



## No. 32 MK 2 Telescope Sight



*Note; it has come to our attention that many consumers believe that all “reproduction” optics emanate from one Asian manufacturer but are sold by a variety of companies. This is **not** the case at all, in fact there are several manufacturers of these optics located in the same geographical area of the world. Subsequently, not all reproduction optics are made the same or to the same quality. Red Star Mountain (RSM) uses known vendors and stringently controls the quality of all of its products to ensure consistency. Our products are manufactured as close to the originals as possible. Keep in mind that we do not have the original manufacturing drawings; rather we use original samples as models for our products. At times this can lead to missteps but we try our best to make our products as accurate and authentic as we possibly can.*

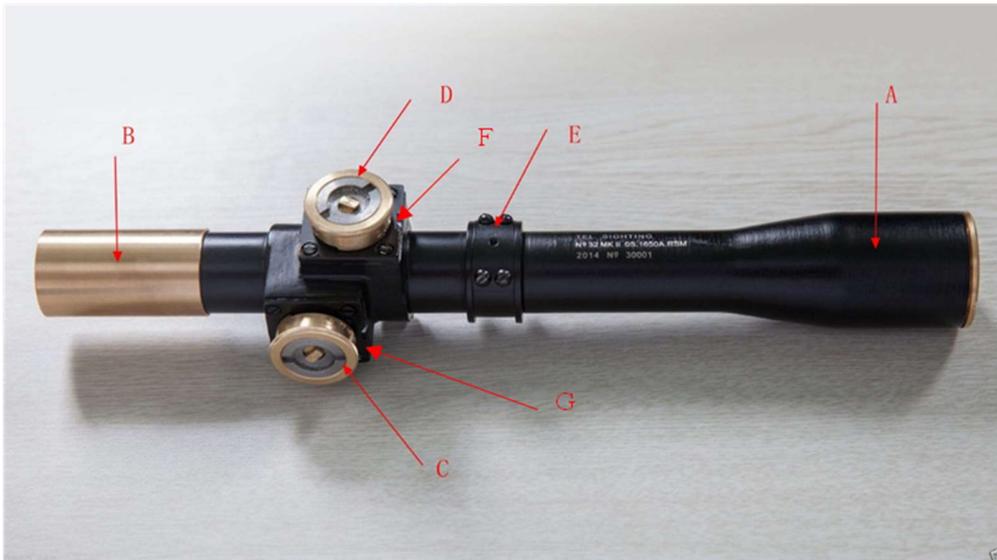
The No. 32 Mark 1 rifle optic was adopted for use on sniper rifles in 1941 as WWII was raging in Europe. This optic had a number of issues which negatively affected its use, thus the No. 32 Mark 2 rifle optic sight was designed and installed in the Lee Enfield sniper rifle (No.1 Mark 4 (T) and others) in 1943. In 1944 the No. 32 Mark 3 was introduced that offered easier adjustments and reportedly was slightly more robust and durable. This optic line served the crown for over 4 decades and saw action in many conflicts all the way to the 1980s.

RSM first introduced a recreation (reproduction) of this superb optic in 2015 patterned after a purchased original (but highly used) version. A great amount of work went into the development and refinement of this optic to make it as good if not better than the originals issued to British troops. The Objective was not only to make a product that looked like the original, but also to function like the original (recreation). Because we strived to make this product as close to the original as we could possibly make in terms of materials and function, our product is just as robust and useful as the original. After a considerable amount of testing and obtaining information from noted experts, we determined that while our first version was very good, certain improvements needed to be done to make it even better. Therefore we took steps to correct a few issues such as;

1. The first version used the No.32 Mark 1 adjustments; it used 2 MOA adjustments when in fact the Mark II uses 1 MOA.
2. The first version had a single post for a reticle (referred to as a “graticule” by the British) because this is what our sample had. The original optic had both a center post as well as a thin left to right horizontal crosswire which we have added to the newest model to make it correct.

We highly recommend that the purchasers of our product fully research the No. 32 Mark 2 optic in any number of publications or online sources to learn more about how the optic functions, is mounted, zeroed and used. This document will provide a modicum of relevant information concerning our product for informational purposes. **Please note that there is a difference between the No. 32 Mark 1 telescope and the No. 32 Mark 2 telescope, and the No. 32 Mark 3 telescope; this product is specifically patterned after the No. 32 Mark 2 variant.**

### DESCRIPTION OF PARTS



*\*\*Note; pictured optic is for demonstration purposes only, the current production model may be slightly different*

| ITEM | DESCRIPTION                      | COMMENTS  |
|------|----------------------------------|---|
| A    | Ocular Lens                      | Also known as the "eyepiece"  |
| B    | Objective Lens                   |   |
| C    | Windage (Deflection) Turret      | "Mounting and Adjustment" below.  |
| D    | Elevation (Ranging) Turret       | See "Mounting and Adjustment" below.  |
| E    | Recoil ring and Focus adjustment | This ring acts a recoil lug for the optic. <b>PLEASE NOTE: THE FOCUS IS SET DURING THE MANUFACTURING PROCESS AND SHOULD NOT BE ADJUSTED BY THE USER UNLESS ABSOLUTELY NECESSARY</b> |
| F    | Elevation (Ranging) Drum         | Calibrated in <b>YARDS</b> . Used to make adjustments in distance to the target after the optic was zeroed.   |
| G    | Windage (Deflection) Drum        | Used to make adjustments for wind after the optic was zeroed.   |



### SPECIFICATIONS

| ITEM                                      | SPECIFICATION  |
|---|--|
| Model                                     | WWII Enfield No.32 MKII/MK2 Sniper Scope   |
| Part Number                               | 5002   |
| Markings                                  | Tele Sighting<br>N° 32 MK II 03.1650A RSM<br>2014 N° SN<br>(Similar to the original but unique to RSM)   |
| Material/s                                | Steel main tube / copper objective (Same as the original)  |
| Coating                                   | Black (Similar to the original)  |
| Magnification                             | 3.5x (Original is 3x)  |
| Ocular size (diameter)                    | 1.9in / 30mm (Same as the original)  |
| Objective size (diameter)                 | .75in / 19mm (Same as the original)  |
| Eye relief                                | 2.4 – 2.8 in / 60-70mm (Similar to the original)   |
| Field of view (FOV)                       | ~ 9 deg (Original is 8.5 deg)  |
| Tube diameter                             | 1.04 in / 26.5mm (Same as the original)  |
| Weight                                    | 11b 9oz / 725g (Similar to the original)   |
| Focus cover screw size                    | 2.2 x 1 mm   |
| Elevation (range) adjustment value        | 1 Minute Of Angle (MOA) (Same as the original)   |
| Windage (Deflection) adjustment value     | 1 Minute Of Angle (MOA) (Same as the original)   |
| Range increments                          | 50 yards (numbered marks are 100 yards, un-numbered marks are 50 yards) (Same as the original)   |
| Amount of elevation (range) adjustment    | 84 minutes total (once zeroed, an amount of the total adjustment will be used and unavailable, additionally manufacturing processes and tolerance stack may reduce this amount) (Same as the original) |
| Amount of windage (deflection) adjustment | 16 minutes total (8 minutes side to side, manufacturing processes and tolerance stack may reduce this amount) (Same as the original)   |



## **MOUNTING AND ADJUSTMENTS**

The adjustments of the RSM No. 32 MK 2 are identical to the original optic. We highly encourage buyers of this product to research these precision optical sighting devices prior to making any adjustments on the product to avoid damage and to ensure proper function. This document is not intended to be historical in nature, nor is it a complete instruction manual for the installation or use of the optic as those directions may be found in a wide variety of historical books and publications. That said, we do feel that some information should be provided to allow our customers to develop a basic understanding of how the product functions and how it can be used.

***NOTE: RSM is not liable for misuse or incorrect adjustment of its products; users MUST understand how to correctly mount, adjust and use the product prior to doing so. Given that this product is an accurate reproduction of an historical device, we feel that the information is readily available and should be consulted prior to using the product.***

### **MOUNTING**

It is highly recommended that the mount for this optic and the optic itself be mounted by a competent gunsmith especially if mounting to a rifle not originally configured for the mount. Attempting to mount this optic and its mount by an inexperienced person is at the risk of the owner of the product and not the responsibility of RSM.

Installation of the mount and subsequently the optic must be in line with the bore of the rifle. Incorrect or “off axis” mounting of the optic and/or its mount will result in poor accuracy and/or the inability to make the necessary corrections for sighting and/or wind conditions.

All mounting must be secure and tight prior to making any adjustments and/or firing the weapon. Specific torque values for the optic rings and the mount to rifle screws should be researched and applied, however care must be taken not to over tighten and subsequently damage either the mount and/or the optic.

Mounting the optic into the mount is relatively straightforward, the optic can be mounted in the mount and then onto the rifle or mounted onto the mount with it installed on the rifle. Either way, remove the optic ring caps; lay the optic into the mount. Care must be taken to ensure that the rifle is level in the mount prior to shooting and definitely prior to any adjustments being made. Torque of the optic ring caps should be approximately 15-25 in lb; if so desired and the optic is definitely mounted level; some low grade (blue) Loctite may be used on the optic ring cap screws.

### **OPTIC ADJUSTMENT**

There are essentially 3 adjustment activities that users of this product will experience; initial reticle (graticle) centering, proper zeroing of the optic and adjustments for range and/or wind.

**Centering the reticle:** During manufacturing the reticle is centered and the elevation (ranging) drum is set to 300 which should work with most cases. There should not be a need to center the reticle further, however if there is, the user must obtain the reticle centering tool (PN 5004)

- This is placed over the windage (Deflection) turret
- The outer portion of the tool holds the drum in place
- The inner portion is used to center the reticle



- Rotate the inner tool until the reticle is on one side or the other (**DO NOT FORCE THE ADJUSTMENT OR THE OPTIC WILL BE DAMAGED**)
- Move the reticle to the opposite side counting the clicks or rotations until the reticle stops (**DO NOT FORCE THE ADJUSTMENT OR THE OPTIC WILL BE DAMAGED**)
- Divide the clicks or rotations in half
- Move the reticle to the half way mark

### **Zeroing the optic (as per original documentation):**

*\*NOTE 1: All instructions are relative to properly mounted pads and mounts; they must be centric to the bore of the rifle. If the pads are mounted incorrectly or off center, zeroing the optic to the rifle can still be accomplished, however use of the elevation and/or windage adjustments will not be accurate*

*\*\*NOTE 2: Please observe all firearms safe handling procedures while using this product on a weapon. RSM is not responsible for any accidental or negligent firing of a weapon while attempting to use its products.*

### **PREEQUISITES**

- Unloaded firearm in good working condition (consult a competent professional to determine if your weapon is capable of firing live ammunition).
- A quantity of the appropriate ammunition (please research the caliber and ballistics of the ammunition to determine which brand and load is closest to the original No.4 Mark 1 (T) sniper ammunition (174 grain MK VII 2440 fps)
- The optic securely mounted to the weapon
- An applicable range supporting center fire rifle fire out to 100 yards minimum
- Applicable target/s
- Appropriate hearing and sight protection

Note: the original No.4 Mark I (T) rifles were initially zeroed at 28 yards to conserve time and ammunition. RSM highly recommends users to research the correct method of zeroing this optic/rifle system for their needs.

### **Procedures**

1. Load the rifle
2. Using appropriate marksmanship techniques, fire at a distinct distant aiming point (Point of Aim – POA)
3. After the recoil cycle, operate the bolt and reload the weapon
4. Repeat #2 (disregard the first point of impact unless it is not on the target at all)
5. Repeat #3
6. Repeat #2
7. Unload the weapon
8. Move to the target (or use optics) and determine the distance and direction that the shots (Point of Impact – POI) struck the target in reference to the aiming point
9. Using the elevation (ranging) and the windage (deflection) knobs adjust the aiming point in desired direction to the desired amount as indicated by center of the POI
10. Repeat steps 1 – 9 as many times as necessary to ensure that the POA and POI are the same. Note; if zeroing at 28 yards, the POI should be approximately 1.7 inches low to impact correctly at 100 yards).



11. Once zeroed at 100 yards; look at where the elevation drum is located. Using the sight adjustment tool (PN 5004), hold the center adjustment in place while rotating the drum to read "100".
12. Conduct the same procedure as outlined in #10 for the windage drum.
13. Confirm zero (readjust if necessary)

**Note: it is ideal to zero the rifle in "no wind" conditions so as not to induce a consistent error into the optic adjustments. Zeroing at a near target (such as 28 yards) will essentially negate the effect of wind, thus providing a better zero as it relates to wind.**

#### **Alternative Zeroing Procedures (as per user suggestions):**

**\*\*Note: The above prerequisites cited above are still relevant in this procedure.**

1. Rotate the elevation drum to read the range at which you are going to zero at (i.e. 100 yards).
2. Rotate the windage (deflection) drum to read "0" (should be shooting in no wind or minimal wind conditions).
3. Select a specific point of aim (POA) that is easily distinguishable (i.e. 1" - 2" black or neon colored circle)
4. Fire 3 rounds
5. Referring to the target, determine the adjustments that need to be made based on the "mean point of impact" (the center of the shot group)
6. Using the No.32 Sight Adjustment tool (PN 5004) and holding the drum in position (at the range mark initially set), adjust the optic by rotating the inner adjustment (lead screw) the requisite amount.
7. Repeat steps 3 – 6 until the point of impact (POI) is the same or acceptably near the POA

**\*\*Note: For clarity sake; what you are doing using this method is adjusting the inner adjustment (lead screw) while keeping the elevation and windage (range and deflection) drums on their preset positions commensurate with the zero range and "0" for the wind. Once the rifle is zeroed the drums should read the zero range (i.e. 100) and "0" for the wind.**

#### **Adjustments for firing conditions:**

While using the optic/rifle it may become necessary to make adjustments to compensate for range (distance) and wind (deflection). With the No. 32 Mark 3 this is relatively straight forward assuming the optic has been properly zeroed. Note: changes in ammunition type, bullet weight, and/or velocity will have a direct affect on the value of the adjustments of this optic. Additionally, users may see changes in the adjustment value as a result of environmental conditions and/or induced human error. In short, just because the elevation drum reads a specific range, do not essentially mean that the round will hit dead center each and every time. Users must understand that this optic was designed to be used by trained marksman who compensated for a wide variety of factors constantly.

#### **Procedures (elevation)**

1. Determine the range to the distant target in yards
2. Rotate the elevation (ranging) drum to the applicable location. Note; for targets between yard lines (i.e. 330 yards), move the dial to the closest graduation, then hold the center post high or low to compensate for the difference. **Remember; the more distant the target the less compensation must be applied.**



3. Engage the target
4. Repeat as necessary

Procedures (windage)

1. Determine the range
2. Determine the wind value and direction
3. Using ballistic charts or software, determine the correction in minutes of angle (MOA)
4. Rotate the windage (deflection) drum the applicable amount in the correct direction
5. Engage the target
6. Repeat as necessary

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