

No: 5/91

Ref: EW/G90/12/05

Category: 1c

**Aircraft Type  
and Registration:**

Cessna 150L, G-IDJB

**No & Type of Engines:**

1 Continental O-200-A piston engine

**Year of Manufacture:**

1972

**Date and Time (UTC):**

13 December 1990 at 1315 hrs

**Location:**

Claxton Grange Farm, near Hartlepool, Teesside

**Type of Flight:**

Private

**Persons on Board:**

Crew - 1                      Passengers - 1

**Injuries:**

Crew - None                      Passengers - Minor

**Nature of Damage:**

Nose-gear, engine mounting, bulkhead and wings

**Commander's Licence:**

Commercial Pilot's Licence with Instructor rating

**Commander's Age:**

54 years

**Commander's Total  
Flying Experience:**

3,020 hours (of which 35 were on type)

**Information Source:**

Aircraft Accident Report Form submitted by the pilot, subsequent examination by AAIB Engineering Inspector and engine strip examination.

The pilot reported that whilst cruising at 2,000 ft approximately 10 nautical miles from Tees-Side, a small drop in rpm was observed. Carburettor heat was applied and appeared to restore rpm. Subsequently, power again decreased and further use was made of carburettor heat. An attempt was made to return to Tees-Side but power continued to decrease despite the fact that maximum throttle was eventually set.

The pilot therefore decided to make a precautionary landing using the power that remained. He selected a field from which it was known that an aircraft had been operated in the recent past.

An attempt was made to carry out an inspection run, but a further, more rapid loss of engine power prompted the pilot to carry out the crash checks and prepare for an immediate forced landing. This was initially successful, however, during the landing run, the nosewheel encountered a tractor wheel track and sank into it. The aircraft then overturned and the two occupants escaped through the doors, sustaining only minor bruising and a slight cut.

The pilot noted considerable oil on the underside of the fuselage, extending from below the cabin to the tail area.

The aircraft was salvaged and it was subsequently examined by an AAIB investigator. This examination confirmed the presence of considerable clean oil on the underside. It was also noted that the engine sump drain plug, although not loose, was not wire-locked. The oil level was found to be below the end of the dip-stick although there was no obvious source of oil leakage. There was no evidence that significant leakage had occurred whilst the aircraft was inverted. Arrangements were made to remove the engine and transport it to the AAIB at Farnborough.

A strip examination was then carried out which revealed no evidence of lack of lubrication in the cylinders or piston rings. Two of the big-end bearings, however, were found to have run, in one case the bearing shells having rotated within the connecting rod. The remaining two big ends showed evidence of considerable scouring and damage to their shells.

Although the crank-shaft journals were not significantly scoured, they showed signs of having overheated. The oil filter was examined and found to be completely free from metallic contamination. A careful examination of the engine casings, sump, cylinders and all components and joints revealed no sign of any possible source of leakage.