

More on the subject of getting the rifle to fit the shooter

In most cases the reverse of this heading is applied – i.e. adjusting the shooter to fit the rifle!

So many struggle with this, when actually, the remedy is so simple. Have a look at the range of adjustments that are available on the modern smallbore rifles. You just about need a degree in physics to get them correct!

Getting a target rifle to fit the diversity of the shooters is one heck of a challenge. Witness the size of a shooter of Barry Dagger's build (UK) to that of Harald Stenvaag (Norway). Barry is four-foot zip whilst Harald is pretty close to six foot six! Rajmond Debevec, (world record holder 3×40)with his long limbs is another example.

All three were exceptional shooters, in spite of the difference. Very obviously, each had specific details arranged to ensure the rifle fitted the shooter.

Last month I set about some of the details concerning the forward hand of the shooter and, to keep things in perspective, I want to elaborate on the trigger-hand positioning, together with the design of the grip.

For many years now, my teachings relative to trigger-hand are isolated around one simple fact. The trigger should be operated straight back into the grip, parallel to the barrel, in both planes. This is of huge import to a high-level prone shooter and equally so in the case of a position shooter – particularly kneeling shooting!



Fig 1. Showing the grip details of my own alloy stock. A great deal of attention was paid to the design which allows consistent placement of the grip and trigger finger in line with the barrel in both planes. The author believes this to be crucial in controlling the trigger release, and recoil even of a small bore rifle. The design also incorporates the placement of the thumb

up behind the bolt if the shooter desires, but for my own techniques I prefer the thumb hole type grip which is shown here.

Once more, if you study the photographs, fig. 1 shows the custom grip of my own rifle. Note the design of the grip (in alloy) which allows the trigger-hand position shown in fig. 2 complete with the address of the finger on the trigger, allowing the trigger operation in a direct line with the barrel.



Fig 2. Showing the correct grip of the trigger finger in line with the barrel in both planes, plus the trigger finger clear of the grip as explained in the text. Readers will also note that the wrist is straight.

In the early stages of this development, as I designed the alloy stock on the way home from Caracas Venezuela from the 1982 world championships, it occurred to me that the direction of the trigger operation is quite important. Any sideways influence on the trigger operation would be detrimental to the performance, together with the operation of the trigger pulling it downwards as illustrated in the photograph. Fig. 3 shows the grip used by a shooter from my home club with a standard grip that allows this problem.



Fig 3. This photograph indicates a hand position that I consider is difficult to maintain correct recoil consistency as the trigger operation is well to the right of the barrel axis with direct contact of the trigger finger on the grip. It is difficult for rifle manufacturers to cater for everyone with the stock standardised, and gives the readers a good idea of how much advantage there is in customising. This particular rifle is very accurate, and owned by a club member of my home club in Australia.

Subsequent testing with the 25X telescopic sight indicated my theory was correct, even with the quite light pressures on the release sequence of the trigger of my smallbore rifle. The fullbore shooters, who have dictates concerning the release-pressures of the trigger (some using trigger weights well over one kilo or 2.2 lbs) will have worries with this aspect I am quite sure!

The design of the grip should also be such that no contact with the grip with the inside of the trigger finger should be possible. My work with the telescopic sight indicated that even the slightest contact with the grip actually moved the rifle and, the higher the pressure, the more the rifle moved. You can test this yourselves easily enough simply by placing the left index finger on the third pad of the trigger finger (see fig. 4) and then operate the 'trigger' finger.

You will feel the tendons move even the slightest amount and, if this action is transmitted to the stock, there WILL be movement! The biggest problem associated with this with a fullbore shooter is that the recoil will cover that movement but, I can assure you all, it is there when the trigger-finger contacts the grip!



Fig 4. If you place your finger tip as indicated and move the trigger finger, you will feel the tendons move even the slightest amount. This is why the trigger finger should be clear of the stock. See text.

Studies of my hold and shot-release sequence on systems such as 'Scatt' electronics which give you an exact read out and, I ask you, how many have seen the release trace move away from the aiming accuracy, with the result quite puzzling. You could bet your teeth you are moving the rifle with the trigger operation, believe me!

The fullbore shooters often get away with this, given the dimensions of the target and feel there is no need to look further. Well, in my thinking if you are satisfied with scores like 50's with five Vee bulls, you will stay there ad infinitum!

I told one of my guys, (now a Godfather to my kids) that "Mate, there are 50.10's out there" on the range, which are a huge improvement in thinking over the 50.5s he was shooting so often. The very next range he fired, 700 yards, resulted in a really tight 50.10. He came and thanked me after that, indicating that he had not realised his thinking was so limited.

My work with some of the best target shooters in my NSW State Rifle Team (fullbore) brought home this technique fault and the design of the rifles used has changed dramatically since then.

One of 'my' shooters in that team, who asked me to build him a stock, (he is a 'lefty') since then has won multiple Queens Prize matches in Australia and simply because his grip was custom-made for him. On a Scatt this guy had a hold that was astonishingly tiny. He held a rifle so still it was stunning and his results on Scatt showed me the reason why he was losing

unexplained shots. Once this stock problem was solved, all he needed to do then was to follow the shot through correctly, and away he went!

Readers need to understand that I do not consider myself to be the 'B all, end all' of target shooting, but I can tell you I am still learning after 61 years at this game. I have always believed that no shooter with a gift for the pen should pass away without extending and promoting the knowledge gained.

I suppose I am blessed with an enquiring mind but, to determine and evaluate some of the experiments covered is tantamount to success. Just a simple thing like looking carefully at your techniques and what causes shot loss on the target, when the aiming picture was so correct, can only come from two sources – the control of the shot and the dictation of the position you are using.

Of course there is always management of the wind and weather conditions but I ask you now, are you so sure the wind blew that shot out there at four o'clock?

See how fascinating our sport is? Have you ever wondered why 90% of the matches are won by 10% of the shooters? Are these guys any better than you are?

Have a good look at what and how they are using both their equipment and skills and, try not to lose the chance to watch a champion in action.

For many years I wanted to chat to a Russian shooter, one of the best and one year we had a Russian speaking pistol shooter in our squad. I grabbed him to translate for me and, after the usual introductions and some discourse in Russian, my Russian friend turned to me with a quiet smile and said "Would it help if I spoke English?" Shit! Talk about feeling like a Goose! Three years.....