
Subject: Re: The Veri-Thin 'Adams'

Posted by [JackW](#) on Fri, 20 Feb 2026 05:17:10 GMT

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I was thinking about this post recently and the discussion on the composition of the case back: Is it stainless or is it silver alloy of some sort.

A non destructive test is to measure the specific gravity, which can be converted to density, but honestly the value calculated from specific gravity are nearly the same. It is easy and I don't know why I didn't think of this earlier. I only feel better that no one else on this thread did either.

Jewelry grade sterling (935 silver) has a density of about 10 g/cm³.

Stainless steel per Google's AI has a density in the range of 7.5 and 8.0g/cm³

Also here.

That said, I measured the case back from this watch and calculated a specific gravity of 9.37. I also measured the specific gravity of one that I believe is the non-war production of the same model (stainless/Guildite back) and got a value of 8.38. This higher value is consistent with some especially malleable austenitic stainless steel.

I also measured case backs with clear "sterling back" marking getting 9.4 and the corresponding "pre-war" of the same model yielding 8.4

To check if I am doing things right, i did the same for a sterling ring (no solder) and got 9.96

I also checked to see if the WWII era US made 5-cent piece which is made of 56% copper, 35% silver, and 9% manganese and has a reported density of 8.92. I did the same for a 1944 5-cent piece and got 8.75.

A combination of 70% silver and 30% zinc or 75% silver and 25% manganese will yield a density of 9.4. However, I think zinc is the likely alloy. Manganese was more strictly rationed. 70% silver would not be sterling. Zinc is a common alloying metal with silver. It adds hardness to the mix. However, the AI says that a 70/30 mix is not cold malleable.

A Swiss-cased Pan Am case back yielded a specific gravity/density of 7.1. Huh? A post war Guildite marked case back from an Autowind all Swiss case gave 7.5. Air being trapped in a recess of the case can lower the density value derived via this method. So, this kind of error (air) causes an underestimate.

So, while this is not conclusive, it is my opinion, this hints that the back of the "at question" case back is not stainless steel. This test also has an advantage: You can easily repeat this experiment at home with your own case backs. Just need a good scale.

I followed this as it was pretty straight forward. Rather than string, I used a piece of thin copper wire.

http://www.johnbetts-fineminerals.com/jhbnyc/articles/specif ic_gravity.htm

I know a lot of the people that commented in this thread have pared back their participation here, but I do welcome your comments.
