

## Cleaning A 1911 Handgun

When considering the purchase of a handgun, an often over looked issue is the amount of work necessary to clean the handgun. Handguns, such as the 1911 model, are often preferable to many shooters from a shooting point of view, but require much more effort to clean than their plastic counterparts, such as the Glock. When purchasing a handgun, the buyer should consider the amount of work necessary to clean the handgun.

When a handgun is fired, copper fouling spreads throughout the internals of the weapon, not just inside the bore of the barrel. The amount of spreading and the locations of spreading determine the extent of effort necessary to clean the handgun.

Leaving handguns fouled for an extended period of time is not a good strategy. The copper fouling actually attracts moisture, leading to rust. Rust inside the barrel or on metal parts pits the metal, weakening the metal. Weakened metal anywhere in the handgun can lead to dangerous consequences, such as an exploding handgun or failed safeties when subjected to the 55000 PSI of pressure when the handgun is fired. Additionally, extensive fouling attracts dirt and other contaminants resulting in operational difficulties, such as failure of the slide to recoil and return to battery.

Stainless steel in handguns ***CAN CERTAINLY RUST***. This rusting is the result of the specific alloy of stainless steel that is used in handgun barrels and parts. Attachment A, from AccurateShooter.com, provides a clear, and metallurgical analysis of the rusting phenomenon in handgun (and rifle) components that result from fouling and moisture attraction.

With fully metal handguns, such as most 1911 models, the fouling just distributes everywhere in the weapon. So, fully metal handguns usually require detailed stripping in order to clean the weapons. Detailed stripping involves complete disassembly of the handgun – slide removal, slide disassembly, and frame disassembly, include all the components of the trigger mechanism. Each and every component of the handgun is then carefully cleaned to remove all of the fouling. Disassembly, cleaning, and assembly can require about an hour, sometimes more, to remove the fouling completely from every nook and cranny of every piece of the handgun.

On the other hand, handguns with plastic frames and metal slides can usually be field stripped. Field stripping typically involves slide removal and disassembly of the components in the slide. The frame does ***NOT*** require disassembly. Most of the trigger mechanism that could foul is isolated behind a heavy plastic barrier, so cleaning is unnecessary.

Obviously, some exceptions to these rules do exist. For instance, the Heckler and Koch P7 M8 needs only to be field stripped, sort of. Some fouling can spread inside the frame. However, the trigger mechanism and the other frame components consist of a large number for very tiny pins and screws. Disassembly of the frame internals on this weapon should be avoided. The best approach to removal of fouling from inside the frame, if any,

for this weapon, is to have a qualified gunsmith, who is familiar with the weapon, perform the cleaning.

As a result of the detailed stripping for the fully metal handguns, such as the 1911 model, more tools and materials are necessary. Attachment B contains a complete list of the tools and materials necessary to detail strip and to clean the 1911 model of handguns.

Unfortunately, a detailed written procedure for detail stripping and cleaning of a 1911 handgun would be difficult to accomplish in this description. Manufacturers tend to vary their own designs, making a uniform disassembly/assembly process description impossible.

For instance, some manufacturers use a two-piece guide rod. The front portion of the guide rod needs to be removed first, prior to any other disassembly. Other manufacturers use a one-piece guide rod. With these handguns, the barrel bushing is first removed. The remainder of the disassembly process varies significantly, up to a point, for each of these manufacturers.

The best approach for learning disassembly/assembly is to sit down with someone who knows the handgun, or the variations in the different manufacturing styles, to determine the disassembly/assembly process.

## Attachment A

### Stainless Steel — Can It Rust? You Bet.

From: AccurateShooter.com, September 29, 2007

Some folks feel that they don't have to worry about rust and corrosion on stainless steel barrels, actions, and other components. That's not really true. "Stainless" is a bit of a misnomer. First, there are different types of stainless steel alloys, with different degrees of rust resistance. 300 series stainless is more corrosion resistant than the 416 stainless commonly used in barrels. The composition (by percentage weight) of 416 stainless is 0.15% carbon, 12-14% chromium and the rest iron. 416 stainless steel lacks the roughly 10% nickel content that makes the 300 series more corrosion resistant in atmospheric conditions.



Though some grades of stainless are more corrosion-resistant, ALL varieties of stainless steel can rust if they are not handled and stored properly. Forum reader Kells81 observed: "Wanna see some rusted stainless? Go to the big "C" brand store in Ft. Worth. Every stainless gun they have on the used gun rack is rusted." Tom Easley of TRE Custom explains: "Sweat is very corrosive. Sweat and blood will rust many stainless steels. I hate to handle my guns or drip on them when I sweat. It really helps to just wipe them good with a wet rag, dry and wipe on a light coating of gun oil. I think most stainless barrels are made from type 416 stainless, and it is generally pretty corrosion resistant, but not when exposed to sweat, blood, or chlorates (corrosive priming), and some other electrolytes." Forum member Jacob, who is studying materials science at LSU, provides this technical information: "The basic resistance of stainless steel occurs because of its ability to form a protective coating on the metal surface. This coating is a 'passive' film which resists further 'oxidation' or rusting. The formation of this film is instantaneous in an oxidizing atmosphere such as air, water, or other fluids that contain oxygen. Once the layer has formed, we say that the metal has become 'passivated' and the oxidation or 'rusting' rate will slow down to less than 0.002" per year (0.05 mm per year).

Unlike aluminum or silver, this passive film is invisible in stainless steel. It's created when oxygen combines with the chrome in the stainless to form chrome

oxide which is more commonly called 'ceramic'. This protective oxide or ceramic coating is common to most corrosion resistant materials.

Halogen salts, especially chlorides, easily penetrate this passive film and will allow corrosive attack to occur. The halogens are easy to recognize because they end in the letters 'ine'. Listed in order of their activity they are: fluorine, chlorine, bromine, iodine, astatine.

These are the same chemicals that will penetrate Teflon and cause trouble with Teflon coated or encapsulated o-rings and/ or similar coated materials. Chlorides are one of the most common elements in nature and if that isn't bad enough, they're also soluble, active ions. These provide the basis for electrolytes. The presence of electrolytic solutions can accelerate corrosion or chemical attack.”

CONCLUSION: Stainless steel barrels and components won't rust nearly as fast as blued steel, but you still have to take precautions — particularly removing sweat and corrosive salts from the barrel. Also, don't let moisture build up inside or outside of the barrel. We recommend wiping your barrels and actions with Eezox, or Corrosion-X after each use. These are both extremely effective rust-fighters that go on thin, without leaving a greasy residue. (Eezox leaves a clear finish, while Corrosion-X has a slightly waxy finish.) Also store your guns in [Bore-Store synthetic bags](#) when the guns go in the safe. Bore-Stores wick away moisture, and the synthetic fleece inner surface is treated with rust-fighting chemicals.



## Attachment B

### 1911 Cleaning Equipment List

This list was generated by cleaning a model 1911 after detailed stripping. As equipment and materials were needed, these were brought to the cleaning bench. After cleaning, all of the equipment and materials were left on the bench. As each piece of equipment or material container was stored, that cleaning component was entered into the list.

#### ➤ Tools

Safety Glasses

Gunsmith's Toolkit

- Multi-size (+/-) Screwdriver Heads
- Precision/Jeweler Screwdrivers
- Needle Nose Pliers, Wire Cutters, Tweezers

Metal Punch Set With Plastic Head Hammer

Allen Wrench Set

Cleaning Brush

1911 Disassembly Tool

Pistol Cleaning Rod – one-piece, bronze

45ACP Nylon Brush

45ACP Bronze Jag

Cleaning Mat

#### ➤ Disposables

Rubber Gloves

Q-Tips

Cleaning Patches

- 45ACP
- 12 Guage

Paper Towels

#### ➤ Chemicals

WD-40

Shooters Choice Bore Cleaner

Slip 2000 Copper Cutter

Slip 2000 Gun Lubricant

Hoppes Lubrication Oil

Fast Orange Hand Cleaner (Pumice)