Aviation Safety Investigation Report 198800117

Robinson R22

25 April 1988

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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: 198800117 **Occurrence Type:** Accident
Location: Theda (50km NW of Kununurra) WA
Date: 25 April 1988 **Time:** 845
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: Robinson R22
Registration: VH-UXA
Serial Number: 80
Operation Type: Private
Damage Level: Substantial
Departure Point: Theda WA
Departure Time: 0745
Destination: Theda WA

Approved for Release: 15 February 1989

Circumstances:

The aircraft was being used for mustering when the engine began to run roughly and lose power. The pilot turned towards the nearest cleared area but he was unable to maintain rotor rpm with the power that was available. The pilot initiated an autorotative descent, from approximately 40 feet above ground level, and the aircraft touched down in the cleared area on the heels of its skids. The aircraft bounced forward, onto the toes of the skids, and rolled to the left. The pilot lifted the aircraft clear of the ground, in an attempt to regain control, however it turned through 360 degrees several times before touching down again and coming to a stop. The tail boom and tail rotor were damaged during the landing. The precise cause of the loss of power could not be determined however the movement of the exhaust valve in No. 3 cylinder was found to be restricted by a build up of gum on the valve stem and one spark plug was found to be inoperative. Most mustering operations take place at low level and at a slow speed, as was the case in this accident, and this lack of performance potential makes a successful, damage free, autorotational landing unlikely.

Significant Factors:

It was considered that the following factors were relevant to the development of the accident

1. Engine malfunction probably caused by a sticking exhaust valve or an unserviceable spark plug.

2. Operational hazard - mustering operations at low speed and height above the ground.