

Avid Speedwing Mk 4, G-BVAA

AAIB Bulletin No: 9/2004	Ref: EW/G2004/06/10	Category: 1.3
Aircraft Type and Registration:	Avid Speedwing Mk 4, G-BVAA	
No & Type of Engines:	1 Rotax 582 piston engine	
Year of Manufacture:	1995	
Date & Time (UTC):	14 June 2004 at 1837 hrs	
Location:	Near Headley, Hampshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - 1	Passengers - N/A
Nature of Damage:	Aircraft probable write off	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	54 years	
Commander's Flying Experience:	358 hours (of which 55 were on type)	
	Last 90 days - 0 hours	
	Last 28 days - 0 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and AAIB follow-up enquiries by telephone	

Following an uneventful takeoff and climb-out from a farm strip on the aircraft's first flight following a recent service. At approximately 1,200 feet agl, the engine suddenly stopped. Attempts were made to restart it but these were unsuccessful and it was noted that the engine was not cranking over as expected.

The pilot selected a field in which to attempt to land but, during final approach, the aircraft struck a high tree and became lodged in a level attitude just above a point where the trunk bifurcated into two main branches, about 30 to 40 feet above the ground.

The impact tore the wing and its fuselage attachments from the fuselage, but the cockpit space remained substantially intact. The seat harnesses restrained the pilot effectively and he was uninjured except for minor bruising to his foot and where his diagonal harness passed across his shoulder. Fuel was seen dripping from the right fuel tank, and the pilot confirmed that the cockpit switches were 'OFF' (he had previously selected them 'OFF' following the engine failure) before vacating the cockpit via the door on the left side, which had burst open in the impact, and starting to climb down. He was assisted down the final 15 feet to ground level by a householder, who came to his assistance with a ladder.

Subsequent examination of the engine by a PFA inspector revealed significant piston and cylinder scoring, particularly on the rear cylinder, which is normally the hotter-running cylinder. This suggested that it had suffered a temporary seizure and the pilot's account of the engine failing to turn

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over during his unsuccessful re-start attempt tends to confirm this assessment. Usually, the engine temperature on G-BVAA during climb-out tended to settle towards the upper end of the 'normal' range on the temperature gauge. On the day in question, the weather was unusually warm with an ambient temperature of 26° C.

The pilot commented on the marked increase in the stick forces required in the aircraft nose down sense to maintain correct attitude with the engine stopped, when compared with that which he had experienced previously during a simulated engine failure with the engine retarded to idle. He also remarked on the significant reduction he experienced in the aircraft's ability to penetrate with the engine stopped, compared with that achieved during practice engine failures with the engine running at idle RPM.