Exam notes received from Scott Prescott, A&P mechanic, who examined the airplane under the supervision of FAA Inspector Sean Mullis on July 2, 2022.

07/02/2022
INSPECTION SUMMERY FOR N7410B

Initial findings at aircraft recovery site:
Aircraft sitting nose low with right wing on the ground
Cockpit
Fuel selector OFF
Primer Locked
Mixture RICH
Magneto Switches OFF
Master Switch OFF
Carburetor Heat HOT

Aircraft exterior
No visible fuel on the ground
Both fuel caps on
Drained approximately 9 gal from left tank
Drained approximately 1.5 gal from right tank
Fuel gauge is mechanical in right tank only
No apparent water in fuel
Both tank fuel lines feed common manifold prior to fuel shut off valve
Propeller bent from ground impact, no other physical damage to engine

In depth inspection findings:
Throttle function normal and makes full and idle stops
Mixture function normal and makes full rich and lean stops
Carburetor heat function normal and makes full cold and hot stops
Gascolator removed ¾ full with small amount of water and rust in bowl
Fuel line from gascolator to carburetor removed and small amount of fuel in it
Carburetor bowl drain removed and small amount of fuel drained, no water present
Carburetor removed and disassembled, mixture control function normal, throttle normal.
Main jet removed and inspected, no obstruction. Idle jet tested with air, no obstruction.
Float and needle operated freely.
Engine oil level 6 qt, propeller turns freely, compression check #1, 2, & 3 76/80 #4 25/80
[blow by of rings]
Top spark plugs normal, lower #1 & 3 oil fowled
[probably from engine being in nose low, and right attitude at site]
Left Magneto removed and impulse inspected, not wear issues. Both mags timed correctly
Both mags sparked plugs
Air Filter unobstructed
Wing tanks inspected, both caps vented ok, right tank vent interconnect completely obstructed
Right tank forward and aft outlets clear.
Left tank forward and aft outlets completely obstructed.

Left tank obstructions were detected using compressed air into inter connect vent, with cap on. No air flowed through forward and aft outlets. Then pressurized each outlet from outside with cap off. No air flowed into rear outlet until about 80 psi and then obstruction cleared into tank with a sharp sound. This was repeated on forward outlet. The design of this system is the two tanks feed a common manifold above the fuel shut off valve. There is only a quantity gauge in the right tank. If fuel had been able to flow from the left tank it would of gravity transferred to the right side at the recovery site do to the right wing being on the ground and left wing being higher.