Russian Reloads

Presents the

PARTIZAN MK IV and MKV

Berdan primer conversion systems and tools.

***Warning- Russian Reloads takes no responsibility in the reloading of ammunition. Please use safety and caution in your reloading. Users assume all risk, responsibility and liability whatsoever for any and all injuries (including death), losses or damages to persons or property (including consequential damages), arising from the use of any data, whether or not occasioned by publisher's negligence or based on strict liability or principles of indemnity or contribution. RussianReloads.Com neither assumes nor authorizes any person to assume for it any liability in connection with the use of any data. ***

This is the unique tool we have all been waiting for. Finally we can convert the Berdan steel or brass cartridges to use the common Boxer Primer in a few simple steps that are very easy to follow. You will start out slow when you are getting the feel for it but once you have done a few it is like second nature and you will be converting them in a very rapid pace. First you need to get you some fired Cartridges. We suggest you use the ones that you have shot out of your gun. If you do not have any then don't worry you will just have to inspect just a little closer to make sure that whatever gun it was fired out of was within tolerances or your found Cartridges might not be a good choice to reload. Remember if you are picking up range cartridges you will have so many that you can pick out the best ones to load. If you are in doubt if the cartridge is good just throw it out. Now before we start we will need a few other tools. A few of them are mandatory to be able to do the conversion but they are easy to find online and in your local reloading store. Here is a list of the tools that are needed and some part numbers to help you find and track them down much easier.

Other Tools needed

Drill (hand)

Drill Press (Strongly Recommended)

RCBS Primer pocket swaging tool #9481

RCBS Primer pocket Uniformer tool large # 90378 for 7.62 x 54R cartridge

RCBS Primer pocket Uniformer tool small # 90379 for 7.62 x 39 and 5.45 x 39 cartridges

Tapping fluid we highly recommend "Tap Magic"

GREEN 290 Permanent wicking grade Loctite

Die Sets:

RCBS 7.62 x 54R Die Set # 29001 or 29002

RCBS 7.62 x 39 Die Set # 35001

RCBS 5.45 x 39 Die Set # 56065

Lee 7.62 X 54 Russian Pacesetter 3-Die Set (recommended) # 90731

Lee 7.62 X 39 Pacesetter 3-Die Set (recommended) # 90565

Or other tools for the calibers you are loading

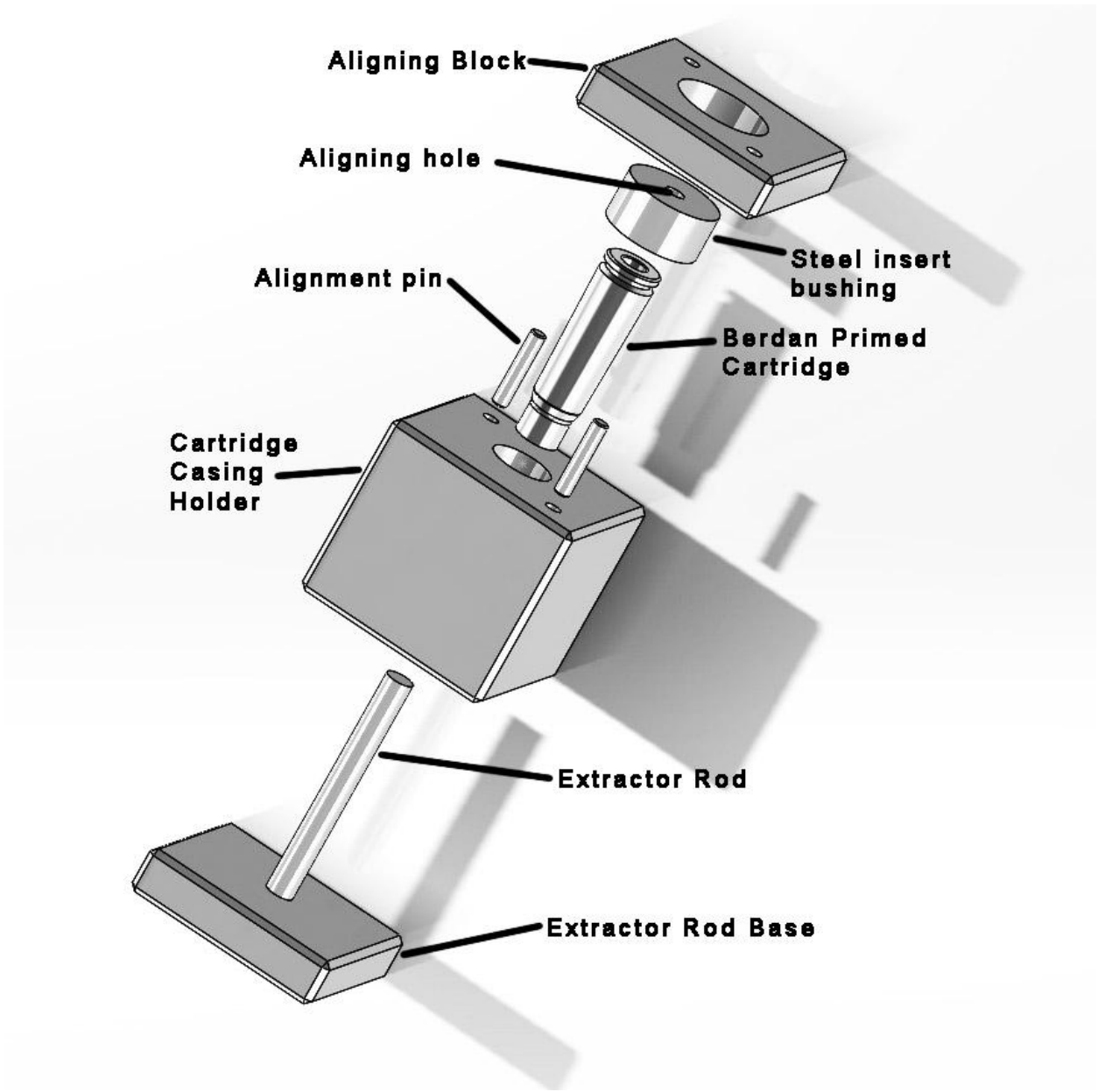
Misc tools :

Deburring tool

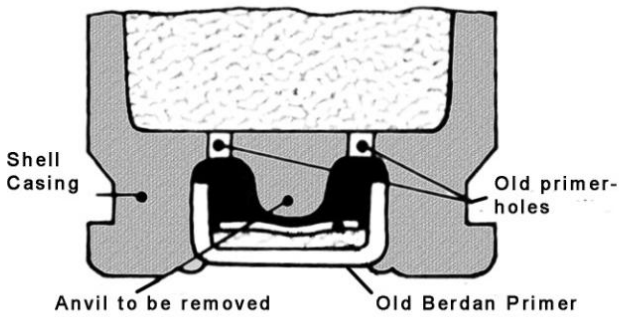
Counter sink

Micrometer

3/32” cobalt drill bit

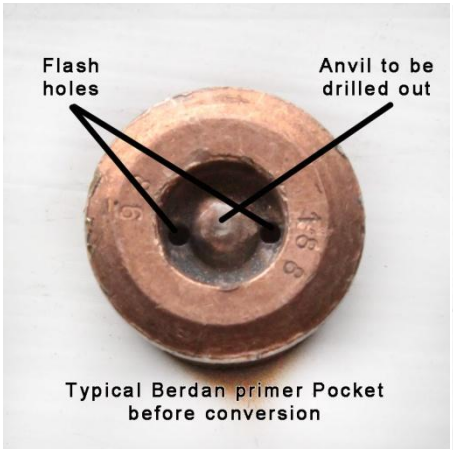


Partizan Mk IV machined aluminum model.



A typical Berdan cartridge.

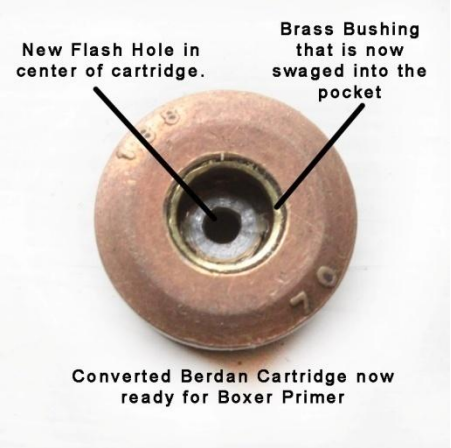
This is a cut away diagram of the typical Berdan cartridge and you can see the anvil that will be center drilled and then machined out of that very small pocket with this precision system that will be able to do it time after time.

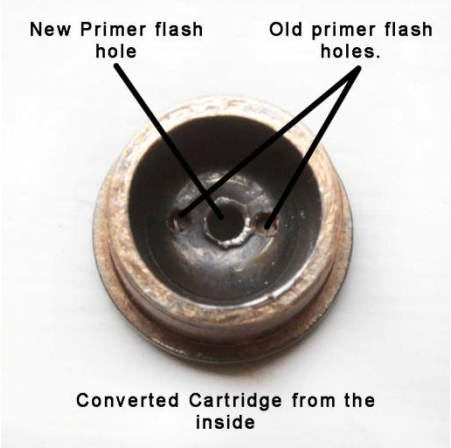


Typical Berdan primer Pocket
before conversion

Typical Berdan primer pocket
from inside the case

This is a Typical Berdan primer pocket from both the outside (with the primer removed for viewing of the anvil) and from the rear and you can see the anvil from the rear as well as the old primer holes. This anvil is what we will be center drilling through the old primer that is still going to stay in the pocket while we convert it into a brass bushing to be swaged for the new primer.





In this illustration we have a converted cartridge from the outside where you can see the brass bushing that was converted from the old primer that is now swaged firmly in the primer pocket walls. Notice how clean the pocket is after all the steps are completed and a nice uniform flash hole. Also a shot of the cartridge from the inside so you can see how it is opened up in the flash hole in the middle for the new boxer primer.

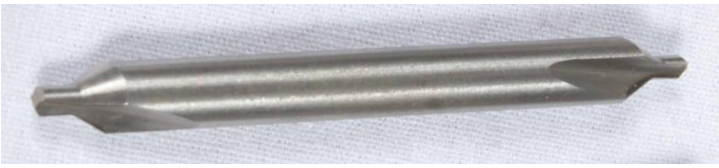
Step 1. **INSPECTION**

Inspect cases for any cracks or major defects especially around the casing neck area. Small dings are not an issue on the body of the cartridge. Clean cases and measure them and make sure that all measurements are within tolerances before you start to do your conversion on the primer. Refer to applicable reloading data from cartridge reloading manuals. Measure and inspect the case base for any signs of bulging…and take a measurement there. Then do the same for the Neck.

Step 2. **Making a CALIBRATION Cartridge**

Begin with the cartridge and appropriate sized cartridge holder. You are going to be making this into your calibration cartridge and place it in the cartridge holder. Put the aligning cap on the top of the cartridge and push down firmly.

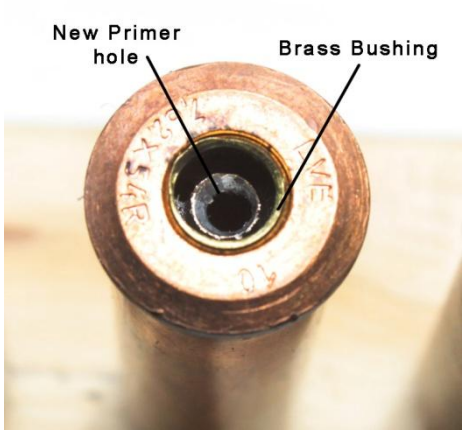
Take your bit that you will be using for the first drilling sequence and place it into the hole on the top of the aligning cap and push all the way until it bottoms out and you are no longer able to insert it any deeper.



Place it under your Drill Press and open the chuck jaws up and lower the chuck down onto the bit and once the jaws of the Chuck hit the top alignment cap then snug down the chuck on the bit. Raise the bit out of the hole. Now lightly loosen up the chuck and pull the bit down approximately 2-3mm and re tighten the chuck.

Now you want to take the cap back off and place one drop of the Tapping fluid on the primer of the cartridge you will be making into your calibration cartridge. (Your drill press should be operating at approximately 1200 RPM) Slowly plunge the bit down into the top hole of the alignment and run the bit slowly down until the jaws of the chuck contact the top cap.

Remove the top cap and visually check to see if the bit has penetrated all the way through the anvil and there is a clear hole in it. If the bit has not penetrated enough. Open the chuck up slightly and pull the bit down another 1-2 MM and re do the same procedure until it looks like the image below.



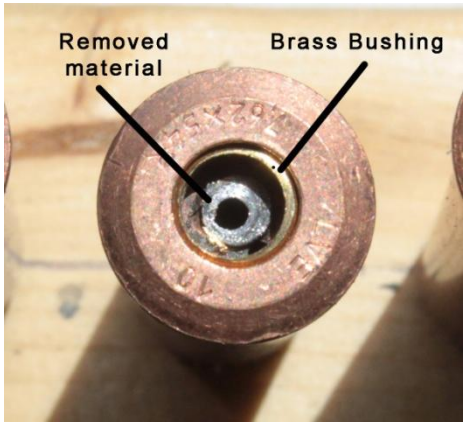
Once you have established that the bit is far enough down into the hole and has made a clear new flash hole then it is time to use the second bit in the kit.

This bit is flat on the tip of it. This is the “Squaring” bit.

Remove the Center bit from your Drill press. Take the squaring bit and place it into the same top of the alignment cap. Run it all the way down until it will no longer go any further. Place into your drill press and run the chuck all the way down until the chuck teeth contact the alignment cap then snug it down.

Lift your drill guide up and loosen the chuck and move the Squaring bit down approximately 2MM. Tighten your chuck and procede to square out the hole. This procedure removes the excess material in the flash hole and allows the primer to seat properly.

It should look like this when it is done properly.



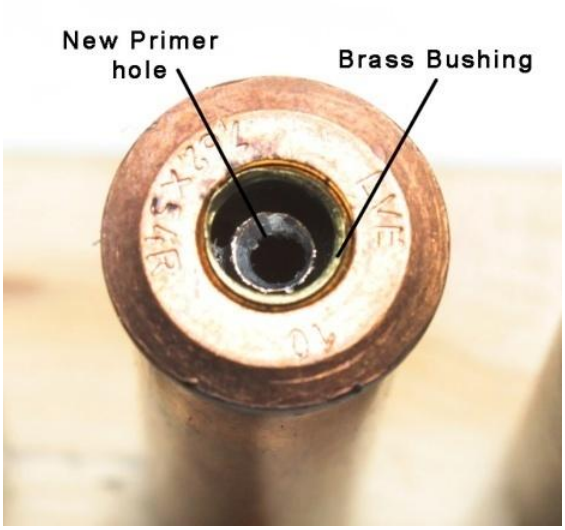
Now take and mark this cartridge as it will be used to quickly set up your bits when you are changing them out. We suggest you make a few and put them away.

Use this cartridge next time you are setting up for the drilling so that when you put it down into the hole and tighten the Drill press Chuck it will be the perfect depth every time.

Step 4. **Converting Cartridges**

Insert a fired cartridge into the cartridge holding assembly. **You MUST use a tapping fluid/oil on this step! (highly recommend Tap Magic) Place a drop of tapping fluid on the primer before you drill** on the primer. Now place the top on the aligning pins and press on firmly to make sure that the cartridge is wedged tightly in the hole.

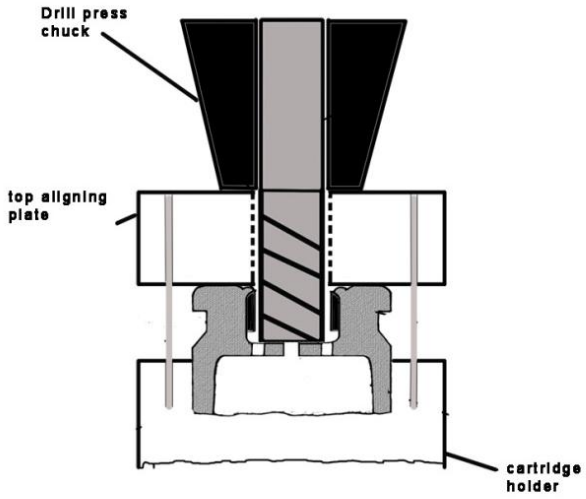
Turn on your drill press (adjust to 1200rpm) and lower the center bit into the alignment hole. Hold the top alignment assembly block down firmly as you drill. Put gentle but firm pressure in the drilling**.** Take your time and let the bit do its work so that it does not overheat. You will feel the bit as it makes the first penetration and shortly after it will make a second penetration (the Anvil) This is a VERY precise step and has to be done slowly or your hole might not be centered properly and you will risk the snapping of the bit. Slowly run the bit all the way down until the Chuck runs into the top alignment cap. (don't worry about the chuck contacting the machining surface it is made from a hardened steel) Remove the drill bit from the hole and if all steps were followed you should see a perfect hole in the middle with a slight bit of metal sticking out in the bottom of the shell.



You should be able to see all the way through the primer hole. If it did not penetrate all the way through the anvil, you need go back and adjust the bit so that it penetrates slightly deeper. You should see around the edge you drilled is the now pre formed brass bushing that was formed from the Berdan primer and that will be swaged out in a later step to fill the primer pocket. After this you are set up to drill a series of cartridges for this first step. We have found that if we sit down and do 20 or more cartridges at a time for each step you can get them done much faster as you are not constantly changing the bits. Remove the Cartridge from the holder by placing it on the bottom ram rod and tap it onto the table and it will shove out the cartridge from its wedging. Insert another cartridge and follow the same steps.

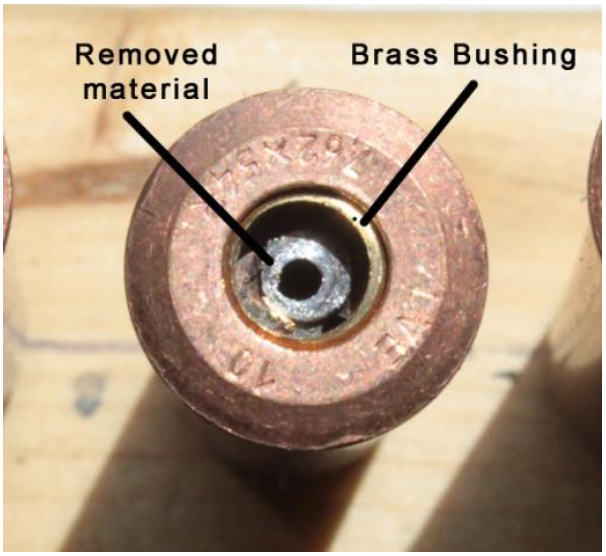
Step 5. **SECOND CALIBRATION**

Remove the center drill bit from the chuck. Remove cartridge and replace with the Calibration Cartridge. Press on the top alignment block and place the squaring bit all the way into the bottom of the hole. This will align the second bit for the proper depth to square out the hole and remove the remainder of the Anvil. Now place it under the drill press and open the chuck up and slowly move the chuck onto the bit and run the chuck all the way down until it contacts the steel insert on the aligning hole. Tighten up the chuck and withdraw it out of the alignment hole. It should be calibrated for the next step.



Step 6. **Squaring Drill**

After you have calibrated the bit as in the illustration above, you will take out the calibration cartridge and put in a cartridge you have drilled in the previous step into the cartridge holder and put back on the top aligning plate and press firmly together. Place the assembly onto the drill press and turn it on. Slowly plunge the Squaring bit into the hole until it reaches the bottom and the drill press chuck runs into the top aligning plate. Do not force it. It is a very fine cut and a small removal of material. As you can see from the illustration below the bottom of the primer pocket is now flattened and excess material has been removed. Do not worry if the brass bushing is not perfect the next process makes it the correct size. Do not worry about the old primer holes. They do not matter.



Step 7. **SWAGING**

On this step you will need to move to your reloading press that you will be using. You can use just about any reloading press out there for this procedure. First take a de-burring bit and slightly ream the inside edge of the brass bushing so that the tool slides into it better. Ream it down so it is below flush with the bottom of the cartridge case. You will be swaging what is left of the Berdan primer that now forms a bushing into the primer pocket wall and making it the correct size for the new Boxer primer.

This procedure REQUIRES the use of the Primer Pocket Swager tool #9481 (Here is a link to the tool on RCBS website https://shop.rcbs.com/WebConnect/MainServlet?storeId=webconnect&catalogId=webconnect&langId=en_US&action=ProductDisplay&screenlabel=index&productId=6211)

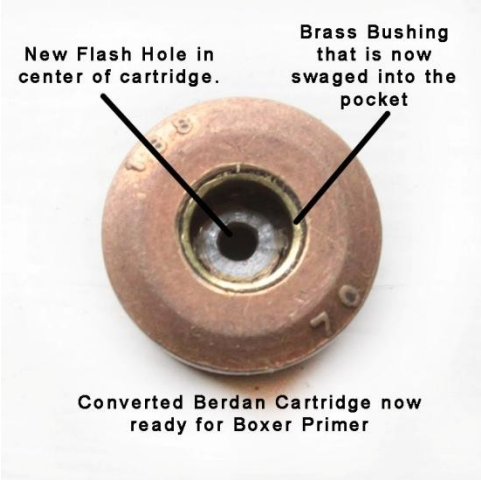
Follow the instruction manual in the RCBS tool kit that came with it to set it up for your loading press.

For a 7.62 x 54R, you will use the large die for the large rifle primers. For the 7.62 x 39, 5.45 x 39 and most cartridges you will use the small die for the small rifle primers. This opens the primer pocket up and shapes the bushing for the pocket for the boxer primer. Insert your Cartridge on the nipple on the bottom of your press and run it up into the die.

Add a drop of Green Loctite into the primer pocket and then swage it into the cartridge. The green Loctite is a permanent wicking type that will travel into every small crevice between the steel cartridge and the new brass bushing you are swaging in. You will most likely feel it as it travels in and seats it all into place. Some will go in much easier than others do so this is normal.

After this step you have a final cleaning to do with the RCBS Primer Pocket Uniformer tool. You will need the large one (RCBS tool #90378) for the 7.76x54R, or the small one (RCBS tool #90379) for the 7.62 x 39, 5.45 x 39 and all cartridges that will be using the small rifle primer. Put on the end of your hand drill and run it into the hole all the way to the bottom. You should bottom out the tool flush with the bottom of the case. It should now be perfect and free from any excess metal shavings.

The finished conversion should look like this.



Step 8. **FLASH HOLE**

This is a step that is not to be over looked. When you do your final inspection, we highly suggest that you run a 3/32 drill bit through the primer hole to make them all uniform. Most of the cartridges in the 7.62X54R will be very close to that diameter hole if not slightly larger. It is always best to make them as uniform as you can. We have noticed that most of the center flash holes on the 7.62X39 and 5.45X39 cartridges are usually slightly under the 3/32 and should be drilled out to that hole size. We had to keep the pilot hole smaller because of the smaller diameter primer in those two types of cartridges. After this step you are ready to start reloading your newly formed cartridges.

***** At this point we HIGHLY suggest that you take a paint pen and mark the back of the cartridge with a stripe so that it is much easier to identify your cartridges when you pick them up off the ground. It makes sorting them out so much easier. We have found that white or a bright color works best. ****

Step 8. **RELOADING**

Now your last step will be to insert your primer with your press or by hand. You will find it much easier for the Boxer Primer to go into the hole if you use a counter sink or a reamer to make the bushing a little tapered so the primer slides into its new pocket. After you press in the primer it should be flat against the bottom of casing. If you find a primer that will not seat right it is because the primer pocket was not cleaned out thoroughly with the primer pocket uniformer tool. You can usually press the primer out on your press at this time and inspect the hole. If in doubt run the Pocket Uniformer tool into the pocket again until it bottoms out with the case.

Now your cartridge has been converted you will be able to re-load them just as you would do with a brass boxer primered cartridge. There are many loads already available on the web forums for you to try out.

Questions and answers;

Q: Some of my primer bushings have been coming out during the reloading process when I extract the fired boxer primer.. How do I keep them from coming out?

A: We have found that you can reduce the failure rate if you use a red or green Loctite during the swaging process. Take and add a drop of the Loctite into the primer hole when you do your swaging.

We have also found that if you use your reamer and make a nice deep chamfer into the primer pocket it will keep the amount of friction down on the bushing when you do your sizing and removing of the fired primer. Do not be afraid to put a nice deep chamfer on the primer pocket bushing. It needs minimal friction to keep the primer in the pocket. You can also take a small amount of anti seize and put it in the primer pocket the first time you reload and insert a new primer into the pocket so when you go to do your depriming it will pop out easily.

Q: How many times can I reload steel?

A: You can keep on reloading your steel cartridges until they fail. Do a normal inspection on each case and look at the necks carefully as well as the shoulder area for any cracks and splits. Normally you can get over 30 reloads from each steel cartridge or more.

Q: Do I need to swage the primer pocket bushing every time I reload?

A: Not normally but if it looks like it is coming loose and still has not come all the way out you can re swage the bushing back into the pocket. We also recommend that you Chamfer the primer bushing as deep as you can so that it causes less friction with the new Primer when inserted and when you are doing your depriming.

For more information, videos, and cartridge loading recipes please visit our website and forum.

www.russianreloads.com