

PSG 22

Cleaning and Maintenance Supplement

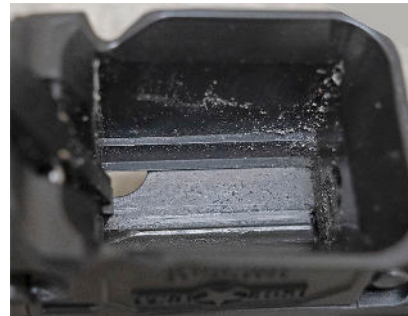


For the past year we have continued our relentless testing of the PSG 22 platform. The information that we have gathered from that testing, along with the feedback received from customers who have put thousands of rounds down range, has revealed two issues that can occur without following proper cleaning and maintenance procedures. This supplement is a follow-up to our cleaning and maintenance videos that are available on our web site and should help address these issues.

(<https://youtu.be/BxyZ8VBYbuw> & <https://youtu.be/btNIFIR2FYQ>)

The two issues that surfaced most often only occurred when the firearms were shot dirty, which in some cases was happening in as little as 300 to 400 rounds of inexpensive or dirty ammunition. Both issues are caused by un-burnt powder, case fillers and carbon buildup that forms in and around the action and the magazine. The first issue is this debris can cause a sluggish bolt carrier, which will induce a malfunction. The second issue is the magazine becomes filled with the same debris and does not allow the rounds to load and chamber correctly causing a potentially dangerous malfunction and possible damage to the firearm.

The first issue (debris in and around the bolt carrier) is covered thoroughly in the cleaning video but let us review it here.

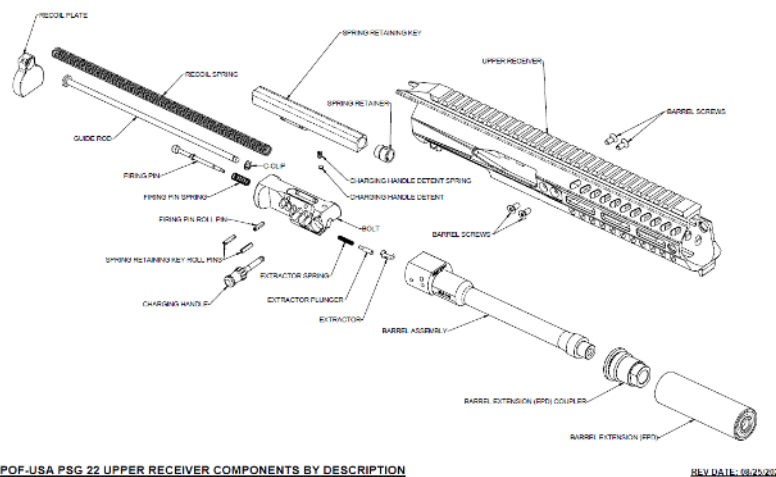


It is tough to see but if you look closely you can see the buildup of debris around the bolt and in the chamber area.

If you are familiar with cleaning the PSG 22 or have reviewed the video, you may skip to the second issue on magazine cleaning and maintenance.

As with any firearm we plan to handle or perform maintenance on, our first step is to verify that the firearm is SAFE and CLEAR. To do this we will rotate the selector to the safe position, remove the magazine and then pull the charging handle to the rear to clear any rounds from the chamber. Next, we want to lock the bolt to the rear using the bolt catch lever. Now you can visually and physically check the chamber to confirm that the firearm is empty or SAFE and CLEAR.

To begin this process, start by dis-assembling the firearm down to level one, which was covered in the first video. The main difference between level one and level two is the bolt dis-assembly and cleaning. To accomplish bolt dis-assembly start by scrubbing the entire bolt and recoil spring with a good solvent and then wipe dry.



Now stand the bolt on the recoil spring guide rod retainer and apply downward pressure on the nose of the bolt (compress the spring) to remove tension on the spring retaining clip. Slide the retaining clip off of the recoil rod. This will allow you to remove the bolt and the recoil spring from the rod. You will also be able to separate the recoil rod from the guide rod retainer. Pay close attention to the direction the retainer holds the rod.

The smooth side faces the spring allowing the head of the rod to sit flush with the back or the retainer. Set the spring, rod, rod retainer and retaining clip aside.

Next, we will remove the extractor from the bolt. You will need a 1/16" punch or a small screwdriver. Insert the punch into the extractor groove on right side of the bolt just below the extractor. Press down on the extractor detent and spring. Push or "wiggle" the extractor to the outside of the groove and then you will be able to lift it out of the bolt. The spring and detent can then be removed from the bolt. This will allow you access to the extractor channel to completely scrub the groove for the extractor and clean the spring and detent pocket.

You can use a pipe cleaner to reach down into the pocket and remove all the debris. With the extractor out you can give it and the bolt face a good scrubbing.

Once all the bolt components have been thoroughly cleaned you can start re-assembling and lubricating the firearm. To start this process, insert the extractor spring and detent into the extractor groove pocket. Insert the extractor into the extractor groove holding it on top of the detent and spring. Now using a punch or small screwdriver compress the detent and spring and allow the extractor to snap into place. Check to verify that the extractor has locked into place and you have tension on the hook portion of the extractor.

Next comes the recoil rod, and recoil spring. Take the recoil spring rod retainer, making sure that the smooth side is facing up and slide it over the recoil spring rod. Now slide the recoil spring over the rod and hold it on slightly compressed. Retrieve the bolt and slide it down onto the spring and rod, continuing to compress the spring until the retaining clip groove in the recoil spring rod is visible. Insert the retaining clip into the groove and slowly release tension on the bolt verifying that the clip has retained the bolt. The bolt should now move freely up and down the recoil spring rod.

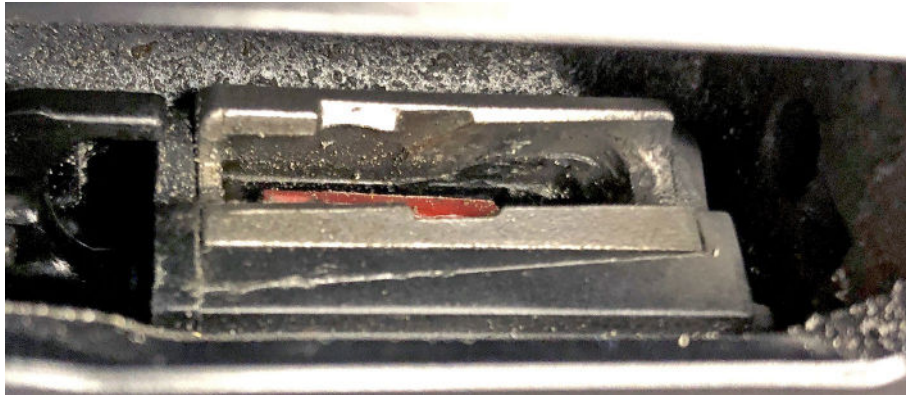
Now you can apply lubricant to all the wear surfaces and re-assemble the rest of the firearm. Place 3 dots of lubrication onto the upper receiver where the bolt makes contact. On the lower receiver, place one drop of lubrication on each side of the trigger and the hammer, then work the trigger and hammer to distribute the lubricant evenly.

Once all the components have been lubricated insert the bolt assembly in the rear of the upper receiver making sure to slide it all the way forward into battery. Next, attach the lower receiver by attaching the front pivot pin, closing the upper and lower receivers, and securing the take down pin. Now reinsert the charging handle and function check the firearm.

If you follow these cleaning and maintenance procedures this should dramatically reduce the possibility of you experiencing the first issue.

Note: We have found that using Dry Lube with PTFE is a great lubricant for this platform.

The second issue (debris in the magazine) is what we will specifically be addressing in this portion of the supplement.



As you can see in this photo, debris have accumulated inside the magazine and around the feed lips.

To provide good reliable feeding for your PSG 22 firearm you need to maintain quality magazines and inspect them regularly (visit the POF-USA web page for PSG 22 magazine recommendations <https://pof-usa.com/technical-support/>). The magazine rotor must move freely and have adequate tension so that each cartridge is quickly raised into the feeding position. Because of the dirty nature of .22 ammunition this movement can be reduced very quickly. It can take as few as 300 to 400 rounds fired to degrade the function of the magazine rotor causing a potentially dangerous malfunction or damage to the firearm.

Therefore, it is important to thoroughly clean the magazine, paying particular attention to removing accumulated residue and unburnt powder. Use a bristle brush and solvent (that does not rust the metal portions of the magazine) to remove the residue and unburnt powder. You can soak the magazine to help remove debris but then you must use compressed air to clear all the solvent and residue from the magazine body. Check to see that the magazine rotor spring tension is adequate.

At the time of the magazine manufacture, proper rotor tension was set by rotating the magazine cap nut until the rotor stops turning. Then the nut is turned an additional 1-1/4 turns beyond the 'stop' position. Most magazine manufacturers have videos available online advising proper techniques for setting rotor tension on their magazines. Check that the magazine feed lips are free of nicks and burrs and that they are not deformed. After cleaning, always check to be certain that rotor movement and tension are correct, and that no solvent or debris remain. If the magazine appears to be in working order spray the rotor with a dry lube and perform the following test to insure function.



When rotor tension is correct the next round will be pushed up against the feed lips as depicted in this photo.

To test the rotor tension, load one cartridge into the magazine and firmly press the cartridge down into the body of the magazine using your finger. Quickly remove your finger from the cartridge. The cartridge should instantly and fully move into the feeding position and completely engage both feed lips. If it does not, the magazine should be fully disassembled and cleaned again. If cleaning does not restore proper rotor tension, do not use the magazine.

Improper reassembly or improper tensioning of the rotor spring can cause a potentially dangerous malfunction. If you experience a problem with the magazine, do not use it.

