

**LIMITED SERIOUS INCIDENT INVESTIGATION REPORT**

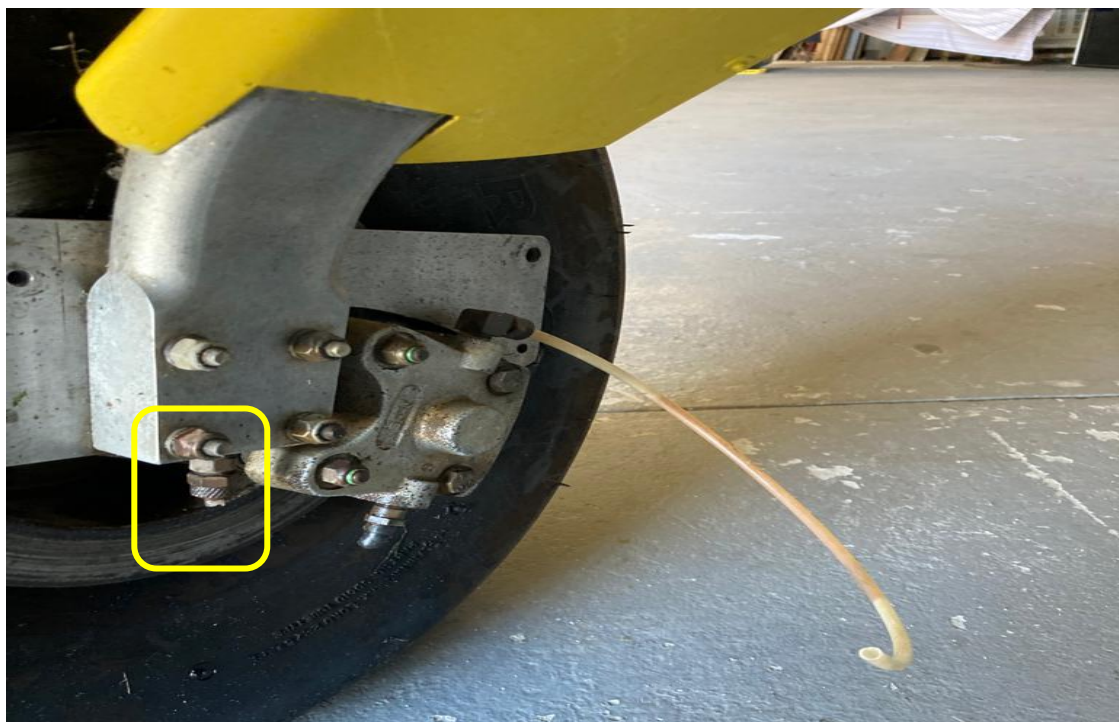
<b>Reference Number</b>	CA18/3/2/1354					
<b>Classification</b>	Serious Incident	<b>Date</b>	24 July 2021	<b>Time</b>	0820Z	
<b>Type of Operation</b>	Private (Part 94)					
<b>Location</b>						
<b>Place of Departure</b>	Worcester Aerodrome (FAWC), Western Cape Province	<b>Place of Intended Landing</b>	Morning Star Aerodrome, Western Cape Province			
<b>Place of Incident</b>	Left of Runway 02 at Morning Star Aerodrome					
<b>GPS Co-ordinates</b>	<b>Latitude</b>	S 33°45'44.37"	<b>Longitude</b>	E18°32'54.69"	<b>Elevation</b>	200 ft
<b>Aircraft Information</b>						
<b>Registration</b>	ZU-FIT					
<b>Model/Make</b>	Kitfox 7					
<b>Damage to Aircraft</b>	Substantial	<b>Total Aircraft Hours</b>	1347.9			
<b>Pilot-in-command</b>						
<b>Licence Valid</b>	Yes	<b>Gender</b>	Male	<b>Age</b>	62	
<b>Licence Type</b>	Private Pilot Licence					
<b>Total Hours on Type</b>	157	<b>Total Flying Hours</b>	818			
<b>People On-board</b>	1 + 0	<b>Injuries</b>	0	<b>Fatalities</b>	0	<b>Other</b> 0
<b>What Happened</b>						
<p>On Saturday, 24 July 2021, a pilot flying solo on-board a Kitfox 7 aircraft with registration ZU-FIT took off on a private flight from Worcester Aerodrome (FAWC) at 0750Z to Morning Star Aerodrome, in the Western Cape. The flight was conducted under visual meteorological conditions (VMC) by day. The pilot reported that he was unable to bring the aircraft to a stop on Runway 02 during the landing roll at Morning Star Aerodrome. The pilot further stated that the right-side main landing gear brake was inoperative on application and, as a result, the aircraft veered off (yawed) to the left of the runway (the left-side main landing gear brake was operative). During the yaw to the left, both wing tips made contact with the runway surface (see Figures 1 and 2) before the aircraft came to a stop approximately 10 metres (m) from the edge of the runway. The aircraft damage was limited to the wing tips, and the pilot was not injured during the sequence of events. Post-inspection showed that the aircraft had scraped the runway surface with both wing tips. There were no reported defects with the aircraft prior to the serious incident flight.</p> <p>Morning Star Aerodrome is an unlicensed aerodrome with a single asphalt runway orientated 02/20 and is 640m long and 10m wide.</p>						

The brake hoses that were fitted to the serious incident aircraft were considered to be of inferior quality which, over time, became brittle. Subsequently, the right brake hose failed (as depicted in the yellow window in Figure 3).

The pilot reported fine weather conditions at the time leading to the serious incident — surface wind: north-easterly at 02 knots; visibility: ceiling and visibility ok (CAVOK); temperature: 16° Celsius; clouds: none. Cape Town International Aerodrome (FACT) is located 16 nautical miles (nm) south of Morning Star Aerodrome. The Meteorological Aerodrome Report (METAR) for FACT was 240830Z 04004KT 360V070 CAVOK 15/02 Q1029 NOSIG=, which was consistent with the weather information provided by the pilot.



**Figure 1:** Scrape marks on the left-side wing tip. **Figure 2:** Marks on the right-side wing tip.



**Figure 3:** Brake hose broke off from the right side brake assembly (yellow window).

<p><b>Probable cause:</b></p> <p>Asymmetric braking which occurred as a result of the failure of the right brake hose. Directional control could not be maintained using only the left operative brake, thus, the aircraft exited the runway.</p>
<p><b>Safety Action/s</b></p>
<p>None.</p>
<p><b>Safety Message</b></p>
<p>It is recommended that the brake tubing/hoses be inspected on a regular basis as they have the potential to become brittle which may lead to failure. A more robust type of tubing (steel brace hose) should be considered and accordingly replaced on all aircraft types similar to the serious incident aircraft to prevent recurrence of such incidents.</p>
<p><b>Purpose of the Investigation</b></p>
<p><i>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 <b>not to apportion blame or liability.</b></i></p>
<p><b>About this Report</b></p>
<p><i>Decisions regarding whether to investigate, and the scope of an investigation are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, no investigation has been conducted, and the Accident and Incident Investigations Division (AIID) has relied on the information submitted by the affected person/s and organisation/s to compile this brief report. The report has been compiled using information supplied in the initial notification, as well as follow-up information to bring awareness of potential safety issues to the industry in respect of this occurrence, as well as possible safety action/s that the industry might want to consider in preventing a recurrence of a similar accident.</i></p> <p><i>This report provides an opportunity to share safety message/s in the absence of an investigation.</i></p> <p><i>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.</i></p>
<p><b>Disclaimer</b></p>
<p><i>This report is produced without prejudice to the rights of the AIID, which are reserved.</i></p>

**This report is issued by:**  
**Accident and Incident Investigations Division**  
**South African Civil Aviation Authority**  
**Republic of South Africa**