



Ref: 7628

SOUTH AFRICAN CIVIL AVIATION AUTHORITY

ACCIDENT REPORT – EXECUTIVE SUMMARY

Aircraft Registration	ZU-BOK	Date of Accident	15 February 2003	Time of Accident	0555 Z
Type of Aircraft	JABIRU SK	Type of Operation	Private		
Pilot-in-command Licence Type	Microlight Pilot	Age	29	Licence Valid	Yes
Pilot-in-command Flying Experience	Total Flying Hours	98.9	Hours on Type	16.10	
Last point of departure	Oribi Aerodrome				
Next point of intended landing	Howick Aerodrome				
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)					
Open field 2nm South-West of Pietermaritzburg					
Meteorological Information	The weather was fine, the temperature approximately 22° C and the visibility good				
Number of people on board	1 + 0	No. of people injured	Nil	No. of people killed	Nil
Synopsis	<p>The pilot took off from Oribi Aerodrome for a flight to Howick and was about to level off when he heard a tremendous bang followed by severe engine vibration and subsequent, engine failure. The cockpit almost immediately filled with smoke and the smell of burning oil. He then attempted to re-start the engine but it was to no avail.</p> <p>The pilot then executed a forced landing on an open field, but due to telephone wires ahead, he landed in deeper than he anticipated. The aircraft's nose wheel struck some anti-erosion ridges causing the nose and both main landing gears to separate from the aircraft.</p> <p>The pilot sustained a sprained back injury during the accident.</p>				
Probable Cause					
It was established that Number 4 cylinder exhaust valve had fractured at the valve stem, just below the valve head due to overheating. Jabiru engine cylinders with engine serial numbers up to 644, have smaller cooling fins which causes the cylinders to overheat and the engines to fail. Engines with serial numbers from 645 upwards are fitted with re-designed cylinders with larger cooling fins which results in improved cooling.					

