

ACCIDENT

Aircraft Type and Registration:	DG-800B, G-MSIX	
No & Type of Engines:	1 Solo Kleinmotoren GmbH 2-625-01 piston engine	
Category:	1.3	
Year of Manufacture:	1999	
Date & Time (UTC):	23 June 2005 at 1530 hrs	
Location:	Near to West Trading Estate, south of Gloucester, Gloucestershire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Landing gear collapsed and lower fuselage damaged	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	74 years	
Commander's Flying Experience:	2,506 hours (of which 202 were on type) Last 90 days - 36 hours Last 28 days - 22 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and subsequent enquiries by the AAIB	

History of the flight

The pilot reported that he was flying in a gliding competition, on what he described as a "very hot" day. He took off from the launch site under the glider's own engine power and, at the end of the self-launch, noted that the engine coolant temperature (displayed digitally in the cockpit) was high. The soaring conditions became difficult, and the pilot decided to end the task. At about 1,200 ft above ground level, the pilot raised the propeller mast and started the engine, with the intention of flying back to the airfield under power. The engine started without difficulty, and achieved full power, but after climbing about 600 ft, the engine high temperature warning began to flash, indicating that the temperature of the coolant had reached

95°C. The pilot shut the engine down, and established a circuit around a "good looking" hay field.

The pilot was unable to centre the propeller, and thus could not lower the mast fully. Instead, he lowered the mast about half way. Using 8° of positive flap and an approach speed of 60 kt, he flew the approach to the field. After a fully held off landing with a small amount of airbrake, the glider touched down. Soon after touchdown, there was a "high impact" and the landing gear collapsed. The aircraft ground-looped and came to rest erect, and the pilot vacated the aircraft without difficulty.

After the accident, the pilot noted that there were severe ruts throughout the field, and the landing gear had collapsed where the aircraft ran over one rut. He found that the engine had seized, and concluded that this had been caused by loss of coolant, although the coolant level had been normal when last inspected, two days prior to the accident flight. Inspection of the engine after the accident identified that there was significantly more

than normal white staining around the radiator filler, consistent with a coolant loss in flight. A maintenance engineer, familiar with the engine, offered the opinion that the position of the radiator within the mast made positioning the cap onto the filler somewhat awkward, and that it was possible to replace the cap incorrectly, allowing coolant to escape under pressure.



Note: Lugs of cap only just pass upper radiator mounts.
Cap shown in fully closed position.

Figure 1

Installation of radiator on mast