



Ref: 7595

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

<b>Aircraft Registration</b>	ZS-HNH	<b>Date of Accident</b>	27/11/2002	<b>Time of Accident</b>	1515Z
<b>Type of Aircraft</b>	ENSTROM 280C		<b>Type of Operation</b>	Private	
<b>Pilot-in-command License Type</b>	Commercial	<b>Age</b>	31	<b>License Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>	Total Flying Hours	2 492.6		Hours on Type	376.5
<b>Last point of departure</b>	Pietersburg				
<b>Next point of intended landing</b>	Blouberg Mountains				
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>					
Blouberg Mountains ±40nm West of Louis Trichardt (GPS - 23° 04 936' South 028° 59 573' East)					
<b>Meteorological Information</b>	Fine				
<b>Number of people on board</b>	One	<b>No. of people injured</b>	None	<b>No. of people killed</b>	None

**Synopsis**

According to the pilot, he was on a flight from Pietersburg to a helicopter-landing zone, on-top of the Blouberg Mountains. Whilst climbing at a speed of approximately 60 mph for the landing zone, the pilot suddenly became aware of a high frequency vibration. A left turn was initiated away from the rising terrain.

During the turn the pilot heard an unusual noise in the engine compartment and the smell of burning rubber became evident. Shortly thereafter the red clutch warning light illuminated on the instrument panel and the engine rpm increased. From a height of approximately 300 feet above ground level (AGL) the pilot initiated an auto-rotational landing onto a ledge on the side of the mountain. On touch down in a fairly open area the helicopter skidded forward approximately 5m. During touch down the main rotor blades severed the tail boom and as the aircraft came to halt, the blades struck a small tree which was located towards the 11 o'clock position from the nose within the main rotor diameter.

The engine was shut down and all electrical power switched off, where upon the pilot disembarked from the aircraft uninjured.

Due to the remote area and the pilot being out of radio contact and cell phone coverage, he had to walk for some distance until such point where he was able to obtain some cell phone signal. He notified Air Force Base Louis Trichardt of his position and requested their assistance. Approximately 30 minutes later he was airlifted from the mountain by an Oryx Air Force helicopter.

**Probable Cause**

The Idler Pulley Actuator Arm failed in flight due to high vibration and high strain levels on the actuator arm over a substantial period of time, which resulted in the drive belt pulley becoming slack, resulting in an engine over-speed condition and clutch warning indication.