

6/20/2024

FOR YOUR INFORMATION

2024-121/2-3

To: Textron Aviation (Pipistrel Aircraft), FAA (AFS-100)

2118129

Info: FAA (AVP-1, AVP-200, AFS-260, AFS-800, AFS-200, AIR-360, AIR-780, MKC-AEG, ANM-100), AMFA, AOPA, ASAP, ATSG, GAMA, IAM, IBT, ICASS, NBAA, NTSB, PAMA, TWU

From: Becky L. Hooey, Director
NASA Aviation Safety Reporting System

Re: Pipistrel Alpha Trainer Gascolator Valve Issue

We recently received ASRS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dr. Becky Hooey at (408) 541-2854 or email at becky.l.hooey@nasa.gov.



Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN 2118129

DATE / TIME

Date of Occurrence	202405
Local Time Of Day	0601 to 1200

PLACE

Locale	ZZZ.Airport
State	US
Altitude - MSL	2000

ENVIRONMENT

Flight Conditions	VMC
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AIRCRAFT / EQUIPMENT X

ATC / Advisory - UNICOM	ZZZ
Make Model Name	Light Sport Aircraft
Operating Under FAR Part	91

COMPONENT 1

Aircraft Component	Fuel System
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PERSON 1

Function - Flight Crew	Instructor
Function - Flight Crew	Pilot Not Flying
ASRS Report Number	2118129

PERSON 2

Function - Flight Crew	Pilot Flying
ASRS Report Number	2118132

EVENTS

Anomaly	Aircraft Equipment Problem - Critical
Anomaly	Inflight Event / Encounter - Fuel Issue
Detector - Person	Flight Crew
Result - Flight Crew	Diverted
Result - Flight Crew	Inflight Shutdown

NARRATIVE 1

Student preflighted plane and I met him on the ramp. We went over the plane and I did a once over myself of the plane before we started the engine. Engine oil and fuel was checked. We had 11 gallons of fuel when we took off and the plane takes 13 gallons. The plane gets a 3.2 hour/gallon fuel burn so I knew we had plenty of fuel for practice maneuvers about 10 miles from ZZZ1 Airport.

Student started the plane and taxied to run-up. We did the run-up and all instruments appeared to be in the green and at tolerances. I didn't notice any drops in temperature or fuel. We taxied to Runway XX and made callout and back-taxied. We did a normal takeoff and climbed out, proceeded crosswind to downwind staying at 850 ft. We stayed at 850 ft. and proceeded to climb to 1500 ft. and made our way to practice area at 1500 ft. Student was flying and I ran a cruise checklist and everything looked fine, all instruments in green. We proceeded past flying west and started a climb to 2500 ft. At 2000 ft. the engine sputtered and we lost fuel pressure and I noticed we had 4 gallons of fuel. I knew at this point we were losing fuel. It looked like propeller stopped so I checked fuel valve – it was open – and started engine, turned key, propeller was spinning and

engine was on. I turned toward airport ZZZ and pitched for best glide at 69 kt. I circled to lose altitude and kept throttle low since I knew I had low fuel pressure but, I still had engine. I was setting up for a landing and was about 400 ft. when propeller stopped again and plane started to sink quickly. I immediately turned into the runway to land and put flaps 1 since I did not want to overshoot runway. We landed hard but on both mains, side loaded on left main and was able to fully brake. We pulled onto taxiway and stopped the plane – nobody was in the pattern or at airport. We checked gascolator valve under bottom left of engine and it was dripping fuel and was partly open. I believe this was the problem why we lost fuel and is a design flaw of the Pipistrel Alpha Trainer. Everybody was fine and no emergency was declared.

I think the gascolator valve on the Pipistrel Alpha Trainer should be redesigned so it cannot open and close – it's also plastic. The gascolator valve should be a stainless-steel spring valve like in most planes that you press a sump can up into and drain gas instead of a plastic switch that can open and fuel flows freely out onto ground. The current design is dangerous.

NARRATIVE 2

Did normal preflight checklist. Take off as normal. Climb to 850 ft. and then to 1500 ft. towards practice area. Once at practice area climb to 2000 ft. and practice some turns. Engine sputters and turn to go back to the airport. Notice fuel pressure and quantity are low. Engine still running rough. Stop and restart engine. Instructor takes controls to land at ZZZ Airport. Approach to land but need to go around to try again. Climb to approximately 500 ft. Prop stops. Instructor lands plane from a less than optimal angle. Left wheel hits hard on runway and bounces. Move off runway and open doors to notice sump is leaking fuel. Push plane to tiedown points and wait for pickup.

SYNOPSIS

General aviation Flight Instructor and Student Pilot flying a Pipistrel Alpha Trainer reported a fuel leak led to an inflight engine failure.