

Replica No32 MkII Scope (RSM Group)

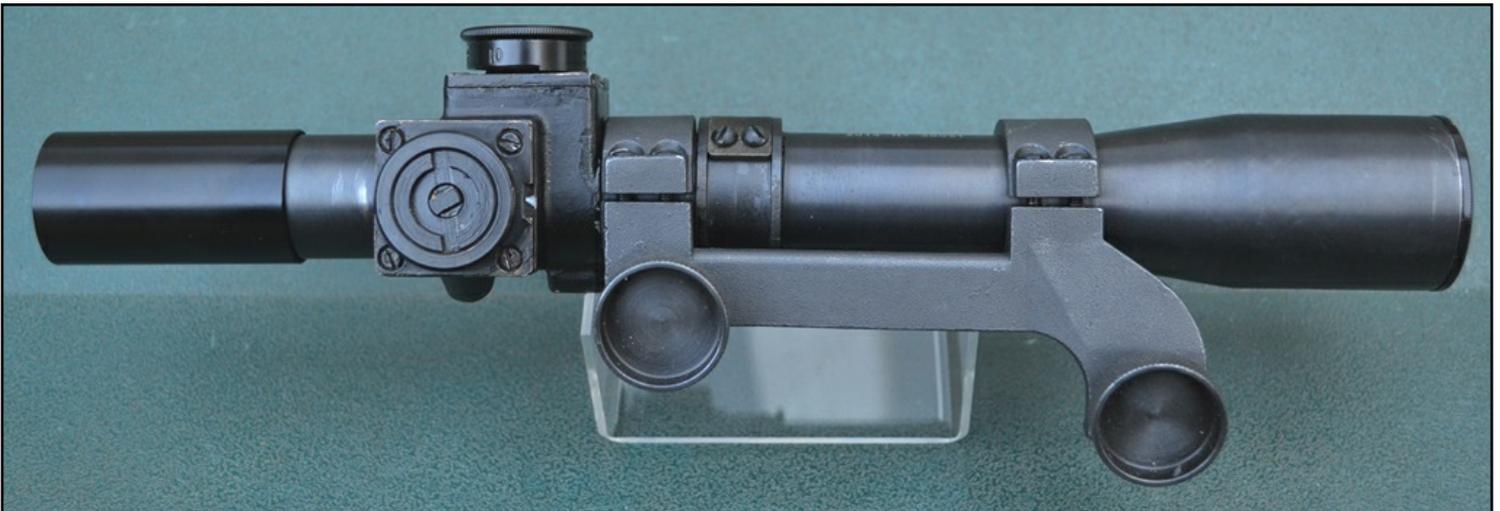
Introduction

This is my second set of notes on the replica No32 scope and in this particular case the No32 scope manufactured by the RSM Group in China. The reason for these notes is because I needed to source a good reliable replica scope that was available without going via the USA. The US has become increasingly difficult to source anything gun wise and as readers may recall similar scopes were available from Numrich Gunparts Corporation a few years ago. Sales were restricted to the US only as federal law will not permit anything to be exported outside the US with a value exceeding \$100.00 without an export license and for some obscure reason these scopes were classed as Military/tactical which further added to the debacle. Recently the situation has deteriorated even further as Gun parts will not supply any component to the UK.

Well the world does not rotate around the US and market forces will adapt and other countries and their manufacturers are only to keen to fill the void, which is exactly what has happened here. Scopes are now available direct from the Red star Mountain Co Ltd for a shade under \$800.00 including shipping and will be on your door step with in a week to ten days which is also an improvement over the US postal service. RSM's website can be accessed using the following address: www.ww2scope.com/default.htm

Telescope Sighting No32 MkII

Unlike the Numrich models these No32 Scopes do not come as a kit with a case and cheek piece. That's fine with me as both were very poor products. However the scope does come with its mount, pads and an adjustment tool or if you wish you can purchase these items as individual parts.



The first thing you notice about this scope when you handle it, is that it feels sturdy, robust with no loose components.

Build quality appears generally good externally with no sharp edges, burrs or poorly fitted components. The steel tube is 1" diameter, with a machined exterior and has a chemical matt black finish.

The saddle

The saddle is a cast design with no porosity or poor casting marks, finish is lightly mottled as one would expect from a casting and has a black painted finish. Poorly made castings have various levels of porosity and burrs. These burrs are ground off by the manufacturer leaving grinding or tooling marks. I can see no evidence of these tooling marks so therefore, externally the saddle appears to be a good casting.

Saddle security on the tube is solid with no movement under hand pressure and fitting is also good with no gaps to permit the ingress of moisture. On the original scope there was a stud that protruded from the bottom of the saddle and engaged in scope bracket, thus aligning the two. This has been omitted on the RSM scope which is actually no bad thing as you can read in the scope bracket section.

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Elevation and windage drums

RSM normally supply the windage and elevation drums in unpainted brass to ensure customers are in no doubt that this is a replica scope.



I requested that they be painted black. Finish is good but it would improve matter if the numerals were inlaid with white wax.

Elevation and windage drums are well made and have no sharp edges and are clearly engraved. When rotated drums appear square and clearance between the saddle and the drum is minimal therefore limiting the ingress of debris. This good fit also prevents damage should the drums take an impact, thus preventing the shafts from being bent. When rotating the elevation drum the detent is positive between the number 2-10, however between 1-2 there is no noticeable detent and therefore potentially could be moved out of zero without the user noticing. Alignment between the indicator arrow and the graduations on the elevation drum are precise and not misaligned.



On the windage drum detent is positive until it reaches the end of its adjustment. Moving the reticule to the right and the drum will reach its stop but has exceeded the No16 on the scale. Moving the reticule to the left and the drum will not reach its stop and stops at No12 on the scale. Alignment between the indicator arrow and the graduations on the windage drum are precise and not misaligned,

These are not majors issues and do not affect the day to day function of the scope but they are minor quality issues that need addressing.

Although not a issue I did notice that some of the screw heads had been slightly damaged, this indicates two issues, cheap screws and incorrect screwdrivers being used during assembly. Again minor quality issues.

As with all No32 Scopes adjusting the drums is a three handed affair. When I accuracy tested the scope, some minor adjustment was required of the drums, which is normal. However this is where the skills of an good Armourer or Gunsmith are worth there weight in gold. Poor fitting of the pads and misalignment with the bore may mean there is insufficient adjustment in the scope or at best the scopes reticule is far from central.



Sunshade

RSM normally supply the sunshade in unpainted brass to ensure customers are in no doubt that this is a replica scope. I requested that it was painted black but in practice I received what look liked an aluminium unit anodised black. Unlike previous models the sunshade appears study and robust and is not secured by a screw and is hand tight only.

This should not be tampered with, removing the sunshade permits access to the object lens which can be removed or if the user is unprepared, allowed it to drop out, damaging the lens. Therefore I feel the sunshade should be secured with a locking screw to prevent accidental tampering or damage.

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Lenses & Reticule

Inspecting the object and ocular lenses, they appear clean, unscratched with no debris or dust on the internal surfaces. Looking through the object lens at the internal components shows good internal surfaces and well finished parts. Picture quality is reasonable with some minor distortion towards the edges and picture quality appears clear and crisp. However one must remember this is not a Schmidt & Bender, therefore one should not expect the same picture quality. On the subject of quality I did notice a small burr on the ocular clamping ring as shown in the picture, which is poor quality control during assembly again.



Another omission from the original is the locking screw for the ocular clamping ring. As this is not a military scope any more its not so important, however you need to check the ring from time to time to ensure it has not become loose. To date I have not experienced any fogging due to environmental conditions but as my testing has been limited to accuracy and function testing I am not really testing the scope to the extremes.

The reticule has the correct profile, is clear with no dust or distortion. Unlike the Numrich scopes the reticule has a similar profile to the original No32 scopes which is a pleasant change as the Numrich reticules came in all shape and sizes depending on manufacturer.

General

Behind the saddle is the locating ring, which appears solid and well fitted. With other manufacturers I have experienced problems with the plate on top of the locating ring with low quality screws and stripped threads. Engraving is good, clear and with no defects. As this is a replica scope I believe the scopes title etc is correct and unlike other manufacturers the serial number are unique to this scope.

Pads

RSM do not manufacture their own pads but source them elsewhere, they are manufactured from steel, the pads appeared relatively well made and have been chemically blued to a reasonable standard. These pads have been made on a CNC machine and certainly did not originate as castings as per the originals. The pads are not supplied with any screws but I recommend using BA screws. Alternatively if these screws are unavailable you may have to use a metric alternative.

Mating surfaces between pads and bracket have always tended to present a problem and this scope was no exception albeit a minor one. In this case the front pad and its corresponding mating surface did not match and as you can see from the picture below required milling to square the two surfaces. However in the past some pads that I have received from Numrich were so bad they had to be thrown away.



Scope Bracket

Like the pads RSM source their mounts from elsewhere. In the main the bracket quality appears reasonable but it is with the bracket that I have had most of the problems.

As discussed above pad to bracket mating quality usually presents a problem or two that requires some machine work. As part of the No4T specification the rifles rearsight requires the battle sight to be removed together with the underneath of the aperture plate to facilitate sufficient clearance to remove the bolt when the scope is fitted. A common problem with these replica brackets is their outside dimensions, the underneath of the scope bracket are greater than the original and therefore you cannot remove the bolt unless you machine a clearance slot as shown in the picture

above. This small recess allows the rearsight to raise a fraction and thus allow the bolt to be removed. As mentioned previously there is no stud in the saddle to engage in the bracket. This is actually an advantage as pad/bracket mating was such in the Numrich models that you could not vertically align the reticule unless you removed the stud or enlarge the corresponding recess.

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Another problem I have identified with the brackets is their external ring dimensions and in particular the front one. If the front ring is too wide and not square, it will prevent the scope sitting on the rear ring as shown in the middle image. If you try to force the scope to seat



flat using the rings you will damage the scope. You must reduce the ring width as shown to provide sufficient clearance.

Tool adjusting drum

The tool for adjusting the elevation and windage drum supplied by RSM is in the white. Again I do not know whether they make their own or source elsewhere. However the tool works so nothing else to say other than it should be blued to prevent rusting.

Range Test

When I range tested this scope I was fortuitous to have a genuine No4T and its No32Mk1 scope to compare against. It is wrong to compare like for like, the Chinese copy is \$800 and I would hate to think what an original No32 would cost at today's prices to build from scratch. In essence one is a high quality military scope built to withstand the harshest environments, the other is a simple replica. However having the two scopes does allow me to see differences I wouldn't normally see. For example whilst the profile of the two reticules is similar the replica is almost twice as wide as the original. Magnification of the original is x3.5 but the replica is greater at approx x5.

Accuracy wise there is not much in it when it comes to grouping on a typical gallery range at 100yds. I shot a No4T and a converted No4Mk2, both rifles had been restored and bedded in exactly the same manner and both shot exactly the same. However that is where it is all stops and the the original No32 starts to lead the way in all other respects, there is no comparison.

Summary

In a nutshell, people, myself included, purchase replica No32 scopes because they are affordable. However there are various manufactur-



ers and as a result scope build quality varies and I have heard of various horror stories. My own experiences have been fairly fortunate with only one scope coming from a UK supplier that presented numerous problems. Scopes from Numrich did not present any problems although they had peculiar reticules. RSM scopes appear equally good, maybe even slightly better although some minor components have been omitted such as locking screws and location studs.

Regardless of the scope manufacturer, the principle problem is the pads and their mounts. Although you are sent "a kit", pads and mounts come from separate suppliers and therefore there is no guarantee that they will match. I have rejected Numrich pads on numerous occasions as they were simply not usable and then had to purchase UK manufactured replacements. Mounts are no exception and this mount supplied by RSM required some re-work to make it suitable, however the end result was a good one.

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The solution is to purchase a batch of scopes from a known good manufacturer together with their mounts, purchase pads from a UK manufacturer and inspect, fine tune and match them up so the customer gets a known good package - now there's a business idea for someone.

Paul Green

Thames Valley Guns

www.thamesvalleyguns.co.uk

Email: paul.tvg@ntlworld.com

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