

TECHNICAL HANDBOOK - INSPECTION STANDARDS

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Introduction

1. This instruction defines the inspection standards to be applied after Field or Base repairs.

General

2. Ensure that:-
- a. The Rifle is not loaded.
 - b. Serial numbers are present and correspond on upper receiver, lower receiver, bolt and bolt carrier.
 - c. All components are serviceable and free from rust, burrs and excessive pitting which would affect the functioning and/or the accuracy of the rifle.
 - d. All modifications have been carried out.

Barrel Assembly

3. Barrels will be rejected for the following faults:-
- a. Puckers which impede gauge No. T27442. .2195"
 - b. Bulges.
 - c. Bends, when the accuracy of the rifle is affected.

Barrel Assembly (Contd)

- d. Cuts or other irregularities which impede the gauge after the bore has been cleaned.
- e. Excessive pitting of the bore which causes loss of gas around the bullet.
- f. Cordwear to a degree which has caused the fired case to expand in the resulting groove or when cordwear has affected accuracy.
- g. Broken or worn locking lugs in the barrel extension.
- h. Badly damaged flash suppressor threads at muzzle.
- i. Grooves for front sight taper pins badly worn.

NOTE: Barrels will not be rejected for slight irregularities, if when range tested the results obtained are within the limits defined in Para 15.

4. Ensure that:-

- a. Chamber is clean and free from carbon deposits.
- b. Locking lugs of barrel extension are clean.
- c. Flash suppressor is not fractured and is secure on the barrel; readily accepts the bayonet; and the bayonet when assembled is secure.
- d. Front swivel is secure and operates freely.
- e. Barrel gas port is clear of carbon and any foreign matter. Carbon can be removed by use of a No. 43 (0.089 ins.) drill hand held.
- f. Foresight is serviceable and positioned by its detent and spring; protectors are undamaged.
- g. Foresight block is upright, secure, and the taper pins are not loose.
- h. Gas tube is not cracked, blocked or damaged; it is in correct alignment for the key bolt, and secured by its pin.
- i. Handguard slip ring is undamaged and moves freely against its spring.
- j. Barrel is secure in the upper receiver assembly.
- k. Nut barrel is tight and serrations have not been damaged (by tool).

5. Ensure that:-

- a. Upper receiver is not cracked, damaged, burred, or badly worn, especially at the recess for the detent cover ejection opening.
- b. Handle cocking is free from cracks, burrs, and is not badly worn; it both assembles and moves freely in the receiver without fouling the gas tube, and is retained in the forward position by its catch and spring.
- c. Backsight operates correctly, with no excessive play; screw rear sight is not distorted, the 300-500 meter leaf is clearly marked, 'L'; the plunger and spring operate freely.
- d. Cover ejection opening and spring are not distorted or damaged, cover is positively retained in the closed position by its detent and spring; the snap ring is present on the pin ejection cover.

Bolt Carrier Assembly

6. Ensure that:-

- a. Bolt carrier is free from cracks and burrs; locking lugs of the bolt are undamaged; firing pin hole is not elongated, or the face of the bolt badly pitted or ringed.
- b. Extractor and ejector are not damaged and work efficiently on their springs.
- c. Bolt rings are not broken and ring gaps are correctly spaced (not to be in line). Qty 3 are fitted.
- d. Pin bolt cam is free from burrs and correctly positioned in the bolt carrier.
- e. Firing pin is not worn or damaged; it moves freely in the bolt; the retaining pin is secure and serviceable. Firing pin protrusion is within limits 0.028 and 0.036 ins. Gauge No. T27669.
- f. Key bolt is secure on bolt carrier and is not damaged; securing screws are tight and staked; key bolt is clean and free from carbon.
- g. Bolt carrier assembly moves freely in the receiver; the gas tube enters freely into the key bolt as bolt carrier moves forward.

NOTE:- Carbon deposit can be removed from gas port holes of bolt carrier with a hand held No. 36 (0.106 in) drill.

Lower Receiver Assembly

7. Ensure that:-

- a. Lower receiver is not cracked, damaged or badly worn, especially at bolt catch recess.
- b. Bolt catch is not damaged and operates freely on its spring.
- c. Catch magazine is adjusted and functions correctly; its spring is not weak or distorted.

- d. Trigger mechanism functions correctly, components are not damaged or excessively worn, springs correctly assembled and not distorted or weak; selector lever is positively retained in each of the three positions.
- e. Pin pivot and take-down pin operate freely, their detent and springs retain them in the closed position and also prevent their removal from the receiver.
- f. Extension lower receiver is screwed fully home into receiver, and is secured by its pin; it is not dented or damaged.
- g. Guide Assembly Action Spring:-
 1. Buffer assembly is not damaged or badly worn and buffer cap is retained by its pin.
 2. Guide buffer spring is not distorted or weak. Overall length 12.5 ins (new).
 3. Assembly works freely in the extension and is retained by the buffer retainer and spring.

Cartridge Head Space

8. Ensure that:-
 - a. Bolt carrier assembly does not close over gauge No. T27921

Stocking

9. Ensure that:-
 - a. Handguards - surfaces are not badly damaged; (slight blemishes, broken serrations at top of handguards, and looseness, can be ignored); liners are tight with no rivets deficient; the finish of repairs is correct (fibre glass).
 - b. Butt - surfaces are not badly damaged; (slight blemishes may be ignored); and not loose on the lower receiver. Butt pad is not perished; screw butt pad is tight and seated correctly; swivel is secured by its pin and operates freely.
 - c. Pistol grip - surface is not badly damaged; (slight blemishes may be ignored); is not split or loose on the receiver.

Rifle Assembled

10. Ensure that:-
 - a. Recoiling portions operate freely.
 - b. Bolt rotates in carrier and locks in the forward position.
 - c. Ejection cover operates correctly.
 - d. Feed, extraction and ejection are correct.

- e. Action operates correctly, with the selector lever in each of its three positions.
- f. Action is held to the rear by the catch bolt on an empty magazine, and the bolt can be released by depressing the catch bolt.
- g. Magazine is retained by catch magazine and released when the catch is depressed.
- h. Trigger Pressure is between 5 and $8\frac{1}{2}$ lbs (ONE PULL ONLY).

NOTE:- Play between upper and lower receiver assemblies may be ignored.

Range Testing

- 11. Field Workshops:- Range testing will only be necessary when repairs which are likely to affect functioning or accuracy have been carried out or to prove the serviceability of suspect components.
- 12. Base Workshops:- All Rifles will be range tested and zeroed after base workshop repair.
- 13. Functioning
 - a. Fire 10 rounds automatic in short bursts.
 - b. Fire 10 rounds repetition.
- 14. Preparation for firing
 - a. Check that the foresight and backsight are secure.