

Excerpt from

The M14 Rifle Association

Spring/Summer 2011 Newsletter

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Crusader Weaponry:

By David G. Calderone

Did This Small Company Develop One of the Best Weapon Lubricants?

Lubrication is a must when it comes to keeping weapons running in the long term, and that is where Crusader Weaponry comes in for this review. Crusader Weaponry has both a weapon's grease and a weapon's oil, known as Slipstream Weapons Lubricant. I have been in contact with Crusader Weaponry to do some work on my ArmaLite AR10 (more about that later) when Joe Chetwood the CEO and Gunsmith for Crusader Weaponry offered to send me some Slipstream Weapon Grease for testing. I accepted and in a few days the grease arrived at my office.

A side note on how I found Crusader Weaponry. I am a big fan of history, and so I gave my son the middle name of Templar, and in the Knight's Templar. My daughter's middle name is Avalon, as in the island where King Arthur went to recover from his wounds and the location of Excalibur. Anyway, I was researching the Crusades, and I did a Google search on "Crusader's Weapon." When the website for "Crusader's Weaponry" came up as a selection, which has now led to this article.

The first thing I did was to put the grease in my sub zero freezer which keeps my game meat and wild Alaska salmon at -10°F. The next day I noticed it was colder outside, -15°F, so I put the grease outside for a while. When I brought the grease inside, there was no sign of the grease getting stiff or frozen. Since I rarely go hunting or shooting out below -10°F, I know that I need not worry about Slipstream freezing up on me. I set the grease aside and let it warm up for a few hours before applying it to a firearm.

For the testing the grease I selected my Ruger P-85, which I obtained brand new when the P-85 first hit the dealer's shelves. While it has been 100% reliable, the action has always been rough, in addition, this pistol is very easy to limp wrist and cause a malfunction. I kept expecting the action to smooth out with use, but after 20+ years of use I have given up on that idea. I started the test by cleaning and my P-85 of all traces of lubrication using M-Pro 7 gun cleaner. As you can see, bone dry and no lube anywhere on the pistol.

Once clean and dry, I got the grease and a plastic

dental pick and applied a very thin coating of grease to all wear surfaces. When I reassembled the pistol, it was obvious that Slipstream Weapon grease really works! My pistol action was much quieter than it had ever been before, and the only resistance I could feel while cycling the action was caused by the recoil spring. I could not feel any slide to frame friction, and for the first time since I bought the P-85, all the roughness was gone.

My next step was to go to my local Sportsman's Warehouse to purchase some bulk 9 mm ammo for testing the P-85 with the Slipstream Grease. With ammo in hand I headed to my local range. It was negative 4°F, dark, and I was shooting with the range lights on. The only issue I encountered was with failures to feed, which I did not understand at first as my P-85 has been extremely reliable. At first I thought the grease had frozen, and then I discovered the slide was hanging up on my bulky gloves. With gloves removed, no further issues were encountered. Next, I tried to limp wrist the pistol, and only manage to get one failure to feed. A definite improvement over the previous lube I was using.

This brings us to my AR10. Like all AR style rifles, proper lubrication is a must. Problem is, all that lube tends to attract a lot of dirt and grime. In addition, the "direct impingement" system tends to leave a lot of burnt carbon in the action. Without regular and detailed cleaning, that carbon can build up and cause issues. Crusader Weaponry has a solution, their Slipstream Treatment. Now, you might be saying, what does this have to do with my M14 style rifle? Well I



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asked Joe Chetwood, CEO of Crusader Weaponry, how the treatment applies to M14 style rifles and the following is his reply:

Our treatment can absolutely be done on a M14. I am aware that they need grease to work properly, having specialized in the M1/M14 rifles in gunsmith school. The one you might consider is our grease. Others have used it on M14's with great success.

Parts needed for the treatment would be the bolt, op rod, op rod spring guide. It wouldn't be covered in the ST-1 treatment but I would also do the trigger group on an M14.

As for the process, there is no heat needed so there is no worry about wrecking the heat treat on the rifle. It is simply a 120 psi media blasting with the same particulates that go into our oil and grease. It entered the pores of the metal and leaves a .5 micron thick film on the treated parts. The particles themselves cannot rust but we do not claim the treatment to be a rust preventative.

Disassembly is almost complete. For instance ejectors don't need to be removed. Neither would extractors. Any particulates that get in there during the process will benefit where they can and the rest will work themselves out during the break in period. After treatment we suggest shooting the rifle until it feels too dirty to continue. What this does is work the particles further into the pores. The heat of firing opens the pores even further to allow more particles. After the rifle cools and the pores shrink back the particles become part of the metal. That can also be partially said for out oil or grease. You won't get nearly the concentration that you will with the treatment or as evenly dispersed.

My M1A is a Loaded Model, and really for me a target rifle, a possible hunting rifle, but not a rifle I experiment on. So I opted not to send it in for the Slipstream Treatment. At my expense (I point this out so you know it is an honest review), I opted to send in my Armalite AR10A4 in for the advanced rifle treatment. This includes treating: Upper receiver interior, complete bolt carrier group, charging handle, buffer, buffer spring, lower receiver interior, and trigger group. Basically the entire rifle is stripped down to its parts, than treated with 120 psi media blasting, reassembled and cleaned. I was going to send my rifle to Crusader Weaponry the week of 16 January 2011, but I realized that the SHOT Show started the 18th of January. So I contacted Joe, and we decided I should wait until after the SHOT Show since he and his entire staff would be at the SHOT Show. So during the wait, I photographed the parts to be treated so that I could have before and after pictures for comparison.

My AR10A4 is the rifle I use for testing and experimenting to see what I like and do not like when it comes to AR products. I keep the stuff I like, and sell off the rest. My goal for having Slipstream treatment being applied to my Armalite AR10 is to be able to run it as dry as possible. I plan on doing long term testing, and giving an update in each upcoming issue of the "Recoil."

On January 25, 2011 I sent my rifle off to Crusader Weaponry via UPS next day saver, ouch \$119 in shipping. Well, it is the "price" you pay when you live in Alaska, shipping is always expensive. It arrived the next morning in Murray Utah at the home of Crusader Weaponry. My rifle returned to me on 8 February 2011. Not a bad turnaround time when you consider the return shipping was via UPS ground, yes you can send things to Alaska via UPS ground!

Upon inspecting the rifle there was no visible signs of any change from the exterior of the rifle. The changes are all internal. As soon as I pulled on the charging handle to retract the bolt, you could see the dull grey finish on both the charging handle and the bolt. Unlike my P-85, there was little if any sound difference when cycling the action. What I did notice was the action was smoother. Before I sent it to Crusader Weaponry if I rode the charging handle to close the bolt, the bolt would not close all the way and I needed to push the forward assist to close the bolt all the way. After the Slipstream Treatment, the bolt closes no matter how slowly I close it.

Below are the before photos of my disassembled bolt and bolt carrier group, and my buffer spring and buffer, the left is the before photo, the right is the after photo:



Crusader Weaponry (continued)...



You can clearly see the dull grey material on the working parts. The same finish is also on the interior of both the upper and lower receivers; however, I am not a good enough photographer to show you in photos. Yes, I know I left the charging handle out of the photo, but you get the "picture."

It was the same negative 4°F when I started to field test the rifle. So far I have put over 100 rounds through it with no issues, and no additional lubrication. My one bone head mistake was not to send the KNS non rotating trigger/hammer pins that I plan to install on the rifle when I sent the rifle in. Oh, well, another item to send in for Slip Stream Treatment. For those of you who do not know, you **MUST** lube non rotating pins for the best function of the rifle.

The rifle is shooting very smoothly, and most of the "twang" noise is gone from the buffer spring. The most impressive thing to me was that after my rifle was totally disassembled, treated, and reassembled, there was ZERO point of impact shift. I think this reflects both the quality of Armalite rifles and the skill of Crusader Weaponry.

The most noticeable change in the rifle was the trigger, it is definitely smoother now. It took me a little while to adjust to it, but once I did, I really appreciated the improvement.

Per Crusader Weaponry instructions, I have not cleaned my rifle's action. The instructions are to shoot the rifle until it gets sluggish, and then clean it. The reason for this is you want as much of the lube to imbed in the metal before you clean off any excess lube. The only thing I have done is clean the barrel. Not cleaning the action is a difficult concept for me; per my military training, I clean and lube my weapon completely after each use. And if in a harsh environment, a daily cleaning and inspection was in order.

The following are some Q&A's about Slip Stream:

SLIPSTREAM WEAPON TREATMENT QUESTIONS:

1. Why treat the inside of the AR lower receiver? *The increased loss of friction between the receiver and the trigger/hammer helps for a smoother trigger pull. It also allows the hammer spring to transmit all it's energy to the hammer for a more positive primer strike.*
2. Can this treatment be done on the interior of a revolver? *Yes it can be done on the interior of a revolver and would be very helpful since many manufactures don't remove tool marks off the interior of revolvers.*
3. What is the expected lifespan of the treatment? *We have yet to see it fail. Even after a summer and a half of carbine classes. Once in the pores it never really goes away. The excess will clean off along with the carbon on whatever has been treated. After a while the dull gray will fade somewhat. The added smoothness never fades.*
4. Any weapons that the treatment would not benefit? *Stainless steel, being much harder than carbon steel, sees less of an effect. Glock's Tenifer finish has proven difficult for the treatment for some. The oil and grease work with phenomenal success though.*
5. Can the slip stream treatment be applied to the interior of metal magazines? *Yes. In fact we've had one customer request it, before we had thought of it. It's difficult to get the excess out of the mag body so there is a little grit until broken in but works better the more its used.*

SLIPSTREAM WEAPON LUBE QUESTIONS:

1. What is the temperature range of the oil and grease lubes? *The oil and grease are just high grade synthetics. By themselves they have a normal temperature range. The component that does all the magic extends that beyond any other lubricant. This component, by itself, can stand -450 F to +1200 F without failure and withstand pressures of (in our treatment setting only) 300,000 psi. So even in the lower portions you're getting in the oil and grease you still have fantastic properties for all seasons.*
2. What size are the containers for the oil and grease? *Both the oil and grease come in a 1oz container*
3. Will it available in larger containers? *We've already doubled the size of our containers. For the foreseeable future this will be the only size because it lasts so long. Slipstream works so well we've had many customers tell us that it has made them lazy when it comes to cleaning. One of our dealers in Virginia tested it out on the store's range 1911. It's a rental and has gone from something breaking every week to going through 4000 rounds without maintenance of any kind. We see AR-15's go through the same amount of rounds here in the Utah desert with no maintenance before hitting it's first malfunction. There's just no stopping Slipstream and nothing kills friction like Slipstream.*

If interested, you can find out more about Slip Stream, and Crusader Weaponry at www.crusaderweaponry.com.