



Ref: 7868

**SOUTH AFRICAN CIVIL AVIATION AUTHORITY****ACCIDENT REPORT – EXECUTIVE SUMMARY**

<b>Aircraft Registration</b>	ZS-HTP	<b>Date of Accident</b>	13 October 2004	<b>Time of Accident</b>	1200Z
<b>Type of Aircraft</b>	ROBINSON R22		<b>Type of Operation</b>		Game Capture
<b>Pilot-in-command Licence Type</b>	Commercial	<b>Age</b>	21	<b>Licence Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>			632.1	<b>Hours on Type</b>	477.1
<b>Last point of departure</b>	Game farm ±20km North of Uitenhage				
<b>Next point of intended landing</b>	Game farm ±20km North of Uitenhage				

**Location of the accident site with reference to easily defined geographical points (GPS readings if possible)**

Game farm ±20km North of Uitenhage

**Meteorological Information** Fine: Wind – NW/5kts, Temperature 28°C, Visibility >10km

<b>Number of people on board</b>	1 + 0	<b>No. of people injured</b>	0	<b>No. of people killed</b>	0
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**Synopsis**

The pilot had just completed a game capture operation and was returning to his landing site when he noted an unusual noise coming from the engine. While scanning the instrument panel he noted that the clutch warning light had illuminated, accompanied by a vibration.

The pilot then decided to execute a precautionary landing on a dirt road he had identified in his 12 o'clock position. At this stage the noise from the engine and the vibration had deteriorated considerably. With about halfway to the road at a height of approximately 40 feet above the ground (AGL) at an indicated airspeed of approximately 30kt, the engine failed.

The pilot had no option but to execute a forced landing into a small open area in dense bush. A hard landing followed with the tail rotor making contact with some trees, which supported the tail and prevented the tail to contact the ground. The pilot managed to disembark from the aircraft uninjured.

**Probable Cause**

It would appear that the lower bearing on the clutch actuator had seized in operation due to lubrication failure. During rotation of the shaft within the bearing inner race frictional heating occurred resulting in the failure of the bearing, the bearing housing and the fan shaft. The failure of the shaft resulted in an engine over-speed condition and secondary engine damage, followed by a hard landing in dense bush type terrain.