

**Aviation Safety Investigation Report  
199402735**

**Avtech Pty Ltd  
JABIRU ST**

**18 September 1994**

Readers are advised that the Australian Transport Safety Bureau investigates for the sole purpose of enhancing transport safety. Consequently, Bureau reports are confined to matters of safety significance and may be misleading if used for any other purposes.

Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

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**NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at [www.atsb.gov.au](http://www.atsb.gov.au).**

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

**Occurrence Number:** 199402735                      **Occurrence Type:** Incident  
**Location:** Cairns  
**State:** QLD    **Inv Category:** 4  
**Date:** Sunday 18 September 1994  
**Time:** 1300 hours                                      **Time Zone** EST  
**Highest Injury Level:** None

**Aircraft Manufacturer:** Avtech Pty Ltd  
**Aircraft Model:** JABIRU ST  
**Aircraft Registration:** VH-NQA                      **Serial Number:**  
**Type of Operation:** Instructional Dual  
**Damage to Aircraft:** Nil  
**Departure Point:** Cairns Qld  
**Departure Time:** 1300 EST  
**Destination:** Cairns Qld

**Approved for Release:** Monday, September 25, 1995

The Jabiru aircraft was departing Cairns for a dual training flight. At approximately 200 ft AGL during the initial climb, a loud bang was heard and the aircraft began to vibrate violently. The pilot immediately reduced engine power and was able to land the aircraft straight ahead on the remaining runway without further incident.

Later examination found that the right rear cylinder on the engine had partly detached from the crankcase. The cause for the detachment was traced to the fatigue failure of two of the cylinder tie down bolts. Specialist examination of the bolts by the manufacturer determined that the bolt design was probably inadequate. The manufacturer has since redesigned the bolts.