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TECHNICAL NOTE 91: SELECTION AND USE OF CLEANING /MAINTENANCE EQUIPMENT

I. BACKGROUND

The purpose of this Technical Note is to assist you in the selection of appropriate cleaning/maintenance tools and equipment.

II. CLEANING AND MAINTENANCE EQUIPMENT

Basic, absolutely essential, cleaning equipment includes:

- Owner's manual for your firearm
- Cleaning rod or cable with patch holder or jag
- Patches (expendable)
- Brass bore brush (expendable)
- Chamber / locking lug brush (expendable)
- Bore solvent (expendable)
- Lubricant (expendable)
- Cloths or rags (expendable)

Other useful cleaning/maintenance equipment includes:

- Bore guide
- Bore light
- Safety flag
- Cleaning and maintenance cradle
- Broken cartridge extractor
- Toothbrush
- Q-Tips® (expendable)
- Pipe cleaners – for cleaning AR-style bolt carrier keys (expendable)
- Aerosol solvent such as carburetor cleaner (expendable)
- Lighter fluid – for cleaning lubricants out of competition trigger mechs (expendable)

III. THOUGHTS ON SELECTION AND USE OF CLEANING/MAINTENANCE EQUIPMENT

GENERAL CONSIDERATIONS-

Always check to assure that your firearm is completely unloaded prior to performing any maintenance. This is particularly important with “tube feed” firearms that may have one or more cartridges “hidden” in the tube. After you have cleared all cartridges from your firearm, check it again!!!!!!!

Cleaning equipment varies in quality from “very good” to “so poor that it will actually damage your firearm”. It’s worth your time to choose carefully. As with most things, you get what you pay for. You must be particularly careful about the quality of any cleaning equipment that you use on firearms with unplated bores. Poor quality rods and brushes can irreparably damage your firearm’s bore.

There are two distinctly different types of cleaning equipment – for use in the home/shop, and for use in the field. Each of those types should contain different pieces of equipment. You should consider purchasing both types.

Some “cleaning kits” require proprietary expendable components (e.g. unique patches, or brushes with unique threads). If you purchase such kits, make sure that you have an ample resupply of the expendable components.

Follow the maintenance instructions in your owner’s manual.

Always clean from the breech to the muzzle unless the design of the firearm makes it impossible. If you absolutely must clean from the muzzle, do so with GREAT care to avoid damaging the crown or bore at the muzzle.

CLEANING RODS & CABLES-

Home/shop equipment typically features a strong one-piece rod. Field equipment typically incorporates a flexible, easily carried cable instead of a solid rod. Multiple piece rods are a compromise that must be made with care. Poor quality multiple piece rods that have sharp edges at the ends of the sections will destroy a bore. Opinion is divided on the whether stainless or coated rods are preferable. We have no experience with carbon rods. However, carbon arrows will quickly cut through steel arrow rests, so we suggest that if you use a carbon cleaning rod, you do it with great care.

Cleaning rods must be stiff enough that, under pressure, they won’t bend and rub the bore. They must be long enough that they can push a patch from the breech out of the muzzle (preferably without removing the buttstock or cheekpiece).

We suggest that, when using a cleaning cable, you take care to center it in the muzzle as you pull it through. Don’t allow it to drag on the muzzle.

PATCHES & BRUSHES-

Patches must be matched in size/thickness to the size of the jag on the rod so the patches fit tightly (but not too tightly) in the bore. Some patches are cotton. Some are synthetic. Some leave lint and strings in the firearm. Some can be adversely affected by solvents. We suggest that you initially purchase a small quantity. If you like them, then you can buy a lifetime supply.

Unless your firearm's bore is chrome plated, ONLY brass brushes (NOT nylon or stainless steel).

CLEANERS, LUBRICANTS, & PRESERVATIVES-

Many firearms need more than one lube. The appropriate lubricant for locking lugs is not necessarily the appropriate lubricant for the firing pin channel.

Selection of lubricants, cleaners, and preservatives can be very complex, time consuming, and costly. For example, the "best" lubricant for any firearm may change depending on the environment that the firearm is used in. The best lube for a jungle environment may not work at all in the arctic. Some lubricants/cleaners/preservatives contain chemicals that are harmful to humans. Some lubricants and cleaners contain chemicals that will damage unplated bores if employed incorrectly. We suggest that you select them carefully and be sure to use them in accordance with their manufacturer's instructions.

For more information on cleaners, lubricants, and preservatives, see our Tech Note # 72 "Cleaners, Lubricants, and Preservatives".

BORE GUIDES-

Cleaning any rifle or carbine without a bore guide significantly increases the risk of damage to the firearm. Well designed bore guides serve two purposes. They prevent the rod from touching the rifling, and they prevent solvents from running into the action. (The latter feature is particularly important in firearms that have complex trigger mechanisms. Military style firearms typically contain trigger mechanisms that are fairly basic and, thus, less susceptible to such problems

CLEANING CRADLE-

Cleaning any firearm without a cleaning cradle that holds it securely increases the time and effort needed to clean. It also increases the possibility of damaging the firearm. So, unless you are blessed with four arms and hands, invest in a cleaning cradle designed to hold your firearm securely.