

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Ace Aviation As-tec 13, G-CKUL	
<b>No &amp; Type of Engines:</b>	1 Simonini Mini 3 piston engine	
<b>Year of Manufacture:</b>	2017 (Serial no: AA13264)	
<b>Date &amp; Time (UTC):</b>	15 May 2019 at 0935 hrs	
<b>Location:</b>	Shotteswell Airfield, Oxfordshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - None	Passengers - N/A
<b>Nature of Damage:</b>	Propeller detached from aircraft	
<b>Commander's Licence:</b>	National Private Pilot's Licence	
<b>Commander's Age:</b>	63 years	
<b>Commander's Flying Experience:</b>	700 hours (of which 540 were on type) Last 90 days - 6 hours Last 28 days - 5 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

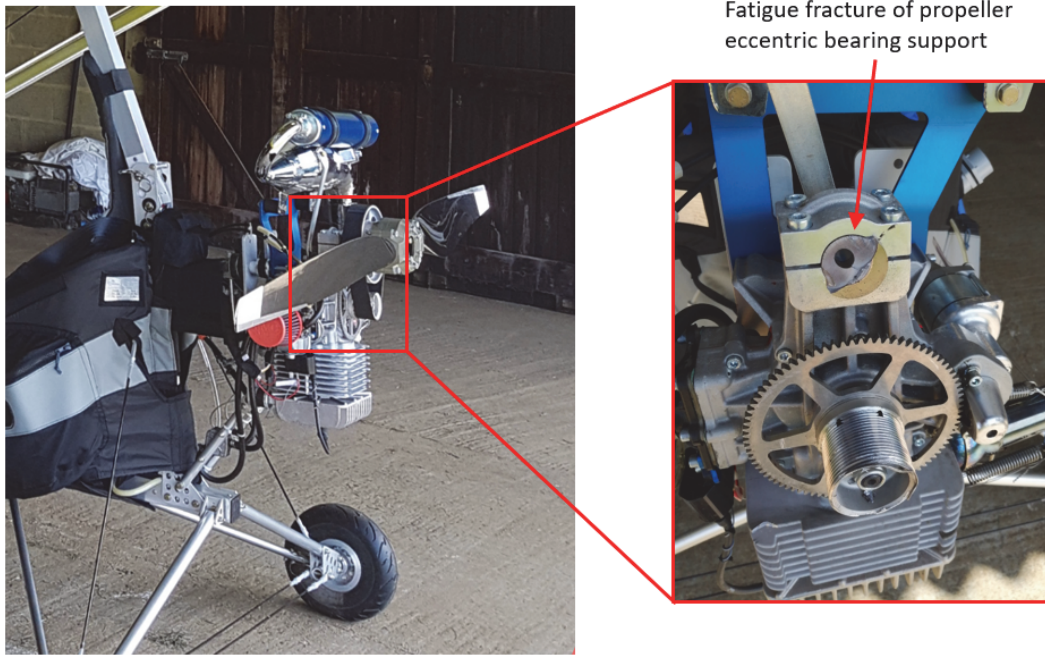
After an uneventful local flight the pilot was returning to Shotteswell Airfield at an altitude of 2,100 ft when he noticed the engine speed suddenly increase. He observed that the pusher propeller had detached from the aircraft and so he shut the engine down and commenced a glide descent back to Shotteswell Airfield, which was approximately 1 nm to the north. A successful power-off landing was made.

The flex-wing aircraft's single-cylinder engine rotates a pusher propeller using a reduction drive belt, driven by a pulley on the engine crankshaft. Drive belt tension may be adjusted using an eccentrically-mounted bearing on the propeller driveshaft. Inspection of the engine revealed that the eccentric bearing assembly and propeller had detached at the support bracket due to a fatigue failure of the bearing support, Figure 1. The propeller was not located following the event.

Following this event the engine manufacturer issued a safety notice<sup>1</sup> to all owners and operators of the Mini 3 engine, requiring the eccentric bearing support to be replaced before the next flight.

**Footnote**

<sup>1</sup> Simonini Racing SRL Security Campaign No. 1, 31 May 2019.



**Figure 1**  
Fatigue fracture of eccentric bearing support