Step 5: Hook the locking lever spring (#4) onto the tab on the locking lever (#3), making sure that it is securely seated in the groove. Again, it is easier to pull it up on the right side & then slide it over to the left than it is to try to pull it high enough to hook directly into the notch.

Step 6: Using the drill shank to hold the breech block lever in place, try cycling the action as if you were dry firing a few times. Once you are sure everything is installed properly, you can drive out the drill shank with the dowel pin (#7). The pin is a little short, and should be seated below the side of the action with a punch so it is held roughly equally on both sides.

Step 7: Grease the pin on the breech block bar (#65), and reinsert it into the side of the action.

Step 8: Unlock the slide (#2) from the slide bar (#7). It will move rearward under spring tension. Guide the end of the breech block bar (#65) into the slot in the rear of the slide.

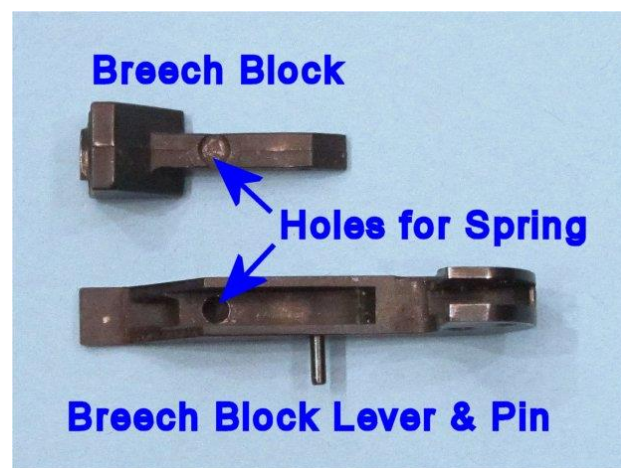
Step 9: Re-install screw (#20). You will have to hold the slide forward slightly to get the pin on the screw to go through the slot in the slide bar. Tighten the screw. The screws tend to work loose, so a tiny dab of purple Loctite is a good idea. Clean any oil or grease off the screw & out of the hole first.

Replacing Breech Lever Spring: I needed to replace the spring (#59), which goes between the breech block lever (#57) and the "breech block" (#58). The spring fits into holes in the two pieces, and it isn't clear how this could go missing, unless it broke at some point. It looks like it might be possible to do this with the bolt lever attached to the pistol, but I think it is easier to remove it and work on this assembly by itself. The pin (#60) that holds the two pieces together is staked in place, and can be difficult to remove.

The spring is shown below (left). I have a few genuine replacement springs, but it is likely that a suitable spring could be found or cut down from a longer one, or a piece of spring stock. The critical features are the OD, number of turns, overall length and wire size. The factory spring has

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6 full turns, plus the end turns bent flat. The overall uncompressed length is 410 mils (10.4 mm), the outside diameter is 123 mils (3.1 mm), and the wire size is 16 mils (0.4 mm) in diameter. The compressed length is ~ 140 mils (3.6 mm). The hole in the \bar{o} bolt lever the spring seats in is 144 mils in diameter, so a $1/8^{\text{th}}$ inch (125 mils) OD spring should work fine.



To remove the \bar{o} bolt lever, follow the instructions for cleaning pellet debris out of the cocking / firing action.

I initially hoped that it might be possible to compress the spring, and slide it into place. The gap between the bolt and the \bar{o} bolt lever appears big enough, but the bolt head gets in the way, and I just don't see an efficient way compress the spring & get it into place. If you try it, I'd do it working in a large clear plastic bag to prevent the spring from escaping.

The cross pin is staked on each end with a small center punch mark. Pick the side that looks the least heavily staked, and drive the pin out in that direction. It will be easier to reassemble if you can drive the pin out only far enough to allow removing the breech block, as shown in the photo. I bought some 0.072" diameter rod stock to make some slave pins to aid in reassembly, but a #49 drill bit works in a pinch. It has to be a good bit smaller than the 2mm pin (~ 0.079") to clear the staking. The spring tension will hold it in place until you drive it out with the real pin.