Rutan Long-EZ, G-BLZM

AAIB Bulletin No: 10/2001 Ref: EW/G2001/07/29 Category: 1.3

Aircraft Type and

Registration:

Rutan Long-EZ, G-BLZM

No & Type of Engines: 1 Lycoming O-235-L2C piston engine

Year of Manufacture: 1986

Date & Time (UTC): 26 July 2001 at 1538 hrs

Location: Brighton sea front, Sussex

Type of Flight: Test flight

Persons on Board: Crew - 1

Passengers - None

Passengers -

Injuries: Crew - Minor

N/A

Nature of Damage: Main landing gear, nose section and instrumental panel

detached on ditching

Commander's Licence: Airline Transport Pilots Licence

Commander's Age: 49 years

Commander's Flying

Experience:

13,300 hours (of which 450 were on type)

Last 90 days - 88 hours

Last 28 days - 71 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The purpose of the flight was to complete the single remaining item of the Permit to Fly renewal air test; this was a high speed run to the maximum permitted speed. On the first attempt to fly the air test a burning smell was detected after take off and the flight was immediately curtailed. A subsequent inspection revealed no reason for the smell. A second air test was flown and all items were completed satisfactorily except for the high speed run which was not attempted because of unreliable oil temperature and pressure indications. New sensors and gauges for these parameters were fitted.

On the final flight all engine indications were normal during the pre-flight power check, the take off and the climb. At 1,500 feet the oil pressure indicated 65 psi and the oil temperature 210°F (both representative of a mid range value and within limits). With full power applied the nose was lowered to accelerate the aircraft to 190 kt. At approximately 1,000 feet and at an airspeed of 170 kt the engine suddenly lost power and the aircraft shuddered. A climb was initiated and a MAYDAY call was made to Shoreham approach, since this was the frequency in use. The pilot selected the fuel tanks from right to left, checked the magnetos at individual positions and then left them set to BOTH, selected the carburettor air to HOT and operated the throttle a number of times in an attempt to gain a response from the engine but to no avail.

The pilot then informed Shoreham that he intended to ditch into the sea near to Shoreham harbour. The pilot ditched close to a large inflatable power boat in order to obtain the quickest assistance. Contact with the water was made at approximately 60 kt in a nose up attitude. However, as soon as the main landing gear touched the water it was ripped off causing the aircraft to pitch nose down. The nose of the aircraft detached on impact and the instrument panel bulkhead was dragged forward. The seats and the 4-point harness remained intact. Although the fuel tanks were nearly full the foam/fibreglass construction remained intact and the aircraft floated in a stable manner and in an upright position.

The aircraft had been idle for a number of years. The engine had been overhauled recently but further rectification was required to cure starting problems. There was no obvious cause for the loss of engine power but it may have been associated with these factors. The burning smell had been evident on all three take offs but was ascribed to new paint on the engine.