

LIMITED SERIOUS INCIDENT INVESTIGATION REPORT

Reference Number		CA18/3/2/1388					
Classification	Serious Incident	Date	23 January 2022	Time	0900Z		
Type of Operation		Private (Part 91)					
Location							
Place of Departure		The Coves Aerodrome, Gauteng Province		Place of Intended Landing		The Coves Aerodrome, Gauteng Province	
Place of Accident		The Coves Aerodrome Gauteng Province					
GPS Co-ordinates		Latitude	25°46'38"S	Longitude	027°47'35.0" E	Elevation	3885 feet
Aircraft Information							
Registration		ZS-BDE					
Model/Make		Extra Flugzeugbau GmbH, EA-300L (Serial Number: 153)					
Damage to Aircraft		Minor		Total Aircraft Hours		1185.1	
Pilot-in-command							
Licence Valid		Yes		Gender		Male	
						Age	
						51	
Licence Type		Commercial Pilot Licence (CPL)					
Total Hours on Type		325.7		Total Flying Hours		2984.2	
People On-board		1+0		Injuries		0	
				Fatalities		0	
				Other (on ground)		0	
What Happened							
<p>On 23 January 2022, a pilot on-board an Extra Flugzeugbau aircraft with registration mark ZS-BDE took off from The Coves Aerodrome in Gauteng Province with the intention to land at the same aerodrome. This was a private flight conducted under the provisions of Part 91 of the Civil Aviation Regulations (CAR) 2011 as amended. The pilot stated that he remembered closing the canopy but could not recall latching it to secure it in position. During the take-off run on Runway 36 whilst at full power, the canopy blew open (backwards/upwards). The pilot tried to grab the canopy handle to close it, but he was not successful. He applied the brakes and moved the throttled back to abort take-off roll and, as a result, the aircraft tilted forward, and the propeller blade tips scraped (contacted) the ground. The pilot was not injured during the incident and the aircraft sustained minor damage on all propeller blade tips.</p>							



Figure 1: Damaged propeller blade tips. (Source: AME)

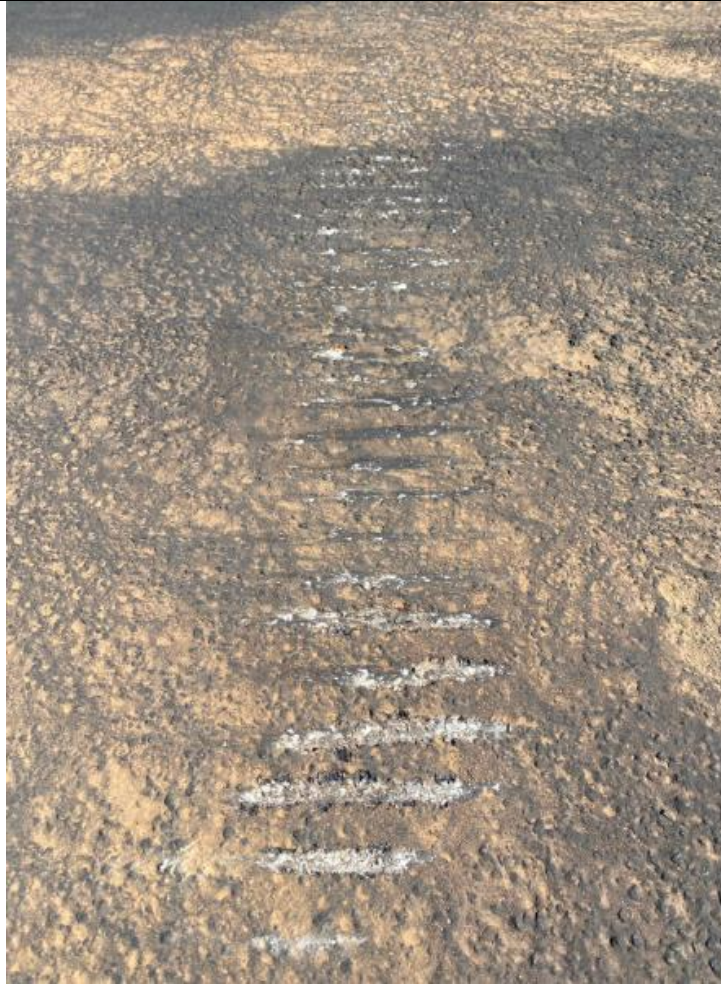


Figure 2: Scrape marks made by propeller blade tips. (Source: AME)



Figure 3: Latches of the canopy door on the aircraft. (Source: AME)



Figure 4: Top view of the canopy latches. (Source: AME)

91.02.8 Duties of PIC regarding flight operations

(4) The PIC of an aircraft shall—

(a) ensure that the pre-flight inspection has been carried out, and that the checklists, and where applicable, the flight deck procedures and other instructions regarding the operation of the aircraft, the limitations contained in the AFM referred to in regulation 91.03.2 or equivalent certification document, are fully complied with at the appropriate times during a flight.

What was found:

Post-accident inspection conducted by an aircraft maintenance organisation (AMO) revealed that the canopy was not latched properly following the pre-take-off checklist, hence, it blew open during the take-off roll. The latch mechanism was found to be serviceable. The aircraft maintenance records were up to date and revealed that the aircraft was maintained in accordance with (IAW) the manufacturer's specifications and existing procedures. The aircraft had undergone a mandatory periodic inspection (MPI) on 15 July 2021 at 1152.2 airframe hours. The aircraft was flown for a further 32.9 hours since the last MPI. Maintenance conducted on the canopy included: *clean and lubricate canopy hinge and latching mechanism*. The pilot was initially issued a Commercial Pilot

Licence (CPL) on 26 June 2021 with an expiry date of 30 June 2022. His Class I medical certificate was issued on 7 April 2021 with an expiry date of 30 April 2022.

The following information is an extract from the Pilot's Operating Handbook:

EXTRA

Pilot's Operating Handbook
EXTRA 500

Next to cabin door (inside cabin):

To open door	To close door
Wing Flaps UP? Upper part: depress safety button and keep depressed, rotate handle to the left, deploy upper door Lower part: rotate sill lever up and deploy lower door	Lower part: pull up by means of cables, rotate sill lever down to lock check 4 inspection glasses green Upper part: pull down, rotate handle to the right until it is locked check 4 inspection glasses green
In emergency case push upper door strongly against extended wing flaps. Flap edge is deformable.	

Probable cause:

It is likely that the canopy was not secured during the pre-take-off check or the pre-take-off checklist was not used, resulting in the canopy opening during the take-off roll. In an attempt to abort take-off roll, the pilot applied maximum brakes which resulted in the propeller blade tips scraping the ground.

Safety Action/s

None.

Safety Message

Safety message: Pilots are encouraged to ensure that they conduct a thorough and proper pre-take-off check using a checklist or POH.

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**.*

About this Report

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.

This report provides an opportunity to share safety message/s in the absence of an investigation.

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.

Disclaimer

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This report is issued by:

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