

# Streak Shadow, G-BTGT, 31 August 1996

**AAIB Bulletin No: 11/96 Ref: EW/G96/09/03 Category: 1.3**

<b>Aircraft Type and Registration:</b>	Streak Shadow, G-BTGT
<b>No &amp; Type of Engines:</b>	1 Rotax 582 piston engine
<b>Year of Manufacture:</b>	1991
<b>Date &amp; Time (UTC):</b>	31 August 1996 at 1600 hrs
<b>Location:</b>	Old Sarum Aerodrome, Salisbury, Wilts
<b>Type of Flight:</b>	Private
<b>Persons on Board:</b>	Crew - 1 - Passengers - 1
<b>Injuries:</b>	Crew - None - Passengers - None
<b>Nature of Damage:</b>	Right main gear broken off, right wing tip damaged, possible further damage to the airframe. Engine seized
<b>Commander's Licence:</b>	Private Pilot's Licence
<b>Commander's Age:</b>	37 years
<b>Commander's Flying Experience:</b>	316 hours (of which 109 were on type) Last 90 days - 22 hours Last 28 days - 2 hours
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot and telephone enquiries by AAIB

This was the first flight of the aircraft following a 150 hourservice which had included a complete strip down and re-assemblyof the engine being carried out by an approved maintenance organisation. The weather for the flight was good with excellent visibility,no significant cloud, a temperature of 15°C and a surfacewind of 360°/10 kt.

The engine behaved normally during the start-up and taxi and thepilot stated that it had been running for about 15 minutes prior to the take off on Runway 06. During the take off the peak RPMwas achieved as normal but at 200 feet agl the engine failed withoutany warning. There was insufficient runway remaining so the pilotdecided to land in a field immediately ahead. A gentle touchdownwas made about one third of the way into the field and at a normalspeed but the wheels immediately sank into the soft, recentlyploughed surface. The right main gear was torn off, the rightwing tip hit the ground and the aircraft came to a complete stopin about 10 metres. The pilot and his passenger, who were wearingfull harness assemblies, were uninjured and vacated the aircraftvia the normal exits.

The maintenance organisation that had completed the 150 hour service requested that the engine be examined by an independent organisation with experience of the Rotax engine. Initial inspection of the engine by the main UK agents for Rotax showed classic signs of cold seizure at four different places around the circumference of the cylinder. A cold seizure can occur if an engine is run at full power before it is fully warm, the piston then expands faster than the cylinder leading to the seizure.