

From: [REDACTED]
To: [Abraham Laura](#)
Subject: Re: Question
Date: Wednesday, September 13, 2023 7:20:21 AM
Attachments: [image001.png](#)

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Hi Laura,

Fuel caps are something that needs to be maintained. Usually, they dry out a little and just need some lubrication to operate properly and seal. These caps are non-venting, so they need to seal. If they don't, you would most likely see fuel stains on the strake behind the caps. There is no specific time to replace them, and I have seen them work fine for 25+ years. Experimental's (homebuilt aircraft) don't have (ADs), if there is an airframe issue that we find, we would communicate through our files and VOBA to let owners know of an issue. Remember, these are kits, but customers (builders) don't always follow our directions and make changes. Back to the fuel caps. If the sump tank (low fuel) light never came on, then this could not be the issue. The light (if installed and working) would come on with about 3 gallons left in the sump tank that feeds the engine. Did he mention that the light came on? You can confirm that it was working or ask him if the plane was equipped with one. This obviously will not get you very far but does give you some time to find a place or even to make it to an airport. In the case of a fuel cap that does not seal, you would notice in a previous flight that the fuel does not flow evenly out of each tank. We do not normally use a fuel selector, so the fuel is always on both. If he did not see this while in flight, then the caps were fine and not the cause of anything. I know the servo was damaged, but is there any way to look into it? We have seen engine failures as a result of the servo having internal issues. You can also cut a hole in the sump tank to make sure that the outlet was not clogged by a piece of epoxy or something that would move around in it. If you cut it open, look for something about 3/8" diameter laying in the bottom. The pickup is normally about 1" above the bottom but builders can do things that we don't recommend. I know I jumped around a bit but please give me a call if you need anything else. Scott

From: Abraham Laura [REDACTED]

Date: 09/12/23 16:07

To: [REDACTED]

Subject: **Question**

Hi Scott,

Thank you for taking the time to speak with me last week regarding the fuel system on N340XL. You mentioned that if the fuel caps are not sealing properly, the cap or caps with the degraded seal could end up not venting properly. Do you have any documentation on this that I could include in my report? Was there ever an AD that went out stating this information? Is there a replacement time or overhaul time recommended on the fuel cap seals? The ones on this airplane looked like they had never been replaced. I am just trying to gather all the information I can pertaining to this possible scenario. Also, I brought the fuel caps back with me. Do you offer support in instances such as this?

Would you be able to look at these caps and let me know if the seal around them is degraded enough to cause an improper seal? Please feel free to call me if you think talking on the phone would be easier. Thanks again!

Thank you,

Laura Abraham
Air Safety Investigator

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