

**Aviation Safety Investigation Report  
198703500**

**Cessna A188B-A1**

**31 August 1987**

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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).**

**Occurrence Number:** 198703500

**Occurrence Type:** Accident

**Location:** Clare (35 km SW Ayr) QLD

**Date:** 31 August 1987

**Time:** 1800

**Highest Injury Level:** Nil

**Injuries:**

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

**Aircraft Details:** Cessna A188B-A1

**Registration:** VH-IEV

**Serial Number:** 18801547

**Operation Type:** Aerial Work

**Damage Level:** Substantial

**Departure Point:** Clare QLD

**Departure Time:** 1800

**Destination:** Clare QLD

**Approved for Release:** November 7th 1988

#### **Circumstances:**

The pilot reported that shortly after liftoff, as he retracted the flap, he felt the engine lose power. He commenced to dump the load but aircraft performance continued to deteriorate and he was committed to landing straight ahead in a field of young sugar cane. On-site investigation showed that the tailwheel and right mainwheel of the aircraft had struck a 40 centimetre high embankment some 8 metres beyond the end of the 700 metre strip. The aircraft remained airborne for a further 115 metres before the left wingtip contacted the ground. Evidence of load dump began at the same point. The right mainwheel then contacted the ground and the aircraft swung 130 degrees to the left and travelled a further 44 metres before coming to rest. Examination of the engine revealed evidence of loss of compression past the piston rings on four of the six cylinders and past the valves on five cylinders. These faults would have reduced the power output of the engine and resulted in a decreased takeoff performance. It is likely that the aircraft became airborne near the end of the strip, striking the embankment almost immediately afterwards. The engine was due to be changed after a further 15 hours of operation. The Aircraft Flight Manual indicated that, for the takeoff weight applicable at the time, the aircraft required a takeoff distance of 500 metres.

#### **Significant Factors:**

The following factors were considered relevant to the development of the accident

1. There was excessive wear in the piston/cylinder assemblies of the engine.
2. The resultant low engine compression reduced the power output available from the engine.
3. The pilot misjudged speed and altitude on takeoff.