

LITHGOW ARMS LA101 TRIGGER UPGRADE

The document is designed to aid in the installation of aftermarket trigger and sear springs to lighten the the trigger pull weight in the Lithgow Arms LA101.

The aftermarket trigger and sear spring set was obtained from “Lumley Arms” in Levittown, NY. Both springs are supplied together. In an online search for installation instructions I found very little of any help.

Lumley Arms strongly recommends this install be done by a “competent gunsmith”. Having done the job without difficulty I feel anyone with moderate mechanical aptitude and the proper tools should be able to accomplish the job in about 90 minutes. That said, the job would not be that expensive should you opt to find a competent gunsmith.

The images provided were made with an iPhone 11 Pro Max and then further processed in a free photo editing application for phone use called “Snapseed”. The final text and images were combined in “Pages” on an iMac.

REQUIRED TOOLS INCLUDE:

- * Metric Allen head bits and bit driver. (3mm and smaller)
- * Torque wrench with 10-40 inch/pound settings.
- * Pin punches and Pin “starters” in small sizes.
- * Small light weight hammer
- * Small flathead screw driver... (used to compress spring)
- * Small tapered punch to use as “slave pin” in reassembly.
- * Needle nose pliers.
- * Fine tip tweezers.
- * A 2nd set of hands for two procedures. (Flat vice ideally)
- * Blue Loctite
- * Container for small parts.
- * Safety glasses, good lighting, clean work surface.
- * Phone camera. Take photos as you go. They can be a helpful reference during reassembly.

Please read through the instructions before starting. Don't continue if you see a step you might not be able to perform.

- 1.) Clear the rifle chamber and remove magazine.
- 2.) Unfasten the 2 action screws and set aside.
- 3.) Remove action from stock. Set stock aside.
- 4.) Remove the single screw holding the trigger group.
The 3mm Allen bolt head is recessed approx. 3/4 inch in a narrow narrow cylindrical channel.
- 5.) The trigger group “housing” is milled from a single block of aluminum. Holes for the various pivot and retaining pins have been “punch scored” to prevent movement. These punch marks are not damage but may appear so.

(See Fig. 1 and Fig. 2 below)

- 6.) Locate the roughly 'horseshoe' shaped wire clip in Fig.1. This is the safety return spring but it also stabilizes the safety lever in the trigger housing. Compress and remove this clip using needle nose pliers or a flat head screw driver. The clip is not apt to fly away but be careful not to loose this uniquely shaped piece.
- 7.) (See Fig. 2). Locate and remove the cir-clip and washer from the opposite side of the trigger case. Now the safety lever can be removed.

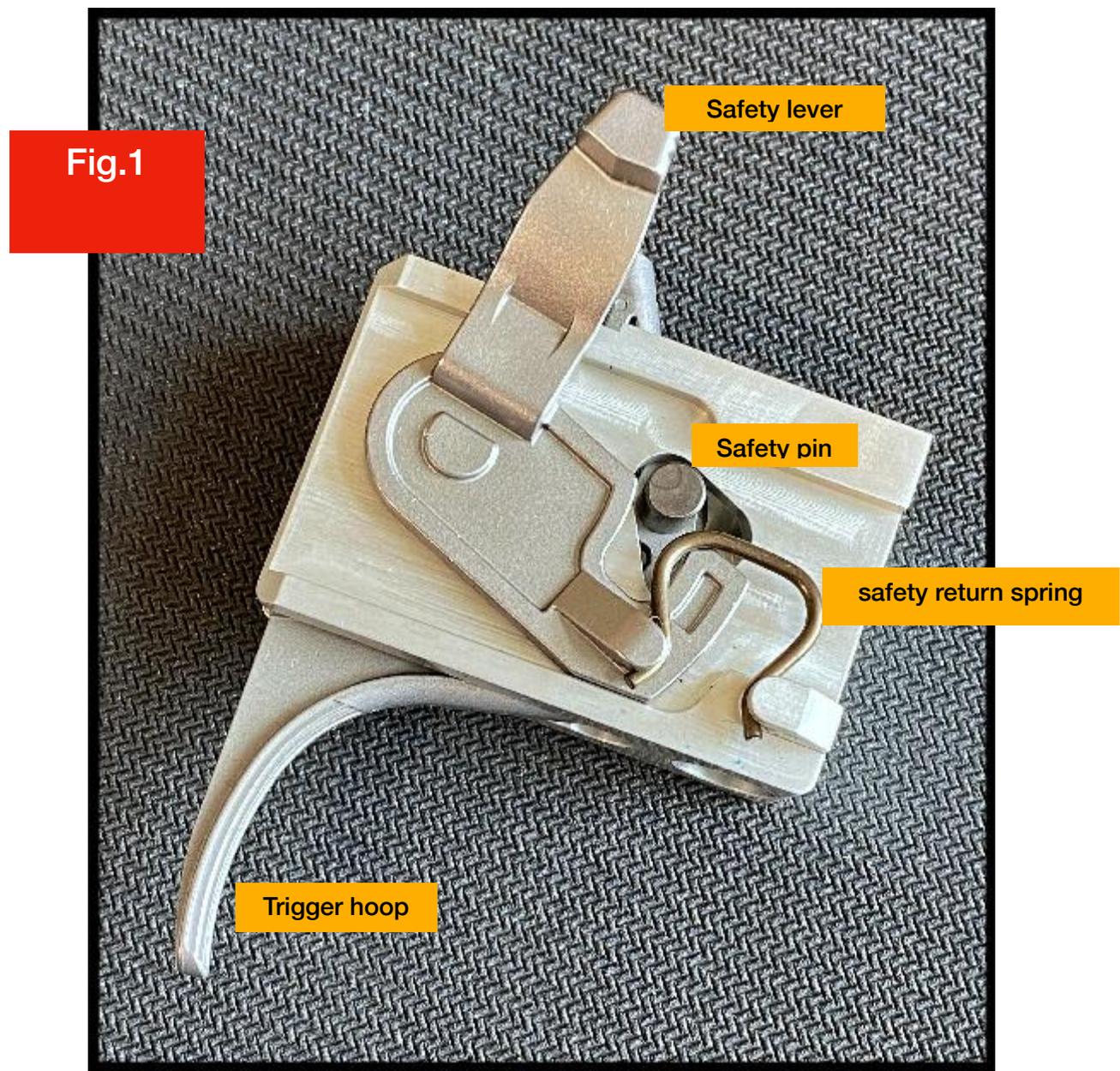


Fig. 2

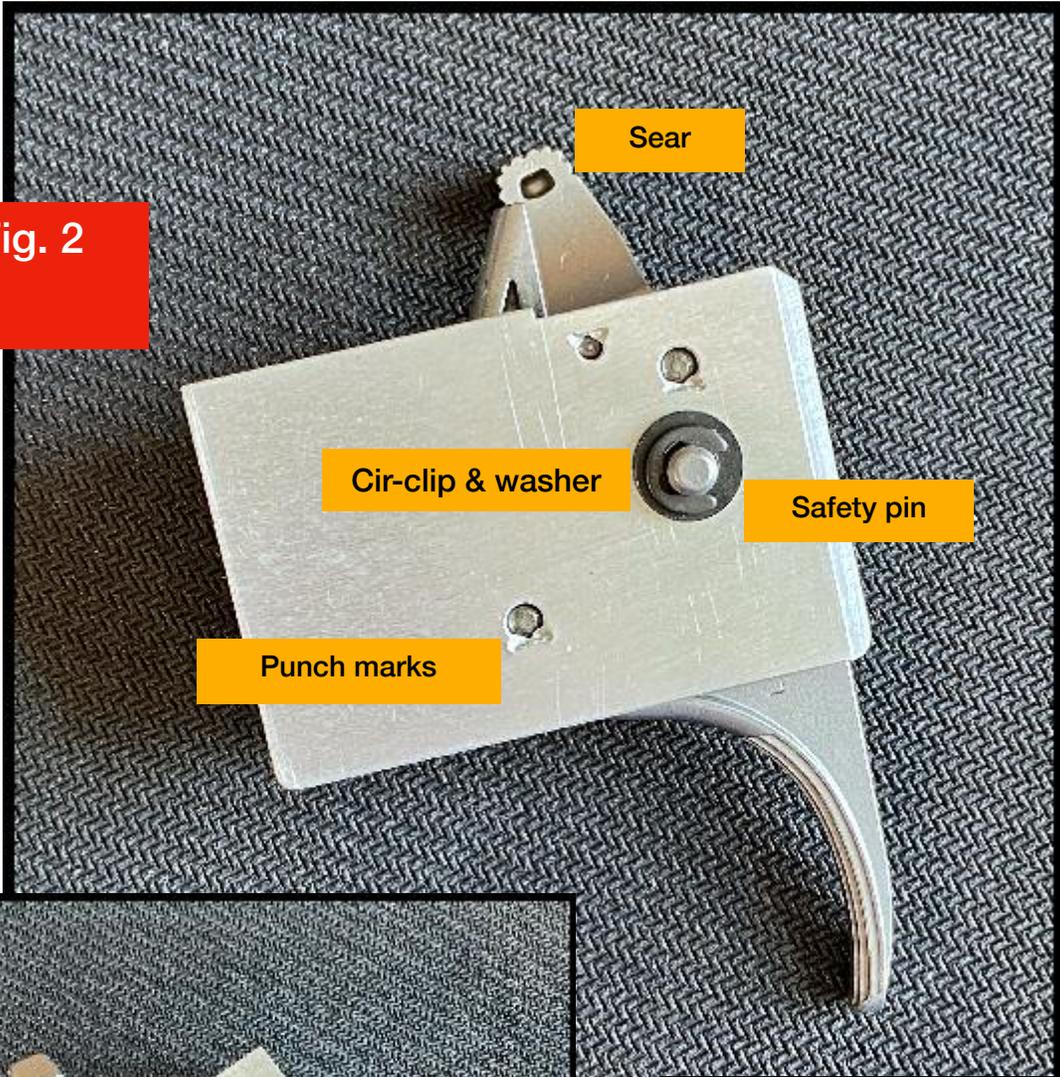
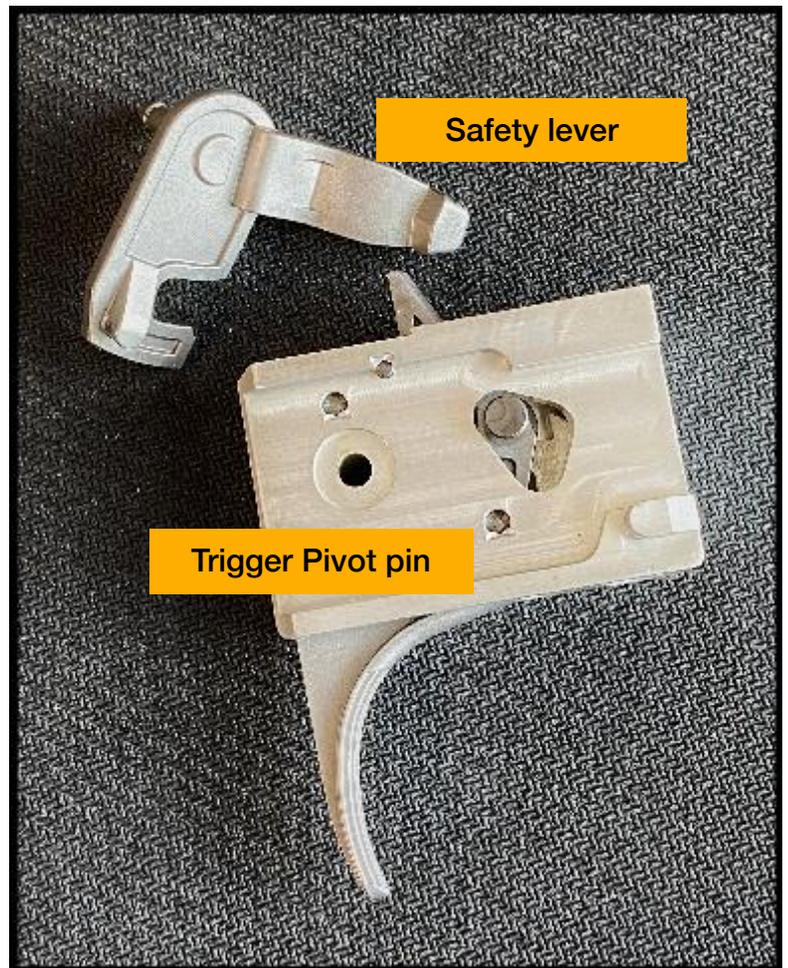


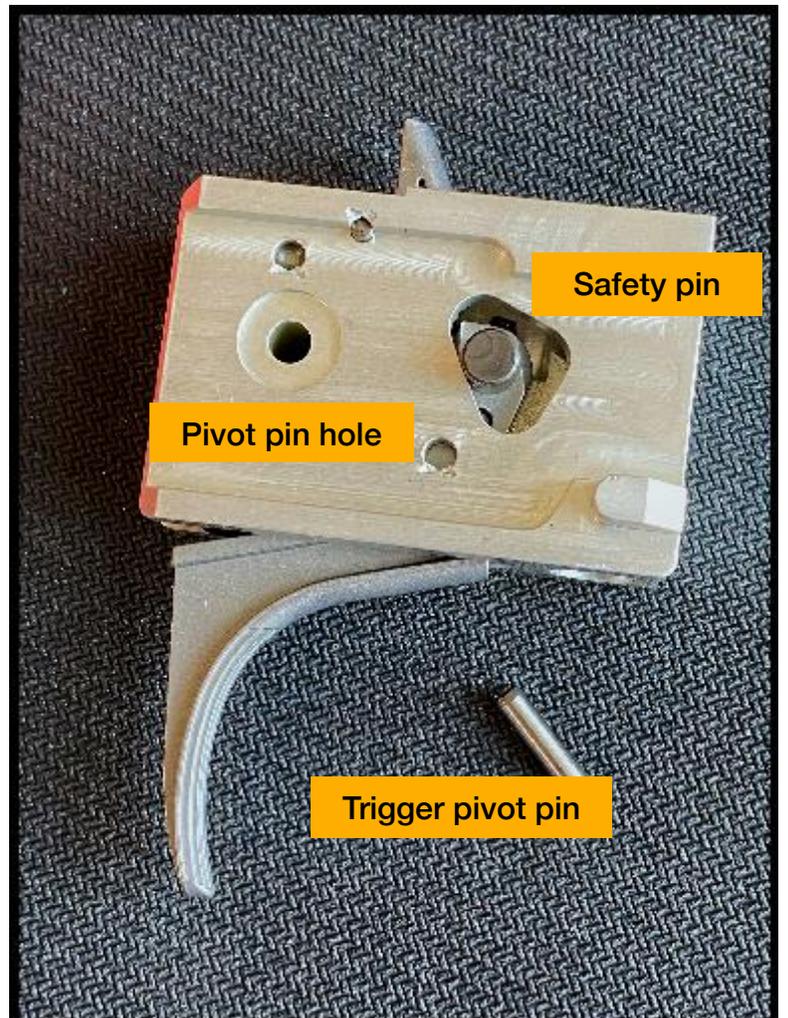
Fig. 3

With both Safety return spring and Cir-clip removed the Safety Lever is removed from the trigger housing. (See Fig.3 above)

8.)
Next remove the trigger pivot pin. Place the trigger housing over a tape ring or other supportive surface with a space for the pin to come through.

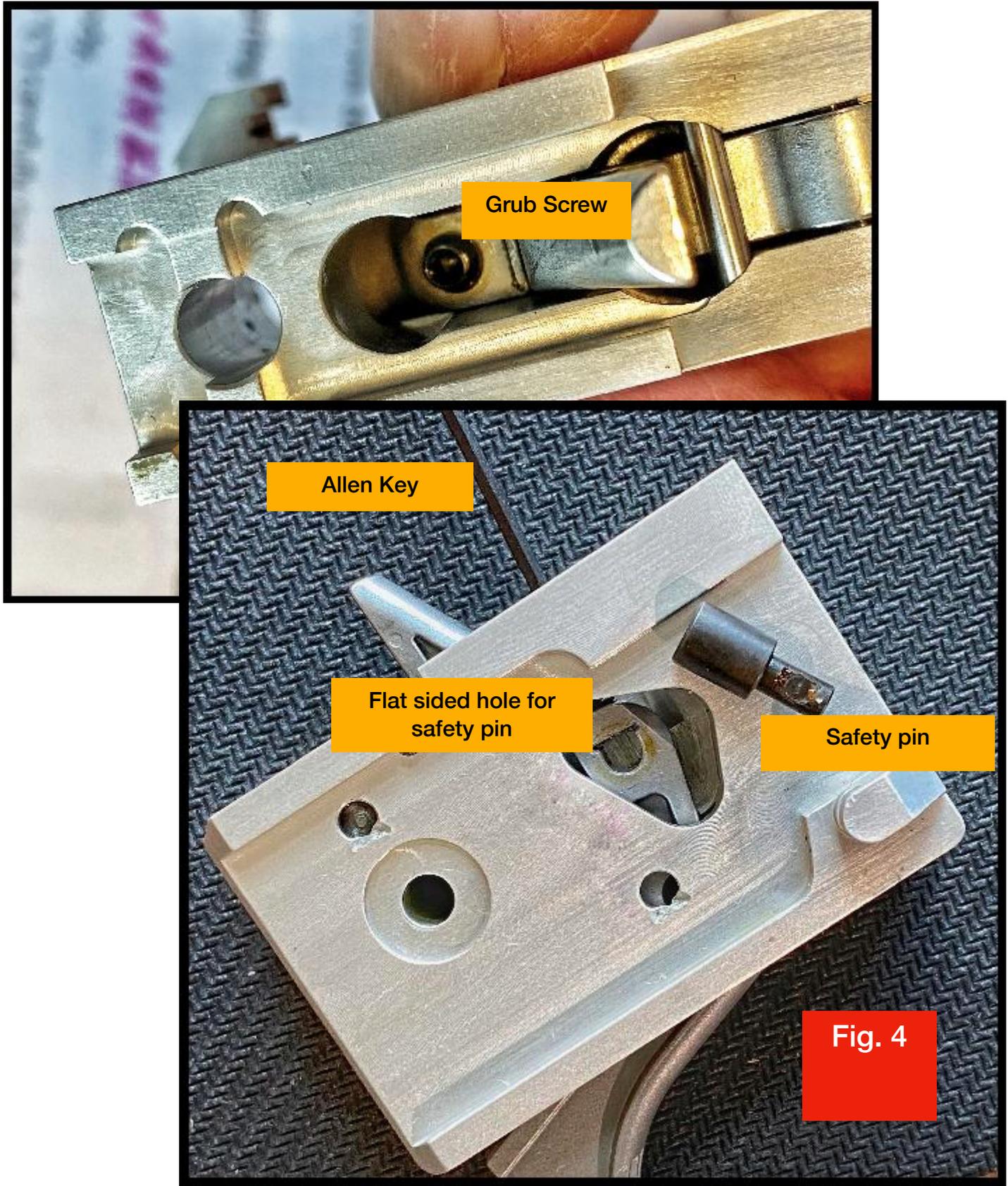


Note: At this point the trigger hoop is still retained by the safety pin. The safety pin must be removed allowing the hoop to fall out.



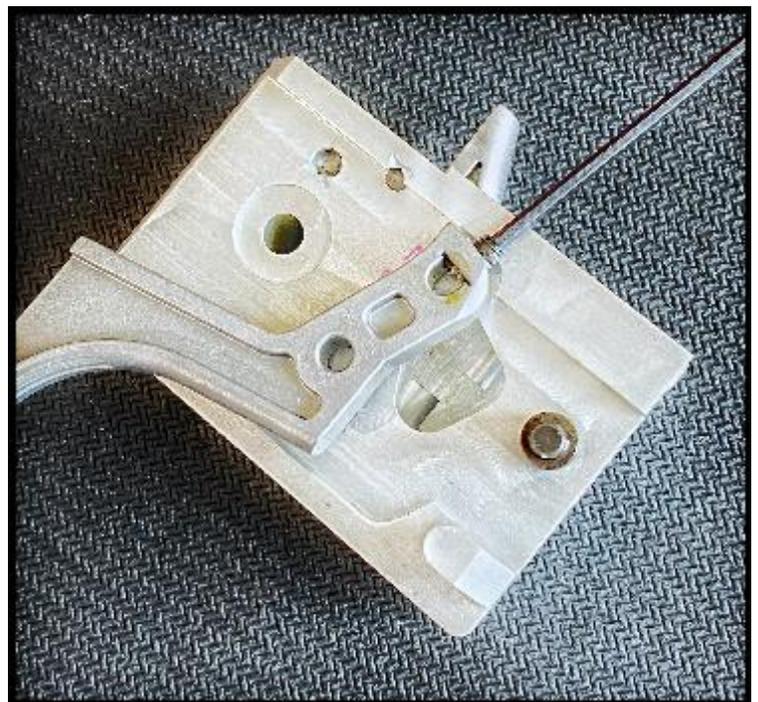
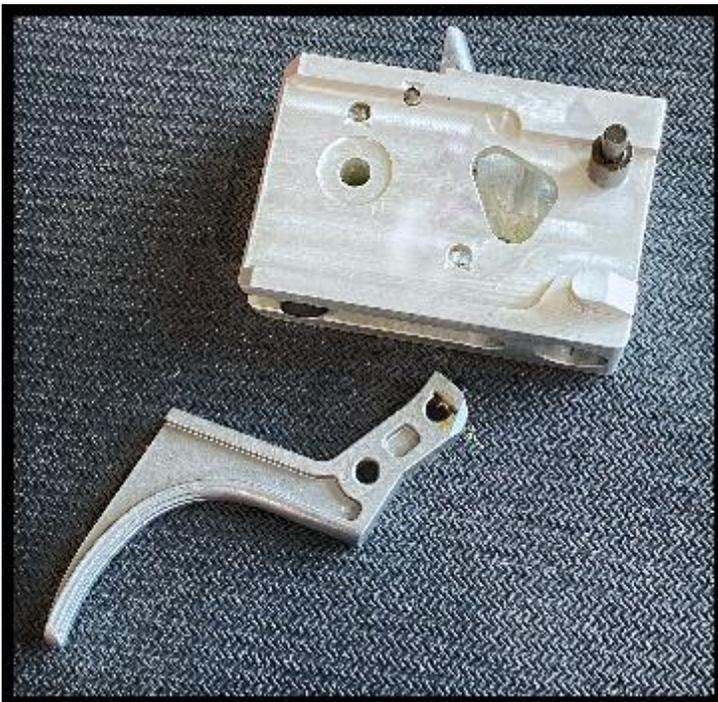
9.)

The safety pin is held in place by a Grub screw which must be loosened,



In Fig. 4 above we see the 1.5 mm Allen head key coming in from above to engage the grub screw. Once loosened the safety pin can be removed.

Note: the Safety Pin (black) has a small detent hole to accept the grub screw and the hole from which the safety pan came has one flat side so that the hole can be oriented to the grub screw. This is critical in reassembly but not difficult to do.

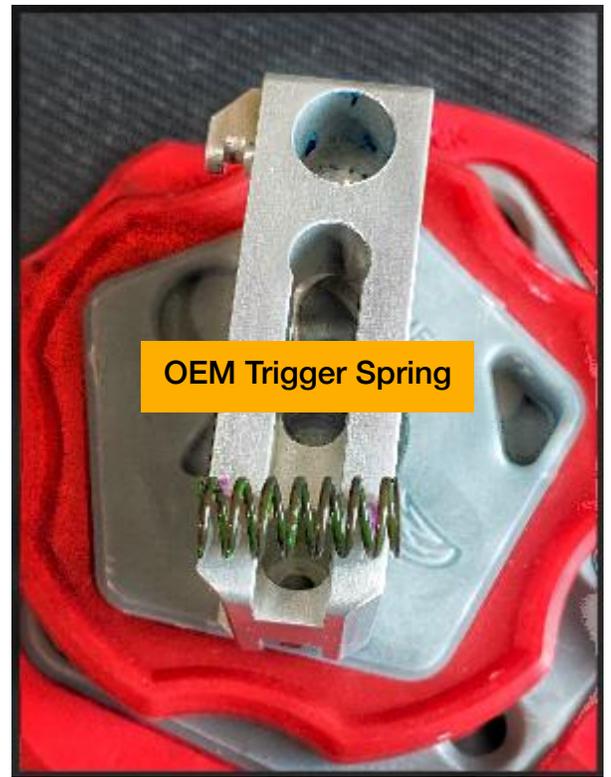


10.)

Now view the trigger springs from the bottom of the trigger housing. The Green-ish OEM spring and the Trigger spring “plunger” can be seen in their cylindrical hole naked “T” and “S” in Fig. 5 below.

The hole at the back of the trigger housing is for the single screw that attaches it to the action.

Fig. 5



New Lighter Spring



OEM Spring

The New Aftermarket Spring is more silver and has a lighter weight spring wire.



Looking just behind the new silver trigger spring you can just see the sear spring hiding in its hole a few millimeters back.



Reinsert the trigger spring plunger...compress the plunger cap in preparation for reassembly.

*** If you only want to replace the trigger spring insert the trigger and trigger pivot pin. Replace the safety pin and return the trigger housing to the action.

*** If you plan to also replace the sear spring approach the trigger housing from the opposite side and locate the sear pivot pin. This pivot pin is larger than the sear retaining pin. The 2 images below show the punch pressing out the sear pivot pin and you can see it is the larger of the two pins.



11.)
Removing the sear pivot pin does not release the sear. The sear is held by a sear "retaining" pin shown below.



Once the sear retaining pin is removed the sear will be pushed up and out by the sear spring.





12.)

Note: Because the sear retaining pin is not fully removed it still holds the sear spring down. To remove the OEM sear spring and install the new heavier sear spring the retaining pin must be pushed out a bit further but not removed.

The new sear spring, on the right, is stronger and longer. When installed it will exert increased force on the sear causing the trigger to “break” sooner and faster.



Now to Finish

Now you are ready to begin reassembly. Here is where being able to refer back to disassembly photos might be helpful. I could have shown the entire reassembly process but you have come this far and should be able to make the leaps necessary to complete the project.

Take special care the reinserting the various pins. Solid steel pins going into softer aluminum can go “off angle” a deform the pin hole. This can be a serious no-no.

Return the trigger housing to the action and secure it with the single saved screw. Apply blue Loctite to the screw and torque to 18 inch/pounds.

Return the action to the stock and secure it in place with the 2 action screws torqued to 35 in/pounds,

Now you can test / measure the new lighter trigger pull weight and hopefully feel a more crisp break at about 2 pounds.

Good Luck