

No: 6/85

Ref: EW/G85/01/09

**Aircraft type and registration:** Grob G109 G-BJZX (single engined motor glider)

**Year of Manufacture:** 1983

**Date and time (GMT):** 5 January 1985 at 1420 hrs

**Location:** Enstone Aerodrome

**Type of flight:** Private (training)

**Persons on board:** Crew — 1                      Passengers — None

**Injuries:** Crew — None                      Passengers — None

**Nature of damage:** Damage to propeller, right wing and right undercarriage

**Commander's Licence:** Student

**Commander's Age:** 32 years

**Commander's total flying experience:** 19 hours (of which 18 were on type)

**Information Source:** Aircraft Accident Report Form submitted by pilot and BGA report.

The student pilot was making a practice approach to runway 08 at Enstone, flying at about 70 kt, with the engine set to idle power. On short final he realised that he was under-shooting the runway and decided to go-around. He retracted the airbrakes but failed to lock the selector lever fully forward. As he opened the throttle the rate of descent increased and the aircraft struck the ground about 30 yards short of the runway, damaging the propeller and the right undercarriage leg. The aircraft bounced and then landed on the runway, slewing to the right on the broken undercarriage.

**Comment:** The Grob 109 motor glider differs from most other light aircraft in that it is equipped with airbrakes. These are controlled by levers at the sides of the cockpit which are locked in their forward, Airbrakes In, position by an overcentre spring latch. Once the lever is pulled back out of the lock position, it is restrained by a spring to the Airbrakes In position. If the aircraft speed exceeds approximately 65 kt, the reduction of air pressure over the upper surface of the mainplane will draw the airbrakes out, overcoming the tension in the lever spring.

Because of the low-drag characteristics of the airframe, the normal powered approach procedure is for the throttle, mounted on the centre console, to be set to Idle and for the pilot to control the aircraft flight path by varying the airbrake position. If a pilot wishes to go-around from an approach he must first set the airbrakes fully forward to the locked position before changing hands on the control column and then opening the throttle. It is reported that although the aircraft can maintain powered flight with the airbrakes out, sudden opening of the airbrakes at speeds over 65 kt will cause a pronounced nose-down trim change.