

Tuesday, March 19, 2024

On March 6, 2024 a Post accident investigation to determine cause of engine failure. N321JA, Experimental Edge 540. Inspection activities by Dean Dollens (IA), Janet Fitzke (owner and pilot) and witnessed by Debby Rihn-Harvey, and Houston FSDO.

1. Identified main tank and verified fuel present in the tank. Approximately 15 gallons present of the 18 gallon capacity.
2. Identified the fuel tank selector switch and verified switch was in the correct position for the main tank.
3. Disconnected the fuel supply line to the fuel divider and saw fuel dripping from the supply line.
4. Turned prop to establish that all rocker arms moved indicating the camshaft integrity. Saw fuel coming from the fuel supply line, thereby indicating that the engine-driven fuel pump was pumping fuel.
5. Removed the oil cooler to access the left mag that was broken away from the engine. Turned the mag by hand and sparks were observed from the ignition harness leads. The leads had previously been removed from the spark plugs. Turned on mag switches and used propeller to turn the engine over and saw that the right mag also had sparks from the ignition harness leads. Logbooks indicate the mags time 200 hrs since overhaul.
6. Fuel was sumped from the main tank, no water or contaminants present.
7. Removed the plunger from the flow divider body and examined the screen. No contaminants were found. Used the electric driven fuel pump to indicate fuel was entering the fuel divider body.
8. Replaced flow divider plunger and disconnected fuel injection lines from the flow divider. Used electric driven fuel pump to send fuel to the flow divider and verified flow thru all injector ports at the fuel (spider) body.
9. Removed oil filter. Cut it open and no contaminants were found.
10. Moved the throttle and observed the action of the throttle at the fuel servo body. Normal Operation.
11. Moved the mixture and observed the action at the fuel servo body. Normal Operation.
12. Opened the side panel and examined the fuel selector valve to determine it was secure.

Cause of engine failure not identified.

Dean Dollens

A&P