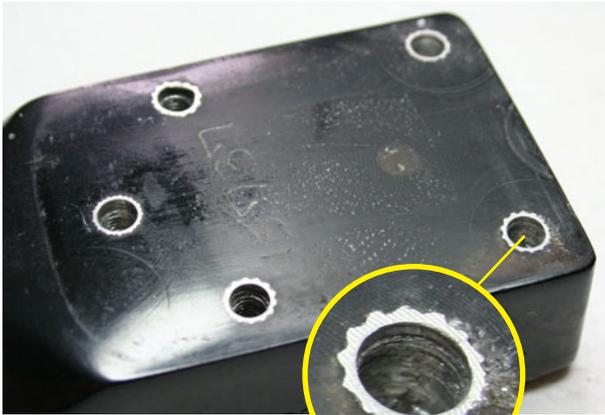


Replacing Threaded Inserts on a Steinberger (Newburgh/Nashville) Neck



I've got a Steinberger neck on a Nashville GM-7 that had two totally stripped threads on the neck inserts. As I've already had some experience with doing similar work on Moses necks, I thought it should work here in a similar way. Well, as it turned out, it didn't. Although I knew that Newburgh necks were much stiffer, I had not fully understood what this meant for working on the neck. I could imagine that this (= stripped threads) might happen to others as well, so here is a description of what to do, and even more important: what **not** to do.

For replacing the inserts, I'm using the 10-32 brass inserts that usually come with Moses necks. I've been able to find a manufacturer here, so these inserts are readily available.



NOTE:

Although this is a "how-to" description of replacing the inserts, please understand that it will require some tools like a drill stand, a bench vise, epoxy, and enough experience with these tools to, e.g., be able to drill precise holes without further damaging the neck. If you're not sure if you can do it, please consult an experienced luthier or technician to do this for you. But don't blame me for sharing this description... ;-)

1.1 Preparations

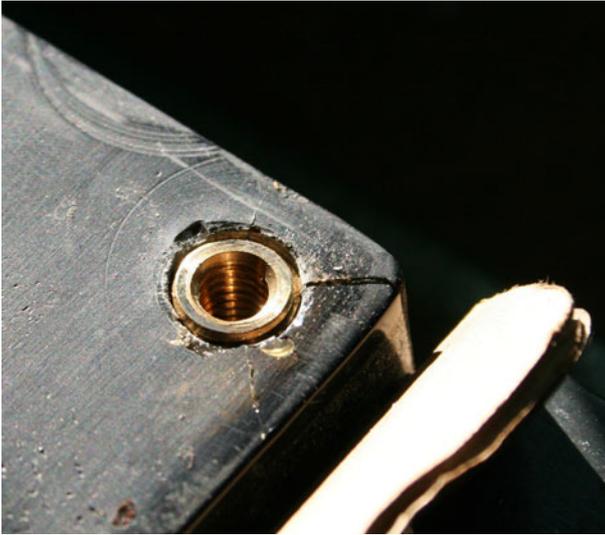


For installing new inserts, the old ones had to be removed first.

1. I've clamped the neck in the bench vise, protected by some cardboard around it.
2. For drilling the old inserts out, I started with a 5 mm drill. **Make sure to adjust the stop of the drill stand for a depth of about 11-12 mm so it won't allow the drill to go through the neck!**
3. Increasing the drill size successively by 0.5 mm, the original aluminum inserts came out when using a 6 mm drill.

Next, there are two different ways to proceed. One of them turned out to be wrong. I'm going to describe this way here nonetheless, in order to prevent you from doing so.

1.2 How NOT to install the new inserts



My first thought was to do it like I usually install inserts on a Moses neck. On these, the hole is drilled to a diameter of 7.5 mm (19/64"), and the inserts will directly be screwed into these holes.

That's what I did at first on the Nashville neck as well, right after drilling the 7.5 mm holes. Although I've noticed that it was much, much harder to get the inserts in, I've ignored the signs and finally had the first insert mounted. Just to notice that the Nashville neck was indeed stiffer than the much softer Moses neck. Around the hole a couple of cracks appeared, no elasticity at all.

Newburgh/Nasville necks are not only stiff, but also brittle.

Now that I had already caused the first damage, I felt free to do another experiment. I thought "hey, it's some kind of plastic, so maybe heat might help to make this procedure smoother". So for the second insert I used a heat gun to heat the hole as well as the insert.



Well, the insert went in a little bit smoother (still not easily). But afterwards: the same cracks appeared. I've also noticed some discoloration, the neck became transparent around the holes. The conclusion:

Brute force and heat will not help to get the inserts mounted properly. But they definitely cause damage on the neck.

Time to throw away the neck? No. On the next page you'll find the description of a proper way of doing it... the way I should have done it from the beginning.



1.3 How to install the new inserts



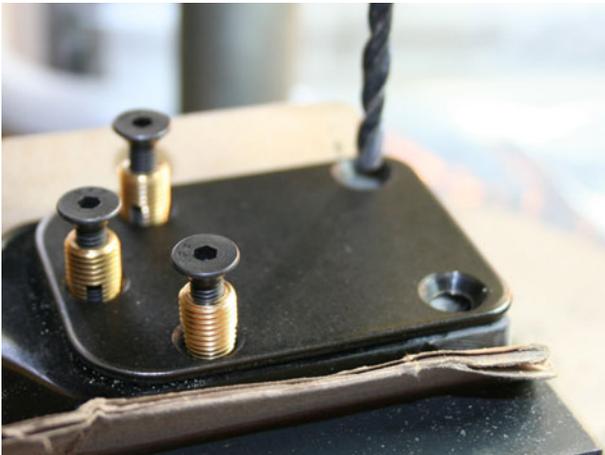
Done this way, I'd have avoided the problems and cracks described previously. These steps should follow the ones on the first page:

4. Drill out the existing holes to 9 mm, leaving a little room around the nominal diameter of 7.5 mm for the inserts. The outer (thread) diameter of these inserts is almost 8 mm.
5. Fill the holes with epoxy. Try to always have a little "hump" on the epoxy when applied to the neck, as it might sink in a little bit during hardening (happened on my right hole as well, leaving some visual imperfection).
6. After the epoxy has hardened, file and sand down the area to the desired shape.

On the second picture on the left you can see what "sinking in" means, it leaves a surface below the level of the neck heel. However, still better than it was before, because when removing the inserts and drilling out the cracked holes, an edge of the heel just behind the hole broke away. What you see on the left picture is a completely remodeled edge (yellow circle). Tip: don't use yellow paper to shape the edge like I did, as this paper might leave some remnants ;-)



7. Drill the required 7.5 mm holes for the inserts. I've used a GM neckplate as a visual guide to find the perfect positions. Drilled to 5 mm, and then (without the neckplate) directly to 7.5 mm.
8. Clean the neck and holes and screw in the new neck inserts. This time they smoothly went in, without any cracks or damage. Epoxy has the elasticity that is required for this procedure.
9. That's it, neck is back to work :-)



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