

**M24 Cleaning and Maintenance Procedures** 

The M24 Sniper Weapons System (SWS) is a precision military grade weapons system capable of extreme accuracy if correctly maintained and cared for. Many times M24's are damaged due to incorrect cleaning techniques.

The M24 should be cleaned and maintained as any custom style precision weapon system in that the carbon and copper left in the weapon during firing must be removed to retain accuracy though the life of the system.

The following procedures are recommended by Remington Arms Company to guarantee that the M24 SWS delivers the required performance in the field. In the following procedures you will find barrel break in, routine maintenance, cleaning materials list and information of painting the weapon system. All of these issues pertain only to the M24 SWS but can be applied to any "sniper" or precision rifle.

#### BARREL BREAK IN

The M24 comes from Remington ready to shoot, however it is recommended that the gun be broken in to enhance the life and accuracy of the weapon. Should you need to immediately employ or use the weapon you may disregard the break in procedure; however weapon life may suffer depending on how it is used. In order to break the weapon in follow the following steps;

- 1. Clear the weapon.
- 2. Remove the bolt.
- 3. Insert the bore guide.
- 4. Dry patch the barrel to remove any obstacles.
- 5. Remove the bore guide
- 6. Reinsert the bolt
- 7. Load one round
- 8. Fire one round
- 9. Clean the weapon (see ROUTINE MAINTENANCE)
- 10. Repeat this (firing 1 round and cleaning) until you have fired 10 rounds
- 11. Load and fire 3 rounds
- 12. Clean the weapon (see ROUTINE MAINTENANCE)
- 13. Repeat this another 9 times (10 iterations total) (firing 3 rounds and cleaning) for a total of 40 rounds being fired through the rifle (1 round x 10 and 3 rounds x 10)
- 14. Load and fire 5 rounds

- 15. Clean the weapon (see ROUTINE MAINTENANCE)
- 16. Repeat this another 9 times (10 iterations total) (firing 5 rounds and cleaning) for a total of 90 rounds being fired through the rifle (1 round x 10, 3 rounds x 10 and 5 rounds x 10)
- 17. Load and fire 10 rounds
- 18. Clean the weapon (see ROUTINE MAINTENANCE)
- 19. This should be 100 rounds total fired through the rifle, the M24 is now broken in.

#### ROUTINE MAINTENANCE

- 1. Clear the weapon.
- 2. Remove the bolt.
- 3. Insert the bore guide.
- 4. Dry patch the barrel to remove any obstacles.
- 5. Using a copper or bronze brush and carbon solvent scrub the bore 3-5 times ensuring that the brush remains wet (it may be necessary to add a small amount of solvent to the brush in the middle of this process).
- 6. Remove the brush, install the jag onto the rod, wrap a patch around the jag and run patches through the bore until the patches are coming out reasonably clean.
- 7. Soak a patch in copper solvent and scrub the bore 3 4 times ensuring that sufficient copper solvent is left in the bore. Leave the bore wet for no longer than 5 10 minutes before removing the copper solvent.
- 8. Remove and wipe down the rod.
- 9. Clean the bolt by wiping down the exterior of the bolt with carbon solvent, clean the bolt face by using a patch wet with copper solvent (it there are brass deposits) ensuring to dry the bolt face. Approximately every 300 500 rounds disassemble the bolt and clean off old lubrication and reapply a <u>light</u> lubrication to the firing pin spring and pin reassemble the bolt.
- 10. Dry patch the bore until the patches come out reasonably clean.
- 11. If putting the rifle away for an unknown amount of time, leave a light amount of a non-PTFE (Teflon) based lubricant or solvent (carbon solvent) in the bore to inhibit rust and corrosion. If using the weapon within a day, leave the weapon bore dry

# 12. ALWAYS DRY PATCH THE BORE BEFORE FIRING!!

- 13. The exterior of the optics should be wiped off with a dry rag. They can be wiped with a semi-dry lubricant if needed. The lenses should always be covered more so when cleaning the weapon (if mounted) to keep solvents from spraying onto them. The lenses can be wiped off with lens paper in a circular motion starting in the middle working out. If working in a humid or wet environment tissue can be placed into the lens caps to absorb moisture
- 14. The trigger assembly should never be lubricated more than just a drop if in an environment where corrosion or rust is a problem (lubricant only attracts dust and dirt)
- 15. The magazine follower should be wiped off with a rag and light lubricated if rust and corrosion is a problem
- 16. The magazine spring should be wiped off with a rag and light lubricated if rust and corrosion is a problem

17. If the weapon has seen extensive field work or subjected to airborne dirt and sand the barreled action should be removed from the stock and cleaned out; particular attention should be paid to the recoil lug area for debris

## **USE OF BORE PASTES**

In general bore paste will not harm the barrel of the M24. Bore pastes should be used carefully and moderately. Bore paste is not a solution to poor cleaning techniques; they are an aid to barrel maintenance and accuracy retention. Bore paste should be used when needed and not for every cleaning; usually bore paste can be used approximately every 3<sup>rd</sup> or 4<sup>th</sup> cleaning. Bore paste must be used after the weapon has been cleaned as outlined above. To use bore paste follow the steps outlined below.

- 1. Ensure the weapon is clear
- 2. Insert the bore guide
- 3. Apply a liberal amount of bore paste (enough to penetrate the patch)
- 4. Attach the patch to the jag
- 5. Insert the rod/jag into the bore guide
- 6. Without pushing the rod out the end of the rifle, stroke the bore 5 10 times
- 7. On the last pass push the rod/jag out of the rifle. The patch will be very black, this is normal.
- 8. Remove the patch from the jag and pull the rod/jag out of the rifle
- 9. Wipe the rod off with a rag
- 10. Spray a patch with WD40 or carbon solvent
- 11. Attach the patch to the jag
- 12. Insert the rod/jag into the bore guide
- 13. Push the rod through the rifle, the patch will be dirty
- 14. Repeat this with clean patches until the come out relatively clean

## **CLEANING MATERIALS LIST**

The following list should be considered the minimum needed to adequately clean the M24 SWS. US Military manuals concerning the M24 contain important information however the cleaning and maintenance techniques contained in most of them are outdated. Most of the following items can be obtained at any reputable gun dealer or sporting goods store, however some items may have to be obtained through one of the many specialty outlets that focus on precision weapons.

- 1. One piece cleaning rod 36 inches or longer. This rod can be coated or uncoated depending on availability and personal choice. Ensure that the jag and brush will attach to the rod, most quality rods will offer adapters
- 2. Jag (used to hold the patch) this should be either a wrap around or Parker Hale style (for square patches) or spear type (for round patches). If nothing else is available the eyelet style may be used, however their use makes cleaning the M24 more difficult. Which ever style jag is selected it should be brass or bronze to eliminate the chance of damaging the rifle during cleaning

- 3. 30 caliber Bronze bore brush ensure that it fits the rod
- 4. Chamber brush a .45 caliber plastic or brass pistol brush will sufficiently clean the chamber of the M24
- 5. Chamber rod a rod on which to attach the chamber brush. A flexible pistol cleaning rod or a 14 inch stiff rod works well for this. There is at least one company that offers a chamber cleaning kit that is designed to clean the chamber and recoil lug recesses
- 6. 30 caliber (or multi caliber) Bore guide a quality bore guide is required to reduce or eliminate damage to the chamber during cleaning
- 7. Carbon solvent a quality carbon solvent is required; multifunction solvents typically do not work as well as single function solvents
- 8. Copper solvent a quality carbon solvent is required; multifunction solvents typically do not work as well as single function solvents
- 9. Cotton patches US military cotton patches are some of the best available; however there are several commercial products available that work very well. The patches should be designed to work with the jag
- 10. Light lubrication a light non-PTFE lubricant is used for the interior of the bore to neutralize the carbon and copper solvent and can be used to wipe down the outside of the weapon and optic
- 11. Gun grease a quality gun grease is used for the bolt lugs (just a drop on the sides and rear of the lugs)
- 12. Clean cotton rag

#### OPTIONAL ITEMS

The following items are optional for maintaining the M24 and serve to ease cleaning procedures but are not mandatory.

- 1. Bolt disassembly tool used to remove the firing pin assembly. There are several types available; anyone of them will work well.
- 2. Dental picks used to clean the "hard-to-reach" areas inside the receiver
- 3. Pen light used to see into the chamber
- 4. Silicone rag for the exterior of the weapon and optics

## PAINTING THE M24 SWS

Many users of the M24 SWS have missions that require camouflaging the system. The following are some tips and information on painting the system.

- 1. Painting the system does **NOT** void the warranty
- 2. Ensure the painted surface is degreased prior to applying the paint
- 3. Most common types of paint may be used without damage to the system
- 4. Ensure to mask off parts that should **NOT** be painted such as;
  - a. The lens of the optics
  - b. The head of the bolt
  - c. The trigger
  - d. Inside the chamber area

- e. Inside the magazine to include the follower and spring
- f. Inside the stock (overspray in the forearm area is ok bust should be kept to a minimum)
- g. Underneath the floorplate
- h. Underneath the optics base (leave the base on when painting)
- i. The slots where the rings clamp to the base (if the rings have to be moved later, the paint must be removed from whatever slots are going to be used). Same applies to any slots to be used of the MARS if installed
- j. Inside the rings
- k. On the optics adjustment dial (under the protection caps of the M3A or on any of the adjustment knobs of the M3 LR/T or any of the M1 optics)
- 5. Ensure that the weapon is painted in a well ventilated area
- 6. Leave the bolt in the weapon; the exposed bolt does not have to be masked off however it may be more difficult to operate if a heavy layer of paint is applied
- 7. The barreled action and floorplate assembly should be installed on the stock when painting to avoid overspray on the trigger assembly and inside the magazine area
- 8. Ensure that the paint can dry adequately before use. Paint on the cheek side of the comb may rub off onto the shooter during use
- 9. Bowflague normally does not stand up to hard use and will rub off; a quality commercially available paint lasts longer
- 10. Apply a good base color first; normally "earth" tones such as brown or gray works the best
- 11. Determine the pattern before starting, it will reduce the amount of time spent on this project
- 12. Less is usually better as far as patterns and colors are concerned. A good base with a little "break up" streaks will normally fit most environments
- 13. Choose colors that match your environment
- 14. If the gun ever needs to be returned to black for some reason (it does not have to be black to be returned for repair) merely repaint it with a semi flat black in the same manner it was camouflaged

Any questions to the above information may be directed to Michael Haugen, Military Products Representative, Remington Arms Company by emailing Michael.haugen@remington.com



Last Modified: July 13, 2005