AAIB Bulletin: 4/2021	G-CIUF	AAIB-27016
ACCIDENT		
Aircraft Type and Registration:	Aviad Zigolo MG12, G-CIUF	
No & Type of Engines:	1 Monster 185 piston engine	
Year of Manufacture:	2015 (Serial no: 4/2015/27)	
Date & Time (UTC):	4 November 2020 at 1140 hrs	
Location:	Near West Heath Common Quarry, West Sussex	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to right mainwheel strut and fuselage tubes	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	64 years	
Commander's Flying Experience:	1,376 hours (of which 24 were on type) Last 90 days - 17 hours Last 28 days - 2 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft's propeller drive belt failed shortly after takeoff, resulting in a forced landing in which the aircraft was damaged, but the pilot was not injured. An improved quality drive belt is now available from the aircraft kit importer.

History of the flight

The pilot took off from a farm airstrip near Rogate, West Sussex, for a local flight and reported that the initial climb performance and engine rpm were normal. On reaching 900 ft agl the engine speed fluctuated, and the pilot heard a flapping sound as the propeller drive belt started to fail. The pilot reduced the throttle setting and the drive belt snapped. He then closed the throttle and the engine stopped abruptly.

The pilot set up an approach to a grass field but as he descended the glide deteriorated and the aircraft undershot into a very narrow field, coming to rest against a willow bush (Figure 1). The willow bush absorbed some of the impact energy and the pilot, who was uninjured, was able to vacate the aircraft without assistance. The aircraft's right mainwheel strut and some of the fuselage tubes were damaged in the impact.



Figure 1 G-CIUF following the forced landing

An inspection of the aircraft by the pilot after the accident found that the engine had seized, which he considered to have been caused by the engine over-speeding after the propeller drive belt had failed. The engine-driven belt pulley showed signs of overheating, due to the belt slipping.

The Aviad Zigolo MG12 is classified by the CAA as a single seat deregulated (SSDR) type, and is therefore unregulated with respect to its airworthiness. The aircraft maintenance manual requires that the drive belt is changed at 100 hour intervals. The failed belt had accumulated 44 hours in service since installation. The pilot stated that drive belts of improved quality were now available from the aircraft kit importer.

Conclusion

The forced landing occurred due to the failure of the propeller drive belt. The drive belt had not exceeded its suggested service life, but new drive belts of improved quality are now available from the aircraft kit distributer.

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