

ENGLAND &
WALES **BEST
PRACTICE
GUIDES**

Firearms maintenance.

Firearms





Introduction

In order to function safely and accurately firearms must be maintained and kept in a clean and fully functioning condition.

This guide describes the regular maintenance that can be carried out by the user.

It is recommended that any other maintenance is done by a qualified gunsmith.

This guide links to others in the Firearms series.

General

The condition of a firearm is important.

Rusted, damaged or blocked barrels may be unsafe and fouling, corrosion or damage may cause mechanisms to fail.

If there is any doubt as to its condition, a firearm should not be used until it has been properly checked and repaired.

Allowing even small amounts of fouling to build up in the rifling can reduce the consistency of accuracy.

If rifles are being regularly used, it is advisable to have them serviced by a gunsmith periodically.

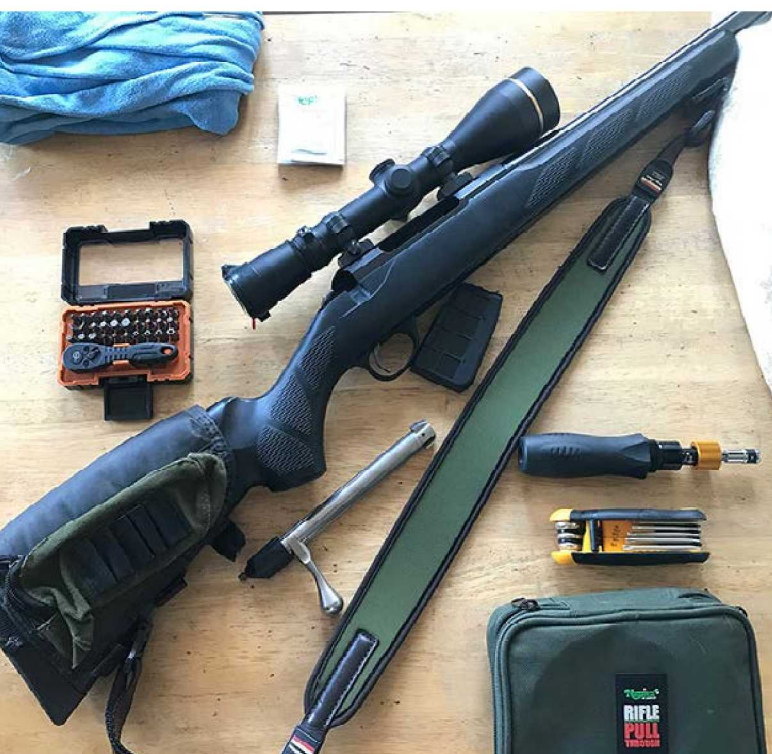


Cleaning equipment

Having the proper cleaning equipment for use with specific calibres of firearm is essential. Cleaning kits generally include:

- Rods of the correct diameter. Rods should be long enough to push a brush clear of the muzzle but otherwise as short as possible
- A good quality bore guide. This prevents brushes and jags from damaging the throat of the barrel and keeps the rod aligned all the way down the barrel, protecting the rifling
- Spear tip jags and good cotton cut patches sized to fit down the bore
- Specialist cleaning oils and copper solvents. Follow the manufacturer's instructions to ensure that prolonged contact or misuse does not damage the rifling
- Good quality brushes
- A small stiff brush e.g. toothbrush
- An action cleaning kit including chamber rods, industrial-type tissue paper and dental rolls.

Pull-through cleaning kits may also be used that remove the need for rods. However they do not offer as complete of a cleaning system as that described above.



Cleaning programme

Before cleaning or storing a rifle ensure that the rifle is in a safe condition and that ammunition is stored separately.

Stored rifles

Rifles not in regular use should be stored in a clean and lightly oiled state. The oil must be removed from the barrel before the rifle is used. Failure to do so may cause damage to the barrel or a shift in the point of impact when fired.

Rifles in daily use

- At the end of each day's outing, clean and dry the exterior of the rifle. If the rifle is wet, dry the outside of the rifle thoroughly with a clean, dry rag
- Let the rifle stand for an hour or so in a secure place to adjust to indoor temperature and allow condensation to dispel
- Do not place the rifle or parts directly onto hot surfaces such as central heating radiators
- Do not put damp firearms into gun cabinets, as rusting will start immediately, especially if there are any traces of blood left on the metal work
- Using an appropriate oil/solvent, put a cotton patch through the bore then use dry patches to leave the bore clean and free of oil
- Apply a light coat of oil to the metal surfaces

Regular deep clean

General

Clean the rifle thoroughly at least once a week or after every 15 to 25 shots.

Remove muzzle accessories such as sound moderators or muzzle brakes prior to cleaning. Check barrel for rusting, pitting and dents. If any of these are found, seek advice from a gunsmith.

Barrel and chamber

1. Using a bore guide, push a patch soaked in copper solvent through the barrel
2. Leave the solvent in for the time stated by the manufacturers and patch out with clean tight cotton patches
3. If the patches have blue copper deposits push a brush with solvent through the barrel and completely out of the muzzle
4. To maintain the quality of the solvent, do not dip the brush into the solvent bottle as this will contaminate the solvent inside
5. Use roughly one cleaning stroke per shot since the last cleaning, this is normally around 15 to 25 strokes. Ensure the brush has exited the barrel completely if changing direction of the stroke. This will prolong the life of the brush
6. Clean out the barrel with clean, dry patches. Do not withdraw the patch back through the barrel, always work towards the muzzle
7. Repeat task if the patches are still coming out blue or copper coloured. If two attempts at brushing do not remove the copper, then seek advice from a gunsmith
8. When patches are coming out clean, remove the bore guide and swab out the chamber with some tissue paper on a jag or chamber stick to remove dirt and excess solvents
9. Ensure that all cleaning materials have been removed from the bore and that the bore is free from obstruction
10. Lightly oil the surface of the barrel with gun oil, taking care not to get oil on the glass surfaces of the scope

Muzzle brakes and sound moderators

- Always remove muzzle accessories prior to cleaning and after each shooting session
- Large amounts of fouling can build up on the crown and should be removed in order to prevent corrosion
- Condensation can also gather, causing rusting
- Muzzle accessories should be maintained as per their instruction manuals
- Clean the interior according to the manufacturer's instructions
- A small amount of oil/light grease should be applied to the threads prior to refitting the brake or moderator
- Moderator covers should be removed and dried
- Lightly oil the exterior of the moderator or muzzle brake according to the manufacturer's recommendations

Locking lug recess & bolt lugs

- Where the bolt lugs lock into the action is difficult to access and yet important to clean
- An action cleaning kit with cotton dental rolls should be used to clean out any accumulated dirt
- Bolt lugs should be wiped off and lubricated every time the rifle is used
- Use a very small quantity of light grease



Firing pin assembly

- A consistent firing pin strike on the primer is critical for best accuracy
- Do not over apply oil or grease, as this will only impair a consistent strike
- Light oiling should be sufficient to ensure no corrosion takes place around the firing pin
- It is advisable to remove tension from the firing pin when the rifle is not in use for long periods
- Do not attempt to disassemble the bolt unless you are familiar with how to disassemble and reassemble that particular type of bolt



Stock

- Wooden stocks can be prone to swelling with moisture. Ensure any wooden stock is properly dry before storing
- Synthetic stocks can simply be wiped over with a cloth to ensure they are dry
- If the rifle has a free-floating barrel, check there are no obstructions, dirt or water between the barrel and the stock
- When the action is required to be removed from the stock for thorough cleaning and drying, ensure you familiarise yourself with how to do so prior to disassembly
- Upon re-assembly, a torque driver is recommended to secure the action screws to the correct level of tightness



Scope

- Protect the lenses whilst cleaning the barrel as rifle cleaning chemicals can damage the lens coating
- Blow loose dust off with an air supply or brush
- Soft, clean cloths should be used with the aid of lens cleaning fluid
- Periodically check the position of the scope on the action to make sure it has not moved.
- Reposition and tighten as required, then re-zero rifle to ensure accuracy. (See Zeroing guide).