

Thames Valley Guns

Replica PU Scope

Introduction

I build replica Sniper rifles, typically from the first and second world war but more recently this has expanded to include rifles from other conflicts such as the the Korean, Vietnam and Falkland wars. Therefore I require good reliable replica scopes and I am increasingly turning to Red Star Mountain Company in China, not just because of their scope are of a reasonable quality but



because there supply times are good and their life time warranty service is superb. RSM's website can be accessed using the following address: www.wv2scope.com/default.htm

PU Scope

I will be honest and say my historical knowledge of the PU scope is limited. There appears little in the way of written history, even on the Internet. My own knowledge began after the breakup of the old Soviet empire, genuine Nagant sniper rifles with their original PU scopes flooded into the UK and as those original stocks were depleted, I saw the next wave of Nagant's coming into the country that were "cobbled up", original scopes, slapped onto standard infantry rifles. "Slapped together" was a technically correct word as many of these scopes were very poorly fitted and were impossible to zero without refitting correctly.

Nowadays the original scopes are still available but are harder to come by and of course this impacts on the scopes value. This situation generates a replica market and as a result we are now seeing a influx of replica PU scopes at more moderate prices. A saying which is particularly true to the scope industry, "is you only get what you pay for" and this applies to the replica market and therefore if one pays \$100 for a PU scope do not expect a quality product in return.

Whilst most military rifle collectors would like an original scope, there are a number of upsides to buying a good replica scope, its availability, build quality is sometimes better (not always), warranty repair if something goes wrong and your not buying 60-70 years worth of faults. This is a particular high risk when buying original, rare and very expensive scopes such as the British No32 and Aldis scopes.

General

The PU is short stocky scope only 170mm in length and weighing a pultry 10 oz. Original and replica scopes vary slightly in shape but the general format remains the same and RSM's scope is in keeping with the original. If you are not particularly experienced with this type scope the first thing you notice is it diminutive size, especially when it stripped out of its mount. Its construction is all steel and therefore gives the impression of being study and robust military scope.

Build quality appears very good externally with no sharp edges, burrs or poorly fitted components. The front section of the scope where the mount secures is 26.7mm diameter. The machined exterior has been ground, therefore there is no tooling marks, scope is finished with a chemical matt black and has an hammer and sickle engraved on the main body.

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The saddle

Unlike a traditional saddle the PU has what I would describe as two turrets which house the drums and their respective shafts. On original PU scopes this is where I tend to experience trouble as the turrets become loose and although I have yet to experience this issue with the RSM scope, to be fair I have not subject the scope to any heavy use at the time of writing.

The turrets appear to be finished in natural aluminium, however running a magnet across the surface reveals steel construction. Each turret is marked with a reference point and fitted with a pin that acts as a drum stop.



Elevation and windage drums

Elevation and windage drums are well made and have no sharp edges and are clearly engraved. Knurling on both drums is good and sufficient to provide reasonable grip when adjusting the drums. Neither drum has any detent action when rotated and therefore both drums are under identical tension which approximately 2lbs of pressure to rotate and prevents any accidental movement. When rotated, drums rotate smoothly with minimal clearance between the saddle and the drum, therefore limiting the ingress of debris or moisture. This good fit also prevents damage should the drums receive an impact, thus reducing the risk of the shafts being bent. This function is in keeping with the original PU scope but I have seen replica scopes where these drums are detented. As mentioned previously the turrets have a reference point, so once zeroing has been achieved, the scale on both drums can be slipped by slackening the two screw situated on top of the drum and the drum zeroed.

One minor observation at this point, which I think can be improved upon. The engraving on the drums has left burrs, it does not effect the scopes operation but it is a quality control problem.

The elevation drum is scaled from nought to thirteen with a progressive scale that increase in line with the range, making it fairly obvious to the user which way to turn the drum to increase the elevation. The windage is a consistent scale, ranging from nought to ten and with a plus and minus sign to indicate left or right. As this scope is a replica, it operates in the same manner as the original and therefore when rotating the drums, one moves the reticule. This can be a little disconcerting for the modern scope user who is accustomed to self centring reticules but it is also essential to ensure that the scope is mounted correctly otherwise the user can find the reticule way over to the left or right with no further adjustment. I mention this because there is no course windage adjustment in the mount and therefore if the bracket is poorly fitted, zeroing the scope may become a serious problem.

When operating the drums the reticule movement is good, square, smooth and with no play or backlash.

Tube

Overall the tube appears well manufactured, machined finish is good and consistent across the full length of the tube, there is no burrs and blacking is deep and consistent throughout. Scope integrity appears nice, solid and engraved on the main body is a hammer and sickle, rifle model and scope serial number. Unlike other replica PU scopes the tube is in keeping with the original and is not nitrogen filled.



Lenses & Reticule

Inspecting the object and ocular lenses, they appear clean, unscratched with no debris or dust on the internal surfaces. One break away from the original scope is that the lenses are coated. Picture quality is good with no obvious distortion towards the edges and therefore the picture appears clear and crisp. Magnification is 3.5, internal object lens size is 21.3mm with the outside tube diameter increasing this to 26.6mm. Ocular lens size is 24mm with the outside tube diameter increasing to 29.8mm. Reticule is a German No1 and is precise, clear with no dust or distortion.



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To date I have not experienced any fogging due to harsh environmental conditions but as my testing has been limited to accuracy and function testing in temperate climates, I am not really putting the scope to the test.

Mount assembly

I have called this unit the mount assembly as it consists of the integral front a rear rings, the saddle and the mounting bracket. The mount assembly is a solid and substantial affair that adds considerable weight to the rifle. The rings/saddle is well made, with no burrs, square profile and matching interfaces. However fitting the mounting bracket requires a competent Gunsmith or Armourer as the bracket requires accurate alignment with the bore and correct fitting to the receiver to ensure the correct eye relief as the scope mount has very little provision for eye relief adjustment. The bracket is secured to the receiver with screws, locking screws and pins with the stock being relieved to provide clearance for the scope mount.



The mount assembly does allow for course elevation adjustment, the front of the saddle pivots on a ball joint, which by adjusting two small screws can provide course elevation and depression. There is no scale, so any adjusted movement is course and approximate. Slackening of the large thumb screw permits the whole mount and scope to be removed, thus preventing damage during transit.

Instructions

Sadly no instructions are provided with the scope and this appears to be a common theme with all RSM products. I think this is shortcoming if the company wish to portray a more professional image.

Fittings

As the screws and pins for securing the bracket to the receiver are fairly specialised, RSM provide the screws, locking screws, pins, drill and tap. This is very helpful as sourcing separately would introduce a host of problems.

Summary

I had recently been doing some load development for my own Nagant Sniper, which was fitted with my PEM scope that I had discussed in my previous notes. As a follow up to this I had loaded up another fifty rounds with a new Lapua 200gr bullet. Swapping Nagant's and with the PU scope fitted, the increased recoil would place the PU under increased under load.

Remembering windage on the old style scopes can be a little more tricky as left and right movement is not identified as on modern



scopes. One way to remember is that moving the reticle to the right will move your muzzle to the left and visa-versa, bit like adjusting a foresight blade. As there is no detent action on the drums, therefore you must make note of the drum position for future reference.

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Throughout the shoot, the scope performed very well. Picture quality was good and mount integrity was maintained throughout the shoot regardless of the increased recoil.

The only minor fault I found was the burring of the engraving on the drums and the lack of any instruction manual. Having completed the fifty rounds there was no sign of any movement, loose components or lenses etc and the drums retained their position.

I have experience of other replica PU scopes on the market and they are fitted with modern extra's such as detented drums and are nitrogen filled. However RSM's PU scope is a replica of the original and it does not have any modern frills. Therefore as a exact replica it does a pretty good job.

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First published: 28 March 2016