SEARS, listen in .....

By: Peter Laidler

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..... here is lesson part 1. Also in the nicest possible way, judging from what I've been reading, DO NOT DO ANYTHING UNTIL YOU'VE READ THIS.

The cocking bent of the sear (the front face to give it its proper Armourers name) should start off SQUARE horizontally left to right and when measured vertically, from the bottom horizontal surface, it should slope outwards at 4.5 degrees. That is the starting point of a new sear and that is what we had the sears reground to should they need it.

Next. This SHOULD remain like this for ever and should only be touched for 1 reason in the whole wide world, regardless of what your uncle bill's father in law told your auntie who shot one in the war. And that reason is ....., but wait a minute!

Remember I told you earlier about the striker spring weight that must measure between 13 to 16 lbs in the fully cocked position? There are other very important weights that you MUST know about too. And they are these. The pull-offs. The first pull must be between 3 to 4lbs and the second MUST be between 5 to 6.5lbs. Repeat them after me. 1st; 3 to 4, 2nd; 5 to 6.5 pounds.

The only reason the cocking bent on the sear should be touched is to lighten or increase the pull off weights. There is NO other reason to vary this critical 4.5 degree angle.

In fact I would go as far as to say that if your pull-offs are light or heavy, change the striker spring FIRST because unless you have accurate measuring equipment and many years of experience, you a) won't get it horizontally square left to right and you certainly won't make the correct adjustment ot the sear bent ....., I can guarantee it!

That is part 1. Part two is this. If the cocking piece bent on the long arm of the sear is square and has a full radius, it WILL bear evenly and squarely on the cocking bent of the sear. Read that again. It WILL bear evenly and squarely.

So before we go any further, go and make sure that those two items are as per the specification. I'll come back later about trigger drag, long first pulls and whatever else is inter-related. Are you in for the long haul?

SEARS, part 2

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Right, if you're all ready, then I'll begin part two of this series while I'm sitting at work with the full engineering regulations alongside me together with another Armourer, Geordie Ward, sat alongside too, for immoral support!

The HEIGHT of the long arm of the sear in the bolt way is decided by ONE THING and one thing only. It is prevented from rotating into the body by being obstructed by a ledge in the underside of the body, where the long arm intrudes into the bolt way. Have a look for this on yours ..... If it intrudes so far as to even touch or obstruct the small/ lower bolt locking lug during the loading action, then the examiner had a small hard steel punch to set-up the steel in the ledge to give the rifle a further lease of life. But this 'set-up' is easily seen and noticeable and it is only done once.

You can see now that while the trigger is relaxed, so long as the sear clears the small bolt locking lug, it is totally irrelevant where the nose of the sear contacts the cocking bent of the cocking piece.

There was a small relaxation in standards for the L42 rifles to cater for a small number that had wear in the bolt-way and allowed the sear to 'friction' against the small or bottom locking lug of the bolt. It didn't define 'friction' but it's accepted that there would be a distinct 'feel' as the small lug rode over the sear during the loading action. This relaxation allowed that a small flat could be ground on radius of the bottom lug, not more than 4.5mm across the flat, to clear the sear nose.

Have you got that? The height of the sear is correct IF IT CLEARS the small or bottom locking lug of the bolt during the loading action. Next, we'll look at drag and trigger action.

Are you still ready for the long haul?

SEARS, part 3

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You have all, hopefully, read and digested parts 1 and 2 of this article about the sear and its relation to the cocking piece. The next part I'll mention is 'drag'. In this article, Drag isn't what you're dressed up in to go out in on Saturday night or if my hazy memory serves me right, Bugis Street in Singapore, Not that I ever went there you understand. I was FAR too busy with my needlework classes and knitting scarves and socks for the needy.

Oh yes, harking back to an earlier note, I have sent Brian Dick, another regular forum contributor, a perfectly set-up but skeletonised L42 bolt (remember, with the small flat on the underside locking lug to clear the cocking piece .....). If you see him at a show, ask to see it and digest. The spring weights, overturn, protrusion and measurements are all to the most current FTR specification, just for your benefit

TRIGGER DRAG is usually caused by friction and I'll narrow it down to, in my very very limited experience in ENFIELD rifle matters, to roughness as the lower bent on the trigger dragging down the sear during the first pressure or the nose of the sear (the cocking bent) dragging itself down the cocking bent of the sear. You should remember that when I told you about assembling a bolt CORRECTLY, I said that you must only ever polish the cocking bent of the sear UP AND DOWN and it's impossible to do this with the bolt asssembled. And when I say POLISH, I mean, POLISH with fine grade emery and not grind away at it with a bloody file! Armourers had 4 different grades of disposable emery sticks ....., but I digress

Likewise, the cocking bent of the sear should be polished likewise, with a rounded action, around the curvature to allow it to slide down the face of the cocking piece.

As for the lower arm of the sear, then the surface upon which the trigger acts should also be POLISHED, but in an up and down action and NOT in an acrossways action. From this you'll realise that the polishing action is in the direction of the movement of the parts.

Here's a little tip for you, should you ever need to replace the trigger, sear or magazine catch axis pins. Just get a couple of the 'PIN, cap, fore-end' and cut it to length and you'll have enough material to last you for the life of the rifle. That's what we used the pins for after we'd taken them from scrap fore-ends. If you feel the unnecessary urge to round or chamfer the ends, then feel free but during out huge FTR programmes with No4's and 5's, we didn't bother ...., just gently but slightly distort one end so that it holds secure in the body.

That's come to the end of this little section but in part 4, I'll mention about getting the first and secone pull-offs right. Not just RIGHT, but DEAD right. But if you have a cocking piece that's loose on the striker, then this won't apply to you because there ain't a snowball in hells chance that you will achieve perfection. Are you STILL in for the long haul?