

Gun Show Find?

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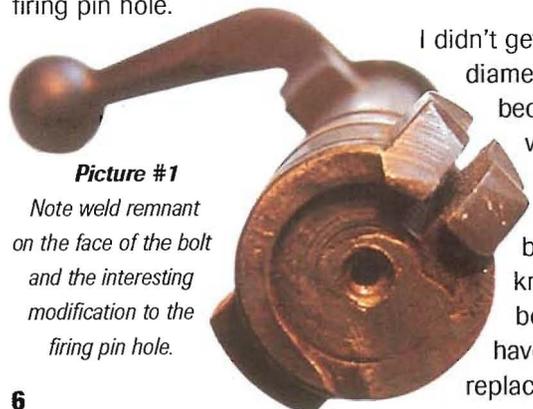
Gun shows are a great place to generate business and get your name out there. I generally bring several of my military restorations and a few Garands to sell. That always brings a lot of attention to the table and never fails to generate new clientele.

After awhile you get to be known for what you promote at these shows. I have the rep for being the military gun "expert," and the place to get any kind of restoration done. The rep brings people in with their firearms to me at the show to be repaired, restored etc. I do the work and generally bring the piece back to the next gun show for pick up. It works great for me.

Recently at one of these shows a guy brought me a Springfield 1903A3. It had a 3-43 barrel, and a fairly nice stock and hand guard with the appropriate cartouches. It also had the older 14" bayonet. The guy was really proud of himself for picking up the rifle for \$300.00. He brought it to me to get my opinion on the "deal" he got, and for me to clean it and check out function and safety.

A cursory look revealed a missing front sight blade, the rear sight windage screw was also missing, stacking swivel and a couple of hardware parts for the stock were either missing or needed replacing. I told him he did well since the stock, which was in good shape, and the bayonet with sheath was easily worth the \$300.00, I had the replacement parts and they were not expensive.

I got the 03 back to the shop and a couple of weeks later I was able to start on it. The first step in my usual procedure for such work is to take out the bolt, then disassemble and inspect the component parts for wear and function. This includes checking out the bolt face and the diameter of the firing pin hole.



Picture #1

Note weld remnant on the face of the bolt and the interesting modification to the firing pin hole.

I didn't get to check the diameter of the hole because it really wasn't necessary. One look at the bolt face and I knew the bolt body would have to be replaced. At some

point in time somebody thought it would be OK to counter-sink the firing pin hole. Check out picture #1 in the bottom left corner. Not OK, with everything working well, the next round going off is going to, at the very least, push the primer back into that "big" hole, perhaps pop it out completely and create a leak of hot gas back through the bolt. Any or all of that could happen and none of it is particularly good. Add a new bolt body to the list of replacement parts.

Step 2 is to clean the bore and check headspace with a check bolt. The check bolt is a military tool that meets spec for the bolt face and overall length of the bolt body, it has no firing pin, or extractor, just a test tool. As a rule I have a test bolt of some description for all the major military rifles I work on. I first check headspace against a "spec" bolt then with the bolt in the rifle. I think it gives me a better idea of where the headspace is. I proceed to clean the bore and chamber, and slip in the no-go gauge, does not close, so far so good, put in the go-gauge, and the test bolt closes on the go gauge. Great!!

Not so fast grasshopper, while cleaning the chamber I noticed what appeared to be another completely unacceptable anomaly. The chamber mouth was way out of round and way larger than spec. It is hard to get a good look at the chamber since it sits so far back into the receiver so I will have to check further when I get the metal out of the stock and take it down to the barreled receiver.

I have not gotten very far with stripping this rifle and already have found that the bolt body is bad and the barrel chamber, although headspaced properly, looks to be a mess.

What do I see upon taking the wood off? Check out picture 2 below. It looks like someone unsuccessfully tried to remove the barrel with a pipe wrench, how comforting is that? The rest of the rifle is disassembled and a better look at the chamber reveals, as I suspected, the chamber mouth looks like it was hit with an errant grinder.



Picture #2

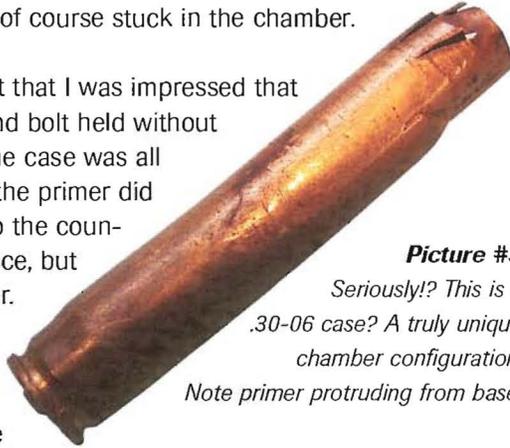
The results when a pipe wrench is used as a barrel removal tool.

Next step is to call the owner and let him know that his gun show find is going to cost a bit more. I explained the problems with the gun and told him that it was a wall hanger at this point. "Naturally his first comment was "Are you sure it won't shoot?" My response was that it probably would fire, I just wouldn't suggest holding it while it was going off, and could not say that it would do it more than once. Believe it or not he wanted me to try. I told him the worse case scenario, even with me in a protected place, would be a blown up gun,

the best case scenario was a stuck case. The worst case results in a waste of \$\$\$, the best case results in the spending of more money unless of course it is to be a wall hanger.

He still wanted me to test fire it. I have the capacity to remote test fire from the comfort of a brick building and admitting to a curiosity myself, I test fired it. The result was a blown out case that was of course stuck in the chamber.

I have to admit that I was impressed that the receiver and bolt held without any issues. The case was all distorted and the primer did push back into the countersunk bolt face, but it held together. Although the gun did not blow up, the owner saw the light when I showed him the spent brass you see above.



Picture #3

Seriously!?! This is a .30-06 case? A truly unique chamber configuration. Note primer protruding from base.

New plan – rebarrel the rifle and make it safe to shoot, and of course make it like it would have been in WWII, which means having to find the correct barrel. Good thing I have a lot of parts.

Continuing on with the, what should now be referred to as a full out restoration, I took the metal out of the stock, removed the barrel and examined the receiver and got a better look at the chamber shown below.



Picture #4

What a chamber looks like when a hand grinder is used to remove a demill weld.

Well before this point, the question came to mind as to how this fine example of American manufacturing ended up like this. I don't know for sure but my guess is that this gun had been made into a Drill Rifle, and at some point had undergone some sort of demilling process.

(Editor's Note – Demilling is the process of rendering a, usually military, firearm "permanently" incapable of chambering or firing a cartridge).

I have seen all sorts of demilling processes, I don't know if there was one "approved" method but I have seen a variety. The most common I suppose is to have the firing pin hole welded, the magazine selector switch welded in the on position, the barrel plugged and the barrel shank welded to the receiver. It looked like to me the receiver had been half-heartedly welded to the barrel, the chamber probably received some weld also plugging it up and perhaps the

firing pin also. Again, my guess is that somebody took a Dremel tool and gouged out the weld in the chamber, and then drilled out the firing pin hole that resulted in the countersunk hole. The selector switch had not been welded. Just a guess, but I know it did not come out of the Remington factory like this.

Rebarreling with a GI replacement barrel is pretty straight forward, and I have plenty of replacement bolts. I cleaned up the receiver and headspaced to the replacement bolt body. One other thing I did to CMA (cover my ***) was to have the receiver sent out to be re-heat treated. No telling what abuses had been wrought upon it, but re-treating is cheap insurance.

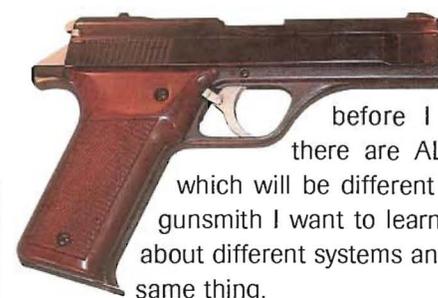
Once I got the receiver back from the foundry I refinished it to match the rest of the metal, I put the barrel on, rechecked headspace and reassembled the now cleaned parts.

Final step was to test fire with M2 ball ammo. I always keep two empty cases, one I give to the owner and one I keep for my records. I record serial number, model, date and owner on the spent casings for every gun that I rebarrel, build, or was specifically asked to check headspace.

Finished!!! Let's see, new barrel, new barrel installation/headspace, new bolt body, re-heat treat, refinish receiver, repair rear sight, replace missing parts, clean stock and metal, test fire . . . \$675.00 + \$300.00 original cost – total cost for the gun show deal \$975.00. Still not to bad a deal for a "new" 03A3 with original bayonet, but not the deal originally thought.

Moral of the story, be wary of Gun Show "deals," and be smart enough to thoroughly check, or have someone check out these old guns before putting them back into service. ♦

Program Guide Continued . . .



"Whenever I get the chance to take apart a gun I haven't seen before I get excited because there are ALWAYS things about it which will be different from other guns. As a gunsmith I want to learn as MUCH as possible about different systems and methods of doing the same thing.

EVERY new thing helps me understand the basic firearm components and their function at a deeper level and the more I understand, the easier it is to troubleshoot and repair all the guns that come across my bench!"

With that being said, we hope you enjoy this issue of GunTech. We're going to leave you now so we can get back to helping Jack review all the cool stuff for our October Christmas Shopping Issue. See you next month . . .

in GunTech! ♦