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Air Safety Investigator
OAS-WPR

Date: June 6th, 2025

Subject: WPR24LA009

Contact: Sam Ammons-Current Owner N519SP

The following is a record of the conversation relayed to the NTSB Investigator-in-charge, by the current owner of the experimental amateur built helicopter (N519SP). The following details pertain to the postaccident examination of N519SP and the associated findings.

June 6th, 2025@1425pdt

Sam extracted a pint of red fuel in one of the fuel tanks. He put a borescope into each of the (3) fuel tanks. The main fuel tank has a fuel line on the left and a fuel line on the right, which goes down into the left and right fuel tanks. The left and right fuel tanks had a cross-feed connector, that fed into the fuel filter. He looked at all the tanks and there was dirt-like debris present inside the left and right fuel tanks and fuel fittings.

The main fuel tank was clean, but he found excess sealant that was stuck in the bottom of the fuel tank and was hardened. It was too big to go through the fuel lines that feed into the left and right tanks. He's not sure if the sealant floats because it was stuck, since the wreckage has been sitting for a while, but the size of the sealant was large enough to restrict flow through the inlet. He surmised that the sealant was the same size as the diameter of the main tank fuel pickup.

The main tank has a vent, and at the base of the tank, there is a fitting going out to the left tank and there's a fitting going out to the right tank. Both the left and right tanks have fuel level indicators installed. He observed that the sealant was used in a lot of places, and inferred that there could be a traveling unit of sealant that intermittently plugs the port when the fuel level gets low or positioned at an angle.

The fuel fitting is about an eighth of an inch high and has a sealing surface underneath. Any foreign particles floating around in the bottom of the tank must overcome that eighth of an inch ledge, to get out of that tank. He surmised that the sealant was heavier than gasoline and probably was floating on the bottom of the tank. There should be a filter screen on each one of the fuel inputs, to catch the foreign particles in the tank from the drilling process, The fuel hoses were kind of "gummy", and he'll look more at them to see if the "gumminess" is a reaction between the type of material that the fuel hoses are made of because the fuel hoses are not supposed to get "gummy" like that.

The fuel filter casing was an anodized aluminum blue color, intact, and he was able to purge about 10cc of fuel from the fuel filter input (inflow) and the inside wall of the fuel filter. The aluminum tube has gaskets on both sides and a paper media filter fits into the output side. The fuel goes through the sides of the paper filter media, and there's a spring to keep the paper from collapsing, then the fuel exits through the filter output. There were no check valves. The fuel filter appeared to be rather new, as he could see the ambient light was through the brown fibers of the filter, and it didn't appear compromised.

The O-rings were good on the fuel filter. Looking at the inlet and the outlet to the fuel filter, the inlet had a bit of "grunge" (dirt-like particulates) on the inside body of the fuel filter. The output (outflow) of the filter looked clean. The fuel path then enters the gascolator, then to the fuel control unit, which is attached to the fuel pump and mounted to the accessory case.

The gascolator was intact, with no penetration through the filter screen. The filter screen, O-ring, and the rubber seal were intact. The gascolator had some dirt-like debris inside and it looked like it had been there for a while. There was staining on the inside of the gascolator fuel bowl, that he inferred had been there for a while.

He pulled the fuel pump, and it's "kind of hokey looking." He indicated that it looked like a fistful of rubber with an input and output, and two wires coming out the side. He had not tested the fuel pump, or the fuel control assembly. The oil in the tank was clean. He extracted about a cup of oil, and it appeared to be clean. No water was present in the oil and there were no visible particulates.

NOTHING FOLLOWS