Since 2007

RED STAR MOUNTAIN

No. 4/32 Scope Drum Stripping Tool For Zeroing

*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.

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.***

As a part of the development of the No. 32 Mark 2 optic, RSM determined that it was necessary to also offer various accessories for this outstanding vintage reproduction optic. Undoubtedly the most important accessory is the sight adjustment tool (is called by a number of names). This tool was developed to serve 2 functions

1. Centering the reticle in the optic
2. Zeroing the optic

This tool is only used on the Mark 1 and Mark 2 optics, the later Mark 3 was redesigned so that the tool was not needed. When the rifles were built originally, these tools (and perhaps others) were used to center the reticle without a lot of regard to where the drum (range or deflection markings) landed. Once in the hands of the operator, the rifle had to be zeroed and once again this tool became necessary (see below). It has been said by a wide array of people that zeroing a No.32 optic required "three hands". This is due to the fact that it is near impossible to move the drum without disturbing the position of the actual reticle. It is this reason that the "alternate zeroing procedures" emanated from.

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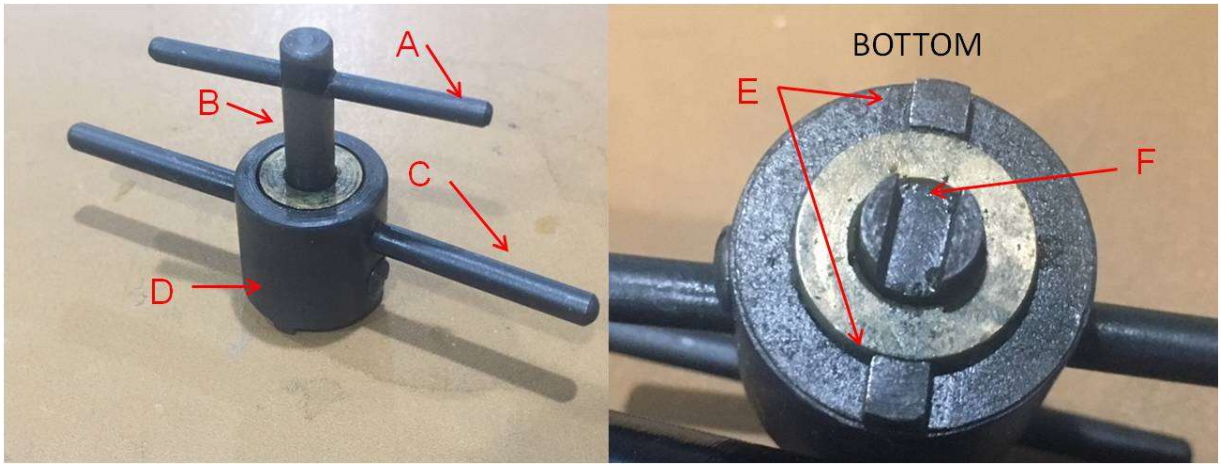
DESCRIPTION OF PARTS



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

ITEM	DESCRIPTION	COMMENTS
A	Reticle adjustment T bar	Used to hold and/or adjust the reticle
B	Reticle adjustment shaft	Distributes force to adjust the reticle
C	Drum adjustment T bar	Used to hold and/or adjust the drum
D	Drum adjustment barrel	Goes over the drum and provides an equal distribution of force over the drum
E	Drum adjustment lugs	Engages the drum to facilitate holding and/or adjustment
F	Reticle adjustment slot	Engages the reticle to facilitate holding and/or adjustment

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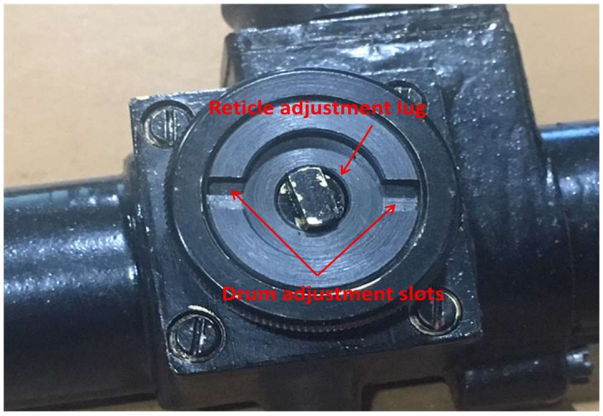
SPECIFICATIONS

ITEM	SPECIFICATION
Model	No. 4/32 Scope Drum Stripping Tool For Zeroing
Part Number	5004
Markings	None
Material/s	Steel with brass bushings
Coating	Black oxide
Weight	2 ounces / .05kg
Width of reticle adjustment arms	1.617 inches / 41.07mm
Width of drum adjustment arms	2.932 inches / 74.47mm
Length (height) of reticle adjustment shaft	1.553 inches / 39.45mm
Diameter of drum adjustment barrel	.750 inches / 19.05mm

OPERATION

Operation of the sight adjustment tool is in concept very straight forward, the tool is placed over one of the drums (range or deflection) with the lugs of the drum barrel locating into the requisite slots in either drum and the reticle adjustment shaft seating onto the inner reticle adjustment lug.



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ADJUSTMENT OF THE NO.32 MARK 2 OPTIC

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.

ADJUSTMENT PROCEDURES

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.*