# Aviation Safety Investigation Report 199402191

## Saab Aircraft AB 340

## 05 August 1994

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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.**

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# 199402191

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:** 199402191 **Occurrence Type:** Incident
**Location:** Cudal
**State:** NSW **Inv Category:** 4
**Date:** Friday 05 August 1994
**Time:** 0700 hours **Time Zone** EST
**Highest Injury Level:** None

**Aircraft Manufacturer:** Saab Aircraft AB
**Aircraft Model:** SF-340B
**Aircraft Registration:** VH-TCH **Serial Number:** 362
**Type of Operation:** Air Transport Domestic Low Capacity Passenger
**Damage to Aircraft:** Nil
**Departure Point:** Cudal NSW
**Departure Time:** 0700 EST
**Destination:** Orange NSW

**Approved for Release:** Monday, May 8, 1995

During take off the crew noticed a small surge on the right engine torque indicator, with no noticeable power change. Shortly after lift off, as the landing gear was retracting, the right engine torque suddenly increased to 107%. The power lever, although extremely stiff to move, was eventually retarded until the torque was reduced to 85%. By this time the auto coarsen system had commanded the propeller RPM to zero and the engine was shut down. The flight continued to Orange where an uneventful single engine landing was carried out.

Subsequent investigation revealed the right engine Beta tube had failed where it entered the Propeller Control Unit (PCU). The remains of the tube were jammed in the PCU, which was stiff to operate at the power lever input shaft.

Investigation by the manufacturer attributed the failure to localised pick up and seizure of the PCU Beta Sleeve to the Beta Tube Unit Sleeve, resulting from a reduction below the minimum diametrical clearance between the two components. This was due to an incorrectly formed undercut in the Beta Rack during manufacture, which prevented satisfactory location between the two components, and subsequent distortion of the sleeve.

The manufacturer has instigated an inspection requirement for Beta Racks from the same batch number and advised that future batches will be examined prior to assembly.