

		<b>Ref: 8053</b>			
		<b>SOUTH AFRICAN CIVIL AVIATION AUTHORITY</b> <b>ACCIDENT REPORT – EXECUTIVE SUMMARY</b>			
<b>Aircraft Registration</b>	<b>ZS-DNG</b>	<b>Date of Accident</b>	26 Dec 2005	<b>Time of Accident</b>	1250Z
<b>Type of Aircraft</b>	DE HAVILAND (TIGER MOTH)		<b>Type of Operation</b>	Private	
<b>Pilot-in-command Licence Type</b>	Private	<b>Age</b>	45	<b>Licence Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>	Total Flying Hours	678.5		Hours on Type	164.5
<b>Last point of departure</b>	Fly Inn Aerodrome				
<b>Next point of intended landing</b>	Rand Aerodrome (FAGM)				
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>					
On a farm next to Fly Inn Air Park Aerodrome: GPS position: S 25° 58.262' E 028° 21.577 '					
<b>Meteorological Information</b>	The weather was fine, Temperature: 26°C and the wind 030°/5kt.				
<b>Number of people on board</b>	1 + 1	<b>No. of people injured</b>	0	<b>No. of people killed</b>	0
<b>Synopsis</b>	<p>According to the pilot/owner, he flew from Rand Aerodrome to Baragwanath Aerodrome where he removed and cleaned the right hand rear cylinder spark plug due to the engine starting to run rough. He then departed from Baragwanath Aerodrome and landed safely at Fly-Inn Aerodrome.</p> <p>The pilot stated that after he refuelled the aircraft to full capacity at Fly-Inn Aerodrome he performed a ground run on the engine and checked the magnetos at 1600rpm with the aircraft chocked. As the aircraft is not fitted with park brakes, he taxied to the threshold of Runway 06 at Fly Inn and commenced with the take-off run.</p> <p>He further stated that the aircraft became airborne at an IAS of approximately 60mph in calm wind conditions but the aircraft failed to gain height. He then only noted that the engine only produced 1800 RPM instead of the required 2100 RPM for take-off.</p> <p>As there was no available runway left to land back onto the runway, he made a steep turn to the right in order to avoid trees ahead and elected to execute a forced landing on a ploughed field but the right hand wing lowered and made contact with the ground. During the impact sequence, the nose and propeller made contact with the ground and the aircraft nosed over.</p> <p>The pilot and passenger were not injured but the aircraft was extensively damaged.</p> <p>The last Mandatory Periodic Inspection (MPI) that was conducted on the aircraft prior to the accident was certified on 19 February 2005 at a total of 1305.2 airframe hours. Since the last inspection was certified a further 52.2 hours were flown.</p>				
<b>Probable Cause</b>					
<p>The pilot stalled the aircraft when he manoeuvred the aircraft to the right in order to avoid trees ahead when he experienced a loss of engine power during take-off and after the aircraft became airborne.</p> <p>The incorrect assembly procedures was responsible for the failure due to the fact that the tab washers were re-used during the engine overhaul procedure and/or incorrect torque limits were used resulting in failure of the tab washers.</p>					