AIRCRAFT SERIOUS INCIDENT REPORT AND EXECUTIVE SUMMARY

			Reference:	CA18/3/2/1539	
Aircraft Registration	ZU-IXR	**Date of Incident**	28 February 2026	**Time of Incident**	1130Z
Type of Aircraft	Jabiru J430		**Type of Operation**	Private (Part 94)	
Pilot-in-command Licence Type	Private Pilot Licence (PPL)		**Age**	64	**Licence Valid**	No
Pilot-in-command Flying Experience	**Total Flying Hours**		389.9	**Hours on Type**	10.7
Last Point of Departure	Mossel Bay Aerodrome (FAMO), Western Cape Province				
Next Point of Intended Landing	Plettenberg Bay Aerodrome (FAPG), Western Cape Province				
Damage to Aircraft	Minor				

Location of the incident site with reference to easily defined geographical points (GPS readings if possible)

On a field south-east of Thembalethu in George at GPS co-ordinates 34°01'41.15" South 22°30'17.35" East, and at a field elevation of 521 feet (ft)

Meteorological Information	Wind direction: 200° at 13 kts; visibility: unknown; temperature: 21°C; dew point: 13°C; QNH: 1008 hPa						
Number of People On-board	1 + 2	**Number of People Injured**	0	**Number of People Killed**	0	**Other (On Ground)**	0

Synopsis

On Saturday, 28 February 2026, a pilot and two passengers on-board a Jabiru J430 aircraft registered ZU-IXR took off on a private flight from Mossel Bay Aerodrome (FAMO) to Plettenberg Bay Aerodrome (FAPG), both situated in Western Cape province. The flight was conducted under visual meteorological conditions (VMC) by day and under the provisions of Part 94 of the Civil Aviation Regulations (CAR) 2011, as amended.

Earlier that morning at 0817Z, the aircraft departed from FAPG to FAMO with 59.3 litres (L) of fuel in the tanks. The flight was uneventful, and the aircraft landed at approximately 0917Z. After the aircraft was parked in the apron, all occupants disembarked and went to the cafeteria at the aerodrome. Approximately 1 hour 40 minutes later at 1057Z, they returned to the aircraft. The pilot conducted a pre-flight inspection in preparation for the flight to FAPG; no anomalies were identified. The engine was started and all parameters were within the acceptable limits; the aircraft was then taxied to the runway threshold. After broadcasting his intentions on the aerodrome's frequency 124.2-Megahertz (MHz), the pilot commenced with the take-off roll from Runway 04 at approximately 1059Z. The aircraft became airborne and climbed to 1 500 feet (ft). At 1124Z, approximately 25 minutes into the flight and whilst flying along the coastline, the pilot contacted George Aerodrome (FAGG) tower on frequency 118.90-MHz and reported loss of engine power. He also noticed that the low fuel warning light had illuminated. The pilot troubleshot the anomaly to restore engine power but was unsuccessful. He identified a field ahead of the flight path and advised FAGG tower of his intention to conduct a forced landing south-east of FAPG. Thereafter, he configured the aircraft with full flaps for the forced landing.

The aircraft landed hard on the field; the pilot and the passengers were uninjured. The spring-loaded main landing gear and the three-wheel spats were damaged. A post-flight inspection determined that the engine power loss was due to fuel starvation.

Probable Cause
Unsuccessful forced landing following an in-flight engine stoppage due to fuel exhaustion. **Contributory Factors** • Improper pre-flight inspection which led to fuel mismanagement. • Improper fuel recordings in the flight folio to manage fuel. • Operating an aircraft without a valid licence.

SRP date	11 August 2026	Publication date	12 August 2026

Occurrence Details

Reference Number	**:** CA18/3/2/1539
Occurrence Category	**:** Serious Incident
Type of Operation	**:** Private (Part 94)
Name of Operator	**:** Willie Ludwig
Aircraft Registration	**:** ZU-IXR
Aircraft Make and Model	**:** Jabiru J430
Nationality	**:** Australian
Place	**:** On a field, south-east of Thembalethu in George, Western Cape province
Date and Time	**:** 28 February 2026 at 1130Z
Injuries	**:** None
Damage	**:** Minor

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 serious incidents 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) was notified of the occurrence on 28 February 2026 at 1130Z. The occurrence was categorised as a serious incident according to the CAR 2011 Part 12 and the International Civil Aviation Organisation (ICAO) standard Annex 13 definitions. The notifications were not sent to the State of Registry, Operator, and Design and Manufacturer in accordance with the CAR 2011 Part 12 and the ICAO Annex 13 Chapter 4. The states did not appoint an accredited representative and/or advisor. The investigators did not dispatch to the serious incident site.

Notes:

1. *Whenever the following words are mentioned in this report, they shall mean the following:*
   Serious Incident — this investigated serious incident
   Aircraft — the Jabiru J430 involved in this serious incident
   Investigation — the investigation into the circumstances of this serious incident
   Pilot — the pilot involved in this serious incident
   Report — this serious incident report

2. *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 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	Serious incident and Incident Investigations Division
ATF	Authority-to-Fly
AMO	Aircraft Maintenance Organisation
CAR	Civil Aviation Regulations
C of R	Certificate of Registration
CRS	Certificate of Release to Service
CVR	Cockpit Voice Recorder
EFIS	Electronic Flight Instrument System
EMS	Engine Monitoring System
FAGG	George Aerodrome
FAGP	Plettenberg Bay Aerodrome
FAMO	Mossel Bay Aerodrome
FDR	Flight Data Recorder
ft	Feet
FRP	Fibre Reinforced Plastic
GAL	Gallons
HDX	High-Definition Experience
hPa	Hectopascal
kt	Knots
LSA	Light Sport Aircraft
LTR	Litre
m	Metres
METAR	Meteorological Aerodrome Report
nm	Nautical Miles
PIC	Pilot-in-Command
PFD	Primary Flight Display
PPL	Private Pilot Licence
SACAA	South African Civil Aviation Authority
SAWS	South African Weather Service
TIME REM	Time Remaining
QNH	Altitude Above Mean Sea Level
VMC	Visual Meteorological Conditions
WPT	Waypoint
Z	Zulu (Term for Universal Co-ordinated Time - Zero Hours Greenwich)

1. FACTUAL INFORMATION

1.1. History of Flight

1.1.1. On Saturday, 28 February 2026, a pilot and two passengers on-board a Jabiru J430 aircraft registered ZU-IXR took off on a private flight from Mossel Bay Aerodrome (FAMO) to Plettenberg Bay Aerodrome (FAPG), both located in Western Cape province. The flight was conducted under visual meteorological conditions (VMC) by day and under the provisions of Part 94 of the Civil Aviation Regulations (CAR) 2011, as amended.

1.1.2. The pilot reported that earlier that morning, he conducted a pre-flight inspection of the aircraft and did not find anomalies. He then checked the fuel quantity on the Electronic Flight Instrument System (EFIS) and took a photograph of the displayed reading. He did not physically check the fuel tanks as recommended in the aircraft Pilot's Operating Handbook (POH). The EFIS showed 59.3 litres of Motor gasoline (Mogas) in the tanks which indicated an endurance of about 3 hours. The pilot and the two passengers then departed from FAPG to FAMO at 0817Z; the flight was uneventful. The aircraft landed at FAMO at approximately 0917Z. After parking the aircraft in the apron, all occupants disembarked and walked to the aerodrome cafeteria, where they had a coffee.

1.1.3. At about 1057Z, approximately 1 hour and 40 minutes later, the occupants returned to the aircraft for the flight back to FAPG. The pilot completed a pre-flight inspection and noted nothing of concern. He then started the engine, confirmed that all parameters were satisfactory, and taxied to the threshold of Runway 04. After broadcasting his intentions on FAMO's frequency 124.2-Megahertz (MHz), he commenced with the take-off run at about 1059Z. The aircraft rotated and climbed to 1 500 feet (ft).

1.1.4. At about 1124Z, about 25 minutes after take-off and whilst flying along the coastline near Thembalethu in George, the pilot contacted George Aerodrome (FAGG) tower on frequency 118.90-MHz to report loss of engine power. He then noticed that the low fuel warning light had illuminated. After unsuccessful attempts to restore power, he selected a field ahead of the flight path, applied full flaps and advised FAGG tower that he would be conducting a forced landing. Later, the pilot reported that the aircraft had landed on the field.

1.1.5. All occupants were not injured. The aircraft sustained minor damage to the spring-loaded main landing gear and three-wheel spats. No third-party damage was reported during the serious incident.

1.1.6. The serious incident occurred during the day, approximately 0.74 nautical miles (nm) south-east of Thembalethu in George, Western Cape province, at Global Positioning System (GPS) co-ordinates determined to be 34°01'41.15" South 22°30'17.35" East, at a field elevation of 521 feet (ft).

1.2. Injuries to Persons

Injuries	Pilot	Crew	Pass.	Total On-board	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	-	-	-	-
None	1	-	2	3	-
Total	**1**	**-**	**2**	**3**	**-**

Note: Other means people on the ground.

1.2.1. No person was injured during the serious incident.

1.3. Damage to Aircraft

1.3.1. The aircraft was forced-landed on a field. It sustained damage to the spring-loaded main landing gear and three-wheel spats.

Figure 1: The damaged landing gear (red arrows). (Source: Pilot)

1.4. Other Damage

1.4.1. None.

1.5. Personnel Information

Nationality	South African	Gender	Male	Age	64
Licence Type	Private Pilot Licence (PPL)				
Licence Valid	No	Type Endorsed	None		
Ratings	None				
Medical Expiry Date	30 July 2026				
Restrictions	Correction for Defective near vision				
Previous Incidents	None				

Note: Previous incidents refer to past serious incidents the pilot was involved in, when relevant to this serious incident.

Flying Experience:

Total Hours	389.9
Total Past 24 Hours	1.5
Total Past 7 Days	1.5
Total Past 90 Days	36.1

Total on Type Past 90 Days	10.7
Total on Type	10.7

1.5.1. The pilot had a Private Pilot Licence (PPL) that was initially issued by the Regulator on 19 April 2022 with an expiry date of 31 October 2024.

1.5.2. The pilot's licence was not valid at the time of the flight. The pilot submitted his renewal application form to the Regulator without a medical certificate; he submitted a valid medical certificate a month later. The pilot did not send the copy of the medical certificate to the officer in charge of his application; thus, the renewal application was not processed.

Extract from the Civil Aviation Regulations Part 61.01.2

Part 61.01.2 states: (1*) No person may act as a pilot of a South African registered aircraft, except in the case of dual instruction with an appropriately rated flight instructor, unless such person holds a valid pilot licence with applicable ratings issued, reissued, validated or revalidated by the Director or by an appropriate authority in terms of this Part or Part 62: Provided that a SPL may have been issued without a class rating or type rating.*

1.5.3. The pilot had a Class 2 medical certificate that was issued on 30 July 2025 with an expiry date of 30 July 2026 with a restriction to wear corrective lenses.

1.5.4. The pilot had a total of 389.9 hours and 10.7 hours on type.

1.6. Aircraft Information

1.6.1. Jabiru J430 (Source: https://www.jabiru.co.za/aircraft/)

Jabiru aircraft are used for recreational flying, flight training, rural property management, commuting, surveillance and surveying. Jabiru airframes are manufactured using Fibre Reinforced Plastic (FRP) technologies. It is a system which offers lightweight, high structural integrity and clean aerodynamic design.

The Jabiru aircraft is powered by a Jabiru 4-cylinder, 4-stroke, 2200 cc or a 6-cylinder, 3300 cc air-cooled engine. This Australian-designed and manufactured engine has been developed specifically for use in the Jabiru aircraft and is fitted with dual electronic ignition. The high cruise speed of the Jabiru, low fuel consumption and long endurance make low-

cost air touring a viable proposition for both light sport aircraft (LSA) and PPL licensed pilots.

The J430 also has excellent flying characteristics. This aircraft combines the best of both its predecessors, the J400 and J450, flying characteristics with quicker take-off and an impressive climb rate of 1500 ft per minute (at sea level) and landing at slow stall speeds.

Airframe:

Manufacturer/Model	Jabiru Aircraft/J430	
Serial Number	990	
Year of Manufacture	2022	
Total Airframe Hours (At Time of Serious Incident)	24.3	
Last Inspection (Date & Hours)	15 May 2025	0
Airframe Hours Since Last Inspection	24.3	
CRS Issue Date	15 May 2025	
ATF (Issue Date & Expiry Date)	2 June 2025	13 April 2026
C of R (Issue Date) (Present Owner)	13 June 2023	
Operating Category	Part 94	
Type of Fuel Used	Mogas	
Previous Incidents	None	

Note: Previous incidents refer to past serious incidents the aircraft was involved in, when relevant to this serious incident.

Engine:

Manufacturer/Model	Jabiru A3300
Part Number	14230
Hours Since New	24.3
Hours Since Overhaul	TBO not yet reached

Propeller:

Manufacturer/Model	Jabiru Prop
Part Number	15116
Hours Since New	24.3
Hours Since Overhaul	TBO not yet reached

1.6.2. The last inspection of the aircraft was conducted and certified on 15 May 2025 at 0 airframe hours after which a Certificate of Release to Service (CRS) was issued with an expiry date of 15 May 2026 or at 38.8 hours, whichever comes first.

1.6.3. The aircraft had a valid Authority-to-Fly (ATF) Certificate that was initially issued by the Regulator on 14 April 2023. The ATF Certificate was renewed on 2 June 2025 with an expiry

date of 13 April 2026. The aircraft was airworthy when it was dispatched for the flight. The Certificate of Registration (C of R) was issued to the present owner on 13 June 2023.

1.6.4. The aircraft was fitted with a Dynon HDX 10" Electronic Flight Instrument System/Engine Monitoring Instrument (EFIS/EMI). This EFIS/EMI monitors fuel via the Dynon Fuel Flow Transducer that requires the operator to upload fuel volume each time fuel is uplifted. (*This tool simply measures the fuel flow to give a correct reading*).

1.6.5. The aircraft engine stopped midair, and the pilot restarted the engine but was unsuccessful. He identified a field on which to conduct a forced landing. Upon landing, the spring-loaded main landing gears and three-wheel spats were damaged.

1.6.6. The flight folio indicated that the aircraft was last refuelled on 26 September 2025 with 40 litres of Mogas. Since the refuelling date, the aircraft had covered 12.40 hours of flight time which would have required 260.4 litres of Mogas. The CAR Part 91.03.6 Subpart (2) states that the PIC is responsible for ensuring that the aircraft flight folio is updated correctly in terms of fuel upliftment.

Fuel Record (Source: Civil Aviation Regulations 2011: Part 91)

91.03.6 (*2) The PIC of the aircraft shall enter the fuel and oil records referred to in sub regulation (1) in the flight folio*.

1.6.7. The EFIS indicated that the aircraft had 59.3 litres of Mogas, which should have provided approximately 3 hours' endurance. According to the pilot, the first leg from FAPG to FAMO lasted about 1 hour during which the aircraft covered 64 nautical miles (nm). On the return leg, approximately 25 minutes into the flight, the engine stopped in-flight after the aircraft had flown 23nm.

1.6.8. In total, the aircraft had covered 87nm. Based on the expected consumption rate of 21 litres per hour at 108 knots (kts), this duration would normally account for a consumption of about 21.2 litres. The aircraft ran out of fuel before the calculated 3-hour endurance, suggesting a reading error in the EFIS.

Figure 2: Fuel on-board before take-off from FAPG to FAMO. (Source: Pilot)

1.7. Meteorological Information

1.7.1. The weather information below was obtained from the Meteorological Aerodrome Report (METAR) that was issued by the South African Weather Service (SAWS), recorded at Plettenberg Bay Aerodrome (FAPG) in Western Cape province on 28 February 2026 at 1000Z. The serious incident site was 40nm from FAPG.

Wind Direction	200°	Wind Speed	13kts	Visibility	9999m
Temperature	21°C	Cloud Cover	Unknown	Cloud Base	Unknown
Dew Point	14°C	QNH	1008hPa		

1.7.2. Good weather prevailed at the time of the flight.

1.8. Aids to Navigation

1.8.1. The aircraft was equipped with standard navigational equipment as approved by the Regulator (SACAA). There were no records indicating that the navigational equipment was unserviceable prior to 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 prior to the flight.

1.10. Aerodrome Information

1.10.1. The serious incident occurred 40nm east of FAPG.

1.11. Flight Recorders

1.11.1. The aircraft was equipped with an EFIS that provided all flight instruments and engine monitoring data.

1.12. Wreckage and Impact Information

1.12.1. The pilot conducted a forced landing after the engine stopped in-flight. It landed on an uneven grass-covered field. During the forced landing, the spring-loaded main landing gear and three-wheel spats were damaged.

Figure 3: A view of the landing gear from the front. (Source: Pilot)

Figures 4 and 5: The damaged left and right landing gear (the red arrows point to the damage). (Source: Pilot)

1.12.2. According to the pilot, after the forced landing, the EFIS indicated 52 litres of fuel remaining in the tanks. However, when the AMO recovered the aircraft, less than 1 litre of fuel was drained from the tanks.

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 serious incident was survivable. The cockpit was found intact after the serious incident.

1.16. Tests and Research

1.16.1. The aircraft was recovered to the aircraft manufacturer in George after the serious incident where further inspections were conducted. AIID investigators were not present during the inspection of the aircraft.

1.16.2. An engineer from the aircraft maintenance organisation (AMO) stated that during the recovery of the aircraft, the pilot reported that he conducted a forced landing after the engine had stopped, reducing the severity of damage to the aircraft, which was in the main undercarriage and spats. The engineer further mentioned that the pilot reported that the low fuel light indication had illuminated in-flight. During disassembly of the aircraft for transportation on a trailer bed, the wings were removed and no fuel was present after opening the fuel tanks except for the approximate 1 litre of unusable fuel.

1.16.3. According to the technical report that was made available to the investigator, no external damage was visible on the engine assembly or the fuel tanks. The aircraft was thoroughly inspected, and all fuel lines showed no sign of damage or leakage. After fuel was uplifted, the engine ran normally. The EFIS system was re-set, and the correct fuel volume was uploaded.

1.16.4. The aircraft flight folio last recording of fuel upliftment was on 26 September 2025, but the aircraft had flown a total of 12.40 hours since the said refuelling date. The average fuel consumption for this aircraft is approximately 21 litres an hour. Therefore, 260.4 litres of fuel would have been required for the 12.40 hours flown (see Appendix A: recorded fuel and flight time in the flight folio, and Appendix B: fuel consumption).

1.16.5. The Jabiru fuel is gravity fed and runs from the left and right wings into a central sump tank. The aircraft has a set of sight glasses in the cabin to indicate fuel flow from the wing tanks into the central sump fuel tank, and there is also a low fuel light on the instrument panel that illuminates when the fuel is no longer running into the sump tank. After the light comes on, the pilot has about 10 minutes to land before the fuel runs out.

Figure 6: ZU- IXR instrument panel showing Dynon HDX Skyview EFIS (red arrow). (Source: Technical report)

Figure 7: The wing fuel sight glass. (Source: Technical Report)

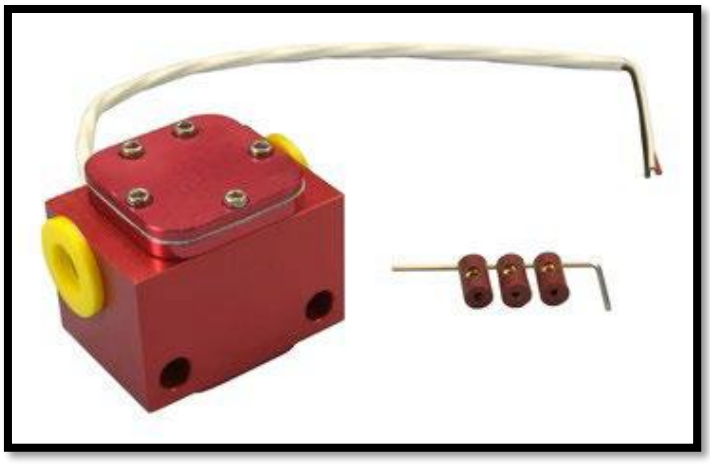


Figure 8: Fuel transducer fitted to the fuel line, which is part of the Dynon EFIS. (Source: Technical Report)

1.16.6. Cockpit Instrumentation

The aircraft was fitted with a Dynon Skyview HDX 10" EFIS/EMS which provided all flight instruments and engine monitoring data. Fuel is monitored via the Dynon Fuel Flow Transducer (Figure 8) but requires the operator to upload the volume of fuel after each upliftment.

1.16.7. Description of how the fuel readings are shown on the EFIS:

Fuel (Fuel Computer Control)

The FUEL icon(s) on the ENGINE TOOLS Page provides access to a menu for adjusting the fuel computer. See the dedicated Fuel Computer section for details on fuel computer operation.

Fuel Computer

The Fuel Computer is a built-in feature which monitors fuel consumption as determined by an optional fuel flow sensor and maintains continuously updated dual engine monitoring. For aircraft with two engines, SkyView can be configured to monitor both engines when two SV-EMS-220/221 modules are installed. The flow-based fuel computer feature can be configured in one of two ways:

- *In one configuration, it will totalize all fuel and usage throughout the aircraft – as you'd want when there is a single combined fuel system in the aircraft.*
- *Alternatively, it can compute each engine's fuel totals and usage quantities separately, as you'd want if each engine were served by a completely independent fuel system.*

In either case, the instantaneous fuel flow reading will be indicative of the current fuel usage of the corresponding engine. The following info items will either be based on either the total fuel in the aircraft or the total fuel per fuel system: Fuel Remaining, Fuel Used, Fuel Efficiency, Fuel at Waypoint, Fuel at Destination, and Range values.

***NB:** The Fuel Remaining, Fuel Used, Fuel Efficiency, Fuel at Waypoint, Fuel at Destination, and Range values are not directly measured. These values are calculated based upon measured flow rates and user input of fuel quantity. Do not use these values as primary indicators.*

The Fuel Remaining info item (displayed as FUEL REM) displays the current amount of fuel computed on board, based on your input of the aircraft's starting fuel state and the amount of fuel that the fuel flow sensor has seen flow through it.

The Fuel Used info item (displayed as GALS USED) displays the amount of fuel that has been used during your flight. Note that Fuel Used resets itself when the unit detects that oil pressure has exceeded 15 PSI for the first time after being powered on. This allows you to view the fuel used value from your last flight before engine start.

The Time Remaining info item (displayed as TIME REM) displays how much time is estimated remaining before the aircraft is out of fuel.

The Fuel Efficiency info item (displayed as NM/GAL) displays how efficiently the aircraft is using fuel with respect to the speed it is traveling over the ground (this also can be displayed as MI/GAL, KT/GAL, KM/LTR).

The Fuel at Waypoint info item (displayed as WPT GAL) displays how much fuel will remain at the next waypoint. (This also can be displayed as LTR). This info item uses the current HSI navigation source for waypoint information and only displays information when navigating to a waypoint. It assumes you are flying directly to the waypoint and does not adjust for non-direct flights.

The Fuel at Destination info item (displayed as <Airport Call Letters> GAL) displays how much fuel will remain at the destination. (This also can be displayed as LTR). This info item uses the current HSI navigation source for information on the final waypoint in a Flight Plan and only displays information when there is an active Flight Plan. It assumes you are flying directly to the destination via the planned course and does not adjust for off-course flights.

The Fuel Range info item (displayed as RANGE) displays the distance the aircraft can travel at its current GPS ground speed before it is out of fuel.

1.16.8. Fuel Menu (Adjusting the Fuel Computer)

***NB:** To obtain accurate data, one must reset the fuel computer every time one adds fuel to the aircraft. SkyView HDX can assist with this through the Fuel Auto Detect setting described in this section.*

Fuel computer adjustments are made by selecting the FUEL icon(s) on the Engine Tools Page. When Fuel is selected, a pop-up window will appear near the bottom of the screen, and the bottom bar menu will change to present options for changing the current fuel state in the fuel computer

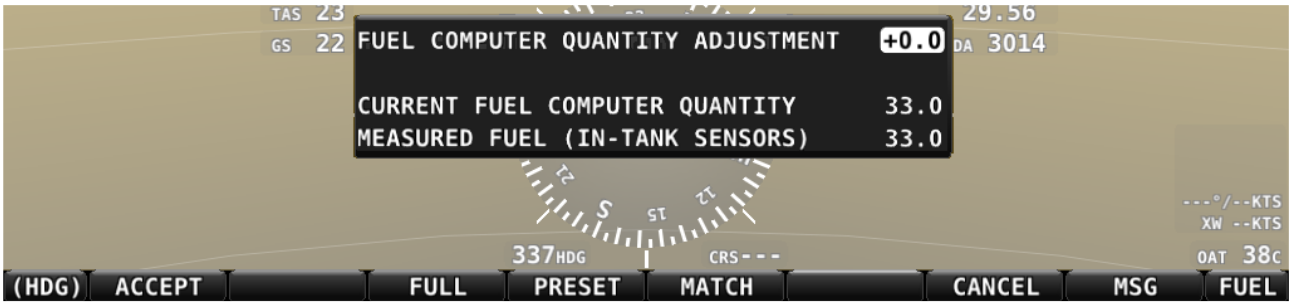


Figure 9: Fuel computer and menu.

- *Fuel Computer Quantity Adjustment is the amount of fuel that you have told the fuel computer to presently add or subtract from the previous total fuel state.*
- *Current Fuel Computer Quantity is the total amount of fuel on board as far as the fuel computer knows. This is the number that ultimately needs to be correct in order for*

the fuel computer to accurately perform its calculations.

- *Measured Fuel (In-Tank Sensors) is the amount of fuel measured by the resistive or capacitance senders, if installed. If these are well-calibrated, then the Total Fuel and the Measured Fuel lines should be very close to each other.*
- *If no fuel tank level sensors are installed or calibrated, "Measured Fuel" and "Levels Mismatch" will not be displayed.*

1.16.9. Auto Fuel Detect

The fuel computer can optionally be configured to detect when fuel has been added while SkyView was off, as would be the case during a normal refuelling operation. When configured to detect fuel additions, SkyView will automatically display the Fuel menu upon startup as a reminder to adjust the fuel computer, along with a Fuel Mismatch message to indicate that the fuel measured by the in-tank fuel quantity sensors does not closely match the computer's fuel remaining value.

1.17. Organisational and Management Information

1.17.1. The AMO which maintained the aircraft was issued an AMO Certificate by the Regulator (SACAA) on 4 March 2026 with an expiry date of 31 March 2027.

1.17.2. The owner of the aircraft did not verify the pilot's licence before hiring it out to the pilot. Moreover, no explanation was given to the pilot on how the Dynon HDX 10" EFIS/EMS operates.

1.18. Additional Information

1.18.1. None.

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 incident. This shall not be read as apportioning blame or liability to any organisation or individual.

2.2. Analysis

Pilot

2.2.1. The pilot had an invalid licence at the time of the flight due to an incomplete licence renewal application. The pilot needed a valid medical certificate when he applied for his licence renewal. He submitted a valid medical certificate a month after the application and did not notify the licensing officer in charge of his application when submitting the medical certificate. Therefore, the licence application was not processed. The pilot contravened the Civil Aviation Regulations (CAR) Part 61.01.2.

2.2.2. The pilot relied solely on the EFIS fuel indication of 59.3 litres in the tanks and did not physically verify the actual fuel quantity before departure. The pilot also relied on the aircraft owner to ensure sufficient fuel was available without independently confirming the fuel quantity. This discrepancy between the indicated and actual fuel quantity contributed to the incorrect assessment of fuel endurance and, thus, non-compliance with the CAR Part 91.07.12(1). Additionally, the required fuel and oil records were not properly documented as required by the CAR Part 91.03.6(2).

2.2.3. The pilot demonstrated insufficient understanding of the EFIS which was fitted to the aircraft. The knowledge gap contributed to the pilot's assumption that sufficient fuel was available for the planned flight.

Aircraft

2.2.4. The aircraft was properly registered and airworthy at the time of dispatch. The aircraft had a total of 24.3 airframe hours.

2.2.5. The aircraft rotated and climbed to 1 500 feet (ft). Whilst en route to FAPG along the coastline, south-east of Thembalethu in George, and approximately 25 minutes into the flight, the pilot contacted George Aerodrome (FAGG) tower and reported loss of engine power on frequency

118.90-MHz. The pilot noticed a low fuel warning light that had illuminated. An attempt to troubleshoot and restore engine power was unsuccessful, and the pilot executed a forced landing which resulted in damage to the undercarriage.

2.2.6. The pilot would have flown 128nm for both legs of the flight. The first leg from FAPG to FAMO was 64nm. The second leg until the engine stopped was 23nm. In total, the pilot flew 87nm before fuel exhaustion. Therefore, the pilot used a total of 21.2 litres before the engine ceased. This means that 59.3 litres of fuel shown on the EFIS was inaccurate.

2.2.7. The aircraft flight folio indicated no fuel upliftment had been recorded since 26 September 2025; however, the aircraft was operated for 12.40 hours, with an estimated fuel consumption of approximately 260.4 litres based on a consumption rate of 21 litres per hour. The discrepancy between the flight folio records and aircraft fuel usage indicated that the fuel records were not accurately maintained. The pilot relied on the aircraft owner's assurance regarding fuel upliftment and failed to independently verify the fuel status by cross-checking the EFIS indications against the flight folio. This was inconsistent with the pilot-in-command's responsibility under CAR 91.03.6 to ensure that fuel and oil records are accurately entered and maintained in the flight folio.

2.2.8. The evidence indicated that the pilot relied on the EFIS fuel quantity indication during pre-flight and did not physically verify the fuel quantity in the tanks. In addition, the fuel computer was not reset after the previous flight to reflect the actual fuel on-board, resulting in an inaccurate fuel quantity reading being displayed. This likely contributed to the pilot's incorrect assessment of the available fuel before departure.

2.2.9. The AMO engineer stated that when they arrived at the scene to assist in co-ordinating the recovery of the aircraft, the EFIS indicated that it had 52 litres of fuel remaining. The pilot indicated to the engineer that the low fuel light was on (once the light illuminates, the pilot has 10 minutes to land before the fuel runs out). During disassembly of the aircraft for transportation to the AMO's facility, the wings were removed and it was noted that there was no fuel in the fuel tanks (apart from the less than a litre of unusable fuel).

2.2.10. At the AMO facility, the aircraft engine and fuel system were inspected, and no faults were found. The EFIS system was also inspected, and no anomalies were identified. The EFIS system was reset to show the correct fuel reading and it worked normally.

3. CONCLUSION

3.1. General

From the available evidence, the following findings, causes and contributing factors were made with respect to this incident. 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 incident. The findings are significant steps in this incident sequence, but they are not always causal or indicate deficiencies.
- **Causes —** are actions, omissions, events, conditions, or a combination thereof, which led to this incident.
- **Contributing factors —** are actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the incident occurring, or would have mitigated the severity of the consequences of the incident. 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 19 April 2022 with an expiry date of 31 October 2024. The pilot's licence was not valid at the time of the flight. He submitted a licence renewal application without a medical certificate and, as a result, his application was not processed. The pilot needed to have a valid medical certificate when he applied for his renewal licence, which he did not submit with his application.

3.2.2. The pilot contravention CAR Part 61.01.2(1); he acted as pilot-in-command of a South African-registered aircraft without holding a valid pilot licence with the applicable ratings.

3.2.3. The pilot did not conduct an adequate pre-flight fuel check and relied on the aircraft owner's assurance that the aircraft had fuel; he did not verify the fuel quantity on-board, contrary to the regulatory requirement for fuel verification and recording.

3.2.4. The pilot demonstrated an insufficient understanding of the EFIS, resulting in failure to correctly know the fuel state prior to take-off.

Aircraft

3.2.5. The aircraft was properly registered and was airworthy at the time of the flight. It had a total of 24.3 airframe hours.

3.2.6. Approximately 25 minutes into the flight from FAMO to FAPG, a low fuel warning light illuminated. The engine stopped in-flight due to fuel exhaustion, and the pilot was unable to restore engine power.

3.2.7. After the AMO removed the wings on site in preparation for disassembly and transportation to the AMO's facility, it was discovered that the fuel tanks had less than 1 litre of fuel remaining in the tanks; however, the EFIS showed 52 litres.

3.2.8. After the serious incident, the engine and fuel system were inspected, and no faults were found. The EFIS was also inspected and no anomalies were noted. The EFIS system was reset to reflect the correct fuel amount, and it worked normally.

3.3. **Probable Cause/s**

3.3.1. Unsuccessful forced landing following an in-flight engine stoppage due to fuel exhaustion.

3.4. **Contributory Factor/s**

3.4.1. Improper pre-flight inspection which led to fuel mismanagement.

3.4.2. Improper recordings of fuel in the flight folio to manage fuel.

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/s**

4.2.1. None.

5. APPENDICES

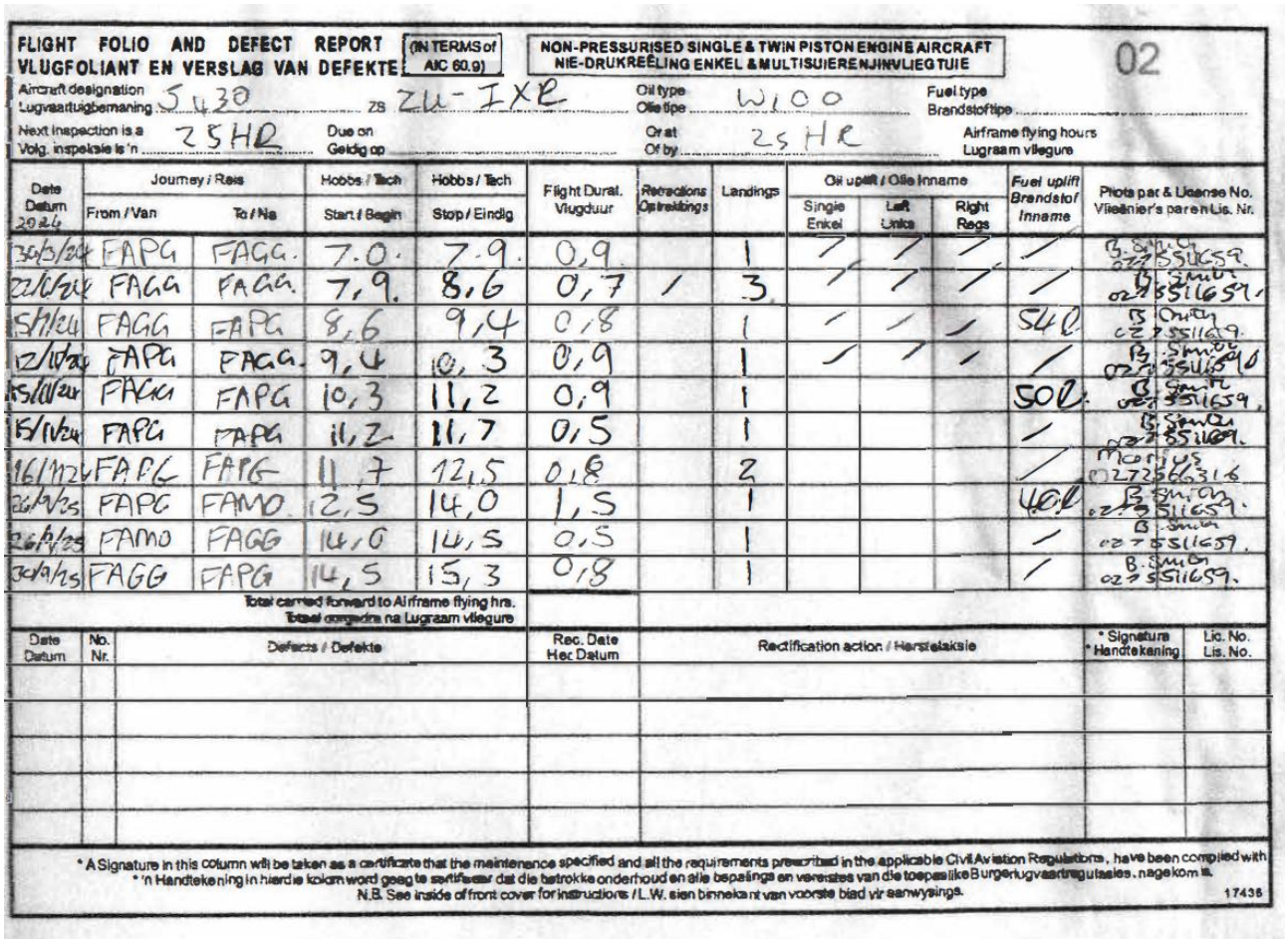
5.1. Appendix A: Aircraft flight folio and defect report copy.

5.2. Appendix B: Fuel consumption extract from the POH.

This report is issued by:

Serious incident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa

Appendix A: Aircraft flight folio and defect report copy



FLIGHT FOLIO AND DEFECT REPORT / VLUGFOLIANT EN VERSLAG VAN DEFEKTE (IN TERMS of AIC 60.9)

NON-PRESSURISED SINGLE & TWIN PISTON ENGINE AIRCRAFT / NIE-DRUKREËLING ENKEL & MULTISUIERENJINVLIEGTUIE

02

Aircraft designation / Lugvaartuigbenaming: J 430 ZS ZU-IXR — Oil type / Olie tipe: W100 — Fuel type / Brandstoftipe:

Next inspection is a / Volg. inspeksie is 'n: 25HR — Due on / Geldig op: — Or at / Of by: 25HR — Airframe flying hours / Lugraam vlieguure

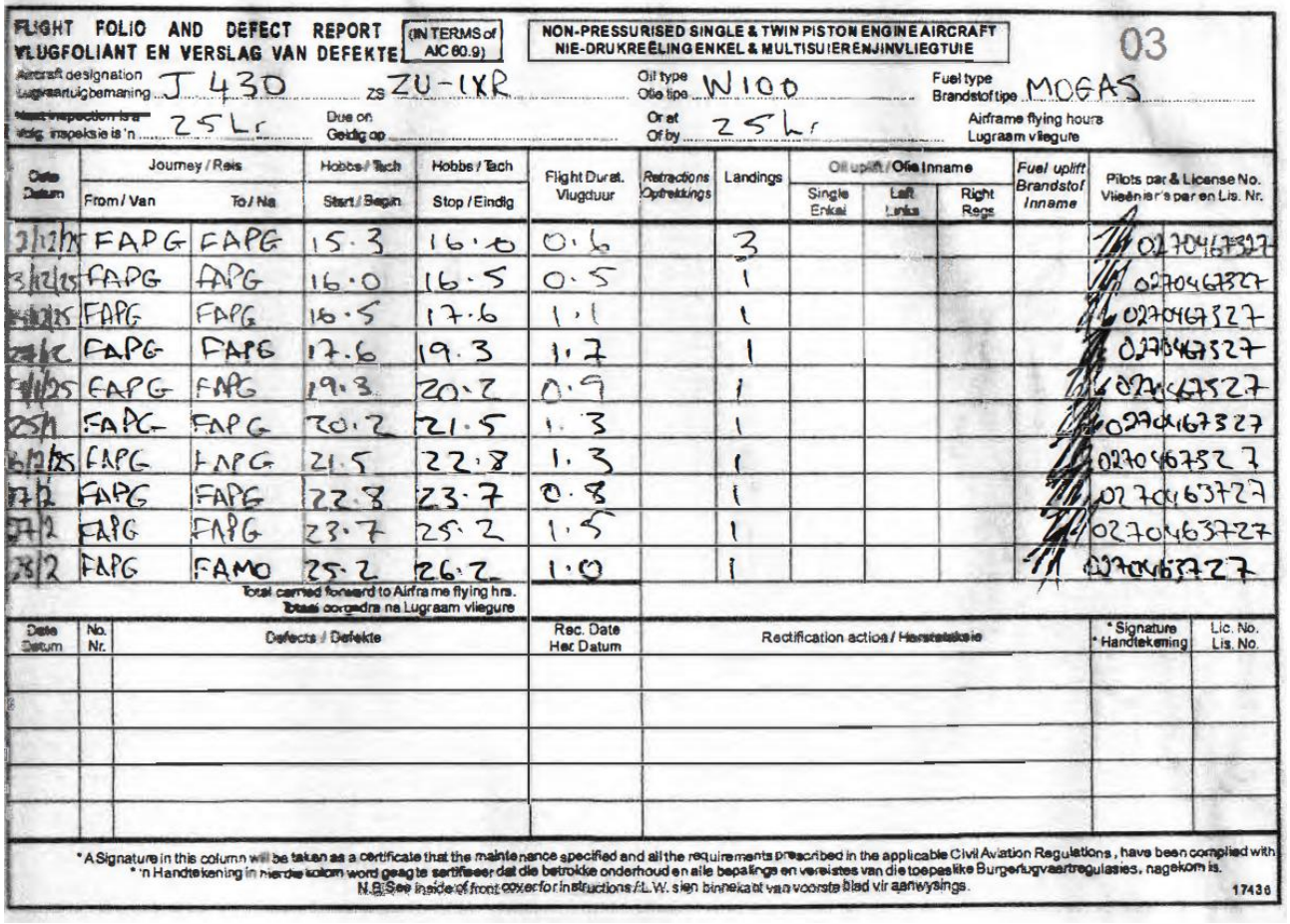
Date / Datum 2026	Journey / Reis From / Van	To / Na	Hobbs / Tach Start / Begin	Hobbs / Tach Stop / Eindig	Flight Durat. Vlugduur	Retractions / Optrekkings	Landings	Oil uplift / Olie Inname Single / Enkel	Left / Links	Right / Regs	Fuel uplift / Brandstof Inname	Pilots par & License No. / Vlieënier's par en Lis. Nr.
3/3/26	FAPG	FAGG	7.0	7.9	0,9		1	/	/	/	/	B. Smith 027 55 11659
22/3/26	FAGG	FAGG	7,9	8,6	0,7	/	3	/	/	/	/	B. Smith 027 55 11659
15/4/26	FAGG	FAPG	8,6	9,4	0,8		1	/	/	/	54 ℓ	B. Smith 027 55 11659
12/5/26	FAPG	FAGG	9,4	10,3	0,9		1	/	/	/	/	B. Smith 027 55 11659
15/5/26	FAGG	FAPG	10,3	11,2	0,9		1				50 ℓ	B. Smith 027 55 11659
15/5/26	FAPG	FAPG	11,2	11,7	0,5		1				/	B. Smith 027 55 11659
16/5/26	FAPG	FAPG	11,7	12,5	0,8		2				/	Morris 027 56 63 16
26/5/26	FAPG	FAMO	12,5	14,0	1,5		1				46 ℓ	B. Smith 027 55 11659
26/5/26	FAMO	FAGG	14,0	14,5	0,5		1				/	B. Smith 027 55 11659
30/5/26	FAGG	FAPG	14,5	15,3	0,8		1				/	B. Smith 027 55 11659

Total carried forward to Airframe flying hrs. / Totaal oorgedra na Lugraam vlieguure

Date / Datum	No. / Nr.	Defects / Defekte	Rec. Date / Rec Datum	Rectification action / Herstelaksie	* Signature / * Handtekening	Lic. No. / Lis. No.

* A Signature in this column will be taken as a certificate that the maintenance specified and all the requirements prescribed in the applicable Civil Aviation Regulations, have been complied with. / * 'n Handtekening in hierdie kolom word geag te sertifiseer dat die betrokke onderhoud en alle bepalings en vereistes van die toepaslike Burgerlugvaartregulasies, nagekom is.

N.B. See inside of front cover for instructions / L.W. sien binnekant van voorste blad vir aanwysings. 17436



FLIGHT FOLIO AND DEFECT REPORT / VLUGFOLIANT EN VERSLAG VAN DEFEKTE (IN TERMS of AIC 60.9)

NON-PRESSURISED SINGLE & TWIN PISTON ENGINE AIRCRAFT / NIE-DRUKREËLING ENKEL & MULTISUIERENJINVLIEGTUIE

03

Aircraft designation / Lugvaartuigbenaming: J 430 ZS ZU-IXR — Oil type / Olie tipe: W100 — Fuel type / Brandstoftipe: MOGAS

Next inspection is a / Volg. inspeksie is 'n: 25hr — Due on / Geldig op: — Or at / Of by: 25hr — Airframe flying hours / Lugraam vlieguure

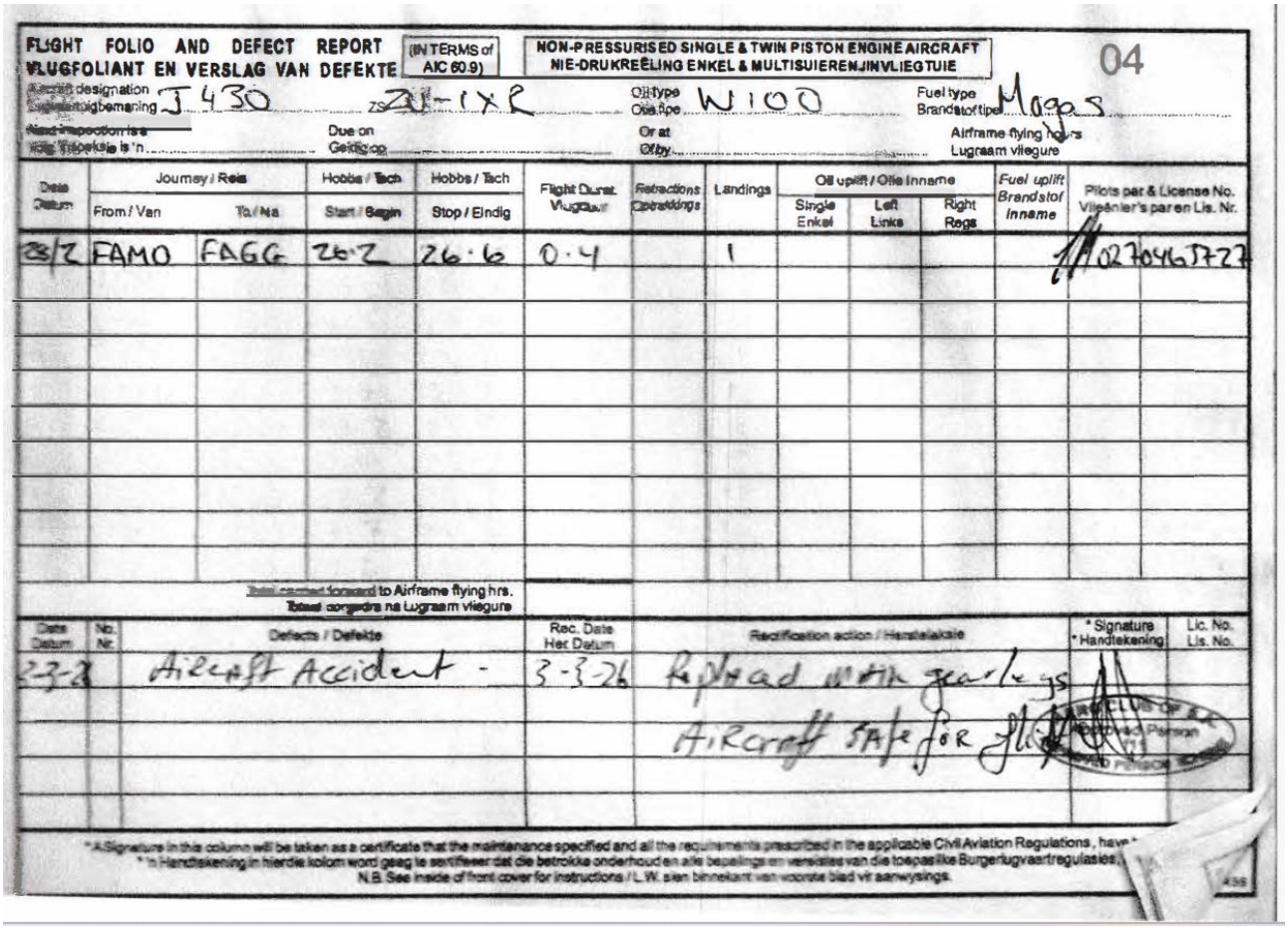
Date / Datum	Journey / Reis From / Van	To / Na	Hobbs / Tach Start / Begin	Hobbs / Tach Stop / Eindig	Flight Durat. Vlugduur	Retractions / Optrekkings	Landings	Oil uplift / Olie Inname Single / Enkel	Left / Links	Right / Regs	Fuel uplift / Brandstof Inname	Pilots par & License No. / Vlieënier's par en Lis. Nr.
2/2/26	FAPG	FAPG	15.3	16.0	0.6		3					027046 73 27
3/2/26	FAPG	FAPG	16.0	16.5	0.5		1					027046 73 27
5/2/26	FAPG	FAPG	16.5	17.6	1.1		1					027046 73 27
7/2/26	FAPG	FAPG	17.6	19.3	1.7		1					027046 73 27
8/2/26	FAPG	FAPG	19.3	20.2	0.9		1					027046 73 27
25/1	FAPG	FAPG	20.2	21.5	1.3		1					027046 73 27
6/2/26	FAPG	FAPG	21.5	22.8	1.3		1					027046 73 27
7/2	FAPG	FAPG	22.8	23.7	0.8		1					027046 37 27
7/2	FAPG	FAPG	23.7	25.2	1.5		1					027046 37 27
8/2	FAPG	FAMO	25.2	26.2	1.0		1					027046 37 27

Total carried forward to Airframe flying hrs. / Totaal oorgedra na Lugraam vlieguure

Date / Datum	No. / Nr.	Defects / Defekte	Rec. Date / Rec Datum	Rectification action / Herstelaksie	* Signature / * Handtekening	Lic. No. / Lis. No.

* A Signature in this column will be taken as a certificate that the maintenance specified and all the requirements prescribed in the applicable Civil Aviation Regulations, have been complied with. / * 'n Handtekening in hierdie kolom word geag te sertifiseer dat die betrokke onderhoud en alle bepalings en vereistes van die toepaslike Burgerlugvaartregulasies, nagekom is.

N.B. See inside of front cover for instructions / L.W. sien binnekant van voorste blad vir aanwysings. 17436



FLIGHT FOLIO AND DEFECT REPORT / VLUGFOLIANT EN VERSLAG VAN DEFEKTE (IN TERMS of AIC 60.9)

NON-PRESSURISED SINGLE & TWIN PISTON ENGINE AIRCRAFT / NIE-DRUKREELING ENKEL & MULTISUIERENJINVLIEGTUIE

04

Aircraft designation / Vliegtuigbenaming: J430 ZS-[illegible]IXR — Oil type / Olie tipe: W100 — Fuel type / Brandstoftipe: Mogas

Next inspection is a / Volgende inspeksie is 'n ..... Due on / Gedateer op ..... Or at / Of by ..... Airframe flying hours / Lugraam vliegure

Date / Datum	Journey / Reis: From / Van	To / Na	Hobbs / Tach: Start / Begin	Hobbs / Tach: Stop / Eindig	Flight Durat. / Vlugduur	Retractions / Optrekkings	Landings	Oil uplift / Olie inname: Single / Enkel	Left / Links	Right / Regs	Fuel uplift / Brandstof inname	Pilots per & License No. / Vlieënier's par en Lis. Nr.
23/2	FAMO	FAGG	26·2	26·6	0·4		1					[illegible]027046J722

Total carried forward to Airframe flying hrs. / Totaal oorgedra na Lugraam vliegure

Date / Datum	No. / Nr.	Defects / Defekte	Rec. Date / Her Datum	Rectification action / Herstelaksie	* Signature / * Handtekening	Lic. No. / Lis. No.
2-3-26		Aircraft Accident -	3-3-26	Replaced with gear legs		
				Aircraft safe for flight		

* A Signature in this column will be taken as a certificate that the maintenance specified and all the requirements prescribed in the applicable Civil Aviation Regulations, have been complied with. / 'n Handtekening in hierdie kolom word geag te sertifiseer dat die betrokke onderhoud en alle bepalings en vereistes van die toepaslike Burgerlugvaartregulasies, nagekom is.

N.B. See inside of front cover for instructions / L.W. sien binnekant van voorste blad vir aanwysings.

5.3. **Appendix B**: fuel consumption from POH

5.4. CRUISE SPEEDS / RPM / FUEL CONSUMPTION

- Cruise speed values given are based on tests carried out at gross aircraft weight, at sea level and 28°C (82°F). Values are averaged. Actual values will vary slightly from one aircraft to the next. Values used for flight planning should be based on previous experience with the specific aircraft wherever possible.
- Fuel consumption values given are averaged. Actual values will vary slightly from one aircraft to the next. Values used for flight planning should be based on previous experience with the specific aircraft wherever possible.

RPM	Fuel Consumption (Litres/hr)	IAS (Knots)
2600	19.5	100
2700	21	108
2800	24.5	113
2850	26.6	115
2900	28.6	117
3000	33.1	120

5.4. SkyView HDX pilot's user guide https://www.dynonavionics.com/skyview-documentation.php