

M14 Lubrication Tutorial with Pictures

Taken from a post by tonyben on the M-14 Firing Line

<http://m14tfl.com/upload/showthread.php?t=68694>

Last Updated April 16, 2009

This tutorial is meant to be used in conjunction with the basic rifle cleaning tutorial posted here:

<http://www.m14tfl.com/upload/showthread.php?t=66877>

I have seen a few posts lately about new owners asking what and where to lube their new M14/M1A rifle. Being a Marine myself, I believe in giving instructions that can be as close to Marine proof as possible. I have taken it upon myself to draft up a set of nearly Marine proof lubricating instructions for new M14/M1A owners. The truth is that the masters are flat out too busy to post pics. They already help us tremendously by answering questions and posting their experiences so I figured I would add some illustrations to help new users envision what they have already stated for us. Here goes...

The M14 is a steel on steel rifle which requires grease on working surfaces instead of oil. This is the most important thing to remember when dealing with the M14/M1A rifle. Oil can be used on less important areas of the rifle but we'll talk about that later.

What type of grease do I use?

That is a good question. The only two military approved greases that I know of (and Different will most likely interject here if there is indeed another) are **Plastilube** and **Lubriplate 130-A**. The civilian shooter is not limited to these two options. Personally, I have not seen any of those two lubricants on any sporting good shelves and I have never seen a tin or tube of either in person. There are online sources for both. I believe Champion's Choice and Brownells carry one or both.

Plastilube can be found here (link courtesy of doubledown) <http://www.scott-duff.com/ShooterAcc.htm>

Lubriplate can be found here (link courtesy of louie)

<http://www.brownells.com/asp/NS/store/ProductDetail.aspx?p=6525&title=LUBRIPLATE%20130-A%20MIL.%20SPEC.%20GREASE>

Other grease brands that are popular are:

- Tetra gun grease
- XF-7
- Mobil 1 synthetic grease
- TW-25B (that's what I use but not many shooters do)
- High temperature wheel bearing grease (Debated by many)

Some very experienced and credible gunsmiths condemn using automotive grease but many experienced shooters use it with no complaints what so ever. But the point of this tutorial is to illustrate what points should have grease applied.

Lubrication Instructions

I borrowed a part of some instructions that Ted Brown posted last year in his monthly column (which can be found here <http://www.m14tfl.com/upload/showthread.php?t=58128>):

All old grease should be wiped off and the rifle wiped clean before an application of new grease is applied. Use a light coat of grease and spread thin.

IMPORTANT NOTE: do not over lubricate, it will cause a slowdown in the action and may result in a malfunction. I use Plastilube as it will not wash out in the rain or thin out in hot weather. Do not use heavy grease like axle or bearing grease.

Grease should be applied to the areas on the following pages (with pictures):

1. Right side of receiver in operating rod ways (rails).



2. Left side of receiver in bolt lug ways (2 pictures).





3. Bolt roller and roller recess in operating rod. (**op rod popped off to illustrate; it can be accessed without disassembly**)



4. I also lube the right bolt lug contact point...



5a. Upper inside of receiver behind bolt. **(for initial lubrication & seasonal/deep lubrication)**



5b. For lubing between range trips during routine maintenance without disassembly of the rifle



Other Lubricating Points for Seasonal & Deep Cleaning

Many shooters like to pack the bolt roller grease like you would any wheel bearing. This can be done by dabbing some grease in the palm of your hand and pressing the bolt into the blob of grease. Repeat this until you are confident that as much grease has been packed into the roller as possible. There is also a roller grease tool that is sold that looks like a little 40 S&W shell casing. Some people actually use a 40S&W shell casing, clean it out and use it to pack grease into the roller (thanks for the correction PR!).



Where can I use oil and what type?

Most any gun oil can be used on the rest of the rifle on common contact points. I use CLP on the shaft of the operating rod as it will be sliding inside the op-rod guide. I do not use grease and believe that it may slow the action (experts interject if you object).



I also lube the base of the op-rod where it contacts the base of the barrel and the matching contact point on the barrel as shown here with oil or grease. (2 pics)





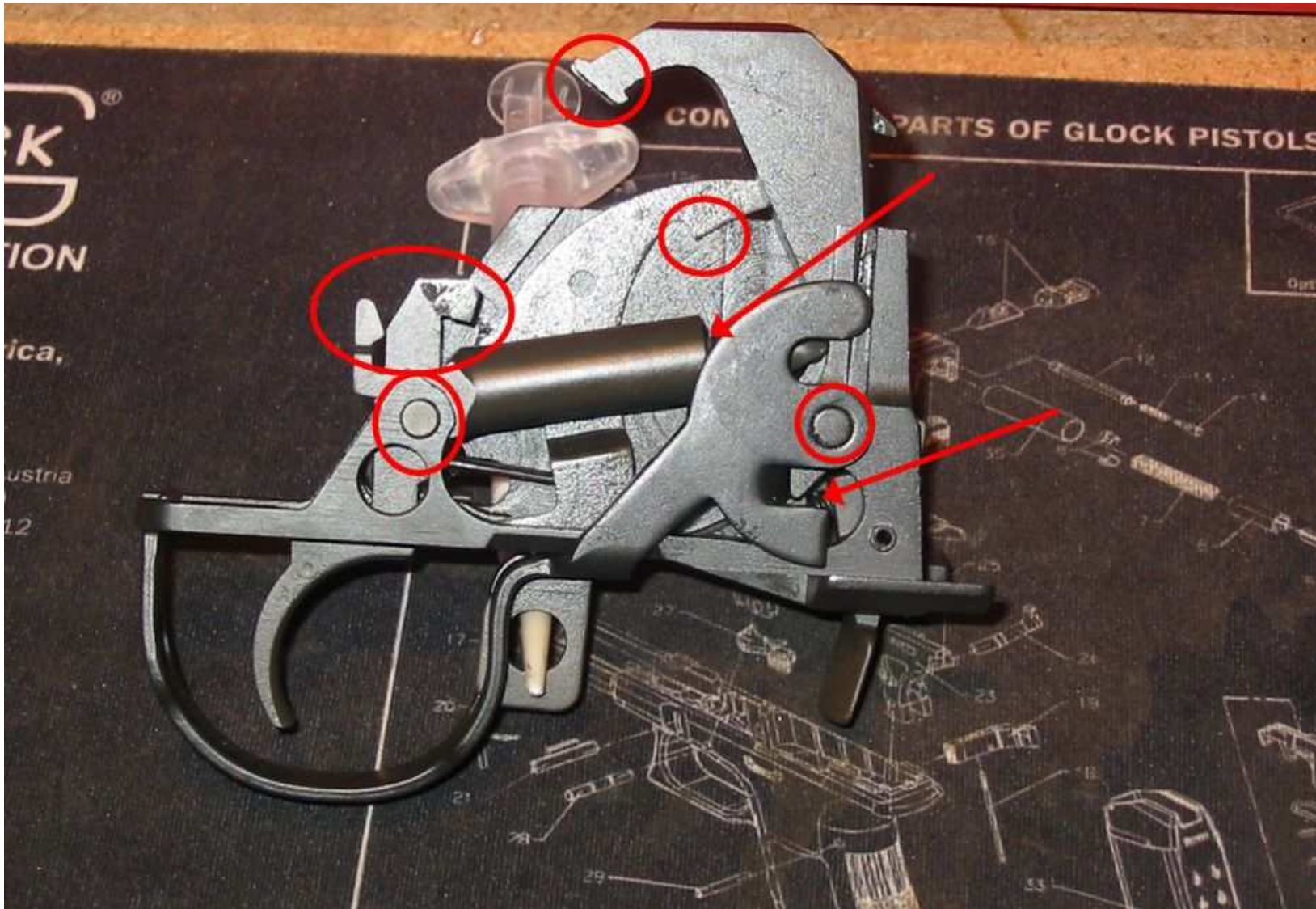
I used to think that the op-rod spring guide was to be kept dry until I saw Art Luppino state that that was one of the areas of the rifle that he lubes the most. I tried it and was surprised by how much the action smoothed out after that. I use CLP:



Some match shooters lubricate (with grease) the handguard clip tracks as they believe it improves barrel harmonics. This will only be beneficial if you are a match shooter and have a match grade barrel and a glass bedded stock. On the other hand, it can't hurt anyway.



The last part to be lubricated is the trigger group. A small amount of grease or oil can be applied to the hammer hooks, safety hook (not sure of the nomenclature here) and the trigger sear. I use oil on the trigger pin, hammer pin and hammer spring. It also wouldn't hurt to put a small drop in the mag latch pivot pin and spring.



Additional Information

And an honorary mention should also go to the rear sight group. I should mention that this should only be performed if you know how to or feel comfortable tearing apart the rear sight assembly. All gears and contact points should get a small dab of grease. More detailed instructions can be found in this discussion: <http://www.m14tfl.com/upload/showthread.php?t=66181>

In "*The M14 Owner's Guide and Match Conditioning Instructions*", the gap between the front band and the stock ferrule should have a slight drop or dab of lube in there as well. Old lubricant should be wiped clean as such.

Extra tip: if the front band tension is too tight to fit a cleaning patch in there, get a web sling and cinch it around the stock forearm and the handguard and tighten it down. This should apply downward pressure to the front band, giving you a little extra clearance to fit in the patch. (tip courtesy of Art Luppino)

Please see picture on the next page.



Finally, apply fresh lube to the points shown (2 pics):



