

Jabiru UL-450, G-BZYK

AAIB Bulletin No: 10/2004	Ref: EW/G2004/06/11	Category: 1.3
Aircraft Type and Registration:	Jabiru UL-450, G-BZYK	
No & Type of Engines:	1 Jabiru Aircraft 2200A piston engine	
Year of Manufacture:	2002	
Date & Time (UTC):	12 June 2004 at 1300 hrs	
Location:	Redhill Aerodrome, Surrey	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to left main landing gear	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	42 years	
Commander's Flying Experience:	168 hours (of which 63 were on type)	
	Last 90 days - 9 hours	
	Last 28 days - 6 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further information from the Popular Flying Association (PFA)	

History of the flight

The pilot was returning to Redhill from a flight to the Isle of Wight. The weather was good, with a strong breeze from the north-west. The pilot reports that he made a normal landing on Runway 26L but, as he turned left to taxi along Runway 19, the left main landing gear collapsed and the left wingtip slowly came to rest on the ground. The pilot promptly turned off the engine and there was no further damage to the aircraft.

Aircraft examination

Examination showed that an attachment bolt in the left main landing gear had failed. The main landing gear legs on this type of aircraft are of composite construction and are each attached to the underside of the glassfibre fuselage by means of three bolts. The inboard bolt passes through a bushing and the outboard bolts are unbushed, passing through a protective rubber strip and a clamp bar.

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There have been a number of similar occurrences of landing gear collapse suffered by Jabiru aircraft in the UK and a number of previous AAIB Bulletin reports. The most extensive of these was published in AAIB Bulletin 10/2002, and concerned Jabiru G-JUDD, which also had a landing gear collapse whilst taxiing and where the failed attachment bolt showed evidence of fatigue damage.

In the time since the accident to G-JUDD the Popular Flying Association (PFA), who hold responsibility for the airworthiness for this type of kit-built aircraft in the UK, have published advice on avoidance of Jabiru landing gear failures. This includes suggestions on landing technique and also details of approved modifications to strengthen the landing gear. These modifications include upgrading the rear attachment bolts from size AN5 to AN6. The PFA advice also emphasises the need to maintain the tightness of the bolts in service, particularly after heavy landings, and to re-torque as necessary.