

ACCIDENT

Aircraft Type and Registration:	Rans S6-ES Coyote II, G-CYOT	
No & Type of Engines:	1 Jabiru 2200 piston engine	
Year of Manufacture:	2008	
Date & Time (UTC):	15 October 2009 at 1450 hrs	
Location:	Southery airstrip, Norfolk	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Nose leg collapsed, damage to one propeller blade, left main landing gear and wing tips	
Commander's Licence:	National Private Pilot's Licence	
Commander's Age:	43 years	
Commander's Flying Experience:	86 hours (of which 13 were on type) Last 90 days - 19 hours Last 28 days - 13 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and telephone inquiries by the AAIB	

Synopsis

The aircraft had just become airborne when the engine lost power. A forced landing in a field resulted in a ground loop and collapse of the nose landing gear.

History of the flight

The aircraft had undergone a 25-hour service at Southery airstrip. The owner planned to take a friend on a brief local flight before refuelling and returning to his home base in Wiltshire. He checked the fuel both in the tanks and gascolator for water and, after starting the engine and allowing it to warm to 50°C, he completed the pre-flight checks including magneto checks and a brief run-up to full power.

The takeoff roll was normal and the pilot rotated the aircraft at 45 kt, however, a few seconds after liftoff, at a height of 20-30 ft, the engine "coughed", ran roughly and lost power. The airspeed rapidly decayed and the left wing dropped, so the pilot applied corrective rudder and lowered the nose, now realising that a forced landing was inevitable. The aircraft had turned to the left, crossing a deep drainage fen which ran parallel and close to the runway edge, and the pilot elected to land in a ploughed field just beyond the fen rather than risk crossing it again to land back on the runway.

After switching off the engine and instructing his passenger to brace for impact, he did not have enough airspeed to flare the landing and the aircraft struck the

ground nosewheel first, collapsing the nose landing gear leg. As the underside of the engine cowling struck the ground, the left wingtip also touched, spinning the aircraft through 180°. It came to rest some 15 metres after the nosewheel impact and the pilot and passenger evacuated normally without injury, having turned off the fuel and all electrical switches.

During examination of the aircraft after the accident, it was noticed that the rubber tube which mounted the carburettor to the engine had sheared in two. This struck the pilot as unusual since, to his knowledge, ground impacts resulting in carburettor detachment usually

involve the tube pulling off intact. A pre-existing split in the tube, resulting in an over-lean mixture would be consistent with the reported malfunction of the engine.

The pilot suggests that overtightening of a jubilee clip might have damaged the rubber. It was also noted that the carburettor was equipped with a heating system which utilises hot engine oil to warm the body and prevent icing. This system increases the weight of the carburettor and, when used on a different model of aircraft, an additional stay is used to compensate for the extra weight. G-CYOT was not equipped with this additional support.