

AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

				Reference:		CA18/2/3/10536	
Aircraft Registration	ZS-ISI	Date of Accident	11 December 2024		Time of Accident	1020Z	
Type of Aircraft	Piper PA-28-180			Type of Operation	Private (Part 91)		
Pilot-in-command Licence Type	Private Pilot Licence		Age	21	Licence Valid	Yes	
Pilot-in-command Flying Experience	Total Flying Hours			113.4	Hours on Type	84.3	
Last Point of Departure	Springs Aerodrome (FASI), Gauteng Province						
Next Point of Intended Landing	Springs Aerodrome (FASI), Gauteng Province						
Damage to Aircraft	Substantial						
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)							
On a field near Springs Aerodrome (FASI) at GPS co-ordinates: 26°14'34.0" South 028°23'50.8" East							
Meteorological Information	Surface wind: 300°/5 kt; visibility: 9999m; temperature: 31°C; CAVOK						
Number of People On-board	1 + 0	Number of People Injured	0	Number of People Killed	0	Other (On Ground)	0
Synopsis							
<p>On Wednesday afternoon, 11 December 2024 at approximately 1015Z, a pilot on-board a Piper PA-28-180 aircraft with registration ZS-ISI was engaged in an hour-building flight from Springs Aerodrome (FASI) in Gauteng province to Heidelberg Aerodrome (FAHG) in the same province with the intention to return to FASI. Visual meteorological conditions (VMC) by day prevailed at the time of the flight which was conducted under the provisions of Part 91 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>The pilot reported that he conducted a pre-flight inspection of the aircraft and found no anomalies. This was the aircraft's sixth flight of the day. The aircraft was taxied and lined up for take-off on Runway 03 (RWY 03). After take-off, the pilot climbed to 5 800 feet (ft) above mean sea level (AMSL) and, thereafter, turned left towards FAHG with the intention to climb to 6 300ft. During the turn, the engine lost power and stopped. The pilot had insufficient height above ground level to safely return to the runway; therefore, he surveyed the area and identified a field on which to execute a forced landing. The aircraft landed on an uneven terrain, and it bounced; the nose landing gear bent backward and scrapped the ground before the aircraft stopped.</p> <p>A post-accident engine test found no anomalies. During climb out, the pilot completed a non-standard action by switching fuel tanks.</p>							
Probable Cause/s and/or Contributory Factors							
Unsuccessful forced landing following an in-flight engine stoppage. The cause of the engine stoppage could not be determined with certainty.							
SRP Date	10 June 2025			Publication Date	13 June 2025		

Occurrence Details

Reference Number	: CA18/2/3/10536
Occurrence Category	: Accident (Category 2)
Type of Operation	: Private (Part 91)
Name of Operator	: Mach 1 Aviation Academy (PTY) LTD
Aircraft Registration	: ZS-ISI
Aircraft Make and Model	: Piper Aircraft Corporation, PA-28-180
Nationality	: South African
Place	: On a field near Springs Aerodrome (FASI)
Date and Time	: 11 December 2024 at 1020Z
Injuries	: None
Damage	: Substantial

Purpose of the Investigation

In terms of Regulation 12.03.1 of the Civil Aviation Regulations (CAR) 2011, this report was compiled in the interest of the promotion of aviation safety and the reduction of the risk of aviation accidents or incidents and not to apportion blame or liability.

All times given in this report are Co-ordinated Universal Time (UTC) and will be denoted by (Z). South African Standard Time is UTC plus 2 hours.

Investigation Process

The Accident and Incident Investigations Division (AIID) of the South African Civil Aviation Authority (SACAA) was notified of an accident on 11 December 2024 at 1100Z. The occurrence was classified as an accident according to the CAR 2011 Part 12 and ICAO STD Annex 13 definitions. Notifications were sent to the State of Registry, Operator, Design and Manufacturer in accordance with the CAR 2011 Part 12 and the International Civil Aviation Organisation (ICAO) Annex 13 Chapter 4. The State did not appoint an accredited representative and advisor. An investigator was dispatched to the accident site.

Notes:

- Whenever the following words are mentioned in this report, they shall mean the following:*
 - Accident — this investigated accident*
 - Aircraft — the Piper PA-28-180 involved in this accident*
 - Investigation — the investigation into the circumstances of this accident*
 - Pilot — the pilot involved in this accident*
 - Report — this accident report*
- Photos and figures used in this report were taken from different sources and may have been adjusted from the original for the sole purpose of improving the clarity of the report. Modifications to images used in this report were limited to cropping, magnification, file compression, or enhancement of colour, brightness, contrast, or addition of text boxes, arrows, or lines.*

Disclaimer

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Abbreviation	Description
°	Degrees
°C	Degrees Celsius
AIID	Accident and Incident Investigations Division
AGL	Above Ground Level
AMSL	Above Mean Sea Level
ASI	Airspeed Indicator (Static Air Temperature)
ATO	Approved Training Organisation
CAR	Civil Aviation Authority
C of A	Certificate of Airworthiness
C of R	Certificate of Registration
CRS	Certificate of Release to Service
CVR	Cockpit Voice Recorder
DA	Density Altitude
FAHG	Heidelberg Aerodrome
FASI	Springs Aerodrome
FDR	Flight Data Recorder
ft	feet
GPS	Global Positioning System
HP	Horsepower
hPa	hectopascal
kt	knots
m	metres
METAR	Meteorological Aerodrome Report
OAT	Outside Air Temperature
PA	Pressure Altitude
PIC	Pilot-in-Command
PPL	Private Pilot Licence
QNH	Query Nautical Height (Barometric pressure at a specific location)
RPM	Revolutions per Minute
SACAA	South African Civil Aviation Authority
SAWS	South African Weather Service
SOP	Standard Operating Procedure
VMC	Visual Meteorological Conditions
Z	Zulu (Term for Universal Co-ordinated Time - Zero Hours Greenwich)

1. FACTUAL INFORMATION

1.1. History of Flight

1.1.1. On Wednesday afternoon, 11 December 2024 at approximately 1015Z, a pilot on-board a Piper PA-28-180 aircraft with registration ZS-ISI took off on an hour-building flight from Springs Aerodrome (FASI) with the intention to fly to Heidelberg (FAHG) before returning to FASI. Both aerodromes are in Gauteng province. Visual meteorological conditions (VMC) by day prevailed at the time of the flight which was conducted under the provisions of Part 91 of the Civil Aviation Regulations (CAR) 2011 as amended.

1.1.2. The pilot reported that he conducted the pre-flight inspection of the aircraft and found no anomalies. This was the sixth flight of aircraft on the day. The aircraft was taxied and lined up for take-off on Runway 03 (RWY 03) with the right fuel tank selected. After take-off, the pilot conducted his after-take-off checklist and switched the fuel selector valve from the right fuel tank to the left fuel tank whilst climbing through 5 800 feet (ft) above mean sea level (AMSL). He then turned left towards FAHG with the intention to climb to 6 300ft. During the turn, the engine lost power and stopped. At this point, the aircraft's height above ground level was insufficient to safely return to the runway. Therefore, the pilot surveyed the area without attempting an engine restart and identified a field on which to conduct a forced landing. The aircraft touched down on an uneven terrain and bounced; subsequently, the nose landing gear bent backward and scrapped the ground before the aircraft stopped.

1.1.3. The aircraft remained mostly intact with substantial damage to the nose landing gear, the engine mountings and the nose section. The pilot was not injured during the accident.

1.1.4. The accident occurred during daylight near FASI at Global Positioning System co-ordinates determined to be 26°14'34.0" South 028°23'50.8" East, at an elevation of 5 356ft.

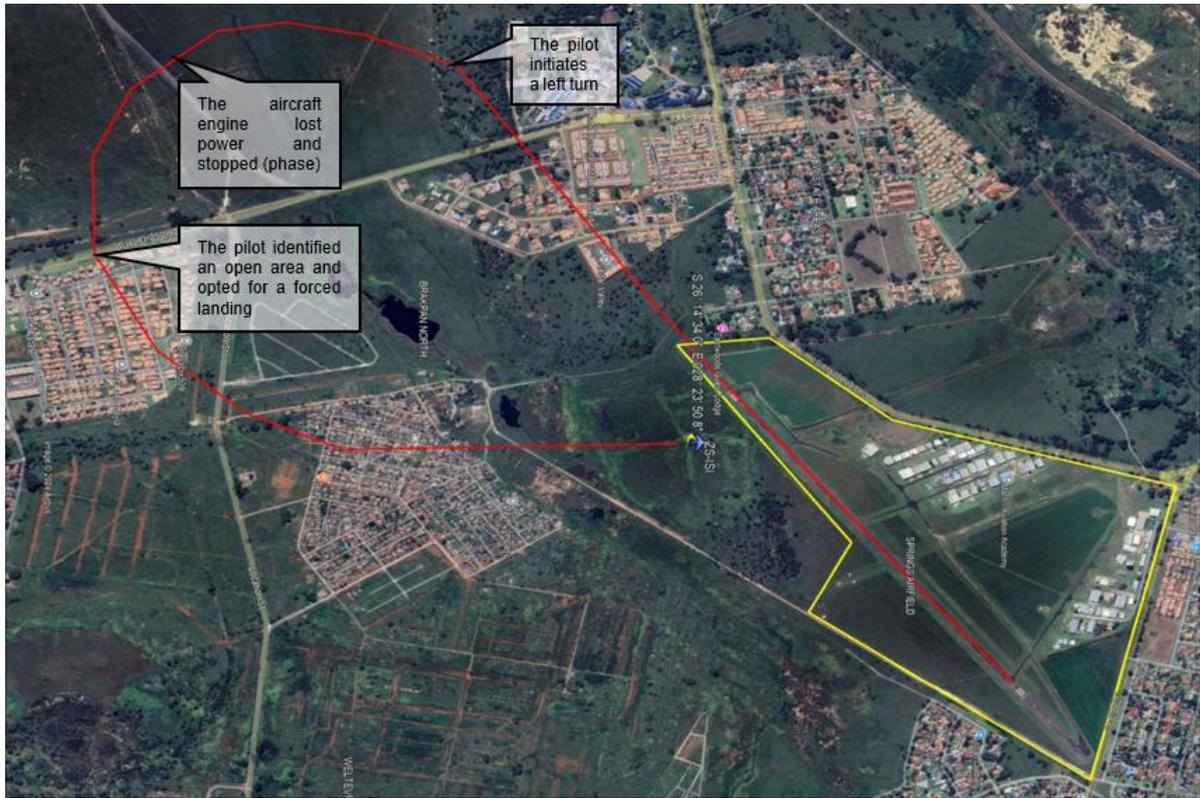


Figure 1: The red line indicates the flight path of the aircraft. (Source: Google Earth)

1.2. Injuries to Persons

Injuries	Pilot	Crew	Pass.	Total On-board	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	-	-	-	-
None	1	-	-	-	-
Total	1	-	-	-	-

Note: Other means people on the ground.

1.3. Damage to Aircraft

1.3.1. The aircraft sustained damage to the nose landing gear and nose section.



Figure 2: The aircraft as it came to a full stop with the damaged nose landing gear.

1.4. Other Damage

1.4.1. None.

1.5. Personnel Information

Pilot-in-Command (PIC)

Nationality	Indian	Gender	Male	Age	21
Licence Type	Private Pilot Licence (PPL)				
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	None				
Medical Expiry Date	31 August 2028				
Restrictions	None				
Previous Accidents	None				

Note: Previous accidents refer to past accidents the pilot was involved in, when relevant to this accident.

Flying Experience:

Total Hours	113.4
Total Past 24 Hours	2.1
Total Past 7 Days	4.3
Total Past 90 Days	32.9
Total on Type Past 90 Days	4.3
Total on Type	84.3

1.5.1. The pilot had a Private Pilot Licence (PPL) that was initially issued by the Regulator on 26 June 2024 with an expiry date of 30 June 2025. The pilot’s Class 2 medical certificate was issued on 3 August 2023 with an expiry date of 31 August 2028. The aircraft type was endorsed on the pilot’s licence. The pilot had a total of approximately 113.4 hours of which 84.3 hours were on the aircraft type.

1.6. Aircraft Information

Aircraft Description (Source: Aircraft Pilot’s Operating handbook [POH])

1.6.1. *The aircraft is a four-seater; all structures are of aluminium alloy construction and are designed to ultimate load factors. The aircraft is powered by a Lycoming O-360-A3A four-cylinder, direct drive, horizontally opposed engine rated at 180 horsepower (HP) at 2700 revolutions per minute (RPM). The engine drives a Sensenich model 76EM8S5-0-60 fixed-pitch propeller made from a one-piece alloy forging. The landing gear type is a tricycle fixed landing gear with a nose gear steering mechanism incorporated with a shimmy dampener. The aircraft is designed with two wings fuel tank with a total capacity of 25 gallons with 24 gallons of usable fuel carried.*

Airframe:

Manufacturer/Model	Piper Aircraft Company/ PA-28-180	
Serial Number	28-474	
Year of Manufacture	1962	
Total Airframe Hours (At Time of Accident)	7 840.1	
Last Inspection (Date & Hours)	2 December 2024	7 801.1
Hours Since Last Inspection	39.0	
CRS Issue Date	3 December 2024	
C of A (Issue Date & Expiry Date)	3 October 2024	31 October 2025
C of R (Issue Date) (Present Owner)	9 October 2019	
Type of Fuel Used	AVGAS 100LL	

Operating Category	Part 91
Previous Accidents	None

Note: Previous accidents refer to past accidents the aircraft was involved in, when relevant to this accident.

Engine:

Manufacturer/Model	Lycoming O-360-A3A
Serial Number	L 7259-36A
Part Number	O-360-A3A
Hours Since New	7 840.1
Hours Since Overhaul	137.0

Propeller:

Manufacturer/Model	Sensenich 76EM8S50-0-62
Serial Number	33303K
Part Number	76EM8S50-0-62
Hours Since New	7 840.1
Hours Since Overhaul	334.0

- 1.6.2. The aircraft maintenance documents such as maintenance logbooks (airframe, engine and propeller), flight folio and mandatory periodic inspection (MPI) records were reviewed. No anomalies were noted on any of the documents. The last maintenance inspection of the aircraft was conducted and certified on 3 December 2024 at 7 801.1 airframe hours with an expiry date of 2 December 2025 or at 7 901.1 airframe hours, whichever occurs first.
- 1.6.3. The engine was overhauled by a Regulator-approved aircraft maintenance organisation (AMO) in accordance with the manufacturer's recommended procedures on 14 November 2024 at 7 702.8 hours. The engine accumulated 137.0 hours following the overhaul. There were no prevailing defects found that could have been associated with the sudden engine stoppage during the post-accident inspection and tests.
- 1.6.4. The aircraft was issued a Certificate of Airworthiness (C of A) on 3 October 2024 with an expiry date of 31 October 2025. There were no defects noted on any of the aircraft documents. The aircraft had a total of 7 840.1 airframe hours at the time of the accident; it had accumulated a total of 39.0 hours following the latest mandatory periodic inspection (MPI).

1.6.5. Fuel System (Source: Aircraft POH)

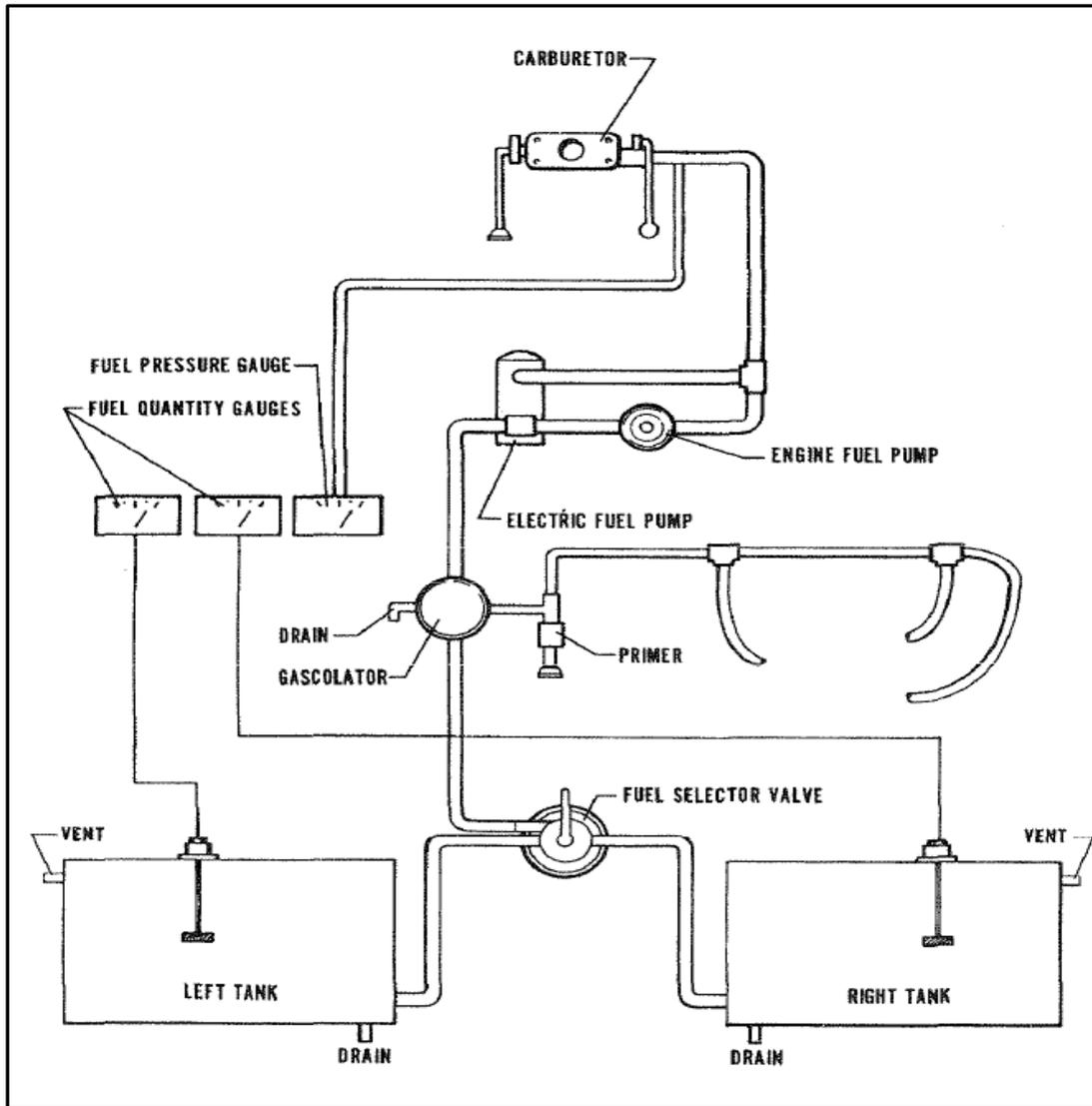


Diagram 1: Schematic of the fuel system.

The fuel is stored in two twenty-five gallon that allows (24. Gal usable) tanks which are secured to the leading-edge structure of each wing by screws and nut plates. This allows easy removal for service or inspection. The fuel selector control is located on the left side panel, forward of the pilot's seat. The button on the selector must be depressed and held while the handle is moved to the OFF position. The button releases automatically when the handle is moved back into the ON position. An auxiliary electric fuel pump is provided in case of failure of the engine-driven pump. The electric pump should be on for all take-offs and landings, and when switching tanks. The pump switch is located in the switch panel above the throttle quadrant. Each tank has an individual quick drain located at the bottom, inboard rear corner, and should be drained to check for water before each flight. The fuel strainer, which is also equipped with a quick drain, is located on the front lower left corner of the firewall. This strainer should be drained regularly to check for water or sediment accumulation. To drain the lines from the tank selector valve must be switched to each tank in turn, with the electric pump on, and the gascolator drain

valve opened. Fuel quantity and pressure are indicated on the gauges located in a cluster on the left side of the instrument panel.

1.7. Meteorological Information

1.7.1. The weather information in the table below was obtained from the pilot through the pilot questionnaire.

Wind Direction	020°	Wind Speed	5 kt	Visibility	9999m
Temperature	31°C	Cloud Cover	Clear	Cloud Base	None
Dew Point	12°C	QNH	1023 hPa		

1.7.2 Fuel Type and Volatility

- Fuel with higher volatility such as Motor Gasoline (Mogas) and Aviation Gasoline (AVGAS) 100 low lead (LL) evaporate easily in hot weather conditions, thus, increasing the risk of vapour lock. It is, however, recommended that an AVGAS 100LL fuel type be used to reduce the chances of fuel vapour; the aircraft was using the required fuel type.

1.8. Aids to Navigation

1.8.1. The aircraft was equipped with standard navigational equipment as approved by the Regulator. There were no records indicating that the navigational equipment was unserviceable before the flight.

1.9. Communication

1.9.1. The aircraft was equipped with a standard communication system as approved by the Regulator. There were no recorded defects with the communication system before the flight.

1.10. Aerodrome Information

1.10.1. The accident occurred near FASI.

Aerodrome Name	Springs Aerodrome (FASI)	
Aerodrome Location	Springs, Gauteng Province	
Aerodrome Status	Licensed	
Aerodrome GPS coordinates	26°14'55.90" South, 028°23'50.90" East	
Aerodrome Elevation	5 340 ft	
Runway Headings	03/21	14/32
Dimensions of Runway Used	1600m x 18m	554m x 21m
Heading of Runway Used	03	
Surface of Runway Used	Asphalt	
Approach Facilities	None	
Radio Frequency	115.20 MHz	

1.11. Flight Recorders

1.11.1. The aircraft was neither equipped with a flight data recorder (FDR) or a cockpit voice recorder (CVR), nor was it required by regulation to be fitted to the aircraft type.

1.12. Wreckage and Impact Information

1.12.1. The accident occurred after take-off. The pilot opted to land the aircraft on a field near FASI. However, the terrain was uneven which caused the aircraft to bounce; as a result, the nose landing gear collapsed. The aircraft came to rest in a nose-down attitude approximately 15m after touchdown.



Figure 3: The aircraft at the accident site.

1.12.2. The aircraft's initial touchdown was approximately 12 metres from the bottom of an embankment at the field. There were marks on the ground associated with a hard impact with the main landing gear, which then a bounced onto the embankment (see Figure 4).



Figure 4: The initial impact marks of the left- and right-side of the main landing gears.



Figure 5: The landing gear scrape marks.

1.12.3. The aircraft sustained damage to the nose landing gear, engine mountings and the firewall.



Figure 6: The aircraft's nose section after the accident. There was no damage to the propeller.

1.12.4. There was no sign of damage (or contact with the ground) on the propeller blades. According to the observations, the propeller had stopped rotating and remained in a level position before the forced landing (see Figure 6).

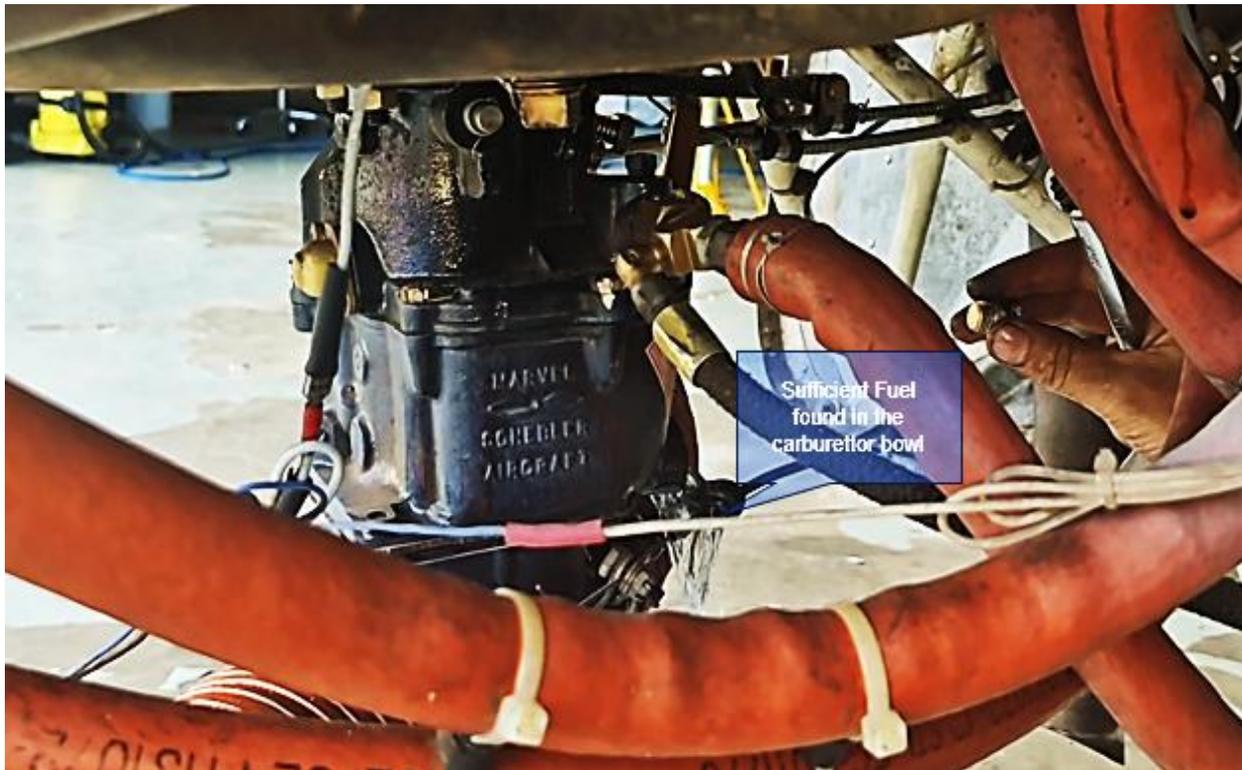


Figure 7: The carburetor bowl had sufficient fuel in it.

1.12.5. There was sufficient fuel in both tanks and the fuel system, including the fuel filter and carburetor bowl (see Figures 7 and 8).

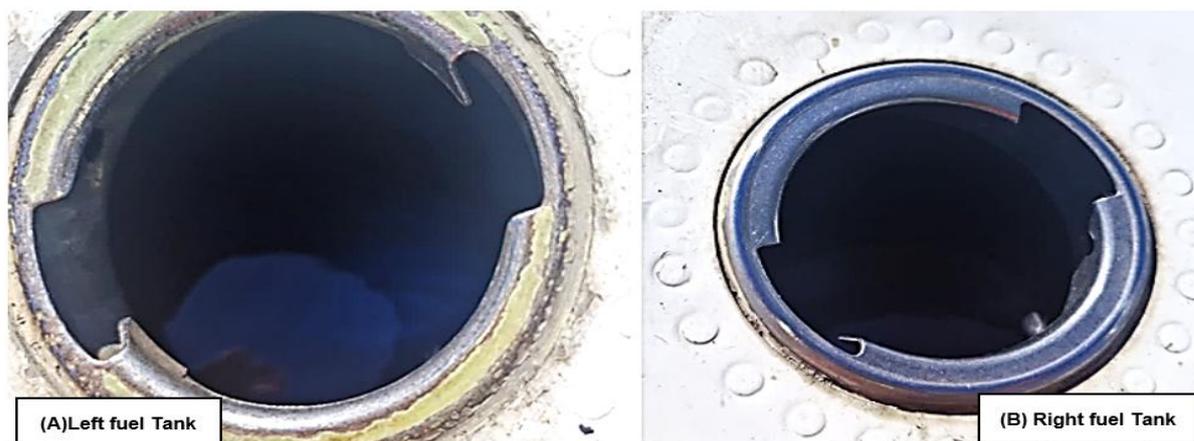


Figure 8: The filler caps of the left fuel tank (A) and right fuel tank (B).

1.12.6. All flight controls and engine controls were accounted for; no restriction was observed that could have contributed to engine stoppage or impaired flight.

1.13. Medical and Pathological Information

1.13.1. None.

1.14. Fire

1.14.1. There was no pre- or post-impact fire.

1.15. Survival Aspects

1.15.1. The accident was considered survivable. The attitude at which the aircraft was forced-landed did not subject the aircraft to severe impact forces that could have caused damage to the cockpit area and, thus, injuring the pilot.

1.16. Tests and Research

1.16.1. A thorough post-accident inspection of the aircraft's fuel system revealed no anomalies. Fuel was present in all drain ports associated with the fuel system and there were no traces of water or sediment detected. Engine-run tests confirmed unrestricted fuel flow, and all system pressures including fuel flow and engine manifold pressure remained within normal operating parameters. A post-accident recovery engine-run test was conducted whilst the engine was still attached to the airframe; no functional defects were identified.

1.17. Organisational and Management Information

1.17.1. The aircraft was flown privately as a hire-and-fly by a PPL holder pilot to build hours towards his Commercial Pilot Licence (CPL).

1.17.2. The aircraft was registered under an approved training organisation (ATO). The ATO had an ATO Certificate that was issued by the Regulator on 17 June 2020 with an expiry date of 30 June 2025.

1.17.3. The aircraft maintenance was conducted and certified by an AMO with an AMO Certificate that was issued by the Regulator on 12 February 2024 with an expiry date of 28 February 2025.

1.18. Additional Information

1.18.1. Aircraft Performance (Source: POH)

Take-off Procedure

Just before take-off, the following items should be checked:

1. Fuel in the proper tank
2. Electrical fuel pump- ON
3. Engine gauges checked
4. Flaps set
5. Carburettor heater OFF
6. Fuel mixture set
7. Seatbacks upright.
8. Belts/ harness fastened.
9. Trim tab set.
10. Controls free.
11. Doors latched.
12. Air conditioner OFF.

The take-off technique is standard for the Cherokee. The trim tab should be set slightly behind neutral, with the exact position determined by the aircraft's loading. Allow the airplane to accelerate to between 50 and 60 miles per hour (MPH), then gently pull back on the yoke enough to let the airplane lift off the ground on its own. Prematurely raising the nose or lifting it to an excessive angle of attack will delay take-off. After take-off, let the aircraft accelerate to the desired climb speed by slightly lowering the nose. Take-offs are usually performed with flaps up. However, for short-field take-offs and those under challenging conditions such as deep grass or soft surfaces, distances can be significantly reduced by lowering the flaps to 25°.

1.18.2. Engine Power Loss (Source: POH)

The most common cause of engine power loss is mismanagement of the fuel. Therefore, the first step to take after an engine power loss is to move the fuel selector valve to the tank not being used. This will often keep the engine running even if there is no apparent reason for the engine to stop on the tank being used.

If changing to another tank does not restore the engine:

1. Check fuel pressure and turn on the electrical pump if it is OFF.
2. Push the mixture control to full "RICH".
3. Check ignition switch. Turn to the best operating magnetos left, right, or both.

Engine Power Loss During Take-off (Source: Aircraft POH)

The proper action to be taken if loss of power occurs during take-off will depend on circumstances.

- *If sufficient runway remains for a normal landing, land straight ahead.*

- *If insufficient runway remains, maintain a safe airspeed and make only a shallow turn if necessary to avoid obstructions. The use of flaps depends on the circumstances. Normally flaps should be fully extended for a touchdown.*

Note: If the engine was caused by fuel exhaustion, power will not be regained after the tank is switched until empty fuel lines are filled, which may require up to ten seconds. If power is not regained, proceed with the POWER OFF landing procedure.

1.19. Useful or Effective Investigation Techniques

1.19.1. None.

2. ANALYSIS

2.1. General

From the available evidence, the following analysis was made with respect to this accident. This shall not be read as apportioning blame or liability to any organisation or individual.

2.2. Analysis

Man

2.2.1. The pilot had a Private Pilot Licence (PPL) that was initially issued by the Regulator on 26 June 2024 with an expiry date of 30 June 2025.

2.2.2. The pilot's aviation medical certificate was issued on 3 August 2023 with an expiry date of 31 August 2028.

2.2.3. The aircraft was endorsed on the pilot's licence. He had a total of approximately 113.4 hours of which 84.3 hours were acquired on the aircraft type.

Machine

2.2.4. The aircraft was issued a Certificate of Airworthiness (C of A) on 3 October 2024 with an expiry date of 31 October 2025. There were no defects noted on any of the aircraft documents. The

aircraft had a total of 7 840.1 airframe hours at the time of the accident; the aircraft accumulated a total of 39 hours since the last MPI.

- 2.2.5. The aircraft's latest maintenance was conducted and certified on 3 December 2024 at 7 801.1 airframe hours after which a Certificate of Release to Service (CRS) was issued with an expiry date of 2 December 2025 or at 7901.1 airframe hours, whichever occurs first.
- 2.2.6. The aircraft's engine had a total of 7 840.1 airframe hours; it had accumulated a total of 137 hours following the last overhaul.
- 2.2.7. The aircraft maintenance was conducted and certified by an aircraft maintenance organisation (AMO) with an AMO Certificate that was issued by the Regulator on 12 February 2024 with an expiry date of 28 February 2025. The aircraft was endorsed on the AMO's Operational Specifications certificate.
- 2.2.8. The aircraft was operated privately by a PPL holder pilot to build hours towards his Commercial Pilot Licence (CPL).
- 2.2.9. The aircraft was operated by the ATO which had an ATO Certificate that was issued by the Regulator on 17 June 2020 with an expiry date of 30 June 2025.
- 2.2.10. A post-accident engine ground-run test revealed no anomalies. During the climb-out, the pilot switched the fuel selector from the right- to the left-side tank, a non-standard action during this critical phase of flight. Post-accident inspection indicated sufficient fuel was found in the carburettor bowl, and the engine started without difficulty.
- 2.2.11. The pilot confirmed switching the fuel selector during the after-take-off checks, a non-standard procedure during climb when the aircraft configuration should have already been verified. Following the engine failure, the pilot did not attempt a restart but opted to execute a forced landing, prioritising safety.

3. CONCLUSION

3.1. General

From the available evidence, the following findings, causes, and contributing factors were made with respect to this accident. These shall not be read as apportioning blame or liability to any organisation or individual.

To serve the objective of this investigation, the following sections are included in the conclusion heading:

- **Findings** — are statements of all significant conditions, events, or circumstances in this accident. The findings are significant steps in this accident sequence, but they are not always causal or indicate deficiencies.
- **Causes** — are actions, omissions, events, conditions, or a combination thereof, which led to this accident.
- **Contributing factors** — are actions, omissions, events, conditions or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the accident occurring, or would have mitigated the severity of the consequences of the accident. The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil, or criminal liability.

3.2. Findings

Pilot

- 3.2.1. The pilot had a Private Pilot Licence (PPL) that was initially issued by the Regulator on 26 June 2024 with an expiry date of 30 June 2025.
- 3.2.2. The pilot had a Class 2 aviation medical certificate that was issued on 3 August 2023 with an expiry date of 31 August 2028 with no restrictions.
- 3.2.3. The aircraft was endorsed on the pilot's licence. The pilot had a total of approximately 113.4 hours of which 84.3 hours were acquired on the aircraft type.

Aircraft

- 3.2.4. The aircraft was issued a Certificate of Airworthiness (C of A) on 3 October 2024 with an expiry date of 31 October 2025. There were no defects noted on any of the aircraft documents. The aircraft had a total of 7 840.1 airframe hours at the time of the accident; and the aircraft accumulated a total of 39 hours since the last MPI.
- 3.2.5. The last maintenance inspection of the aircraft was conducted and certified on 3 December 2024 at 7 801.1 airframe hours after which a Certificate of Release to Service was issued with and expiry date of 2 December 2025 or at 7 901.1 airframe hours, whichever occurs first.

- 3.2.6. The aircraft's engine had a total of 7 840.1 hours; it accumulated a total of 137.0 hours following the last overhaul.
- 3.2.7. The aircraft maintenance was conducted and certified by an aircraft maintenance organisation (AMO) with an AMO Certificate that was issued by the Regulator on 12 February 2024 with an expiry date of 28 February 2025. The aircraft was endorsed on the AMO's Operational Specification Certificate.
- 3.2.8. The aircraft was flown by a pilot with a PPL for hour-building towards his Commercial Pilot Licence (CPL).
- 3.2.9. The post-accident engine-run test revealed no anomalies.

3.3. Probable Cause

- 3.3.1. Unsuccessful forced landing following an in-flight engine stoppage. The cause of the engine stoppage could not be determined with certainty.

3.4. Contributory Factor

- 3.4.1. None.

4. SAFETY RECOMMENDATIONS

4.1. General

The safety recommendations listed in this report are proposed according to paragraph 6.8 of Annex 13 to the Convention on International Civil Aviation and are based on the conclusions listed in heading 3 of this report. The AIID expects that all safety issues identified by the investigation are addressed by the receiving States and organisations.

4.2. Safety Recommendation

- 4.2.1. None.

5. APPENDICES

- 5.1. None.

This report is issued by:

**Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa**