



I had a reader send me an email asking me - "How do I make the Mosin-Nagant safety easier to pull and set?".

I had by chance seen that [Wolff Gun Springs](#) carried several different striker springs for the Mosin-Nagant rifles and carbines. I contacted Wolff and asked them to send me a couple to try out for an article. My thought was if they were a less pound load than the original military spring then this may help with the pull of the safety.

What I discovered when I received the springs was that they actually had higher load ratings than the original military springs. I was a little disappointed because I would not be able to accomplish what I originally set out to do.

I recently acquired an illness that actually gave me the golden opportunity of spending quite a bit of time in the hospital and in convalescence at home. I am being a little sarcastic, because believe me it was absolutely "no fun". But it did give me time to do research and come up with ideas for future articles.

I wondered to myself why the springs from Wolff would be a higher load than the original striker spring.

I read the material that came with the springs -

Manufacturer's Product Description
<p><i>Wolff coil-type replacement rifle and shotgun springs are designed to replace weakened, damaged or broken springs in many popular models. These springs, unless otherwise noted, are ready for immediate installation and require no fitting.</i></p> <p><i>BLITZSCHNELL™ precision speed-lock rifle striker springs for bolt-action rifles are made from the highest</i></p>

*quality, high-tensile round section wires, as are all Wolff Springs. Each Blitzschnell striker spring has squared ends and is individually hand ground to provide flat seats, cleaned and oiled for long life and solid performance and require no fitting. **Blitzschnell striker springs provide dramatic improvement in lock-time over fatigued and factory springs which can greatly improve accuracy and reliability of bolt-action rifles.** Load ratings indicated are with the striker (firing pin) in the cocked position and for rifle actions equipped with standard factory parts and designs. Custom triggers and bolt modifications may change the specified ratings. We also suggest that you check for proper protrusion of the striker end from the bolt face. The optimum protrusion should be about .060" and no more than .065" to prevent primer puncture. Each Blitzschnell striker spring is individually packaged and identified, and is ready for immediate installation and use.*

The bolded statement above about lock-time peaked my interest. I wondered why lock-time was important to me and my rifles.

Definition
Lock-time is the time between the trigger break and primer ignition.

The lock-time of an average modern bolt action rifle is more than double the time it takes for the bullet to travel down the length of the barrel.

Lock-time is the measured time of the following actions:

- From the time you pull the trigger and;
- The striker or firing pin travels forward;
- The striker strikes the cartridge's primer and;
- The primer is ignited.

The basic premise is - a reduction in lock-time will cause your rifle to hit closer to where you held the point of aim when you pulled the trigger. This is because less time passes for human errors to impact the path of the bullet.

The striker spring is not the only thing that effects lock-time. Other variables included but are not limited to are: trigger pull, alloy of striker, weight of striker, smoothness of parts, and mostly YOU.

Imagine ruling out most if not all of the mechanical faults or at least minimizing them. Replacing your striker spring with a precision made striker spring of a higher load weight will cause the striker to move at a higher velocity when striking and igniting the primer. Thus reducing lock-time.

Action	Duration in Milliseconds (thousandths of a second)
<i>The flight time of most bullets through the barrel</i>	<i>Between 1.0 and 1.5</i>
<i>The lock-time of most modern conventional bolt action rifles</i>	<i>Between 2.6 and 9.0</i>

Wolff Springs Used In Article

Description	Price
BLITZSCHNELL Load-rated striker springs 24 Lb Stock No. 62824	\$8.29
BLITZSCHNELL Load-rated striker springs 30 Lb Stock No. 62830	\$8.29

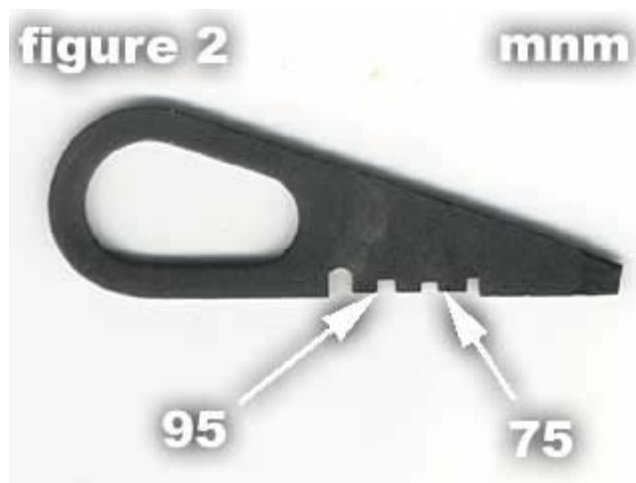
Wolff does state you should experience up to a possible reduction of 15% lock-time if you replace the original striker spring with a higher load spring. This is pretty good if you look at the overall numbers. Let's say that the average military surplus rifle is at the very high end of the scale of 9 milliseconds total lock-time, then you would experience a possible reduction of around 1.35 milliseconds.

Imagine what you could do with 1.35 milliseconds? Oil paint, learn a second language, spend more time with the wife....or just have less time to screw up before the bullet comes out the end of the barrel.



I chose to install a thirty pound striker spring in my sporterized m44 carbine (**Lil' Black Beauty**). I did this because I can use any help I can get when trying to hunt pig or deer. I don't cheat, but I like as many variables that I can control - in my favor.

If you want to learn how to replace the striker spring in the Mosin-Nagant then [click here](#).

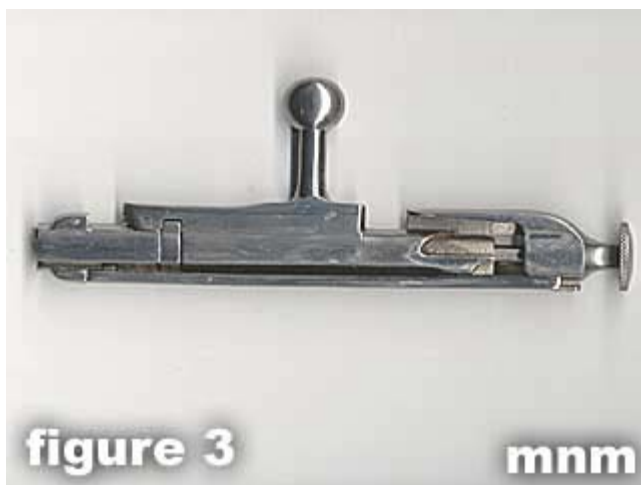


One important thing to remember is that a higher load spring might likely cause the striker or firing pin to protrude further from the bolt face than what is considered safe. You may have to make adjustments accordingly.

One of the few tools that the Russian infantryman was able to carry with them was a very cool little multi-tool as pictured in **figure 2**. If you don't already have one of these then you can pick one up for around [\\$5 at Tapco](#).

This tool was used for working on the bolt and as a general purpose screw driver. The two small cut-outs pointed out in **figure 2** and labeled as "**95**" and "**75**" (*on most tools - some are not labeled*) are the maximum and minimum heights that the striker should protrude from the bolt face.

If you don't have the tool and just want to use a caliper - the measurements are **0.095"** maximum and **0.075"** minimum pin protrusion.



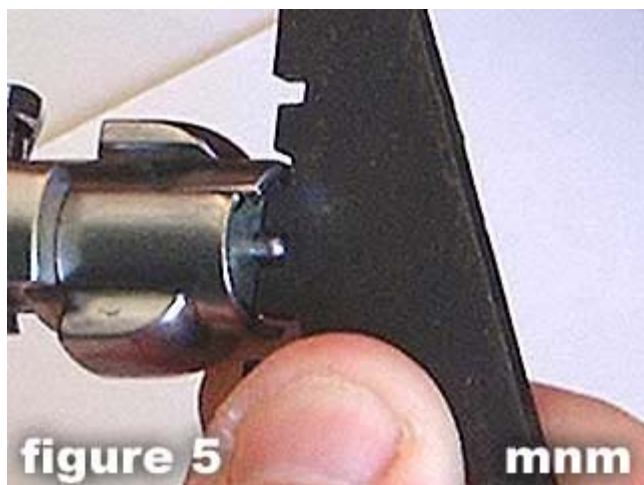
To measure pin protrusion you should remove bolt from the rifle or carbine.

Next, hold the bolt handle in your left hand with the bolt face pointing forward (*away from you*).

Then pull the cocking piece to the rear and turn it counter-clockwise until it stops.

Push the bolt face back so the firing pin extends as far as possible forward.

Then measure pin protrusion as shown in **figure 5**.



I found, after replacing the striker spring, my firing pin was extended too far beyond the face of the bolt (*greater than 0.095"*), so I backed the striker off one full turn and this brought it within specs.

Later I will take my modified Mosin to the range and perform a comparison shoot-out of the same rifle with the original striker spring versus the new heavier Wolff replacement and see what effect if any it has on accuracy.

Oh, by the way - I already know it makes it even more difficult to operate the safety - but that was expected.

jlm;)

Wolff Gun Spring Contact Information



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Application Issues & Problems: tech@gunsprings.com

Order Problems, Non-Technical Issues
& General Information: mail@gunsprings.com

Web Site Address:
<http://www.gunsprings.com/>

**ALWAYS BE CERTAIN THAT YOUR FIREARM IS UNLOADED
BEFORE WORKING ON OR CLEANING IT.**

Immediately after installing any Wolff Gun Spring, or any spring, in any type of firearm that imparts power to a hammer(s), striker(s) or firing pin(s), as the case may be, with the firearm UNLOADED and without any trigger contact, actuate the firearm several times in a vigorous manner to make certain that the hammer(s), striker(s) or firing pin(s) are securely retained in the cocked position prior to let-off. Also, actuate the safety to determine that it is working properly. If during these tests, the hammer (s), striker(s), or firing pin(s) should fail or be released without trigger contact, or the safety does not work properly, DO NOT ATTEMPT TO LOAD OR FIRE THE FIREARM until corrective repairs are made. If any doubts ever exist concerning the safe operation of your firearm(s), consult your local Gunsmith. The above procedure also applies where recoil, bolt or action springs have been installed as well as with any spring replacement.

NOTE: Always wear high-quality safety eyeglasses when installing or fitting Wolff Gun Springs, or any springs, to prevent eye injury. High-quality safety eyeglasses should be used when shooting any firearm. DO NOT use ammunition exceeding standard factory pressure levels.

NOTE: The use of any after market product in your firearm may limit or void the manufactures warranty.

WARNING - Failure to follow this procedure may result in accidental discharge, firearm damage and serious bodily injury. Always be certain that your firearm is functioning properly before use.

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Other Wolff Mil-Surp Spring Sets

AK-47
ARISAKA
BRNO
CARCANO
FN
GARAND
KRAG
LEE-ENFIELD
M14 & M1A
M1 CARBINE
MANNLICHER
MAUSER
MOSIN-NAGANT
REISING
SCHMIDT-RUBIN
SKS
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