

**Aviation Safety Investigation Report
198400034**

Robinson R22

18 August 1984

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 CEO of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

Investigations commenced after 1 July 2003, including the publication of reports as a result of those investigations, are authorised by the CEO of the Bureau in accordance with the Transport Safety Investigation Act 2003 (TSI Act). Reports released under the TSI Act are not admissible as evidence in any civil or criminal proceedings.

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: 198400034
Location: Archerfield QLD
Date: 18 August 1984
Highest Injury Level: Nil
Injuries:

Occurrence Type: Accident

Time: N/A

| | Fatal | Serious | Minor | None |
|--------------|----------|----------|----------|----------|
| Crew | 0 | 0 | 2 | 2 |
| Ground | 0 | 0 | 0 | - |
| Passenger | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 2 |

Aircraft Details: Robinson R22
Registration: VH-IXM
Serial Number:
Operation Type: Aerial Work-Dual
instruction
Damage Level: Substantial
Departure Point: Archerfield QLD
Departure Time: N/A
Destination: Archerfield QLD

Approved for Release: February 16th 1987

Circumstances:

As the helicopter was being hovered the pilots heard a muffled bang. The instructor immediately assumed control and landed the helicopter. An inspection of the transmission area revealed that the rear drive belt was missing. The instructor reboarded the helicopter and commenced to hover taxi back to the hangar. Another bang and other noises were heard emanating from the rear of the helicopter, which was landed and the engine shut down. Substantial damage had been caused to the transmission area. The reason for the initial belt failure was not determine as the belt was not recovered. The remaining belts failed after being overloaded during taxi back to the hangar. It is considered that after the belts failed the actuator continued to run winding itself apart. This resulted in the gross misalignment of the driveshaft and in turn the failure of the flexplate and the damage to the transmission area.