

**Aviation Safety Investigation Report
198703480**

Hiller UH 12-E

23 May 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.

Occurrence Number: 198703480

Occurrence Type: Accident

Location: 14 km SE Gympie QLD

Date: 23 May 1987

Time: 1440

Highest Injury Level: Nil

Injuries:

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	0
Total	0	0	0	1

Aircraft Details: Hiller UH 12-E

Registration: VH-FFX

Serial Number: 5066

Operation Type: Aerial Work (Positioning)

Damage Level: Substantial

Departure Point: Caloundra QLD

Departure Time: 1420

Destination: Rockhampton QLD

Approved for Release: November 8th 1988

Circumstances:

The pilot reported that the helicopter was cruising at 2000 feet when, without warning, there was a complete loss of engine power. During the subsequent forced landing, the tail boom struck the ground, causing the tail rotor gear box to separate from the aircraft. Investigation revealed that the engine accessory gear train had failed, causing both magnetos to cease operation. The gear train failed due to lack of torque followed by the fatigue failure of six screws that attach the accessory drive gear to the starter gear. The cause of the loss of torque was not established.

Significant Factors:

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

1. Lack of torque on six screws which attached the accessory drive gear to the starter motor led to failure of the accessory gear train.
2. The engine failed due to loss of drive to the accessory gear train which drives both magnetos.
3. During the landing flare the pilot misjudged the altitude of the helicopter, allowing the tail boom to strike the ground.