

Monterey County Sheriff's Office
Armorer School - Shotguns
Remington Model 870

Day I:

1. Introduction:

- A. Welcome, thank you for choosing and using Remington Products.
- B. Opening Comments
 - 1. Remington Arms Company History
 - 2. Started 1816 Ilion, New York
- C. Safety
 - 1. Functional Dummy Rounds
 - a. Used to check function of shotgun
 - 2. Safety Glasses
 - a. Must be worn when working on guns
 - b. Potential eye injury due to launched springs
 - 3. Wearing Jewelry
 - 4. No live ammunition in classroom at any time
- D. Registration
 - 1. Check for Roster Substitutions & Payment

2. Model 870 Course Overview

- A. Course outline
 - 1. Nomenclature of the Remington M-870 shotgun
 - 2. M-870 pivot points, cams, and springs that make it function.
- B. Workstation Materials
 - 1. Brownells Catalog
 - 2. Tools
 - 3. Dummy shotshells
 - 4. Rem Oil
 - 5. 9 X 12 Envelope Package
 - 6. 3-ring Binder Reference Material
- C. Tools for the class
 - 1. Hammer- i.e. Factory adjustment tool
 - 2. Fore end Wrench
 - 3. Cork Screw magazine spring/retainer removal tool
 - 4. Magazine retainer insertion tool -Black stepped handle with shank
 - 5. Pin pusher -black handle with smaller shank.
 - 6. T-handle 6" socket screw driver bit
 - 7. Cleaning Brush .1/8" punch
 - 8. Staking Tool
 - 9. Flat metal .015" shim stock
 - 10. M/870 slide
 - 11. Rags
 - 12. Choke tube bottle containing: Philips and large & small flat tip screw driver bits
 - 13. Silver Bullet
- D. Handout Materials
 - 1. Armorer's manual (3-ring binder)
 - 2. Parts Catalog
 - 3. Cleaning Instructions

3. Nomenclature & Disassembly

A. Finish Types

1. Older Police guns were either blued or parkerized.
2. Today all police guns are parkerized.

B. Basic Takedown & Part identification

1. Remove magazine cap retainer
2. Remove barrel
3. Remove fore end tube assembly with slide and bolt assembly.
4. Remove magazine retainer, spring and follower
 - a. Tools required
 - b. Magazine spring lengths for various models
5. Remove trigger Group
 - a. Police guns have orange sear spring and black carrier dog spring
 - b. Police gun hammers are milled, not broached
6. Receiver
 - a. Ejector location, type & tension
 - b. Ejector rivet – factory repair
7. Stock
 - a. Synthetic, wood
 - b. recoil pad
 - c. bearing plate
 - d. Stock bolt assembly
8. Students take their guns apart and identify parts/assemblies

C. Shell Latches

1. Feed latch & stop latch
2. Function with slide cuts

D. Carrier dog

1. Demonstrate function

E. Locking block – locking notch (in barrel)

1. Demonstrate lock up function
2. Check barrel for damage
3. Locking block also acts as firing pin block when gun is out of battery

4. Slide Show

A. Tools

B. Receiver Blank machining

C. Barrel detent

1. holds cap in position
2. Keeps barrel tight to receiver
3. If loose, check holes in cap (softer material)
4. A loose barrel can damage the receiver

D. Breech bolt assembly

1. Secant cut on firing pin is clearance cut for cross pin
2. Cross pin controls amount of travel of firing pin
3. New firing pins have flat impact surface – eliminates breakage

E. Parts Interchangeability

1. 1950's era guns will accept current parts and function
 - a. Tolerances are +/- .005 inches

F. Extractor

1. Rotate 90 degrees to remove
2. Extractor is broached, machined, filed and sanded

G. Ejector

1. Tip position aligns the barrel via radial cut
2. Stop surface stops rearward travel of shell and ejects with spring tension
3. All Ejectors are for 3" shells since 1987
4. Components: ejector, ejector spring, rear rivet, and front rivet
5. The barrel has a slot cut in the barrel extension that aligns with the tip of the ejector.
 - a. Striking the left or right side of the slot can move material into slot to slightly adjust radial position of the barrel. If more movement is required the slot can also be filed - the finish fit to the ejector tip should be snug.

H. Shell Latches

1. Right shell latch – stop latch
2. Left shell latch – feed latch
3. The left latch (Feed latch) holds shell at the mouth of the magazine tube ready to release it to the carrier when the feeding cycle begins.

I. Carrier Dog, Washer & Pin

1. New style heavier spring should be black.

J. Trigger Group

1. Parts & function

K. Action Bar Lock

1. Holds the forend forward - does not lock gun up

L. Flex-tab system needs three parts:

1. Carrier with tab cut
2. Bolt assembly with clearance cuts
3. Slide assemble with ramp cuts.

M. .015 shim clearance to eliminate tip of carrier catching on a high primer

1. Fix by filing - remove any burrs

N. Stock bearing plate - all except Remington synthetic stock - 10 ½" stock bolt

5. Things To Watch For

- A. Latches wearing
 1. Replace and re-stake
- B. Extractor plunger:
 1. Old style flat surface against spring, new style same both ends
- C. Firing Pin
 1. Roll on table to check straightness.

6. Reassemble Shotguns

- A. Discuss parts as they are reassembled
- B. Ask for any questions on material covered
- C. Dismiss class for the day.

Day2:

1. Remington Identification Codes - Cover all sheets:

- A. Serial # Structure M/870
- B. Explain all codes
 1. Barrel codes left side
 - a. *12 indicates 55 degree rim cut - the rim cut on the barrel was changed from 45 to 55° in 1969 -important to know so that the correct headspace gages are used when checking headspace.
 - b. Symbol - this is the final inspectors stamp
 - c. Two letters - the first letter indicates the month, and the second letter indicates the year that the firearm was produced. Go through example using barrel code chart.
 - d. Next two stamps can be letters or numbers or a combination - this is the final

assembler's identification code.

2.Barrel Codes Right side:

a. Magna-flux - triangle with a letter inside the triangle - currently rifle barrels
b. Eddy current -circle with an "E" inside the circle - currently shotgun barrels
This is like an MRI of the barrel looking for cracks or abnormalities in the steel structure. Started in 2000.

c. Pre-1995 material - Symbol - Internal identification to check lots of steel

d. Post-1995 material - Square with a number and letter inside - Internal identification to check lots of steel.

e. Proof - Oval with "REP" inside the oval - all firearms are proofed and stamped. REP stands for Remington English Proof. Proof loads are approximately 30% overcharged. These extra pressure rounds check the integrity of the system and set the final dimensions by compressing microscopic machining burrs, etc.

f. Test- symbol -indicates firearms were tested from function with live rounds.

g. Target -symbol -indicates firearms were shot for accuracy.

h. Material - symbol - to identify a particular lot of steel.

3. Garza class action lawsuit -1140 modified material14X-safety factor, 4140 material 6X - safety factor. 477,000 claims each got \$22.80 settlement. No recall on barrels economic settlement only.

4. Duplicate serial numbers - if caught in the raw number is polished out and receiver stamped with new number. If caught later in the process a letter Z is stamped at the end of the serial number. This can only be done once. If more receivers have the exact same serial number they must be scrapped.

2. Disassembly/Inspection Checklist

A. Headspace - if no gages available examine shell for flattened primer, bulged head

1. distance from front of locking block to rear of chamber is the headspace

2. SAAMI sets the minimum and maximum allowable distance.

B. Load with dummy rounds to full capacity of magazine.

1. Cycle action observe feeding, lockup, extraction, ejection, etc.

2. Check trigger disconnect by pulling trigger, hold trigger back, cycle action

3. You should hear an audible click as the connector drops back into position when you release the trigger.

C. Remove and check magazine cap.

D. Remove the barrel

1. Check barrel extension (extractor and ejector slots 180° apart)

2. Check barrel (obstruction, straightness, bulges and dents, chamber condition, barrel guide ring, detent operation.)

E. Check fore-end assembly

1. Open action, with the action bars completely held by the receiver twist the forend to check for a loose fore-end tube nut.

2. Remove from action and check for bent action bars, cracked wood, etc.

F. Check bolt assembly

1. Extractor and spring tension, firing pin retractor spring, flexitab cut, etc.

G. Check receiver assembly

1. Magazine tube and barrel support condition

2. Check ejector assembly for broken or missing parts

H. Magazine Tube

1. Check magazine spring retainer

2. Magazine spring - Police spring is 22 inches, spring should be straight and closed on each end

3. Follower - should be bright orange.

4. Check interior of tube

- I. Check left and right shell latches
 - 1. Latches secure
 - 2. Proper tension
 - 3. Tips intact
 - 4. Proper position
- J. Trigger Group
 - 1. Carrier has flexitab cut
 - 2. Hammer pin washer is present and secure
 - 3. Action bar lock is positioned under trigger connector
 - 4. Action bar lock spring is present
 - 5. Hammer plunger spring has proper tension
 - 6. Sear spring is not weak or altered
 - 7. Sear/hammer notches, trigger "ears" are not broken. Safety works freely and properly
- K. Check stock assembly
 - 1. Tightness stripped screw holes, cracks, chips, bent stock bolt, all washers are present, stock bearing plate is installed, etc.
- 3. Final Inspection & Checks (Assembled)
 - A. Magazine loads easy
 - B. .015 inch clearance between dummy shell on the feed latch and end of the carrier
 - C. Fore-end does not rub on barrel during cycling
 - D. Carrier lifts shell to proper height
 - E. Shell extracts easy and ejects properly
 - 1. Shell does not double feed
 - 2. Action cycles smoothly
- 4. History of follower
 - A. Various designs
 - B. FBI follower
- 5. Practical Exam - Trouble Guns
 - A. Students follow checklist to inspect M/870 shotguns deliberately set up with various problems.
- 6. Review
 - A. Ask for any questions on material covered today.
- 7. Written examination and review of examination