ACCIDENT

Aircraft Type and Registration:	Hoffmann H 36 Dimona, G-KOKL
No & Type of Engines:	1 Limbach L 2000-EB1C piston engine
Category:	1.3
Year of Manufacture:	1989
Date & Time (UTC):	29 October 2005 at 1255 hrs
Location:	Rufforth Airfield, North Yorkshire
Type of Flight:	Training
Persons on Board:	Crew - 2 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Left main landing gear collapsed
Commander's Licence:	Private Pilot's Licence
Commander's Age:	53 years
Commander's Flying Experience:	251 hours (of which 4 were on type) Last 90 days - 48 hours Last 28 days - 14 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

History of the flight

The Dimona is a two-seat motor glider constructed from glassfibre. It has a 52 ft wingspan and the landing gear is of the tailwheel type. The main landing gear legs are attached to the fuselage forward of the wing.

An instructor pilot was carrying out a training flight with another qualified club pilot to address crosswind takeoff techniques. The first takeoff was on Runway 24 with a surface wind of 160º/10 kt which created the required crosswind component. The student performed a satisfactory takeoff from Runway 24 which met the requirements. For the remainder of the flight, the instructor decided to carry out some further circuits using Runway 18 which was more into wind.

On the first approach to Runway 18 the student began to undershoot the runway whilst using the airbrakes. He closed the airbrakes and corrected the approach angle to that of a normal approach. As the aircraft neared the ground, the student re-opened the airbrakes fully and rapidly which caused what the instructor described as "a firm but not heavy landing". The student performed a touch and go followed by two further circuits.

On the final full stop landing, the student carried out a smooth and gentle touch down. As the aircraft slowed and the wheel brakes were applied positively, the aircraft "listed to port". The aircraft was stopped immediately. Having stopped the engine, the pilots

vacated through the normal exit. The left main landing gear had collapsed rearwards.

Analysis

Apart from the initial firm touch down, the landings performed during the rest of the training session were normal. The instructor considered that given the smooth final landing, there must have been some previous damage to the left main landing gear and that it may have been inflicted during the takeoff that preceded the instructional flight when a swing developed during the ground roll. This damage had been exacerbated by the firm landing and heavy braking during the training, leading to its collapse under positive braking on the final landing.

The gliding centre concurred with this assessment but stated that the collapse may have been caused by cumulative stress on the landing gear over a longer period of time, perhaps due to repetitive over-enthusiastic application of the wheelbrakes.