

**Aircraft type and registration:** Piper PA-24-250 G-ARIN

**No & Type of engines:** 1 Lycoming O-540-A1A5 piston engine

**Year of Manufacture:** 1960

**Date and time (UTC):** 21 September 1986 at 1050 hrs

**Location:** Edinburgh Airport

**Type of flight:** Private (pleasure)

**Persons on board:** Crew — 1                      Passengers — 1

**Injuries:** Crew — None                      Passengers — None

**Nature of damage:** Undercarriage operating mechanism torn from fuselage bulkhead

**Commander's Licence:** Private Pilot's Licence

**Commander's Age:** 25 years

**Commander's Total Flying Experience:** 95 hours (of which 6 were on type)

**Information Source:** Aircraft Accident Report Form submitted by the pilot, and telephone enquiries by AIB.

The aircraft was being used for a flight from Glenrothes to Edinburgh. Two circuits were made after take-off from Glenrothes with the undercarriage retracting and extending satisfactorily and giving normal indications.

On arrival at Edinburgh an overshoot from 100 feet was executed with normal undercarriage indications for both extension and retraction. On the second approach, although normal indications had been obtained on initial selection of the undercarriage, no indication was showing when it was checked just before turning onto final approach. The tower controller was asked to confirm that the undercarriage was extended, and when he replied that all appeared to be correct, the approach was continued and a gentle landing made at about 80 knots. After touchdown the pilot felt that the undercarriage was not secure and applied full power to go round again. When operation of the gear selector failed to give satisfactory indications, the pilot asked to leave the circuit to operate the undercarriage manually. This was done with some difficulty but correct indications were obtained and the aircraft landed without further incident.

After landing it was established that the undercarriage was fully locked down but, as a precaution, the aircraft was returned to Glenrothes with the undercarriage extended. Examination of the aircraft there revealed that the undercarriage operating mechanism had become detached from the fuselage structure and that the whole undercarriage system was badly worn and showed no evidence of having been greased recently.

On learning of this, AIB requested that the local CAA surveyor should be asked to inspect the aircraft.

The examination of the aircraft by the CAA surveyor revealed a number of shortcomings in the maintenance state; additionally, an inspection of the log books showed that several FAA Airworthiness Directives had not been embodied within the specified period. The owners were advised by the CAA that the Certificate of Airworthiness of this aircraft appeared to be invalid until satisfactory evidence of compliance with outstanding mandatory inspections and the requirements of the maintenance schedule had been submitted to the CAA.