

## Update 1 December 2010

Well my 100<sup>th</sup> anniversary 1911 reproduction pistol has turned out to be quite a project. I should have started a year earlier! The logistics of reproducing the 1911 exactly like it was when it was first produced in 1911/1912 has taken on a life of its own.

I have finally gotten samples of all of the unique parts that were in the very 1<sup>st</sup> guns. I probably will not have any of the actual reproduction pistols ready for the Shot Show but I will have 3 sample pistols ready. I refuse to cut any corners in making these pistols just to make the Shot Show. Every part in the pistol will be CNC machined from billet steel and the frame and slide will be made from forgings. The only real differences from the original pistols will be that the steels used will be modern alloys properly heat treated and the very coarse tool marks found internally will not be there. The modern CNC machines produce a surface finish on the parts that was impossible back in the 1911/1912 times.

There are 18 parts that are unique to the original production pistols as well as the polishing and finishing. I will cover each part and what the differences were. I have taken some bench top digital pictures comparing the old with the new. Some of the photos are not very good but it was the best that I could do with what I have.

### #1. Firing Pin Stop:

The original firing pin stop had a small radius on the bottom to start the cocking of the hammer. It was later determined that if the radius was made larger the slide would have more leverage on the hammer and the slide would cock the hammer without depleting as much energy from the slide as the small radius firing pin stop did. You will find that the pistol will be much harder to rack the slide with the hammer down.

### #2. Grip Safety

The original grip safety had a short tang on it. The short tang didn't cause a big problem with biting the web of the hand at first as the hammer spur was short. Later the Ordnance Department wanted the hammer spur extended to make it easier to cock the pistol. The longer hammer spur extended over the end of the grip safety when fully cocked to the rear during firing. The web of the shooter's hand would ride up over the end of the short tang grip safety and the long spur hammer would pinch the web of the shooters hand between the hammer and the grip safety. It would literally take a bite of flesh out of the web of your hand! It was a MANLY pistol. OUCH!

### #3. Wide Spur Hammer:

The original hammer had a short wide checkered spur hammer. This hammer reminds me of a bull dog's head in comparison to the later long wide checkered spur hammers. Manufacturing a reproduction of this original style hammer has proven to be quite a task. To manufacture the wide spur you have to cut your hammer blank from steel

stock that is the thickness of the wide spur and then thin the main body of the hammer to the correct width. The drawback to this is that you make chips out of almost as much steel as you end up with, not to mention the time factor. The shape of the top of the spur is not too bad to do with a CNC milling machine. The tough part was to apply the correct style of 40 LPI checkering to the top of the spur. I believe that we have solved the checkering issue and will be producing a correct reproduction of the original hammer.

#### #4. Sear Spring

The original sear spring did not have the turned down end on the right tine of the sear spring. Evidently the military or Colt figured out that the sear spring could slide off of the sear leg during assembly unless they put the turned down tab on the sear spring. I will agree that it is very easy to have the sear spring slide off of the sear during assembly without the tab. Once you have the mainspring housing pushed up about ½ ways during assembly the sear spring will stay put.

#### #5. Grip Screws

The original grip screws had a very thin head which made the screw driver slot very shallow. The shallow slot made it very easy to slip out of the slot with the screw driver blade and damage the slot. It didn't take very long until the grip screw slots were so badly burred up that it was very difficult to remove and replace them.

#### #6. Grip Screw Bushings

The original grip screw bushings had to be taller to support the grip under the thin head grip screws. The grip screw bushings had to be made shorter when the grip screw heads were made thicker. This would allow the thicker grip screw heads to be flush with the top of the grips.

#### #7. Grips

The original grips were made from American Black Walnut and had the distinctive double diamond checkering pattern. There seems to be an argument among collectors far more knowledgeable than I, whether the original grips were hand checkered or machine checkered. I know that the first time I was consulting to the Colt Custom Shop there was a large pantograph checkering machine stuck back in the corner of the shop. I asked what it was and was shown that it was used to checker 6 pair of 1911 grips at once. I know that the machine was probably made in the Colt tool room and the components that the machine was made from would not have been available in 1911. I am having the grips for my reproduction checkered by hand from American Black Walnut. There also seems to be differing opinions on what type of finish was applied to the grips. I think that I will stick with the China Oil (Tung Oil) unless someone can convince me that another finish is a more authentic choice.

## #8. Thumb Safety

The original thumb safety had the raised square pad that the thumb piece protruded from. The checkering on the thumb piece was diagonal and 30 lines per inch. Manufacturing a reproduction of the original thumb safety required some out of the box thinking to fixture it so the CNC machine could do the job in a cost effective manner. The checkering had to be pressed into the thumb piece as shown by the original safeties. We found that it is very difficult to press the checkering in very deep. We are currently working on making our checkering match the depth of the original.

## #9. Slide Stop

The original slide stop had a couple of very unique features. The checkering horizontal lines were parallel to the top edge of the slide stop and there was a V shaped flat under the checkered thumb piece that was wide at the front and tapered to nothing at the rear of the slide stop. The checkering appears to have been machine cut on the originals that I have examined so the checkering on our slide stops will be machine cut. The checkering is 30 lines per inch. I would guess that Colt had one of their tool makers make up two form tools. One tool would cut the checkering lines for the horizontal lines and one tool would cut the vertical lines. We are cutting each line individually on our CNC machines. The cost to have two form tools made would be prohibitive IF you could find a tool maker who could do it.

## #10. Recoil Spring Guide

The original recoil spring guide had a thin back flange that had tall ears sticking up. The tube of the recoil spring guide was very thin and had almost no bevel on the front of it. I would guess that it was found that the recoil spring guide was somewhat prone to break and deform. The later recoil spring guides are made from much heavier stock.

## #11. Recoil Spring Plug

The original recoil spring plug was checkered 25 lines per inch on the front and there was no tab punched into the tube to capture the open end of the recoil spring. I have examined several original recoil spring plugs and it appears that the checkering was cut with a form tool. We are cutting the checkering lines individually as a form tool would be very expensive.

## #12. Barrel

The original barrel was made from a forging and is pretty much the same in form as it is today with a couple of small variations. The throat on the original barrel was a small trough that was designed to feed ball ammunition. I have had a hard time finding an original barrel that has not been "throated". I don't know if the military had the barrels throated or someone did it over the many years that these pistols have been floating around. I have finally found a couple of documented original pistols with a correct ball

throat in the barrel. The relief cut below the locking lugs is another area that is unique to the original barrels. The relief on the original barrels was cut with a form tool on a rotary table with the barrel held muzzle up. All of the barrels currently being manufactured have this relief cut made on the CNC lathe. Our barrels will have this relief cut made on a rotary table with a form tool. This is just a tiny thing but I think that it is important to do my best to make a true reproduction of the original.

### #13. Front Sight

The original front sight was just a sliver usually called a bump. The sight was .100" high, .400" long, and .058" wide at the base tapering to .030" at the top. Those of us over 50 don't stand a chance of seeing the front sight well enough to shoot the pistol to its accuracy capability!

### #14. Rear Sight

The rear sight was not much bigger than the front sight. The top of the original rear sight was rounded from side to side and looked like a small hump. The sight was .626" wide and .245" high. The rear sight notch was a U shape .060" wide and .040" deep. Again, those of us with old eyes can't usually see the notch in the rear sight.

### #15. Magazine Catch

The magazine catch on the original pistols varies only in the number of diamonds of checkering from those made today. The original magazine catches had 8 diamonds of checkering each way on the longest lines. This amounts to 25 lines per inch. The other distinctive feature of the original magazine catch was the way that you had to remove it from the frame. The magazine catch had to be pressed as far to the right as possible and rotated clockwise until the magazine catch lock popped out of the magazine catch. Then the magazine catch could be removed from the frame. The slot for the tab on the magazine catch lock was much deeper to allow the magazine catch to be pushed far enough to the right to turn it. There was no radial notch to allow the tab on the magazine catch lock to be turned out of engagement. It is a real pain in the butt to remove the magazine catch and even a bigger one to replace it. The other real problem was that the magazine catch lock was easily lost when it popped out of the magazine catch under the high spring pressure of the magazine catch spring. I do not recommend that you try to remove the magazine catch from my reproduction pistol as you will most certainly scratch the frame and probably lose the magazine catch lock! Our magazine catch will be machine checkered correctly.

### #16. Magazine Catch Lock

The original magazine catch lock was just slightly different than what we know today. The difference was the original did not have the screw driver slot in the head. It had a rounded dimple in the center of the head. This one item was probably the worst feature

of the original 1911 pistols. According to my sources this feature was changed after serial number 3,188. Our magazine catch lock will have the dimple and not the slot.

#### #17. Mainspring Housing Retaining Pin

The original mainspring housing pin was rounded on both ends. This made it very difficult to push the pin out as the rounded ends would allow the punch to slip off of the pin when trying to drive it out. The dimple in one end of the pin was authorized at SN# 6,499. Our pin will be rounded on each end.

#### #18. Magazines

The original magazines were made from seamless tubing that was purchased from Germany. We will be using modern formed and welded magazine tubes as seamless magazine tubing just doesn't exist to the best of my knowledge. The feed lips will be the original style long ball feed lips. The base plates will have the lanyard loop riveted on and the bases will be held on to the magazine body with two pins that are riveted. The sides of the base plates will be visible below the magazine body as the originals were. These magazines were called visible base magazines.

Making these magazines is a very big job. The base plates must be machined with two bosses that will stick up in side of the magazine body. There must be a 1/16 hole drilled in each boss to allow the pin to slide through and hold the base on the body. The bodies have to have two holes in each side that properly align with the bosses. The killer is that the original magazines were not heat treated so the holes could be drilled. Our magazine bodies are properly heat treated and there is no way that the holes could be drilled or punched so we will have the holes laser burned into the bodies. The floor plates must be polished before the lanyard loop is riveted on them. Once the floor plates have been riveted on, the magazine assembly is then buffed on the sides to blend the bases to the bodies. Then, the magazines will be carbona blued to match the pistol.

The magazine followers will be the standard flat dimpled style and they will be heat blued as per the originals. Roy Huntington has graciously loaned me an original visible base magazine to use as a sample and the follower still has some of the heat bluing on it. It appears that the floor plate was hand filed to match the body as the file marks are still visible. Ours will be far better in appearance.

Now some food for thought, there are 6 rivet heads that must be done on each magazine, two to attach the lanyard loop to the floor plate and 4 for the floor plate retaining pins. To say that making the visible floor plate magazines is labor intensive is a very big understatement. The price per magazine will be in the \$150-\$250 range. One magazine comes with each pistol. I will have some spares available for sale.

#### #19. External Finish

All external parts and the frame and slide will be polished to duplicate the original polishing. The original pistols were finished to commercial standards until SN# 2400. This was a fairly high polish. The polishing will be done to the correct grit and in the proper directions with extreme care not to round off any edges or wash any holes. The original Colt polishers used polishing wheels that were made in house. These wheels were made from laminated wood and were about 24" in diameter. The face of the wheel was covered with leather. The grit size that was to be used on a wheel was mixed up with glue and applied to form a "head" on the wheel. The head was trued up and the wheel was given to the polisher. The polisher had to break in the wheel before he could use it. Once a wheel was broken in by a polisher no one else was allowed to use that wheel. The polishing machines, called buffing jacks, were very large and powerful. The shaft speed was infinitely variable so that the polisher could run the polishing wheel at the speed he needed to properly polish the work. We will be using modern wheels and grits but the work is accomplished in the same manner. Great skill and practice is needed to be a master polisher. The polishers at Colt were the highest paid workers at that time.

The bluing of the pistols will be done with two different methods. The frame, slide, grip safety, mainspring housing, sear, disconnect, recoil spring guide, and recoil spring plug will be carbona blued. This process most closely matches the bluing done during the 1911/1912 time frame. The hammer, trigger thumb safety, slide stop, pins, grip screws, magazine catch, and magazine catch lock will be heat blued. We will be using Niter Salts to do this. The original heat bluing was done over charcoal beds. The charcoal produced the temperature needed to bring the parts to the iridescent blue color. The Niter salts are heated to the proper temperature to produce the same iridescent blue color. Trying to use charcoal to do this would require a vast ventilation system to pull off the carbon monoxide fumes or you would have to do the bluing outdoors. The last time I checked it gets too darn cold here in Nebraska to do that during the winter. Not to mention that the cost of the pistol would increase at least \$500 and I don't know where you could find anyone who was skilled in this or would be willing to stand over a glowing bed of charcoal for days to blue all of the parts.

## #20. Roll Marking

The roll markings will be the same as the originals other than the Colt name and logo. Cylinder & Slide Inc. will replace the COLT'S PT.F.A.MFG.CO. FREMONT,NE,U.S.A. will replace the Hartford address. The Colt logo will be replaced by a specially designed Cylinder & Slide Logo. The fonts used for the original markings will be duplicated as closely as possible. The serial numbers will be hand stamped in front of the slide stop hole on the right side of the dust cover as the originals were for the 100 pistols that will be marked MODEL 1911 US ARMY. The 10 pistols that will be marked MODEL 1911 US NAVY will have their serial numbers stamped in front of the slide stop pin on the right side starting with 501 and ending with 510. There will also be 5 pistols made that will be marked MODEL 1911 USMC. There were never any 1911 pistols marked this way but I felt that there must be at least 5 Marines who would want one. The 5 pistols marked USMC will have their serial numbers stamped in front of the slide stop pin

starting with 3501 and ending with 3505. The serial numbers on the US NAVY and USMC pistols represent the first serial numbers assigned to those services.

The pistols will be shipped in the original style two piece brown Kraft paper covered boxes wrapped in heavy brown waxed paper.

Please do not ask me to change any of the features of these 115 pistols. I have worked too long and too hard to make these as close to the originals as possible. I will not make any changes. I will have 25 extra pistols that I can customize any way that you might like to include special serial numbers. I will be happy to quote those on an individual basis.

These pistols will be built with extreme care and patience. Please do not order one and then become impatient with me. I will not be rushed! I hope to complete the entire run in 18 months. I have been assigning numbers as the orders have been received. If you desire a specific number and it is still available, there will be an extra \$250 charge.

My commemorative reproduction pistols are \$5000 each with a \$2500 deposit due upon order.

I could go on and on about all of the tiny little things that I have found out about the early 1911 pistols but there just isn't room or time here. I have been fortunate to have been loaned #305, #469, #C67, and several later pistols for complete examination. I would like to thank those who trusted enough to allow me the privilege of examining their treasured 1911s. I also have a set of blue prints that are dated 1914 from the Springfield Armory. These prints were marked obsolete! I have very closely measured the parts from the early Colt pistols and I am convinced that these prints were Colt prints that the Springfield Armory was given to produce the pistols. Springfield then made changes to reflect their manufacturing abilities that made these prints obsolete.

Another problem that I ran into was that the internal measurements of the Colt original parts matched the blue prints very closely but the external radiuses and such did not match the prints in many cases. The light bulb finally came on. Each pistol was hand fitted together and then sent to the polishers to be blended and polished for finishing! The individual polishers would change the external radiuses and surfaces from the print during the blending and buffing. They were not concerned with print dimensions, they were concerned with how well the pistols external surfaces were blended and polished for appearance! So, I am convinced that every early 1911 pistol was externally unique.

The internal surfaces on the early pistols that I examined showed the fitters file marks that were made during the hand fitting that occurred on every pistol. Remember, during that day and age they were not capable of holding tolerances like we know today. The parts were the most expensive part of the pistol and the labor was very cheap in comparison at that time. The parts were made to be fitted by highly skilled builders so that a minimum of wasted expensive parts occurred. Now for the really unbelievable, I very carefully tried parts from one pistol into another and almost every time the parts

could be interchanged. SO, even though the parts showed that they had been file fitted to each individual pistol the parts were interchangeable into other pistols most of the time! I then noted that the frames and slides did not show any fitting marks internally. Eureka, the frames and slides were made with such close precision that when the parts were fitted properly to them they were interchangeable. WOW do we need to learn from our past!

Many of you will remember the cool little tool that the military used to produce that was used to take the pistol completely apart. It looked like an L. The short leg was a screw driver blade that was used to remove and replace the grip screws. The long leg was rounded for about the last 1" or so and the end was rounded. It looked like the end of the hammer strut. I have several of them stashed away. I always thought that the rounded end was used to depress the firing pin so you could remove the firing pin stop and also used to push out the mainspring housing pin. I am sure that this is true. BUT, it just dawned on me that on the very early pistols that had the magazine catch lock that only had the dimple in it the tool was used to depress the magazine catch lock into the magazine catch so you could reinstall the magazine catch into the frame! I have already started the ball rolling on having them made. I am hoping that I can have them made from forgings, highly polished and them Niter blued. They will probably be pricey little things. I don't think they have been made since before WWII.

I hope that you share my passion for the 1911 as much I do and that you will purchase one of my commemorative reproduction 1911 pistols. I truly believe that the 1911 pistol is one of our countries greatest heritages that have stood the test of time. My anniversary 1911 reproduction is a tribute to the genius who designed it and to the company who first mass produced it.

Thanks

Bill Laughridge