

AAIB Bulletin No: 11/93

Ref: EW/G93/07/05

Category: 1.3

Aircraft Type and Registration: Mooney M20F Executive, G-BDTV

No & Type of Engines: 1 Lycoming IO-360-A1A piston engine

Year of Manufacture: 1975

Date & Time (UTC): 4 July 1993 at 1312 hrs

Location: Leicester Airport, Leicestershire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 2

Injuries: Crew - None Passengers - None

Nature of Damage: Damaged propeller, wing tip, fuselage underside, landing gear and operating mechanism

Commander's Licence: Private Pilot's Licence

Commander's Age: 45 years

Commander's Flying Experience: 282 hours (of which 48 hours were on type)
Last 90 days - 20 hours
Last 28 days - 10 hours

Information Source: Aircraft Accident Report Form submitted by the pilot, examination by AAIB Engineering Inspector and verbal report of tests carried out by repair agency

The pilot reported that he was landing with the gear selected 'DOWN' and a 'LOCKED' indication present. He reported that some 50 metres after touchdown, the right main landing gear wheel retracted and the aircraft slewed to the right. On vacating the aircraft it was observed that the remaining landing gear wheels had also collapsed.

An examination of the damaged aircraft was subsequently carried out by an AAIB Engineering Inspector. All three landing gear units were found to have come under loading when in a partly extended but unlocked condition. This had caused buckling of the three tubular actuating rods. The agency repairing the aircraft was requested to report on the serviceability of the landing gear squat-switch, once sufficient repair had been carried out to enable power to be put on the aircraft and functional testing of the switch carried out. They reported that it functioned correctly.

The remainder of the electrical switching functions in the system depend for correct operation on rigging features lost as a result of buckling of the landing gear operating rods in the accident.