

AAIB Bulletin No: 9/94

Ref: EW/G94/06/01

Category: 1.3

Aircraft Type and Registration: Reims Cessna F152, G-ENTT

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

Year of Manufacture: 1980

Date & Time (UTC): 1 June 1994 at 1740 hrs

Location: Dean Farm, Fareham, Hampshire

Type of Flight: Private (Training)

Persons on Board: Crew - 2 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Damage to No 1 cylinder

Commander's Licence: Commercial Pilot's Licence

Commander's Age: 45 years

Commander's Flying Experience: 1,130 hours (of which approximately 600 were on type)
Last 90 days - 120 hours
Last 28 days - 48 hours

Information Source: Aircraft Accident Report Form submitted by the pilot and telephone enquiries by the AAIB

The aircraft was on an instructional flight from Southampton Airport when, climbing through 2,000 feet in a left turn, a loss of power occurred together with the onset of vibration. The instructor reported that he carried out all the normal checks, but with no improvement, and that at full throttle the engine would run at only 2,000 RPM but with normal engine indications. The aircraft descended at approximately 200 ft/min and, at an altitude of 800 feet, a suitable field was selected where the aircraft was landed with no injuries to the occupants or damage to the aircraft.

Subsequent examination of the aircraft by maintenance personnel revealed that metallic debris was present within No 1 cylinder. After removal it was apparent that the inlet valve had suffered a failure, damaging the exhaust valve, cylinder and piston in the process.

The recorded life of this engine at the time of its last maintenance check (50 hours) in June 1994 was 2,144.4 hours; its life at the time of the failure being 2,184 hours. The engine's life was extended to 2,400 hours by the installation of an approved 'Extended TBO Piston Kit' earlier in the year, at which time the pistons, oil and compression rings were replaced. The engine was zero timed after overhaul on 26 August 1988, with no record in the engine log book of the subject valve having been replaced since that date.