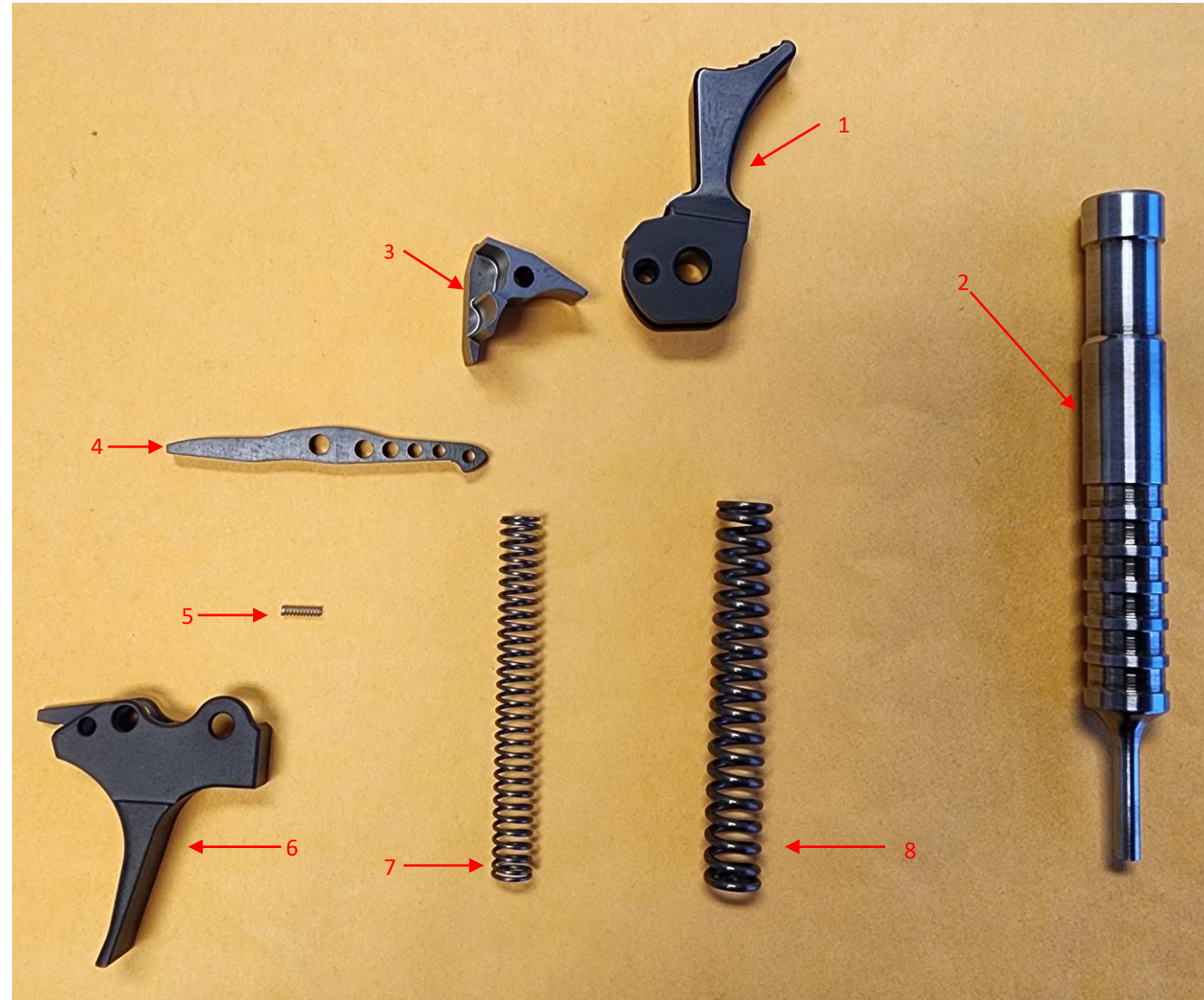




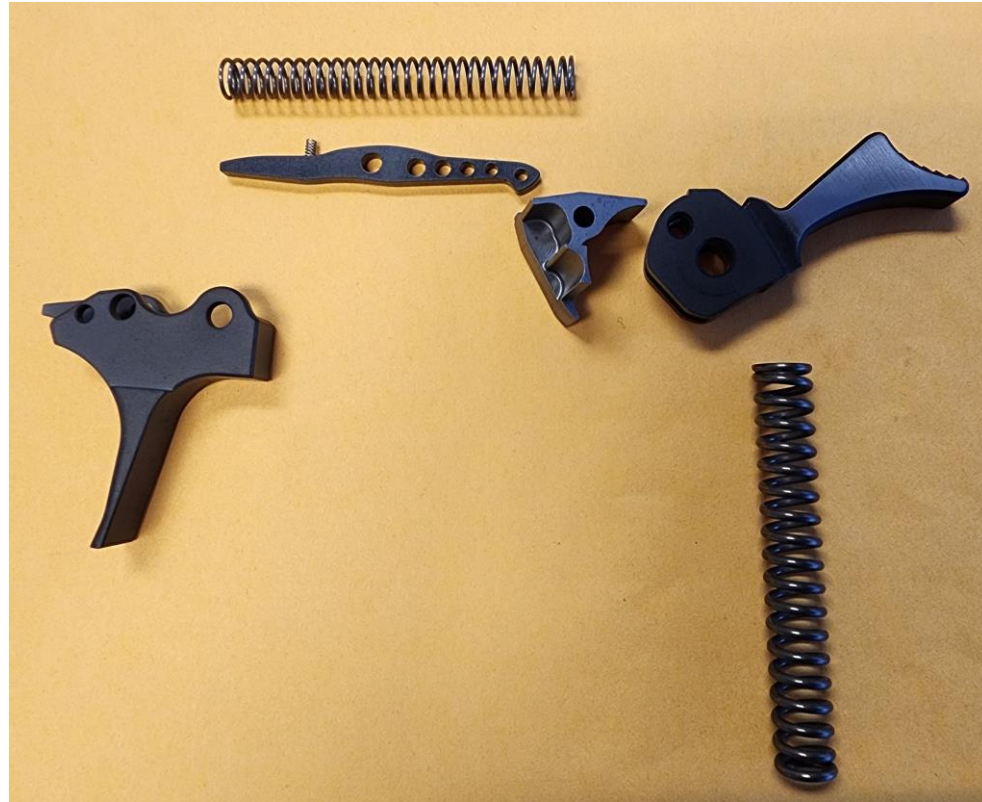
## **Springfield SA-35/Type 1 Browning Hi-Power Action Enhancement Kit**

# What's in the kit

1. Hi Tilt Spur Hammer
2. Trigger Pin Removal Punch
3. Balanced Sear
4. Balanced Sear Lever
5. Sear Lever Biasing Spring
6. Flat Wide Trigger
7. Firing Pin Spring
8. Mainspring



## Components as oriented in the pistol



# Recommended Disassembly/Installation

## Tools:

### Springfield SA-35/BHP Type 1

- 4" Pillar File (Apex Part # 104-009) – Thumb Safety Fitting Pad adjustment
- 3/32" Roll Pin Punch - Hammer Strut Pin Removal
- 3/32" Pin Punch – Sear Pin Removal from Frame
- Small Flat Head Screwdriver - Grip Screw removal
- Small Hammer
- 3/16" Roll Pin Punch\* - \*Only needed if Apex Low Profile magwell is installed on SA-35
- 5/64" Roll Pin Punch –Trigger Spring Pin removal/reinstallation
- Apex Trigger Pin Removal Punch (Included in kit)
- Painter's Masking Tape
- Small Diamond File (Over travel stop adjustment)
- Brass or Aluminum Punch (Seating Trigger Pin in Frame)
- Sturdy Bench Vise

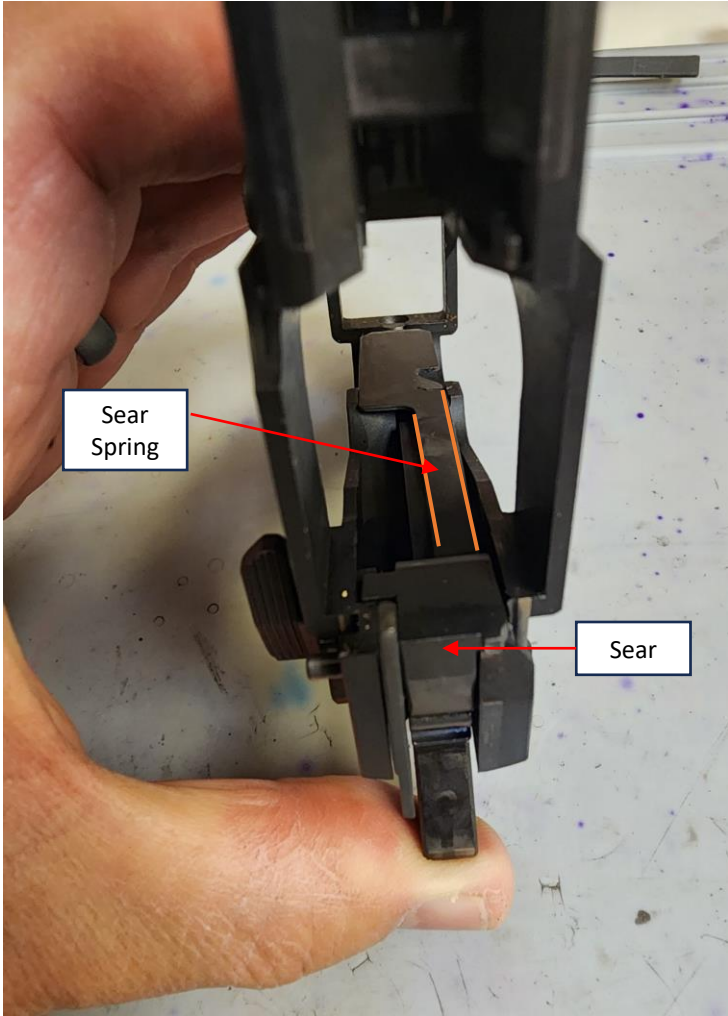


## Prepping for Installation



- Remove magazine and ensure firearm is unloaded
  - Field Strip pistol according to Owner's Manual
  - Remove both grip panels
  - If your pistol is equipped with the Apex Magwell, use 3/16" Roll Pin punch to remove the 5mm Anchor Pin
- \*It is not necessary to remove the Magwell from the Frame.***

# Frame Disassembly



- While pinning the hammer to the rear with your thumb, compress the long leg of sear spring with your index finger to de-tension sear.



## Frame Disassembly



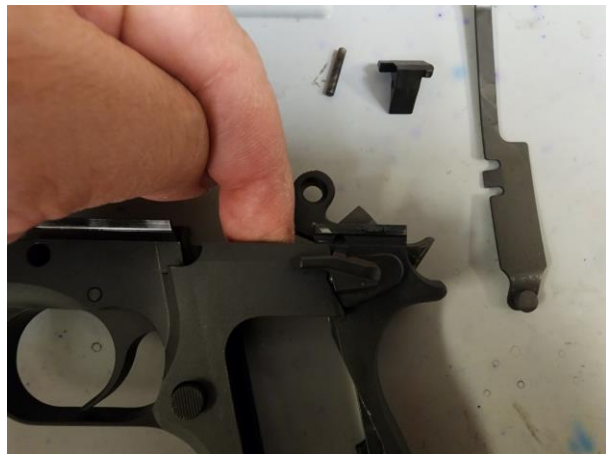
- Use the 3/32" punch to remove the sear pin from the frame.
- While still holding the hammer to the rear, remove the sear and sear spring.
- GENTLY ease the hammer down to remove spring tension.



## Frame Disassembly



Sear, Sear Spring, Sear Pin Removed



Rotate the Ejector Tip Down 90 degrees



Thumb Safety is “keyed” to the Ejector. Rotating the Ejector down 90 degrees allows the “key” on the Thumb Safety to align with the rectangular hole in the Ejector. The Thumb Safety can now be removed from the frame by pulling Thumb Safety to the left. Be sure not to lose the spring and detent.





# Frame Disassembly



## Trigger Removal



Use provided punch to drift trigger pin from **Right** side of frame. **WARNING – Attempting to drive pin from left side will severely damage frame!**



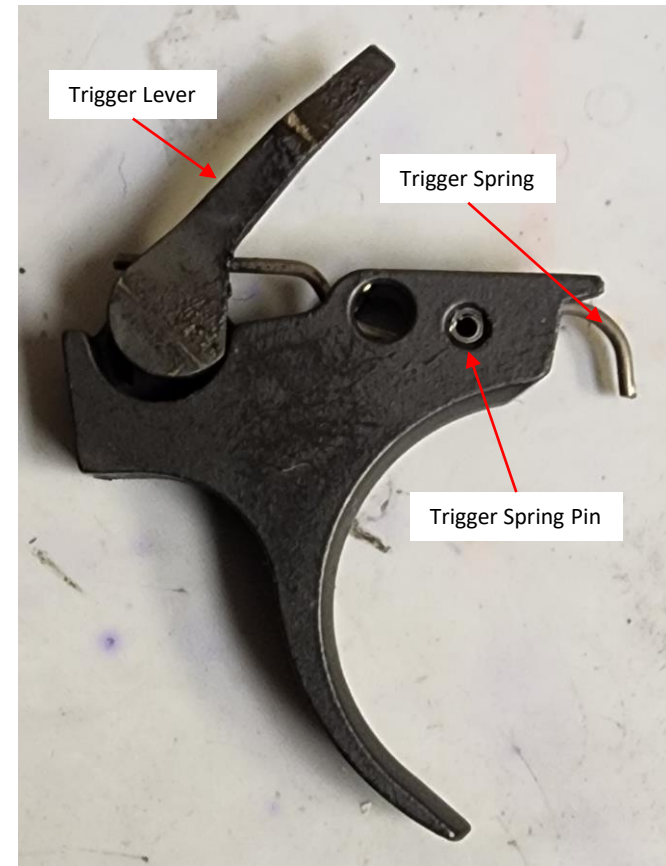
Once the pin is clear of the right side of the frame, the pin can be removed by hand. There is no need to continue using the hammer.



## Trigger Removal



Rotate Trigger counter-clockwise and lift trigger out of trigger guard as shown.



## Trigger Spring Removal



Use a 5/64" roll pin punch to remove the trigger spring pin

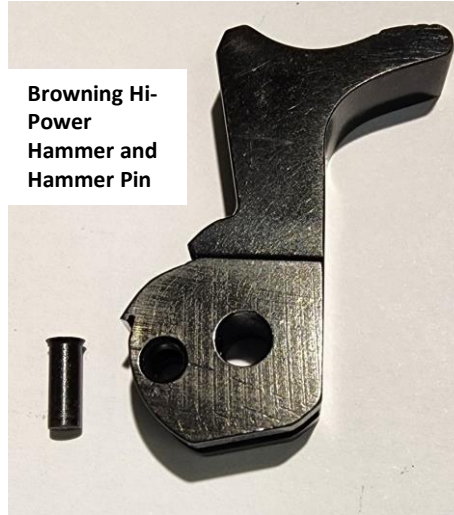


Save trigger spring and trigger spring pin for later use

## Hammer Pin/Strut Removal



Use the 3/32" Roll Pin Punch to remove the Hammer Pin



Caution: Browning uses a solid, headed Hammer Pin (as shown). These pins can only be driven out one direction.



**Note for Browning Hi-Power Owners:**  
Included in the Apex kit are a reduced power Mainspring and matching Firing Pin Spring. See **Browning Hi-Power Mainspring and Firing Pin Spring Replacement Procedures** portion of this document

## Sear Lever removal from Slide

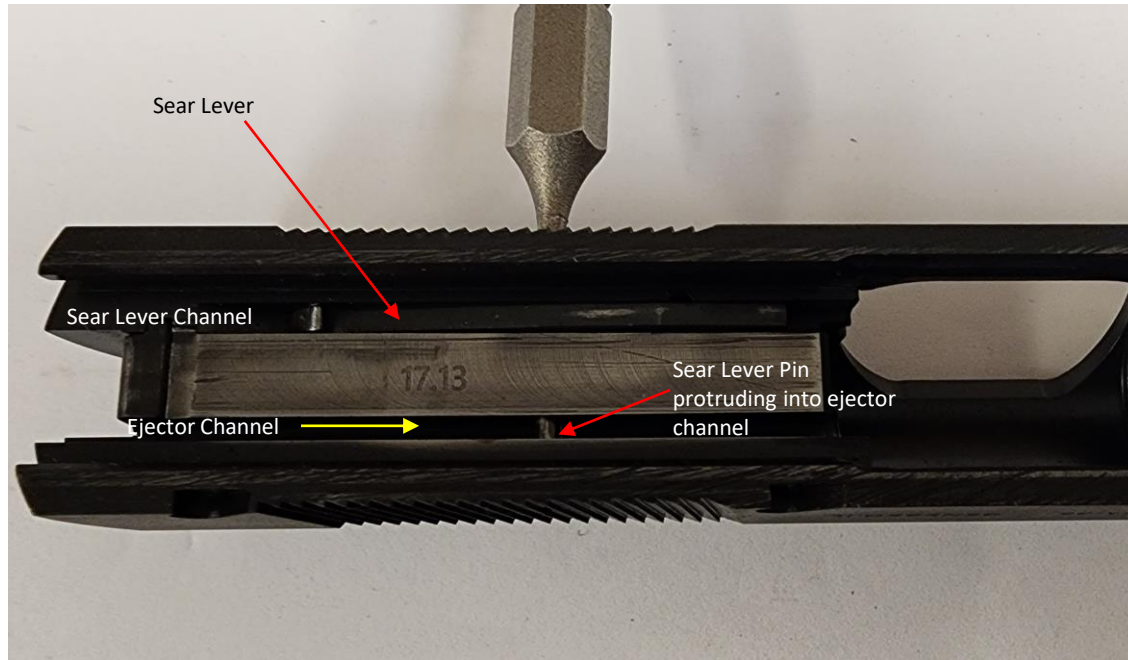


Use a 3/32" roll pin punch to move the Sear Lever Pin



Drift pin from the right side of the slide.  
Note: Sear Lever Pin does **NOT** need to be removed from the slide.

## Sear Lever removal from Slide



Use punch to drift Sear Lever Pin until it clears the Sear Lever Channel



Remove Sear Lever from Slide

## Sear Lever removal from Slide



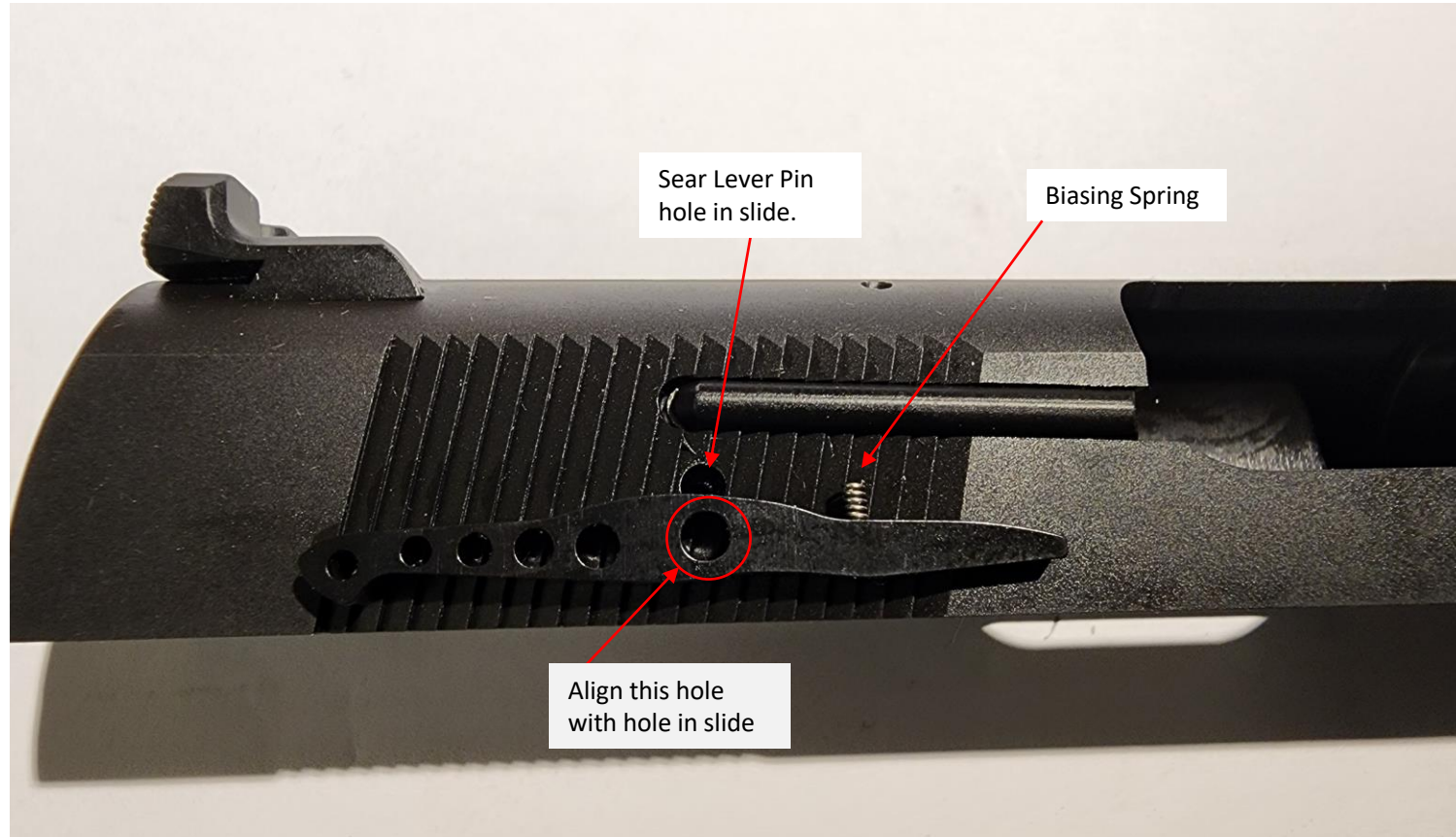
Sear Lever removed from slide



Factory Sear Lever (top) compared to Apex  
Balanced Sear Lever w/ biasing spring (bottom)



## Installing Apex Sear Lever Assembly

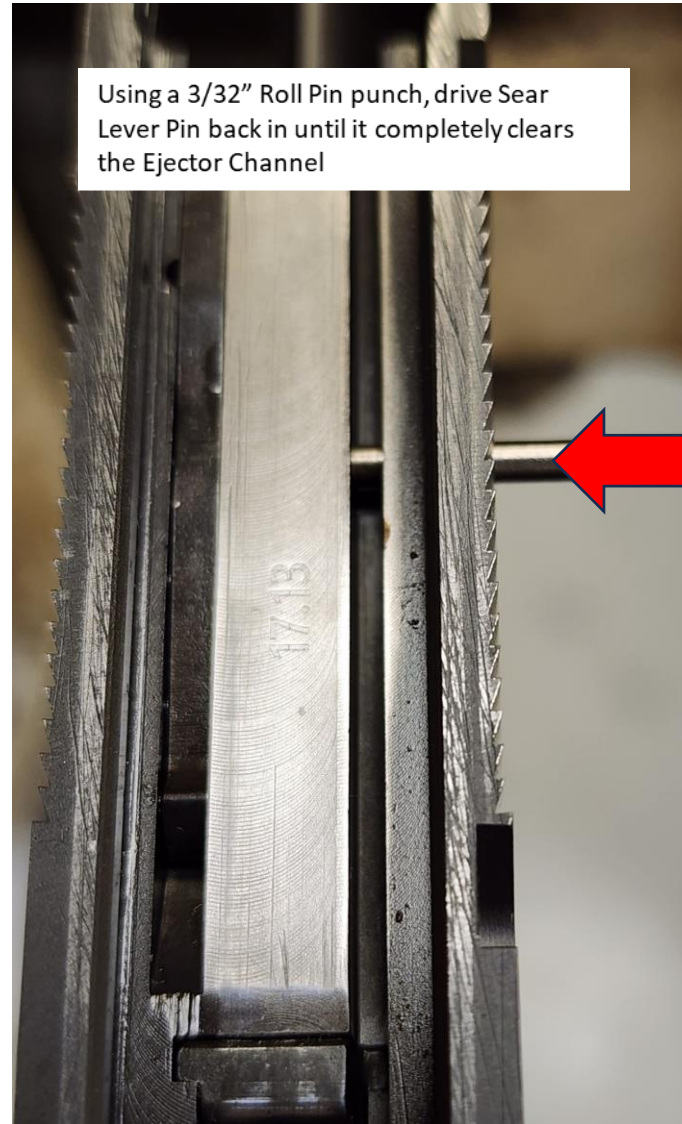


The hole closest to the biasing spring is the correct hole to align with the Sear Lever Pin. This is the proper orientation of the Sear Lever assembly as it will reside inside the slide.

## Installing Apex Sear Lever Assembly



Muzzle Direction



Muzzle Direction

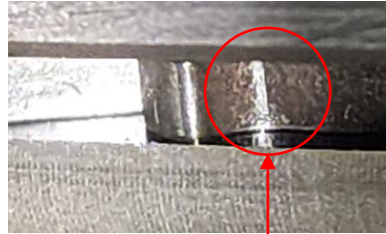


# Apex Sear Lever Function Check

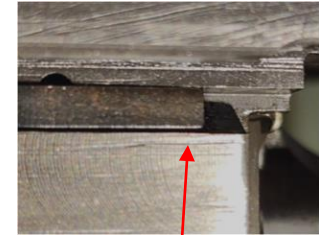
Using a small punch, press down on the front of the Sear Lever (closest to Breech face) and confirm that the Biasing Spring is not kinked and returns Sear Lever to the reset position.



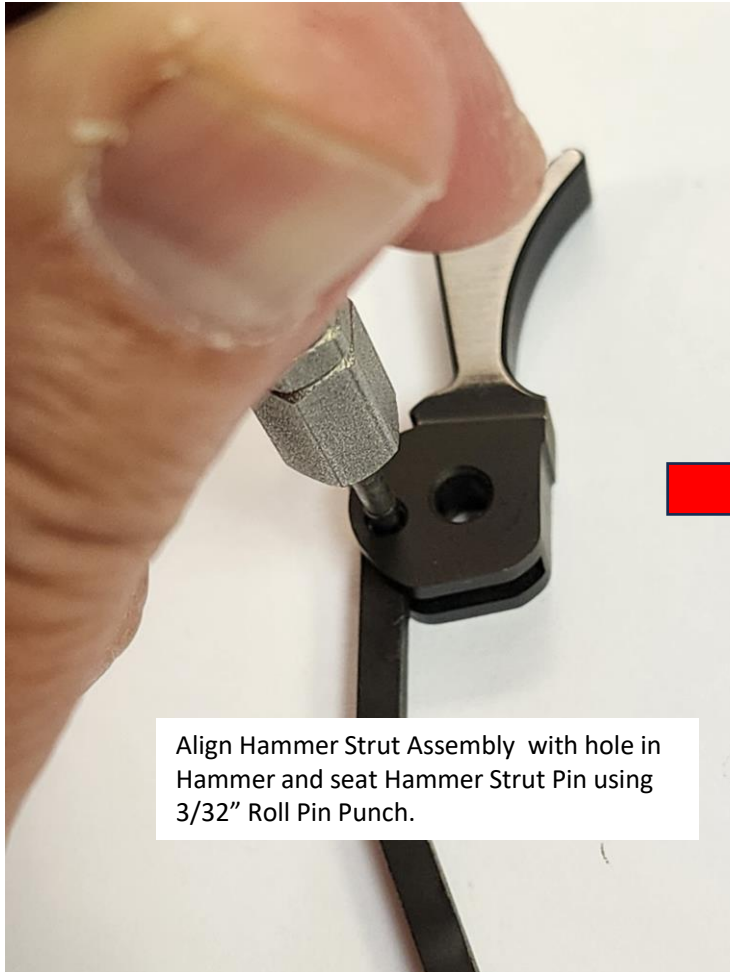
Rear end of Sear Lever must be below the Hammer cocking surface.



Nose of Sear Lever should be level with or slightly above the Hammer cocking surface.



## Frame Component Installation



Align Hammer Strut Assembly with hole in Hammer and seat Hammer Strut Pin using 3/32" Roll Pin Punch.



SA-35 will use the original factory Hammer Spring and Firing Pin Spring. There is no need to replace these springs. The included springs in our kit will be spare replacement springs for Springfield owners.

Browning Hi-Power will use the Apex supplied Firing Pin and Hammer Springs.

## Trigger Assembly



Align Trigger Spring loop with forward hole in Trigger.



5/64" Trigger Spring Pin ready to drive through Trigger and Trigger Spring.



Seat Trigger Spring Pin using 5/64" Roll Pin Punch.



Raise tail of Trigger Spring and insert Trigger Lever.

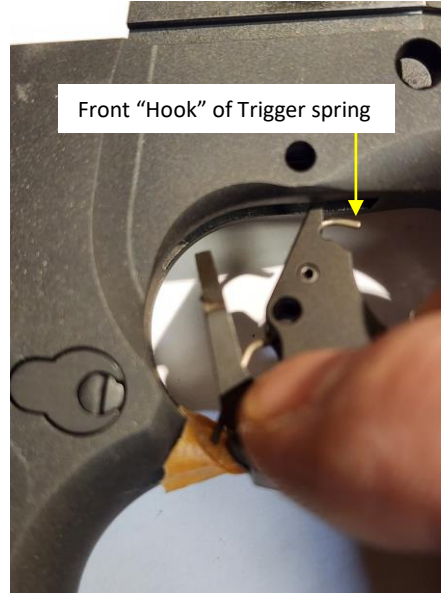


Tail of Trigger Spring will rest in groove in Trigger Lever

## Installation of Trigger Assembly



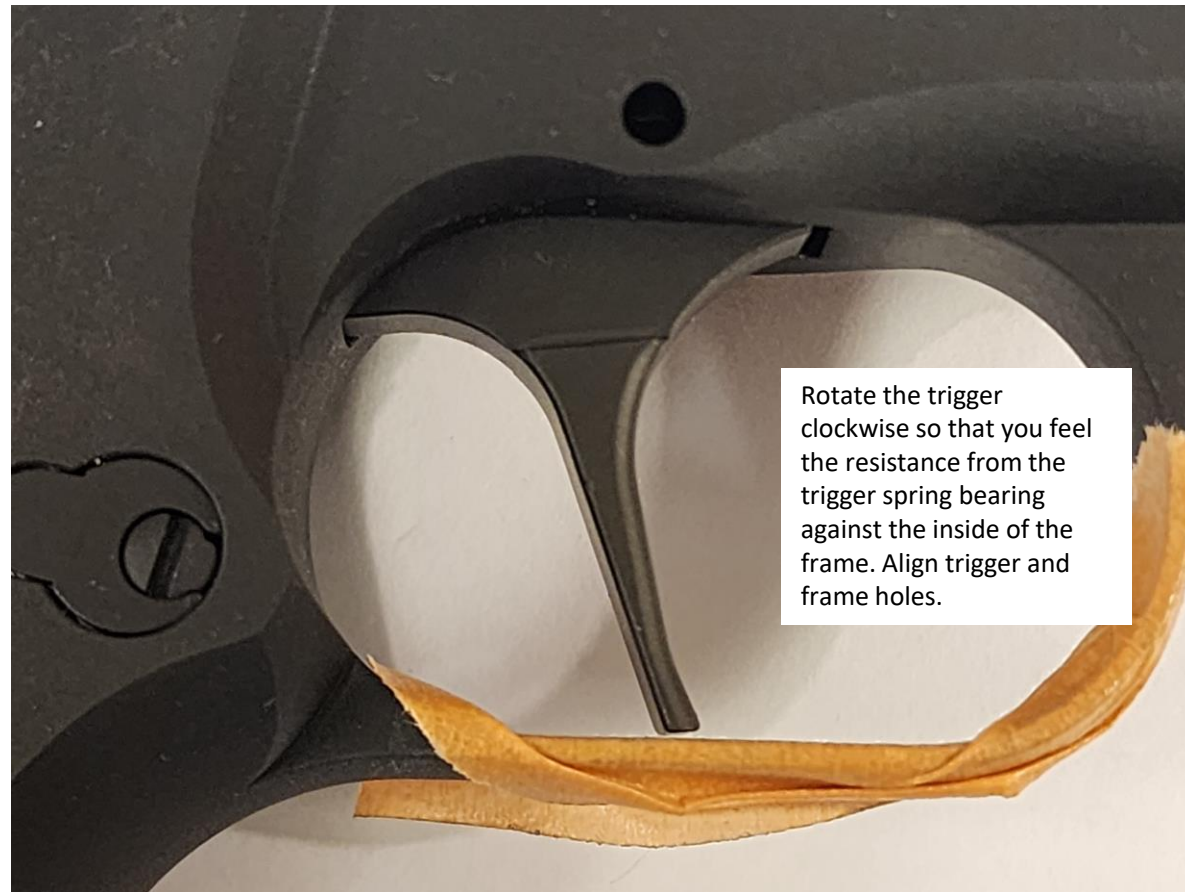
To prevent scratching the finish, place a **SINGLE** layer of masking tape to protect trigger guard.



Insert Trigger assembly into trigger guard as shown and slide it up into the frame opening.

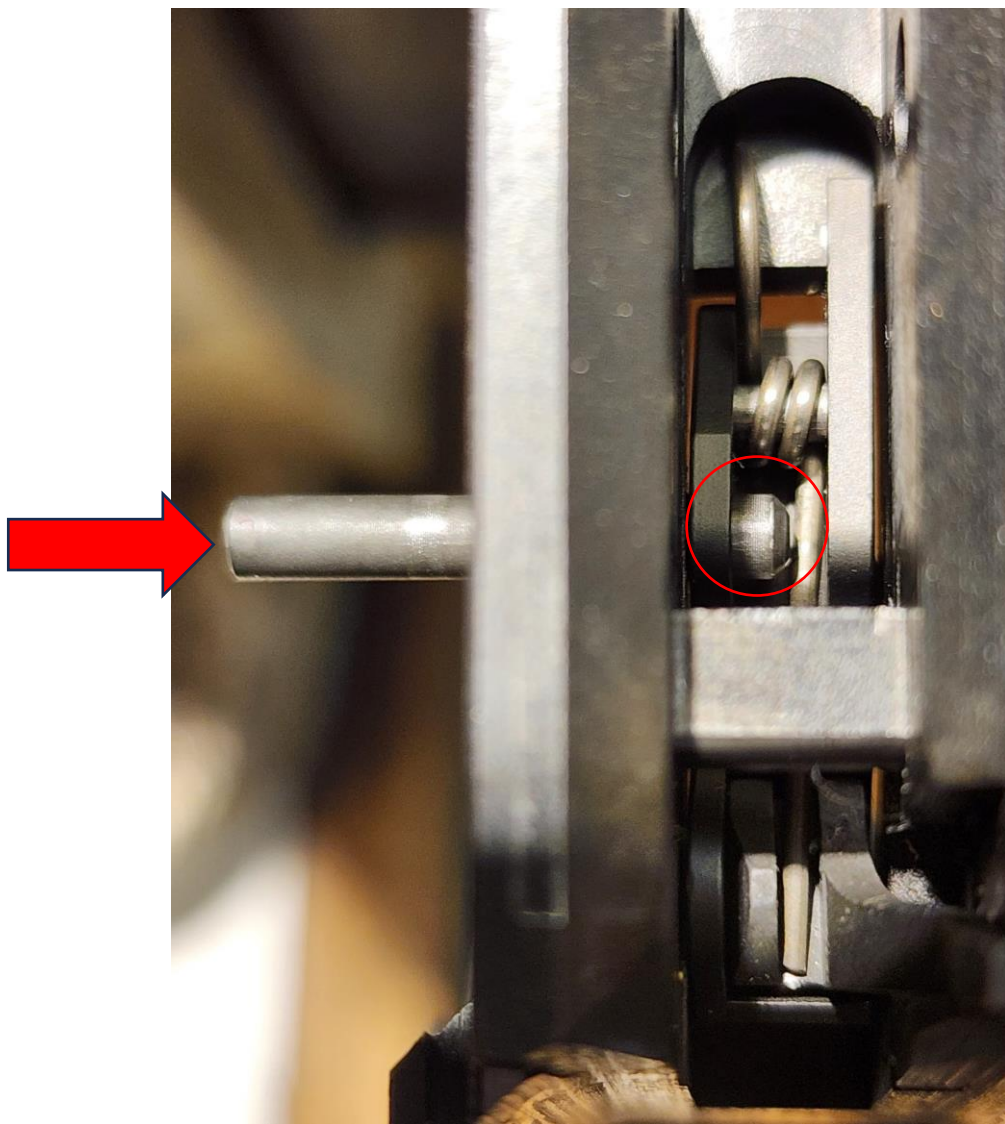


## Installation of Trigger Assembly



Rotate the trigger clockwise so that you feel the resistance from the trigger spring bearing against the inside of the frame. Align trigger and frame holes.

## Installation of Trigger Assembly



With the Trigger and Frame holes aligned, insert the Trigger Pin **TAPERED END FIRST** from the left side of the Frame.



## Installation of Trigger Assembly

Place a piece of masking tape over the face of the Trigger Pin and use a Brass or Aluminum punch to seat pin flush with the left side of the Frame.



Place a layer of masking tape over the head of the pin as shown.

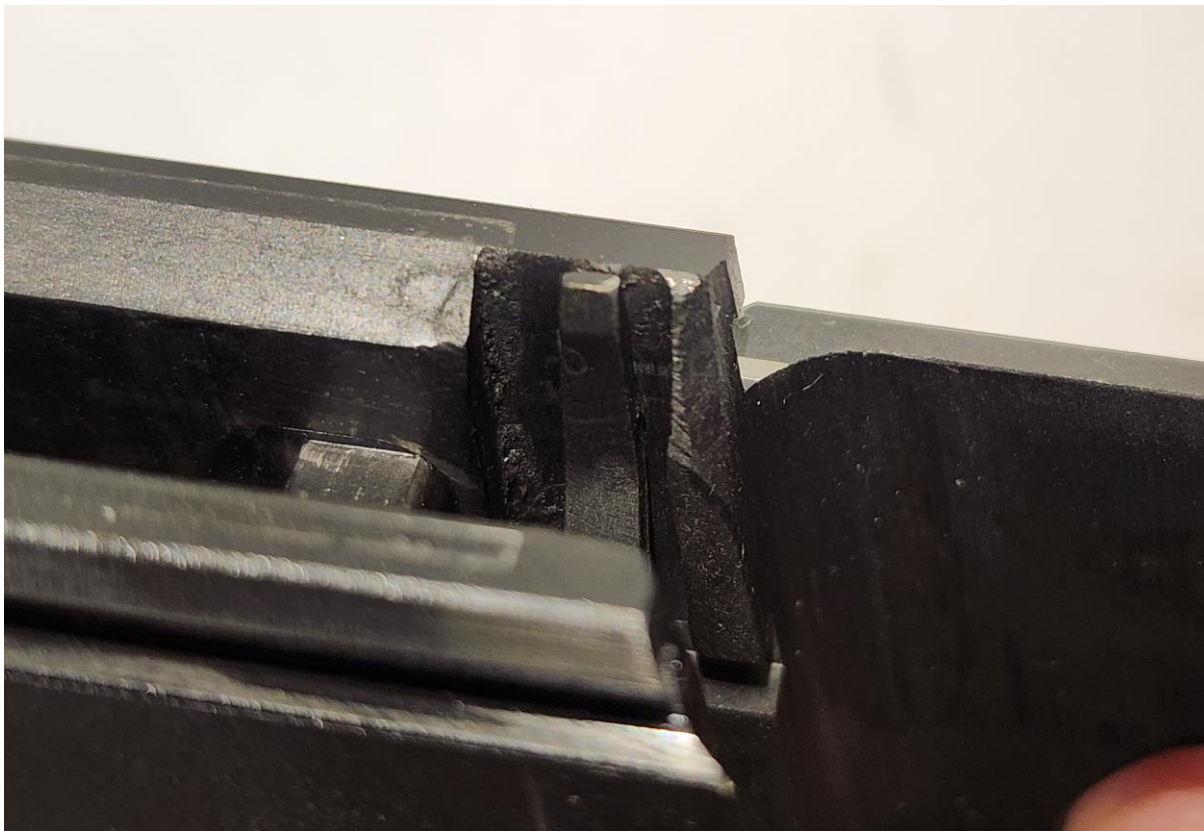


Use brass or aluminum punch to seat Trigger Pin flush with the left side of the frame.

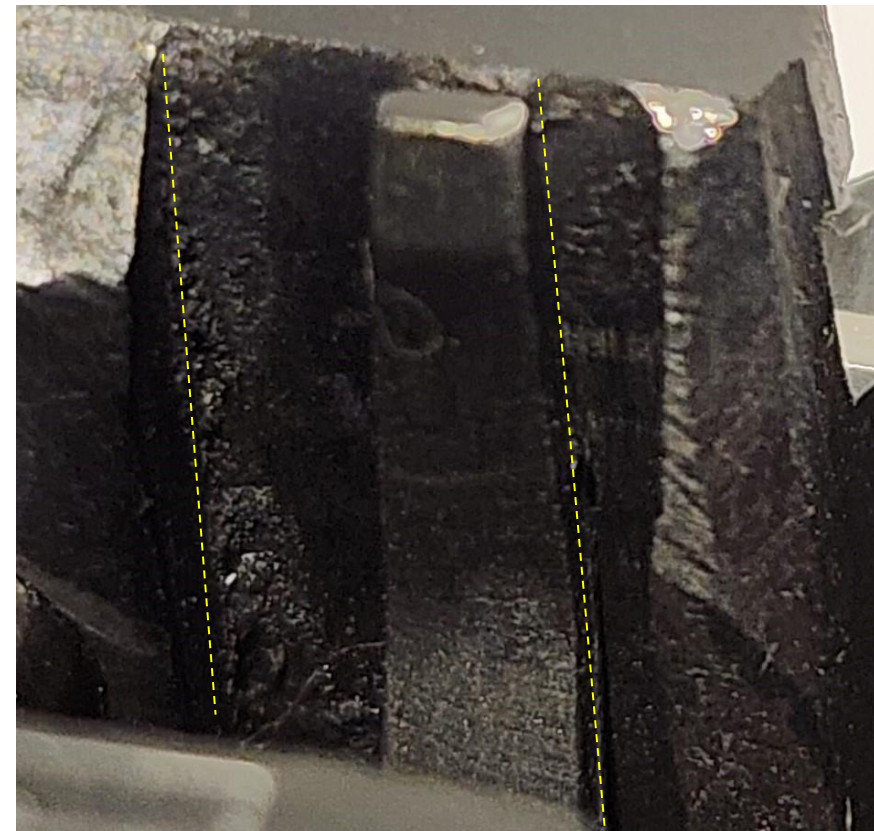


Remove tape and residue

## Installation of Trigger Assembly



Trigger Lever must rest within Frame channel. Trigger Spring should force the lever to the rear of the channel



Trigger Lever in proper position within channel

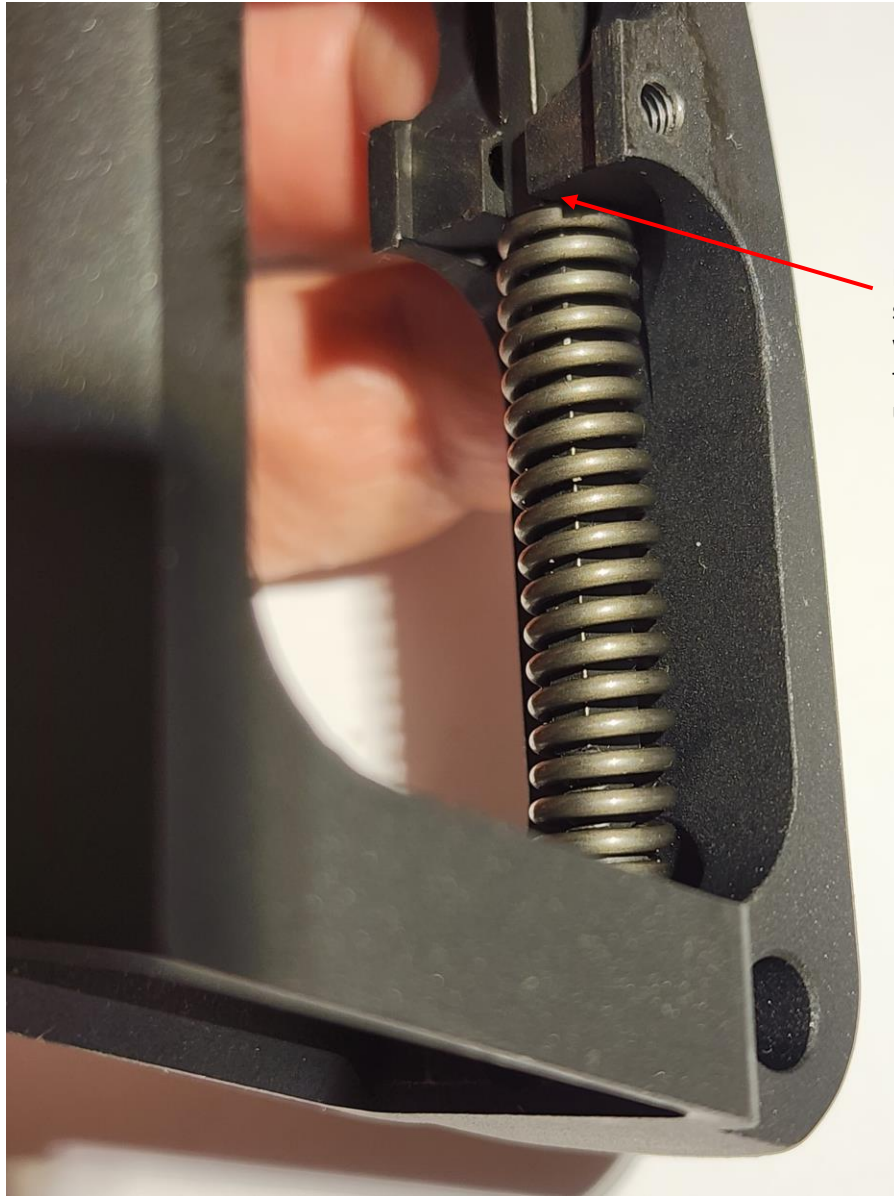
## Installation of Trigger Assembly



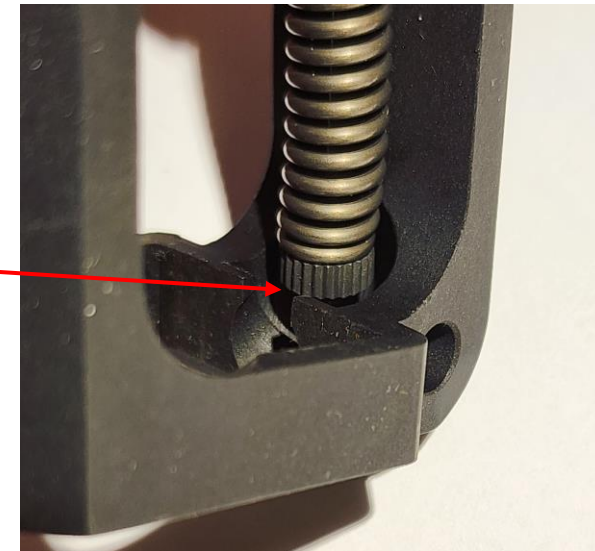
Press Trigger to the rear and ensure the top of the Trigger Lever protrudes above the frame rails as shown, and that the Trigger Spring returns the Trigger to its forward position smoothly when released.



## Ignition Component Installation



Place Hammer assembly into the frame making sure that the Hammer Strut rests in the slot where the Grip Screw holes are located, and top of the Mainspring rests against the underside of the slot.



Bottom of Strut rests in pocket as shown.

## Ignition Component Installation



Align Hammer and Frame holes as shown.



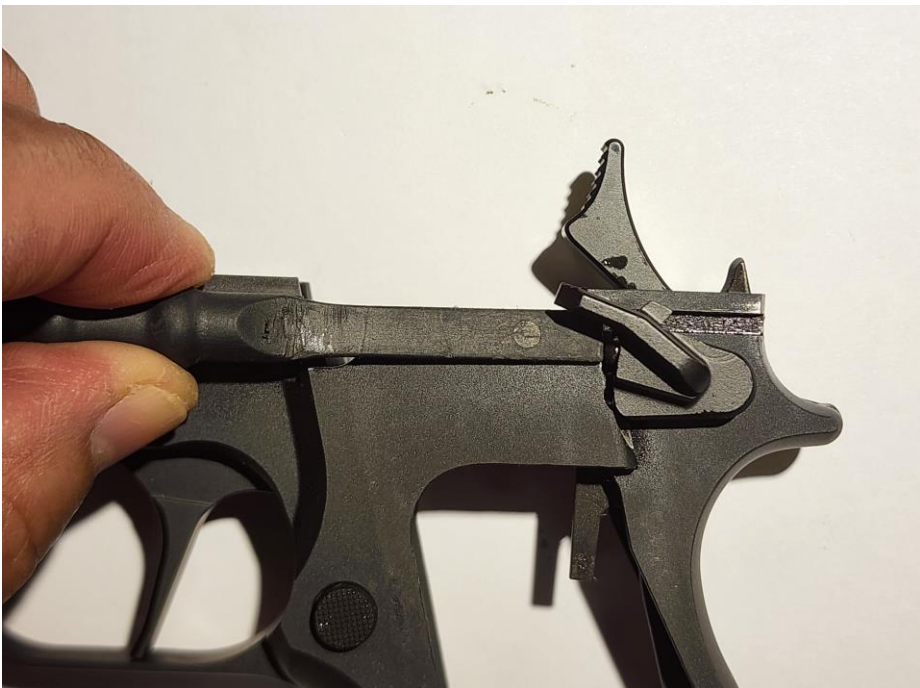
Insert ejector and align keyed hole with Hammer and Frame holes.

## Ignition Component Installation



Once the Hammer and Ejector holes are lined up with the frame, insert the Thumb Safety .

## Ignition Component Installation



Use small flat tool to depress safety plunger while gently pushing Thumb Safety inward. Note: Ejector may need to be wiggled until Thumb Safety and Ejector holes align and Safety seats against frame.

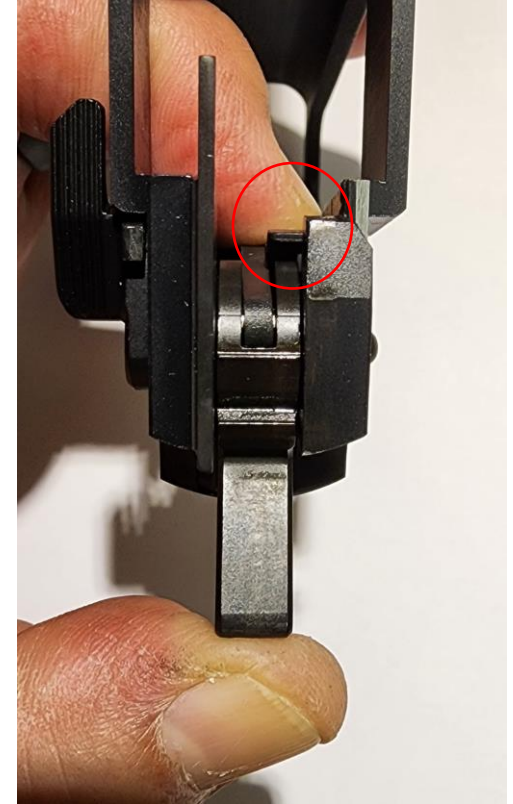
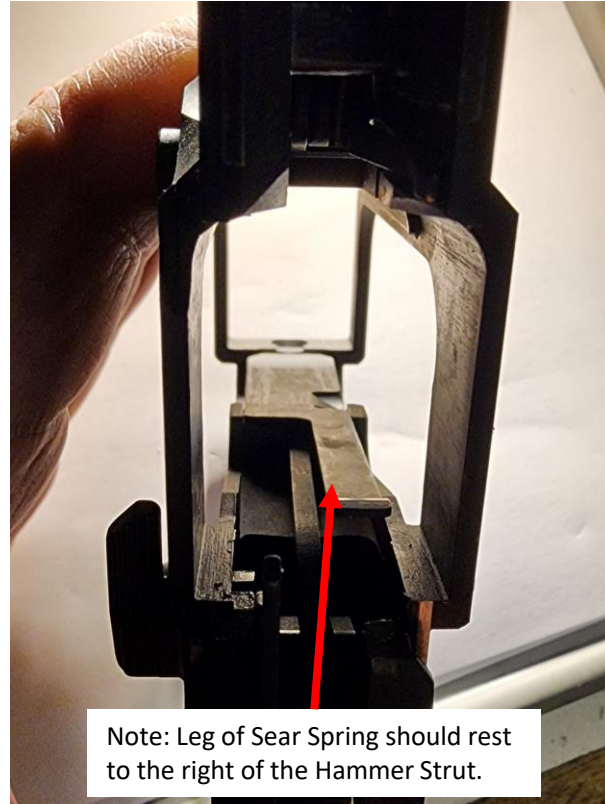
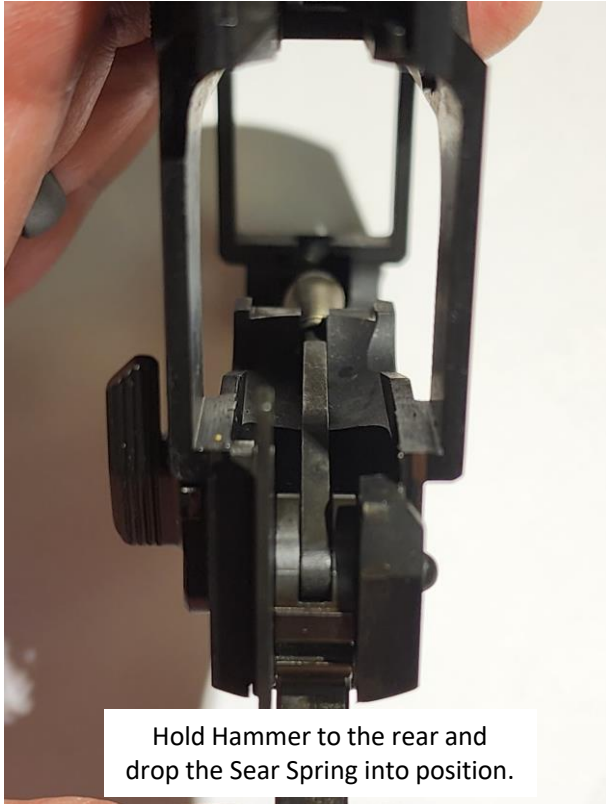


Once Thumb Safety clears slotted hole in ejector, Thumb Safety and spring loaded plunger will snap into position.



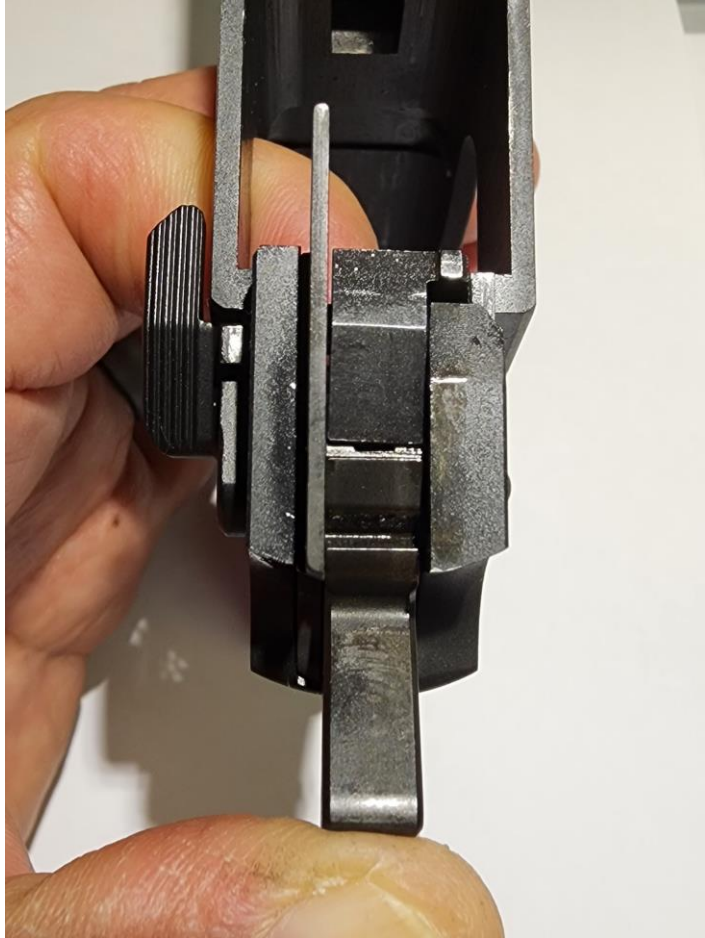
Rotate Ejector Clockwise until Sear Pin Hole and Ejector Pin hole align.

## Ignition Component Installation

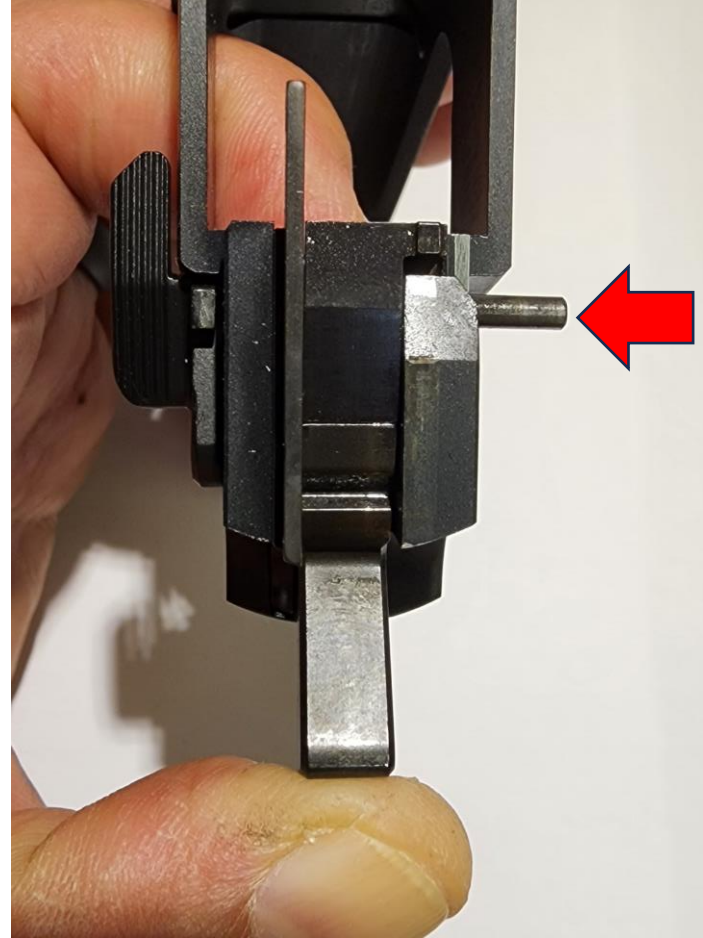




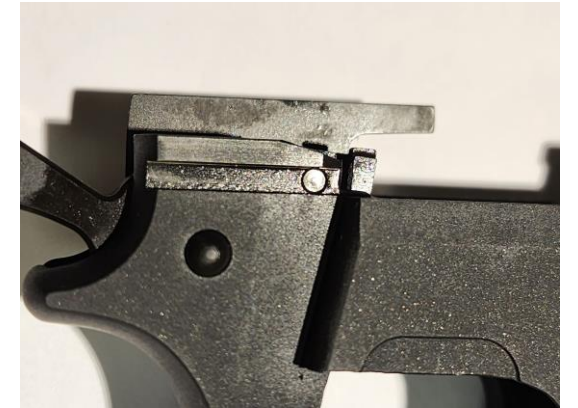
## Ignition Component Installation



While holding Hammer to rear and compressing sear spring, place sear into position.

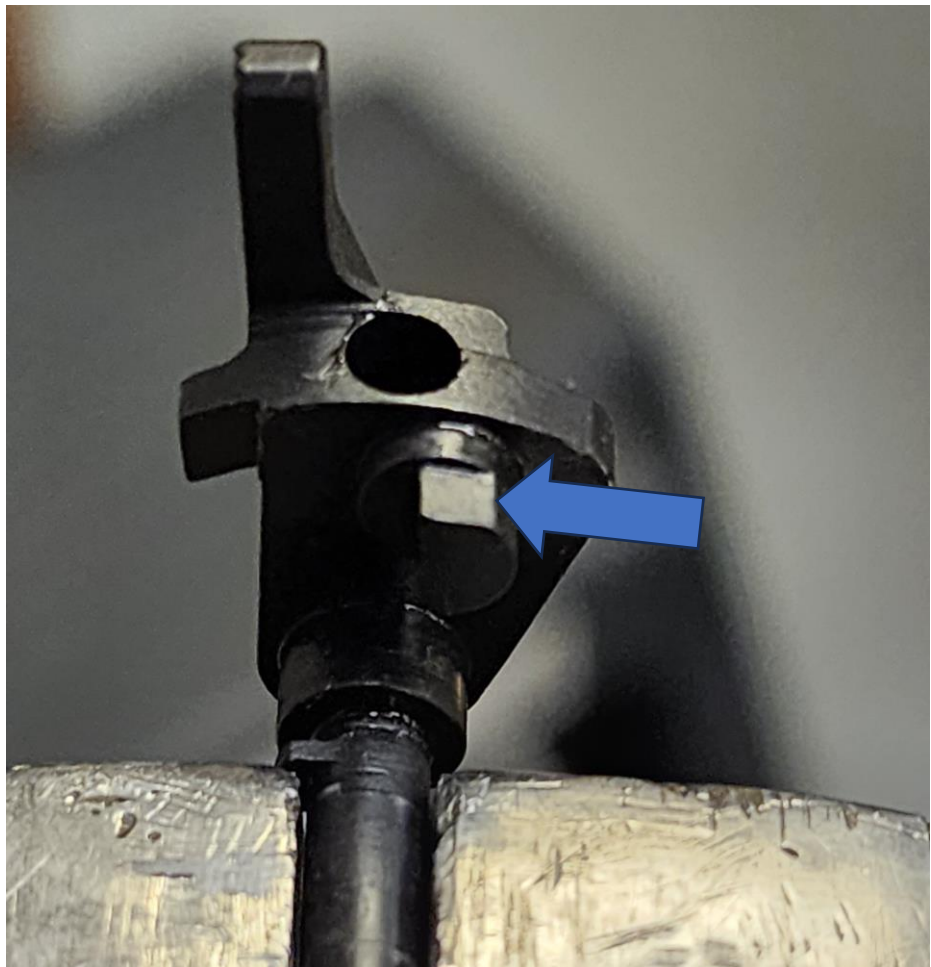


Align Sear/Frame pin holes and slide Sear Pin into position.

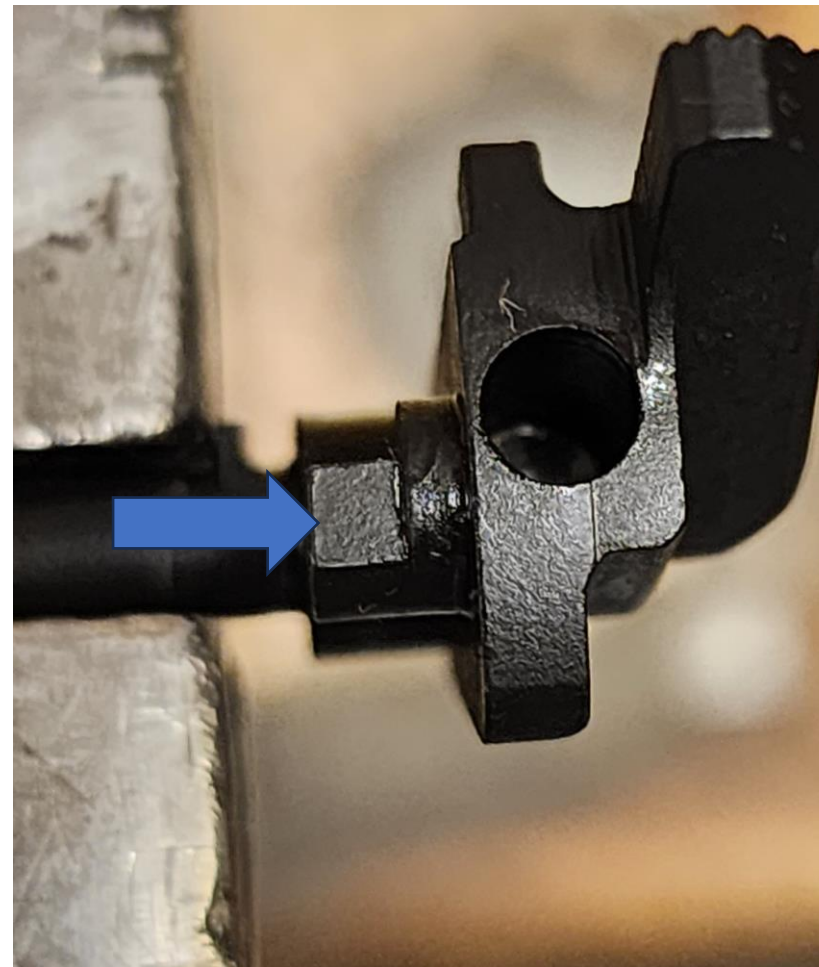


Note: Sear Pin should be flush or slightly below Frame surface on either side.

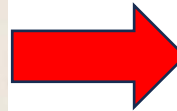
## Thumb Safety Fitting and Function Test



Surface in these pictures is the blocking surface responsible for locking the Sear in the "safe" position when the Thumb Safety is rotated up into the safe position/

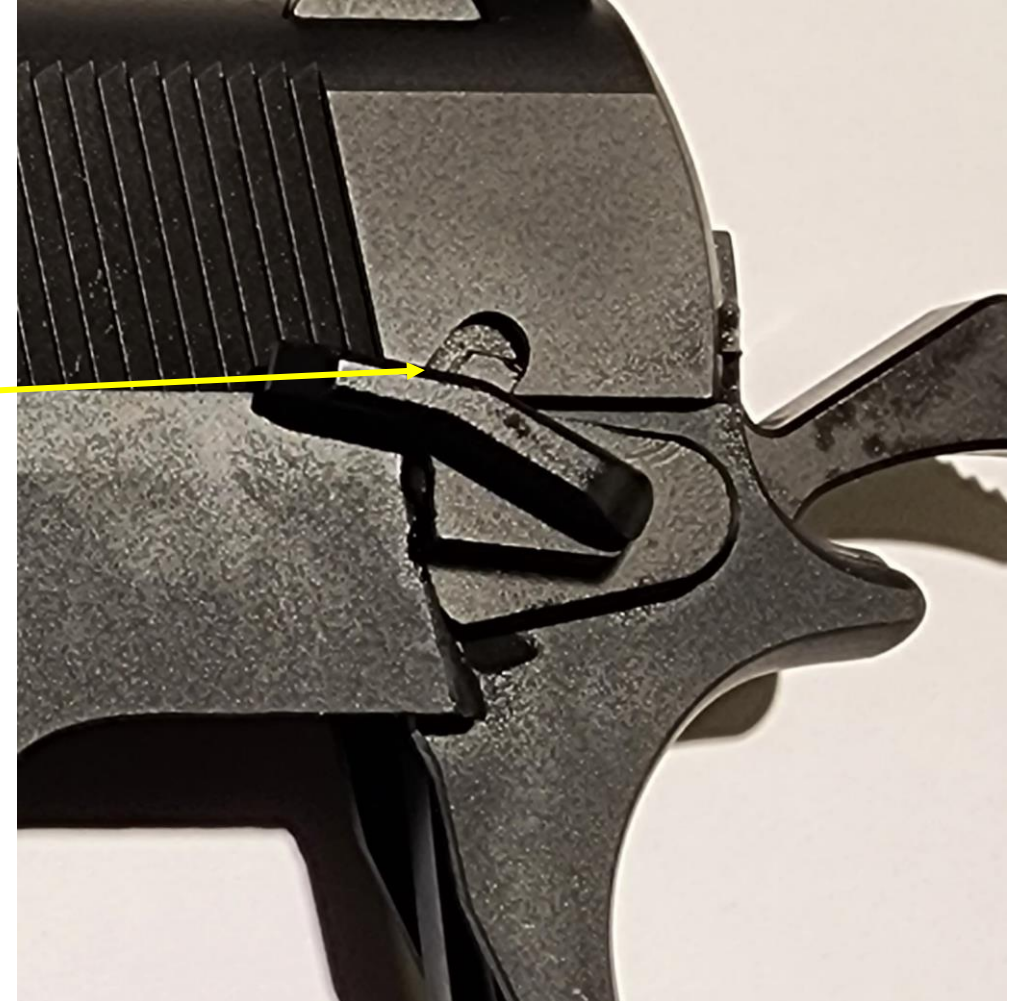


## Thumb Safety Fitting and Function Test



## Thumb Safety Fitting and Function Test

Note: All Fire Control and Thumb Safety Testing must be performed with Slide on Frame as shown.



With Slide and Thumb Safety Catch aligned, try to rotate Thumb Safety into "Safe" Position. Thumb Safety spring and plunger should "Click" into frame's plunger pocket. If Thumb Safety will not move or is difficult to engage, Thumb Safety/Sear blocking surface will need to be filed.

# Thumb Safety Fitting and Function Test

1



Interference mark left after trying to push Thumb Safety into the "safe" position.

2



Use small safe sided file to remove material from blocking face. In this case, Thumb Safety rotated into blocking position, but with noticeable resistance.

3



Go slowly to prevent over cutting blocking surface.

4

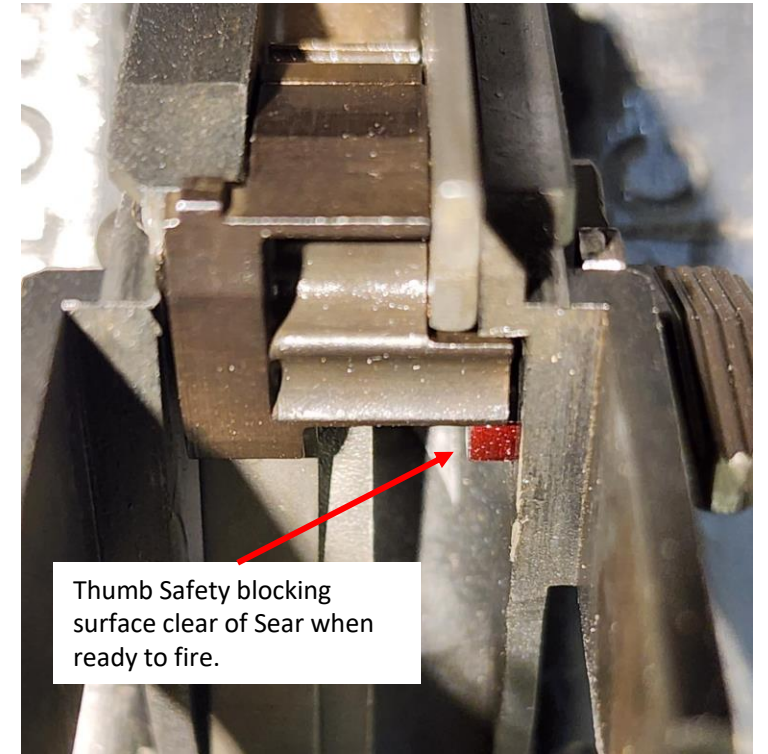
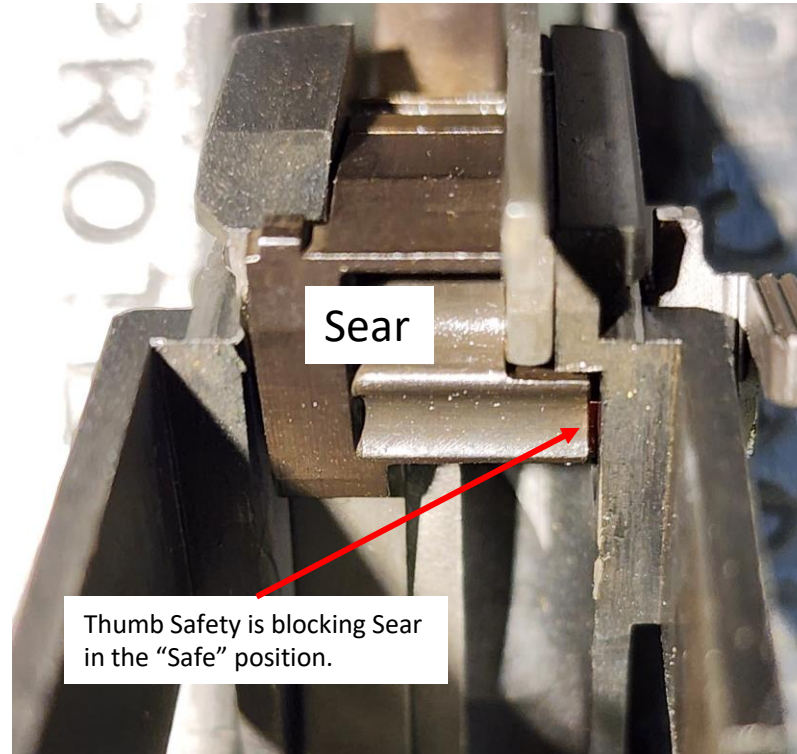


Use permanent ink marker to coat blocking surface



Reassemble frame components. Test operation of Thumb Safety and repeat steps until Thumb Safety pivots into "safe" position.

## Thumb Safety Fitting and Function Test



If Thumb Safety "bumps" Sear as it moves into final blocking position, add a slight bevel at the bottom of the blocking surface. CAUTION - No more than 0.002" should need to be removed.

## Thumb Safety Fitting and Function Test



Thumb Safety MUST rotate upwards into BOTH Disassembly and Safety notches in the Slide. If Safety will not rotate into Disassembly notch, repeat Thumb Safety fitting steps 1-4. At this point, only a small amount of material will need to be removed.

Why is this  
Step  
necessary?



When Slide is in the Disassembly position, the hammer cam surface on the underside of the Slide over-cocks the hammer, changing the orientation of the sear's blocking surface.

## Thumb Safety Fitting and Function Test



### Final Thumb Safety Function Test

Place Slide on Frame and engage Thumb Safety as show in picture. Press Trigger to rear. A properly fitted Thumb Safety will not permit any Sear movement while the Safety is active.



## Fire Control Test and Adjustment



With Firearm fully assembled and unloaded, cock the hammer. Hold the hammer to the rear then **press and hold** the trigger fully rearward while maintaining control over the hammer. Allow the hammer to ease forward, feeling for any bumps of the sear hitting the half cock safety notch. **If the hammer does not release or you feel the hammer bump the half cock ledge, proceed to the Trigger Over Travel Adjustment portion of this document.**



If the hammer rotates smoothly to its final contact with the firing pin stop, proceed to the **Inertial Safety Test**.

## Inertial Safety Test



Lock the slide to the rear using the Slide Lock Lever  
Ensure that your firearm is unloaded and magazine  
is removed.



With the firearm pointed in a safe direction and your finger off the  
trigger, use the Slide Lock Lever to release the slide, allowing it to return  
to battery. The hammer should not fall. If the hammer falls to the half  
cock safety, **STOP!** The sear spring is likely improperly seated or  
adjusted. Seek professional guidance or contact Apex Customer Service  
immediately. **DO NOT LIVE FIRE THE PISTOL!**

## Over Travel Stop Adjustment

In some cases it may be necessary to adjust the Trigger Over Travel Stop.

The Apex Trigger finish utilizes an extremely tough DLC coating called Armorlube. A Diamond File will be necessary to remove material from the OT Stop.

- Use provided Trigger Pin removal punch to remove Trigger assembly from frame.
- Remove Trigger Spring and Trigger Spring Pin from Trigger.
- Use Diamond file to remove metal from OT Stop surface.



## Over Travel Stop Adjustment



## Over Travel Stop Adjustment



Once sufficient material has been removed from the Over Travel Stop Pad, clean all surfaces and reassemble firearm.

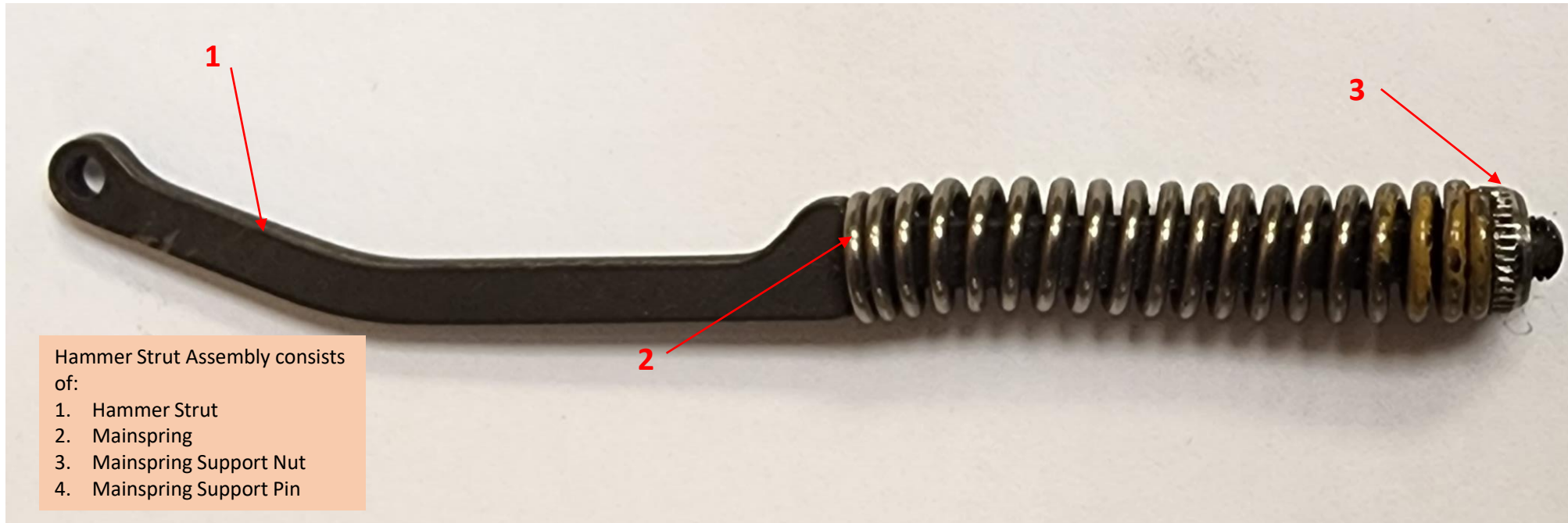
Repeat Final Thumb Safety Function Test, Fire Control Test and Inertial Safety Test.



SPRINGFIELD ARMORY MODEL SA-35 GENESEC, IL

# Browning Hi-Power Mainspring and Firing Pin Spring Replacement

**Caution!** Factory Browning Mainspring is extremely strong. Wear Eye Protection when removing or installing a replacement spring!



# Browning Hi-Power Mainspring Removal Process

## Before You Start

The bottom of the Hammer Strut is threaded with a small hole drilled through. The mainspring will need to be compressed so that the Mainspring Support Nut can be screwed down enough to access/remove the Mainspring Support Pin.

