

## N6799P Teardown investigation notes 4/16/2025

1. When we arrived at the salvage to start teardown, there was a good-sized puddle of oil that had leaked out from the engine and onto the floor. Do not believe low oil had anything to do with the accident but the oil leak is a result of damage during the accident. Salvage crew employees stated the engine had been leaking a large amount of oil since it was picked up at the accident scene.
2. When the fuel strainer bowl was removed, the cork gasket was intact with no damage. The bowl was dry but contained a semi-hard white substance at the bottom. When the white substance was pushed on, the underneath layers appeared squishy and moist.
3. When the fuel pump inlet hose was removed, there were almost no signs of fuel residue, which indicates that no fuel was being pumped to it at the time of the accident.
4. Pressured air was placed from both L/H and R/H fuel tank feed lines. With the fuel selector placed in the off position, air pressure was held with no leaks. With the fuel selector placed in L/H, there was good airflow, and with the selection to R/H, there was good pressure flow. This indicates that there were no obstructions from either the L/H or R/H tank fuel lines, all the way up to the engine fuel pump and that the fuel selector in the cockpit is fully functional with no obstructions.
5. We placed power on the aircraft and performed fuel system electrical checks. Placed fuel pump to on and fuel pump checked good. Used a multimeter and performed continuity checks of the ground side of the system and it was good. This shows there were no electrical issues with the aircraft fuel supply system.
6. Removed the fuel lines from the fuel pump to the carburetor, both lines had a minimal amount of fuel residue in the lower sections of the lines where fuel had drained backward away from the carburetor. This would indicate that fuel had stopped being pushed through the lines from the engine fuel pump.
7. We removed the carburetor and noted no fuel residue inside the unit; it was dry. This would indicate that all usable fuel was used by the engine but no more fuel was pushed into it from the engine fuel pump.
8. We removed the cockpit primer plunger and it operationally checked good, no signs of damage, O-rings were in good shape.
9. We removed both magnetos and the related wiring to the spark plugs. We performed bench operational checks, and both magnetos and all 12 spark plugs operationally checked good.
10. Used borescope and checked combustion chambers, no damage noted. Did note a minor side seat scoring in the #6 cylinder, but nothing out of the normal wear.
11. Removed all 6 cylinder cap covers and checked rocker arm sections, no damage noted.

12. Rotated prop and it turned freely with no abnormalities. All associated attaching parts appeared to be moving appropriately.
13. Filled the left fuel bladder halfway with water, rolled and tipped the wing in all directions, no leaks were noted.
14. Salvage crew stated they retrieved 27.5 gallons of fuel from the right fuel bladder. They found left fuel bladder completely dry.
15. NTSB laboratory stated downloads taken from the aircraft Shadon fuel totalizer unit, showed the instrument was not being used for tracking fuel consumption, as it had not been reset after refueling. This indicates the PIC was using guesstimation on fuel consumption and on fuel totals in each tank. PIC assumed that the 20 gallons he placed in each tank at the last refuel, filled each tank.
16. Calculations for fuel consumption for each fuel bladder, show that if the fuel selector was selected for each tank for an hour during the accident flight leg, that approximately 20 gallons of fuel should have been used from each tank bladder. However, actual fuel quantities show the left 30-gallon tank completely depleted and the right 30-gallon tank almost full. If the fuel selector was moved to the right tank after an hour, then the left tank should have had 10 to 15 gallons but it was dry and the right tank should have had only 10 to 15 gallons, however, it had 27.5. This indicates that the selector was not moved from the left tank.