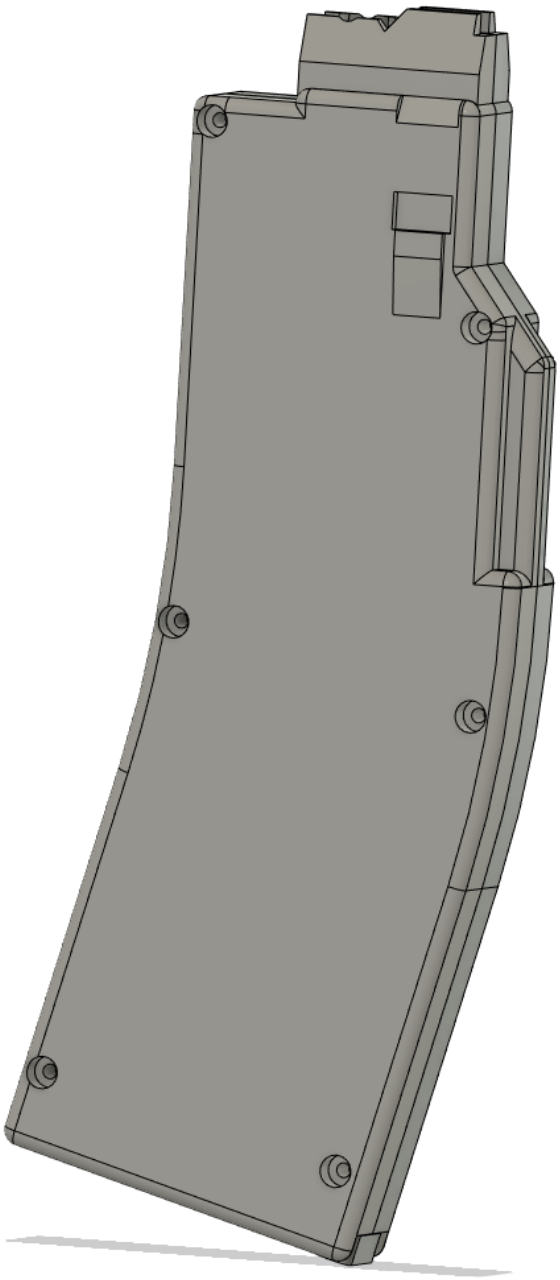
"The Chipman"

S&W 15-22, 25 Round Magazine

Designed by Laughlin Research and Development



Thank you to Gavin Baird (Instagram @ baird3d) and Freeman1337 for contributing time and resources to this project. Both are proud members and contributors to the 3D community.

Introduction

Presented before you is a standard capacity (25 round) Smith and Wesson 15-22 magazine with the loss of LRBHO. Tested to >2,500 rounds, this magazine design has consistently performed as well or in some cases better than OEM magazines. Designed to both bypass unconstitutional state laws (along with future federal laws) and make for a cheap alternative to scarce OEM mags, this design is the culmination of over 6 months of CAD work and range testing. This mag was originally designed for personal use, however, it is now publicly available to the world! :)

Required Materials

You will need:

• x6 M3 x 16mm Socket Head Screws (Home Depot sells in packs of 3)

• x1 25 round Magazine springs from Black Dog Machine LLC

https://02bab52.netsolstores.com/ciener-replacement-recoil-spring.aspx

Or 1x oem 25 round S&W 15-22 Magazine Spring (if you can find one)

• 7/32” and 1/8” drill bit

• Sandpaper or Dremel (anything to do filing) (I prefer 220 and 400 Grit for fine sanding)

Note: if using OEM springs you will want to print the “OEM Spring Follower”

Instructions

1. Generously clean build plate prior to printing with isopropyl alcohol. Print as shown in orientation using magazine sides with 1mm brim attached.

★ Print all in PLA+ 220C hot end, 60-65C bed. Layer height of .2mm

★ Print mag bodies at 30% infill, 4 shells @1.2mm shells

★ Support: Everywhere, 45 degrees

2. Print the follower, baseplate and locking tab.

★ Print all at 100% Infill

★ Print Follower as shown in orientation using support from build plate at 45 degrees

★ Print locking tab as shown with support from build plate

3. Thoroughly remove all support material and brim. Using a pair of needle nose pliers, snap the brim off close to the edge and use snips to clean up. Pocket knife or screw driver works great for all other material. Gently sand feed lips so rounds insert smoothly. Lightly sand baseplate pocket and bottom of mag till no sharp edges are left. Sand edges of follower to ensure a proper fit. ANY AND ALL BURS WILL PREVENT MAG FROM PROPERLY FEEDING. Take your time

4. Sand the top of the follower until it is smooth, so that rounds do not catch on the follower.

5. Use a 1/8“ bit and drill out left side small holes. DO NOT DRILL RIGHT SIDE. Next, use a 7/32” bit and drill out socket head holes approximately 2mm. DO NOT OVERDRILL. If you overdrill your screws will not properly tighten down. We are widening existing holes, not making new ones.

6. Align the two sides at the top using a clamp. Thread in the M3 x 16mm screws, being careful to make sure they go in straight and thread into both sides of the magazine. Prior to aligning, you can pre screw the M3 screws into the right side, making sure to only turn 1-2 turns. This will help them to get started.

7. **Optional:** On the front and back straps between the final screw and top of the magazine, apply a few drops of clear gorilla glue and clamp in place, making sure that feed lips align properly. Let sit for 2-4 hours.

8. Drop the follower into the magazine, followed by the spring, locking tab and then slide in the baseplate. If using the S&W spring, disregard the locking tab.

9. Make sure the baseplate is not overly loose. If it is too tight you can gently sand to ensure a snug fit but once again do not over sand.

10. **Important:** Insert and extract cartridges approximately 5-10 times depending on spring, working your way up to 25 rounds. Once the spring has been properly compressed and used to 25 rounds it will function well. The mag may not want to accept more than 20 rounds at first. Use a screwdriver or other tool to push the spring down and hold it in place. Continue loading and unloading until ammo fits properly. *Some mags may work perfectly right off the bat.**

Long Term Durability

Being a 22lr mag, this magazine is very durable if properly printed, assembled and cared for. One singular magazine has surpassed 2500 rounds and would probably last another 5000+ rounds if given the chance. These magazines can nearly go toe to toe with OEM mags.

Troubleshooting

- When loading the magazine, you first press the rounds in vertically like normal rimfire magazines and slide the round down and back into the stack. With this magazine, it is important to make sure that you DO NOT push the rim of the new round behind the rim of the previous round. It will become obvious after the 15th round or so that there is an issue, as the rounds will be pointed downwards at the front wall of the magazine, instead of up and forwards.
- While loading, it may also be helpful to use the thumb of the hand holding the magazine to press the previous round down as well as with the new round, ensuring an even stack and preventing the aforementioned issue of rims that are seated behind the rims of the rounds below them.
- Some mags are just stubborn and do not want to hold 25 rounds. If so, load 22-24 until spring breaks in and is willing to hold 25. It will eventually (I promise).

Version 1.0