

AAIB Bulletin No: 4/94

Ref: EW/G94/02/07

Category: 1.3

Aircraft Type and Registration: Rutan Long-Ez, G-BNCZ

No & Type of Engines: 1 Lycoming O-235-C2C piston engine

Year of Manufacture: 1988

Date & Time (UTC): 12 February 1994 at 1325 hrs

Location: Sherburn-in-Elmet Aerodrome, West Yorkshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Major general damage to airframe, engine and propeller

Commander's Licence: Private Pilot's Licence with IMC rating

Commander's Age: 65 years

Commander's Flying Experience: 503 hours (of which 207 were on type)
Last 90 days - 6 hours
Last 28 days - 4 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

A new propeller had been fitted to the aircraft and the purpose of the flight was to check that this functioned correctly. The air test was satisfactory and the aircraft rejoined the circuit, left hand, to grass Runway 19; the weather was fine and the surface wind was 170°/12 kt.

The main landing gear on the Long-Ez is fixed but the nose gear can be retracted. A ratchet, on the nose landing gear operating handle, locks the nose gear in the retracted or extended position; during the flight the ratchet lever had become detached and the pilot had used a screwdriver to operate it. The landing gear was extended and the pilot carried out a practice "balked landing". On the second approach, this time to land, the nose landing gear was seen, by an observer on the ground, to be retracted. Shortly after the aircraft touched down on the main landing gear, the nose dropped onto the soft ground; the right winglet subsequently impacted the surface, the left wing lifted, and the aircraft cartwheeled and came to rest upside down. The pilot was wearing full upper torso restraint and the integrity of the cockpit was maintained by the roll bar behind the seat; he escaped through the shattered perspex canopy sustaining minor injuries from the sharp edges.

The pilot accepted that he had landed with the nose landing gear retracted. He considered that, when he came to extend the nose gear for the landing, it was, in fact, already extended and his action had retracted it. He had not been aware that he was rotating the operating mechanism in the retract sense. The situation was aggravated by the fact that he could not check the gear visually because the clear view panel had been covered by mud thrown up during the take-off run. The landing gear audio warning had not functioned; this was subsequently traced to a malfunction of the associated micro switch.

It is the pilot's intention to rebuild the aircraft and he has considered the action he intends to take to prevent a similar occurrence in the future. The ratchet is to be removed from the nose gear operating mechanism and the original elastic cord handle lock is to be refitted; the direction of rotation of the handle for retraction/extension is to be marked on the instrument panel. He also intends to include a check of the landing gear audio warning and an inspection of the clear view panel in his check list.