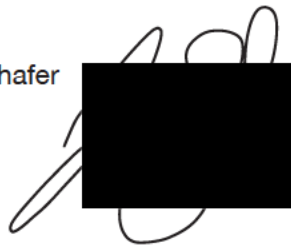


Monday 29th, Oscar Kruze and I flew to KHUF for his MEI check ride in N5018Y. No issues were discovered enroute. During the flight portion of his check-ride he mentioned that the left engine coughed during a shut down, (routine manoeuvre required for demonstration). After his pass, we proceeded back to M91, N5018Ys home base. About half home, we switched to the inboard tank to keep things balanced. Shortly after the left engine coughed and sputtered. We switched it back and things were back to normal. We tried again an additional two times and the engine showed the same issue. We had plenty of fuel so we continued burning out of the outboard tank. When we landed the squawk and issue was given to maintenance. The following day May 30th, maintenance tried to duplicate the problem on the ground. They were unsuccessful in their attempt. After many tries and 3 days later on April 1st, Loyd Hanley and I took the aircraft for a test flight. We put it through all kinds of manoeuvres / Scenarios. Steep turns with fuel pumps on/off, switching outboard to inboard takes during turns. We could not duplicate the issue. My assumption was, after many engine shutdowns, switching fuel tanks and routine manoeuvres, a little gunk may have gotten stuck in the fuel line/valve and eventually worked its way through. After we landed Loyd and I testified that we could not duplicate the issue Oscar and I experienced.

Justin Jon Schafer

04/15/2021

A handwritten signature in black ink, appearing to read 'Justin', is written over a solid black rectangular redaction box. The signature is fluid and cursive.

On March 29th, 2021 Justin Schafer and I flew Aztec N5018Y from Springfield Robertson County Airport (M91) – Terre-Haute Regional Airport (KHUF) for a Multi-Engine instructor (MEI) check ride. During the check ride, from M91 – KHUF, we did not experience any issues with the airplane. After the check ride, departing KHUF we did not have any issues on climb out, or cruise. About 30 miles outside of M91, as we were switching fuel tanks from outboard to inboard, the number one (left) engine started to surge. Once we noticed the surge, we made the decision to decided to switch the fuel source back to the outboard tanks. After switching back to the outboard tanks, we did note any issues. We decided to switch the fuel source from outboard to inboard again, for troubleshooting purposes, that is when we had another surge on the left engine. At that time, we decided to switch the fuel source back to the outboard tanks, where it remained the rest of the flight. After landing in M91 Justin made the appropriate annotations in the maintenance records about the problem we had during mid-flight.



MEMORANDUM FOR RECORD

Brian C. Rayner
Senior Air Safety Investigator
Eastern Region

Date: January 27, 2022
Person: Seth Lockard – Witness
NTSB Accident Number: ERA21LA173 Springfield, TN
Subject: Piper Aztec N5018Y

Narrative:

Mr. Lockard was an Airline Transport Pilot and Flight Instructor with multiple ratings. On April 2, 2021, he was to provide flight instruction in N5018Y but encountered maintenance issues with the airplane on preflight, and then later during engine start when the airplane was returned to him from maintenance. Mr. Lockard then demonstrated the engine discrepancy to maintenance at Highland Rim Aviation, rejected the airplane, and cancelled the day's training.

Mr. Lockard described his experience with the airplane that day in a brief telephone conversation, and then provided a detailed written statement that was excerpted from an email chain and attached below.

According to Mr. Lockard:

Here is my follow up narrative from my encounter with N5018Y on 2 April 2021.

I had N5018Y booked to give transition training to a multi engine rated pilot. Upon the preflight inspection I squawked the airplane to maintenance by personally talking to them when I discovered the low nose gear strut upon preflight. They towed it to the maintenance hangar and serviced the nose gear strut there. After that was complete maintenance returned the plane to service to myself and my student.

My student and I again preflighted the airplane. We had the plane towed to the fuel pump to top it off. Once fueled, we did our final walk around and boarded N5018Y. I tried a couple times to start the number one engine, but couldn't get it to run for more than a couple seconds. I then started the number two engine and it ran like usual. I was able to start the number one engine on the outboard fuel tank and the number one engine ran like usual on the outboard fuel tank. When

I switched to the left inboard fuel tank the engine would sputter and quit after a few seconds. The fuel selector seemed to not be fully seating in its detent position when selected to the left inboard position. The fuel quantity gauge would also show empty fuel level when selected to the inboard position, even though it was full of fuel. I then shut both engines down. Maintenance had walked over to the plane at this time and asked what the issue was. I explained to them that the left engine would not run on the left inboard fuel tank, and that the fuel selector did not seem to be seating in the detent for the left inboard fuel tank. I then showed maintenance what was happening by starting the left engine on the outboard tank, letting it run smoothly, then selecting the left inboard fuel tank and the engine sputtering and then quit running. I also pointed out to maintenance that the fuel quantity gauge was indicating zero fuel when selected to the left inboard tank. I told them that I would not be accepting N5018Y and turned it back over to them.

Squawks are usually written down on the dispatch sheet. However, maintenance told me they would take the airplane out of service and address the issue, that they didn't need me to write it up, since they were there and seeing what was happening with the fuel selector. That day was the last time I was at Highland Rim, so I'm not aware how they handle maintenance issues or squawks now.

From: [REDACTED]
To: [REDACTED]
Subject: N5018Y
Date: Monday, April 12, 2021 9:53:58 AM

Sir,

This email is in response to a recent phone conversation you and I had on the phone. 4/12/21.

As you are aware I flew N5018Y on April 1st with Noah Ketler. Conditions that day were gusty winds out of the north, clear skies and 10 miles visibility.

Purpose of the flight was for me to share techniques and ensure proficiency with Noah.

That morning Noah performed the preflight however I did inspect the fuel qty, oil qty and tires, all were safe and within standards. After a taxi to Rwy 4 we performed an engine run-up where Noah used the "read and do" method on the checklist provided. Then we departed VFR to the north of the M91 and performed a couple of VMC Demos and some emergency procedures prior to re entering the pattern for Rwy 4. After we were established in the pattern I failed the left engine using the throttle and Noah flew well and within Commercial ACS standards. We remained in the pattern for a couple more laps and then landed and taxied to the tie down where the aircraft normally remained.

After the flight Noah performed the post flight while I grabbed the tow bar.

Please feel free to reach out for anymore information or clarification.

Respectfully,
Charles Lilly
CRJ FO Skywest Airlines
CFI,CFII,MEI,Goldseal
ATP Multi, & Helicopter
[REDACTED]