

## ACCIDENT

<b>Aircraft Type and Registration:</b>	ARV1 Super 2, G-BMWE	
<b>No &amp; type of Engines:</b>	1 Hewland AE75D piston engine	
<b>Year of Manufacture:</b>	1986	
<b>Date &amp; Time (UTC):</b>	26 August 2006 at 1600 hrs	
<b>Location:</b>	Edingale, Derbyshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - 1 (Minor)	Passengers - N/A
<b>Nature of Damage:</b>	Damage to the fin, rudder, wings, fuselage and cockpit area	
<b>Commander's Licence:</b>	Private pilot's licence	
<b>Commander's Age:</b>	60 years	
<b>Commander's Flying Experience:</b>	901 hours (of which 286 were on type) Last 90 days - 19 hours Last 28 days - 7 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

## Synopsis

The engine water pump drive belt broke causing the engine to overheat. The pilot shut the engine down and during the subsequent forced landing the aircraft landed heavily on the nose wheel, which collapsed causing the aircraft to turn over onto its back.

## History of the flight

The aircraft was approximately 11 nm from Tatenhill, on the second leg of a private flight from Manchester Barton to Popham, when the pilot noticed that the needle on the water temperature gauge was climbing into the red from its normal reading of 80°C. The pilot reduced the engine power and informed Coventry Radar, on 119.25 MHz, that he might need to make a forced landing

and requested advice on the nearest suitable airfield. Coventry Radar advised the pilot that Birmingham was the closest airfield. However the pilot elected to return to Tatenhill as he believed that this would increase his options should he have to undertake a forced landing.

The temperature gauge remained in the red and when the aircraft was approximately 7 nm from Tatenhill the engine started to backfire and, therefore, the pilot shut it down before it could seize. In his report the pilot commented that he was surprised at how steeply he had to dive the aircraft, with the propeller stationary, in order to maintain the required glide speed. The pilot positioned the aircraft for an into wind landing into a large, flat,

newly harvested field of wheat. To ensure that he did not overshoot the landing area he selected full flap, which required him to place the aircraft in a very steep dive in order to maintain the required airspeed of 60 kt. As the pilot commenced the flare he realised that the aircraft was not going to flare as expected and, consequently, he landed heavily on the nose wheel and the tips of the propeller blades. The nose wheel collapsed causing the aircraft to turn over onto its back damaging the fin, rudder, wings, fuselage and cockpit area. Although the

pilot, who was wearing a lap strap and diagonal harness, struck his head against the altimeter setting knob he was able to vacated the aircraft through the shattered canopy. The pilot was taken to hospital by air ambulance where he was assessed as having sustained superficial cuts and bruising.

The pilot subsequently discovered that the water pump drive belt had failed, which resulted in the engine overheating.