

**Aviation Safety Investigation Report
199603195**

**Piper Aircraft Corp
Chieftain**

06 October 1996

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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.

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: 199603195 **Occurrence Type:** Incident
Location: King Island
State: TAS **Inv Category:** 4
Date: Sunday 06 October 1996
Time: 1422 hours **Time Zone** EST
Highest Injury Level: None

Aircraft Manufacturer: Piper Aircraft Corp
Aircraft Model: PA-31-350
Aircraft Registration: VH-NEF **Serial Number:** 31-7952165
Type of Operation: Air Transport Low Capacity Passenger
Damage to Aircraft: Nil
Departure Point: King Island Tas
Departure Time: 1422 EST
Destination: Launceston Tas

Crew Details:

<u>Role</u>	<u>Class of Licence</u>	<u>Hours on</u>	<u>Type</u>	<u>Hours Total</u>
Pilot-In-Command	ATPL	380.0		1890

Approved for Release: Tuesday, December 10, 1996

Shortly after takeoff from runway 17, at about 200 to 300 feet above the ground, the left engine lost power. The pilot shut the engine down and feathered the propeller and returned for a safe landing on runway 28.

An engineering inspection revealed that the head had completely separated from number three cylinder of the left engine. The separation occurred in such a way that the induction pipe separated from its flange which resulted in there being no power available from the other cylinders. The cylinder that failed was only 200 hours old since new. The engine had been fitted with six new cylinders, all from the same batch from the same manufacturer.

Because of this the operator decided to check the five remaining cylinders. Initial compression checks revealed no abnormalities. However, a wet compression check revealed that all five cylinder heads were porous due to faulty manufacture.

Details of the operator's findings were passed to CASA and as a result an airworthiness directive (CAO Part 106 AD/LYC/101) was issued requiring some other cylinders from the same manufacturer to be inspected within specified time frames.

