

David Tubb's SpeedLock CS 'NM' springs

Engineered
by 10-time
National
High Power
Champion
David Tubb

for AR-15 two stage triggers

[fits all but Jewell®]

NM Trigger Spring Set

[SAFETY NOTE: It is the firearms owner's responsibility to thoroughly familiarize himself with the working and installation of these triggers. If you are not familiar or confident in your ability to safely and correctly perform this work, seek out the services of a professional gunsmith]

One of the biggest complaints we've heard from Service Rifle shooters is the difficulty of attaining the trigger characteristics the better shooters desire and still have a workable, reliable, and consistent trigger.

Superior Shooting Systems Inc. just went a long way towards attaining that goal. Our chrome silicon CS NM Trigger Return Springs Set installs on your two-stage AR15 trigger without any modifications to the trigger (engagement adjustment will probably be necessary) and allows attaining a very light second-stage break weight while maintaining the tension necessary for safety and legality in competition.

The NRA Service Rifle rules, as well as CMP guidelines, restrict minimum trigger pull weight to 4-1/2 pounds.

When you shoot a two-stage trigger, it's the combination of the first and second stages that determines its overall weight. For instance, if there are 2 pounds in the first stage and 2 in the second, that is a 4 pound trigger. Consequently, maximizing first-stage weight lets the second be lighter, and a lighter second stage is what the shooter feels as the break weight. A lighter trigger makes trigger control much more efficient, and results in much improved shot timing.

Due to adjustment limitations set forth by its design, the "trick" to getting a heavier first-stage weight has been bending the trigger return spring legs downward to increase their tension. This works -- for a time. One problem with making this modification is that the music wire springs in these triggers will change radically with use, and over time. This means that your 4-1/2 pound trigger will NOT always be a 4-1/2 pound trigger. (Even if the rifle isn't fired, these springs won't last a year without changing weight.) Changed trigger characteristics lead to inconsistent trigger behavior, and, at the worst, disqualification from competition.

The Superior Shooting Systems Inc. CS AR15 Trigger Return Spring allows the leg bending modification (and responds better to it than conventional music wire springs due to the superior structure and life of chrome silicon) but many people are not able to attain desired adequate spring tension through this modification.

The solution is to install TWO SSS Inc. CS AR15 Trigger Return Springs following the instructions enclosed. Since the SSS Inc. CS springs are already lighter in function than the standard spring, doubling our CS springs -- with no other modifications made to them -- normally results in a suitable trigger. A simple modification (bending the spring legs, which, again, will not accelerate spring degradation in CS as it can with music wire) can increase first-stage weight to 4 pounds. That leaves the shooter holding only a half pound of trigger for the second stage (assuming the trigger is otherwise correctly adjusted via manufacturer's instructions).

The SSS Inc. solution is one you can count on. Chrome silicon springs are far more consistent and stable than standard springs. Our exclusive use of certified materials and comprehensive post-winding processes (shot peening, heat treating, etc.) ensure perfect spring performance consistency for the life of the rifle. When the trigger is functioning at its optimum possible level, and the shooter knows it will not change, he can focus on shooting better scores -- and will!

The CS Hammer Spring is specially engineered to provide faster rebound (quicker lock-time) than the conventional spring but at a lower compression weight (achieved by the properties of chrome silicon). This allows improved firing mechanism performance and a lighter second stage trigger pull.

Call 806/323-9488 with questions or to order parts.

Installation Instructions

After a little experience, installing the two-spring arrangement is no more difficult than installing a single spring.

Step 1: Remove the trigger from the rifle. Pay careful attention to the positions and orientation of the existing hammer and trigger return springs before removal. The springs are reinstalled respecting these original orientations.

Step 2: Remove the standard trigger return spring and hammer spring. Set them aside.

Step 3: Install both trigger return springs in the CS NM Trigger Return Springs Set so that they are side by side on the trigger -- the trigger return spring that has its leg on the left (outside) of the left side of the trigger will then have its other leg on the inside on the right side of the trigger. [See Photo 1 for correct installed orientation.]

[The spring legs may want to "X" across each other and these can be pulled out into correct position using a dental pick following assembly of the lower portion of the trigger.]

Step 4: Install the hammer spring and reassemble the trigger. It may be necessary to use two dental tools (after the hammer is installed) to lift up the hammer spring leg so that you can pull the leg over the outside coil of the trigger return spring enough so that the hammer leg can ride on the pivot pin (as it is supposed to) and not on top of the out coil of one of the trigger return springs.

Photo Notes

Photo 1 and **Photo 2** shows how the pivot pin is exposed on one side of the trigger and how the coil of one of the trigger return springs blocks the hammer leg from getting to the pivot pin on the other side. Note that the hammer leg is on top of the coil spring (not the pivot pin) -- to remedy this lift the hammer spring leg and push the trigger return spring coil over enough to allow (use dental tools) enough room for the hammer leg to rest on top of the pivot pin. [**Photo 3** shows correct installed orientation.]

Tuning

With no bend in the trigger return springs, first-stage trigger weight should be approximately 3.0 pounds. Further tuning is accomplished by bending the legs on one set of trigger return springs downward. [As per Photo 4 -- both sets may be bent if needed.] This will easily result in a 3.5+ pound first-stage weight. Second-stage weight is adjusted following your trigger manufacturer's recommendations.



PHOTO FOUR

We recommend lubricating the spring contact points with a high quality gun oil or dry lubricant.

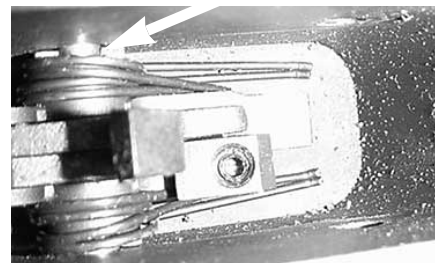


PHOTO ONE

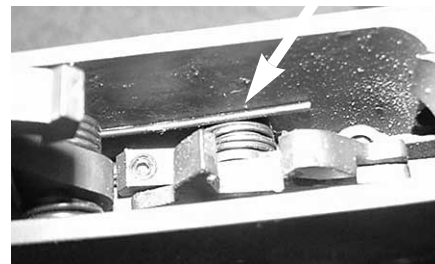


PHOTO TWO

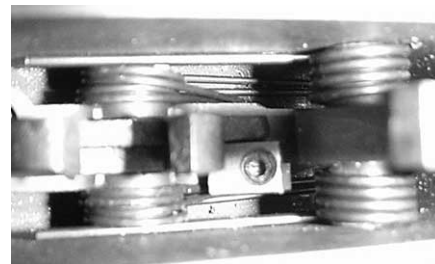


PHOTO THREE