DATES AND REASONS FOR REVISIONS

12/3/62 - New write-up for this model - NWM/eb
1/24/63 - Item IV - A. - Min rds. for function and
Group Size was 5 shots - WAB/NWM/eb

DESCRIPTIVE INFORMATION

I. Guns Proofed, Tested, Targeted

1. All guns 100% - Proofed, tested and targeted concurrently.
2. Record results on forms provided - (See Foreman for instructions)
   a. See Malfunction Index for proper coding and recording of malfunctions.

II. Inspection Objectives

1. Proof: To check the ability of each gun to satisfactorily sustain the pressures generated by the proof load without ruptures or breakage.
2. Functional: To check the ability of each gun to satisfactorily load, feed, close, lock, fire, unlock, open, extract and eject with standard ammunition.
3. Accuracy: To check the ability of each to satisfactorily meet specifications for group size.
4. Visual: To check gun for satisfactory appearance of the Rear and Front Sights and general presentability.

III. Shooting Method and Range
A. Standard Method

1. Use accuracy device provided for this model.
2. Use centerfire targeting range - 100 yds (300 ft.)
   a. Use grid type target paper (1" square)
   b. Use Line-O-Sighter and spot scope as outlined in Item VI, Description of Test.

IV. Ammunition Specifications and rounds required.
A. Table

			Type of Cartridge & Minimum Rds. Required			
Caliber	Bullet Weight	Gun Capacity	Proof Test	Function Test	Point of Impact	Group Size
.221	50 Gr. SP	Single Shot	1 Proof Cartridge	3 std.	None	3 std.

Note: The no. of required rds. listed above for the functional & accuracy characteristics specified are the Min. requirements. Any "seating" rds. which may be need are in addition to the numbers listed above.

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DATES AND REASONS FOR REVISIONS

12/14/67 - Updated and retyped - WAB/COP/eb

DESCRIPTIVE INFORMATION

V. Specifications:

A. Proof

1. Breakage - Action or Barrel must not be broken or split by firing pressures of proof cartridge.

2. Number of Rounds - See Table, Item IV-A.

B. Function:

1. Feeding - With single cartridge resting on platform, move Bolt forward to feed shell and close.
   a. Must feed single (1) shell into chamber, each operating stroke of Bolt.
   b. Shells must not stem chamber.

2. Closing - (Forward motion of Bolt)

   - with chamber empty.

   a. Bolt must close with normal pressure (empty chamber).

   - with shell in chamber.

   b. Bolt must close with normal pressure (shell in chamber).

3. Locking - (clockwise camming motion of Bolt at closed position).

   - with Bolt closed on empty chamber or with shell in chamber, as in Item 2., above.

   a. Bolt must lock up with normal pressure.
   b. Extractor must cam over shell rim without excessive pressure or bind.

4. Firing - After each full operating cycle of Bolt - Safe in "off" position.
   a. Action must fire when Trigger is pulled.

5. Unlocking - With Bolt in closed and locked position as in Items 2a, 2b, 3a & 3b, raise Bolt Handle, counterclockwise to unlock.
   a. Must unlock with normal pressure.

6. Opening - After unlocking - movement of Bolt to rear position.
   a. Must travel full stroke to rear position with normal pressure.
   b. Bolt must not pull out of Receiver.

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12/14/67 - Updated and retyped - WAB/COP/eb

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V. Specifications:

B. Function - cont'd.

7. Extraction - With fired case of live round in chamber, unlock and open Bolt to rear position.
   a. Case or shell must be completely removed from chamber.
   b. Case or shell must be retained in head of Bolt by Extractor - not fall out - until ejected.

8. Ejection - With fired case or live round fully extracted from chamber.
   a. Case or shell must be completely ejected from gun by Ejector.

9. Case Inspection - The first (1st) fired case (after proof round) must be visually inspected for indent, and condition of fired case (chamber defects).

NOTE A: Functional items are applicable to all standard rounds fired.

C. Point of Impact.

1. Definition - The mean average position of all shots fired from point of aim.

NOTE A: Point of Impact not checked nor Sights adjusted unless specifically requested.
NOTE B: Guns are to be tested with Sights in normal position as described in Item V-E.

D. Group Size.

1. Definition: Maximum extreme spread from inside edges of holes farthest apart.

2. No. of Rds.: See Table, Item IV-A.

3. Max. extreme spread for number of rounds indicated:

Caliber	3 Shots	4 Shots	5 Shots
221 Fireball	1.75"	2.25"	3.0"

E. Open Sights.

- Normal Appearance.

1. Integral Front Sight Ramp and Blade - (Fixed Position).
   a. Screwed tight to Barrel rib at front and rear.
   b. Central on rib and straight with line of sight - not bent, twisted, tipped or deformed.

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DESCRIPTIVE INFORMATION

V. Specifications

E. Open Sights (Cont'd.)

2. Rear Sight Ramp, Leaf and Eyepiece - sliding adjustment for windage and elevation.
   a. Ramp - screwed tight at top rear of Barrel rib - reasonably central on rib
   b. Leaf - reasonably central on Ramp and locked in position - set screw tight.
   c. Eyepiece - top surface approximately flush with top surface of Leaf - set screw tight.
   d. Rear Sight Assembly - must be level crosswise with Front Sight and with line of sight as viewed from rear and straight lengthwise - not tipped, twisted or bent.

- adjustments - if necessary for normal appearance.

1. Windage.
   a. Rear Sight Leaf may be adjusted to right or left within specifications above.
2. Elevation
   a. Rear Sight Eyepiece may be adjusted to raise or lower within specifications above.

VI. Description of Test

A. Safety Inspection
- each Action as received - Bolt in open position.

1. Pick up Action and visually inspect Bolt for:
   a. Bolt Head pull test mark - Prick punch mark (•) must be present on right Bolt lug.
2. Depress Bolt Stop at left rear of Action, remove Bolt and visually inspect Barrel for:
   a. Obstruction in bore - view from Breech end - must be clear.
   b. Magnaflux mark - (△) - must be present on right rear side.
3. Reassemble Bolt to Action and remove identification tag and set aside.

B. Sight Inspection

4. Inspect Front and Rear Sights for:
   a. Normal Sight alignment and appearance - as described in Item V - E.
   b. Make sight adjustments, if necessary.

C. Proof Test (One Shot)
- With device in starting position; door raised to open position, fixture in rearward position.

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DESCRIPTIVE INFORMATION

V. Specifications

C. Proof Test - Cont'd.

5. Place Action in fixture - Safety in "off" position - Bolt in open position.
6. Depress dual buttons on console to clamp.
7. Place proof cartridge on loading platform in Action.
8. Close Bolt to feed shell into chamber and lock - manually.
9. Depress dual buttons on console to move fixture to forward position - muzzle in port.
10. Depress dual buttons on console to close device door.
11. Depress dual buttons on console to fire action.
    a. Action must fire.
    b. Action must not be damaged by proof load.

Note: When Action fires, device automatically cycles to starting position.

- After firing proof load - device in starting position.
12. Manually unlock and open Bolt to rearward position to extract and eject fired proof case.
    a. Proof case should extract and eject freely.
- If proof case extracts and ejects satisfactorily as in 12 and 12a, proceed as in Item D-18.
- If proof case jams in head of Bolt proceed as in 13, 14, 15.
13. Depress dual buttons to release fixture clamps.
- Bolt must be in open position before releasing clamp.
14. Remove Action from fixture, depress Bolt Stop and remove Bolt with fired case from Action.
15. Remove fired proof case from Bolt.
    a. Extractor must not be damaged or jammed under Bolt rim to be inoperable.
16. Reassemble Bolt to Action and replace Action in fixture - Bolt in open position.
17. Depress dual buttons on console to clamp and proceed as in Item D-18.

D. Test-Target

- After proof test, Action located and clamped in fixture, device in starting position, each shot.
18. Place standard cartridge on loading platform in Action.
19. Close Bolt to feed shell into chamber and lock manually.
20. Depress dual buttons on console to move fixture to forward position - muzzle in port.

DATES AND REASONS FOR REVISIONS

12/3/62 - New write-up for this model - NWM/eb

1/24/63 - Item V-D, 28, 29, 30 deleted refer to 5 shot group in accord with change in specs. for 3 & 4 shot groups - WAB/NWM/eb

DESCRIPTIVE INFORMATION

VI. Description of Test

D. Test-Target - Cont'd.

21. Depress dual buttons on console to lower Line-O-Sighter onto Front and Rear Sights on Action.
    a. Move Line-O-Sighter side to side manually, if necessary, to insure proper seating on Sights.
22. Viewing target through Line-O-Sighter, adjust device to point gun at target paper using
    a. Elevation adjustment lever on left side of device, , if necessary.
    b. Windage adjustments lever on right side of device, if necessary.
23. Depress dual buttons on console to raise Line-O-Sighter to upward retracted position.
24. Depress dual buttons on console to close device door.
25. Depress dual buttons on console to fire Action (and complte shooting cycle to starting position).
26. Repeat Items 18, 19, 20 and 24, 25 for each shot required.
27. Check each shot with spotting scope - for gun "seating in" and position of shots on paper.
    a. Readjust device if shots off paper or group too close to edge - as described in Items 20,21,22,23
28. If first two (2) shots are satisfactory for position on paper and within group size specifications.
    a. Fire additional shots to complete ~~five=(5)=~~shot group.
29. If first two (2) shots are not satisfactory for position on paper or show excessive spread, ignore and
    a. Fire complete ~~five=(5)=~~shot group.
30. Check Group Size
- First ~~five=(5)=~~shot group as in Items 28 or 29.
    a. Spread of shot pattern should be within specifications as in Item V - D - 3.
    b. If group size exceeds specifications, ignore and fire second five (5) shot group.
- Second five (5) shot group.
    c. Spread of shot pattern must be within specifications as in Item V - D - 3.
31. Check function of Action - all standard rounds fired.
    a. Must be within specifications as in Items V - B - 1 through 9.
- On completion of Test-Target - device in starting position.
32. Unlock Bolt and move rearward to open position.
    a. Bolt must be in open position before releasing clamp.
33. Depress dual buttons on console to release fixture clamp.
34. Remove Action from fixture.
35. Inspect Rear Sight, Front Sight, Barrel and clamping points on Receiver.
    a. Must be free of bad mars, scratches, jams and rub marks at points in contact with shooting device.

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12/3/62 - New write-up for this model - NWM/eb

DESCRIPTIVE INFORMATION

VI. Description of Test Cont'd.

36. Stamp each acceptable Action with
    a. Proof mark on Barrel - (REP) left rear approximately in line or slightly above gas hole in Receiver.
    b. Test mark on Barrel - (Ex.-*) shooters character stamp just forward of proof stamp.
    c. Proof mark on Bolt - (•) Prick punch mark on bottom of Bolt Handle.
37. Replace identification tag on Action.
38. Record function and group size information on report sheets and gun slips.
    a. This must be done after testing each gun - not from memory on completion of load.

VII. Interpretation of Proof-Test-Target

A. Pass Gun

1. Within specifications for:
    a. Visual items, and
    b. Proof Test, and
    c. Functional requirements and
    d. Group size for specified number of shots - first group or second group

B. Reject Gun

1. Not within specifications for:
    a. Any one (1) or more of the items listed under A-1 above.

VIII. Safety after test

A. Open Bolt

1. Bolt must be in open position before removing from device.

B. Inspect Action for live ammunition.

1. Chamber must be empty.

Note: Perform A & B on each individual gun immediately after shooting test.
Repeat B for all guns in load on completion of test.

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