

Restoring a Lee Enfield No5 Mk1

Introduction

Over the years I have worked on a few Lee Enfield No5's but never owned one up until now as generally I regard them as just another Lee Enfield and a poorer one at that. Unlike its originator the No4 I have not worked on vast quantities of the No5, simply because there are not many around and because they lack the popularity of the No4. Lee Enfield No5 ownership tends to be the



shooter who is a collector of Enfield's rather than the shooter that wants a classic rifle that will shoot all distances, this is further compounded by the fact that as a lightened rifle firing a large cartridge, recoil is noticeable and not to everyone's taste.

Due to the scarcity and especially of good quality models, prices are high and therefore they are many rifles on the market that have been made up from parts, converted No4's, in poor condi-

tion or have something wrong with them because dealers are trying to "cash in" on their increased value, thus making it difficult for buyers to find a good rifle.

Normally I would not "splash out" a considerable sum on a No5, however I came across an obscure website and on it was a sporterised No5 that the dealer said was in immaculate condition and at a really good price. This immediately set off the warning beacon as previous experience has shown that dealers using this terminology are usually being economical with the truth. However the price was really good and as a converted sporter there was a possibility that the rifle had seen little use, therefore I decided to purchase. When the rifle arrived my hesitation concerning condition was completely misjudged and the barrel and action were immaculate with no wear to either the barrel or the bolt face, indicating minimal use. With exception of the woodwork and the Parker Hale mounts this was a completely original No5 with matching numbers throughout and all the correct components.

This was quite a find and the question was now what to do with the rifle. My initial thought was to convert the rifle back to its original condition and sell it, however my curiosity about the rifle's reputation for not being able to hold its zero got the better of me and here was a perfect specimen to investigate that reputation.

Therefore these Armourers Notes will discuss that reputation and about the spills & thrills of converting the rifle back to its original specification.

History

I have no intention of discussing the rifle's general history as there are some excellent publications available, especially by Ian Skinnerton. I will however, discuss a little about this specific rifle. The Lee Enfield No5 Mk1 was manufactured at BSA Maltby and ROF Fazakerley between February 1944 and 1947 with production totaling 241,001 rifles, the serial number of this rifle is Y8141 and was produced at Fazakerley in December 1946 which made it one of the very last rifles to be produced. Judging by the barrel's condition I doubt it was issued to a unit, but went into war stock only to be sold at a later date into the trade where it was converted into a sporter.



Restoring a Lee Enfield No5 Mk1

Who ever converted this rifle into a sporter did a good job as the wood quality and especially the butt is very good. The magazine was converted to a flush fitting five round magazine but I replaced this with the traditional 10rd magazine. The handguard was converted from the original and the rifle was fitted with period parker hale bases and rings.

The barrel, bolt and receiver all have the original matching numbers and the receiver has been stamped with a number of Fazakerley inspectors stamps. The rifle has all the correct lightening cuts and correct parts reflective of the No5. In essence this is a superb example of the No5 Mk1 and the fact that it was converted into a sporting rifle has preserved its "nearly new" condition.

Conversion back to Lee Enfield No5 Mk1

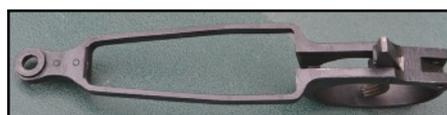
The woodwork is biggest factor, but the rifle require a 800yrd rearsight, front sling swivel band and a ring retaining rear handguard. Normally I would remove the front scope base and in-fill the screw holes, however in this case I planned to retain the scope as my eyes struggled to focus on the foresight blade making this rifle difficult to shoot for shooters of my age group.

An 800yrd rearsight and the ring retaining handguard was no problems as had some in stock. However the front band was a problem as these items were a larger size and therefore unique to the No5 and finally the woodwork. There is simply no original woodwork available, you either buy a De-activated No5 and cannibalise it, (the most expensive option at around £600.00) or go for a US replica kit at approx £125 delivered to the UK. I chose the latter and regretted it immediately upon receipt. The forend and



upper handguard were abysmal, completely the wrong profile and the upper handguard the wrong size. The butt wasn't brilliant but was salvageable. Therefore I decided to manufacture my own forend and upper handguard from No4 parts, which I had in stock.

I re-profiled the butt by increasing the curvature of the pistol grip and increasing the size of the rear swivel slot as per the original. The butt assembly was secure by two Phillips screws and not the large single screw as used in the originals. I replace the Phillip screws and replaced them with genuine Enfield screws that looked more the part. The butt was made from a wood I did not recognise but was very white more in keeping with beech. Therefore the butt had to be stained to match the walnut forend.

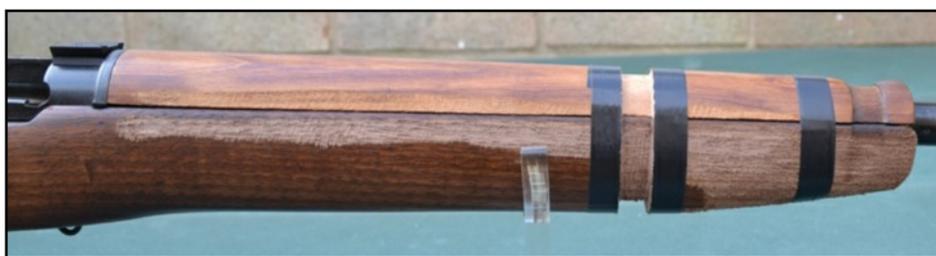


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The forend was a much more complicated process that required a No4 forend cutting to 19" in length, considerable re-profiling



and the the slot cutting for the barrel band, all in keeping with the original. I combed the Internet and skinnerton's books to obtain images and information to help with correctly profiling which took considerable time and effort. One comforting point was that some woodwork was built from No4 handguard's, so although not strictly correct I am not a million miles away either. The upper handguard did cause me some problems though, which if I am honest took me three attempts to get right because I kept removing to much wood from the two principle mating surfaces.



The next issue was the ring retaining handguard. On my sporter this had been cut off and although skinnerton's books state the two parts are interchangeable, I

would question this as my No4 ring did not wont to go round the chamber by a substantial margin. To fit the ring retaining handguard, requires the removal of the flash hider. Removing the two pins was easy enough but the flash hider wouldn't budge and therefore to avoided damage I left it in-situ and refitted the pins. The solution was to cut the ring, allowing it to pass over the foresight and to expand sufficiently to encompass the chamber. At first I thought this solution was somewhat of a "bodge" (military term for an improvised repair) however the ring remains tight as it is pinched and locked in place by the forend.

The No5 had an enlarged sling swivel band and once again this item is now unavailable, so a No4 band has to be an alternative but readers be aware this is smaller and the reduce size taken into account when fitting. Finally once all the course fitting has been completed, the surface has to be prepared and a good finish applied.

Scope Bases, Rings & Scope

When the rifle was converted to a sporter it was fitted with Parker Hale rings and bases. With my eyesight being what it is, I cant focus on the foresight blade, so I decided to leave the base and rings in place.

If my rifle is fitted with a scope, I like it to be roughly from then same period as the rifle. The reason being there's something odd about a 60 year old rifle being fitted with a modern optic, its like a contradiction of time periods and therefore I opted for an early x4 Weaver with a 1" steel tube and fine wire reticule. These American scopes from the sixties are excellent and have no problems soaking up the extra recoil produced by the No5. However shooting with a x4 is somewhat more of a challenge than more modern scopes with x12 or more magnification.

Another thought and only a thought at this stage is fitted a No4 cheek pad as the No5 butt will offer a poor cheek weld but that will require drilling the butt and introducing two holes that a potential buyer may want to avoid.



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Project Criteria

As this was a project of sorts, I thought it only logical to add some project criteria. Therefore I want to achieve the following from this project;

1. Ascertain the No5 Mk1 accuracy as a sporting rifle.
2. Ascertain the No5 Mk1 accuracy as a scoped infantry carbine.
3. To see if I can re-create the rifles "wandering zero"
4. Restore the rifle to its original condition.

Important criteria in any test is consistency and military service rifles are far from consistent. Military rifles are repaired/serviced by scores of different Armourers, some Armourers are poor, show little interest and "slap" rifles together, others show more care and professionalism and thus rifles are repaired as per specification. Therefore I intend to bed both sets of woodwork, so therefore no one configuration has an advantage.

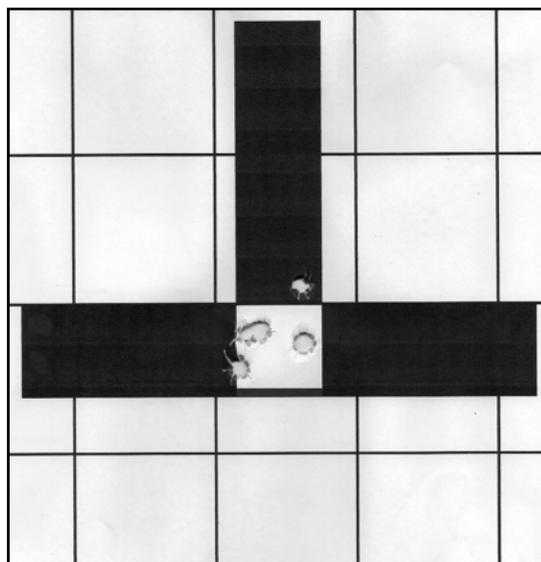
Ascertaining the No5 Mk1 accuracy as a sporting rifle

Standard infantry battle sights are less than ideal when it comes to "obtaining the best" in terms of a rifles accuracy, therefore the fact this rifle has been converted to take a scope suits me well. Therefore in theory this configuration was going to be the most accurate and to ensure the wood had been fitted correctly I decided to bed the action and fit a period scope in the form of a 1" diameter steel tube x4 Weaver. The barrel was fully floating which is not something I generally recommend for the lighter Enfield barrels but it was the way the previous gunsmith had set the woodwork up when he convert the rifle to a sporter, so I left it alone.



Shooting from the bench, at 100yds and fully supported, my first exercise was to zero and let the action settle. I used privy partizan .303 to bring the rifle in for course adjustment and my home loads for fine adjustment. My first groups were not inspiring at 4-5" but then being a carbine I didn't expect much else. According to their website, Privy .303 FMJ muzzle velocity is 750 m/s or just under 2500fps. My home loads consist of Hornady 174gr FMJ bullet, Remington brass and 40grns of N140 and I found it to be the most accurate in my No4T but runs at 2200fps according to my chronograph which considerably less than the factory fodder. According to my Quickload software, chamber pressure for this load is 40,953psi. If I increase the muzzle velocity to 2500fps, than chamber pressure with the N140 powder increases to 48,588psi.

Whilst good consistent home loads will generally always outperform factory ammunition, the difference was considerable between the two groups. I went from 4-5" groups with the privy to 33mm with the home loads. I couldn't believe the difference, so much so I shot a few more rounds to confirm the group. This improvement in group size wasn't simply a due to poor factory ammo, this was because the the reduced pressure, muzzle velocity and bedding suits the receiver, barrel and its twist rate, a factor that was also confirm with my No4.



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Ascertaining the No5 Mk1 accuracy as a standard infantry rifle

Having rebuilt the No5 with standard woodwork, I bedded the forend to maintain consistency, not bedding the forend would have automatically gave the sporter an advantage. Having said that the standard No5 would be slightly different in that it did not have a Monto carlo butt with raised cheek pad and it was fitted with an upper handguard, otherwise I would endeavour to ensure all aspects of the test would be the same.



To ensure consistency I mirrored the previous test and shot from the bench, at 100yds, fully supported. I dispensed with the privy partizan as this ammunition is not particularly accurate, plus the rifle had been zeroed in the previous test. Although the new woodwork could alter the point of impact, I felt this would be minimal and therefore went straight into the accuracy test.

It was the end of the day and I rushed the shoot as other people were waiting for me to finish, I know its not an excuse but I never put my heart and soul into the grouping and therefore I reckon the rifle could better the 70mm as shown below. Having said that this No5 was shooting as good as many a No4.



Summary

I like the No5 Carbine and in my opinion it is a better looking rifle in its military format. I put a lot of work into converting this rifle back to original status and although I will never recover the costs, I feel it was well worth the experience from an Armourers perspective.

Stories abound about this carbine and these stories had an impact on my views. I had the view that the No5 was the poorer sibling of the Lee Enfield family and this exercise has proven I was wrong. During my work this carbine never let me down, it reliably fed, never had a stoppage and maintained its accuracy throughout and therefore restored my faith. I retained the scope because it suited my eyesight and any "wandering zero" would have been more apparent. However throughout all my accuracy tests, good to very good groups were regularly obtained.

I appreciate my conversion work and follow up accuracy tests where not a formal trial but you cannot beat "hands-on" experience and I was suitably impressed by this fine little carbine. I never recreated the "wandering zero" but then this was probably due to the ammunition I was using. My home loads were roughly 7,635lb psi less than military factory ammunition and therefore less stress was placed on the action.



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A official reason for the rifle accuracy problems was never published but I would submit it was not a singular problem. Manufacturing tolerances, different woodwork suppliers, ammunition and rifle use in varying climatic conditions, armourers individual skill sets, probably all had an impact.

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