

ACCIDENT

Aircraft Type and Registration:	Europa XS, G-FIZY	
No & Type of Engines:	1 Rotax 912-UL piston engine	
Year of Manufacture:	2007 (Serial no: PFA 247-13291)	
Date & Time (UTC):	30 June 2014 at 1445 hrs	
Location:	Tangley, Hampshire	
Type of Flight:	Private	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Left door detached, damaging the left tailplane	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	72 years	
Commander's Flying Experience:	17,670 hours (of which 5 were on type) Last 90 days - 79 hours Last 28 days - 34 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and LAA information	

Synopsis

The aircraft was on a local flight from Thruxton Aerodrome for the purpose of conducting an air test as part of the revalidation of its Permit to Fly. The aircraft was flying at approximately 110 kt and 950 ft amsl when the left door detached without warning. After checking the control response was normal, the pilot returned to Thruxton where the aircraft landed without further incident.

The pilot and the observer stated that they had checked the doors were closed before departure and the observer, who was sitting next to the door, added that there was no flapping or draught to suggest the door had not been properly closed.

The missing door was not recovered, but the failure face on the remaining part of the hinges was reported as appearing "fresh" and no damage was reported in the area of the shoot bolt guides, suggesting that a hinge failure was unlikely. A post-flight inspection identified that the door had struck the left tailplane, causing significant damage. The LAA later reported that there was evidence of the extended rear shoot bolt rubbing on the outside of the door frame.

Additional information

The doors are of a gull wing arrangement. Each door is hinged in two places along its top edge, (Figure 1). A gas strut is fitted to the rear of the door to support it in the open position.

The door is held closed by two tapered shoot bolts which extend out longitudinally, from the lower corners of the front and rear sides of the door, into guides in the door frame. If the door is not fully closed at the rear, it is possible to move the door locking lever to the closed position with only the front shoot bolt engaged in its guide. This gives the false impression that the door is closed and fully locked. There have been a number of previous incidents on the Europa fleet where a door has detached due to the rear shoot bolt not engaging in its guide when the door was closed.

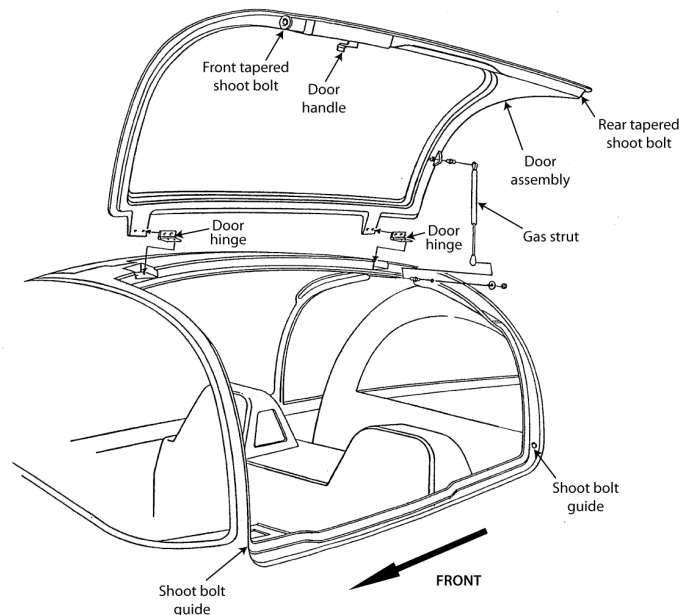


Figure 1

Door arrangement (courtesy of Europa Aircraft Ltd)

Safety action

The LAA are working with Europa Aircraft Ltd to design a safety modification intended to prevent a recurrence.