

No: 1/83

Ref: EW/G82/10/10

Aircraft: Piper PA23 Aztec G-AZHA

Year of Manufacture: 1972

Date and time (GMT): 20 October 1982 at 13.15 hrs

Location: Glasgow Airport

Type of flight: Positioning

Persons on board: Crew - 2 Passengers - Nil

Injuries: Crew - Nil Passengers - N/A

Nature of damage: Minor damage to port wingtip, aileron and undercarriage doors

Commander's Licence: Commercial Pilot's Licence

Commander's Age: 26 years

Commander's total flying experience: 2600 hours (of which 300 hours were on type)

On a long final approach to Glasgow airport, the undercarriage was selected down, but this only resulted in the undercarriage up-lock light extinguishing. The lever was re-cycled several times, but no noise of undercarriage movement was heard. At this point, the emergency hand-pump was used and the starboard main and the nose undercarriage lowered and locked with the green lights showing. The port green light remained out and a 'fly-past' of the air traffic control tower confirmed that the port undercarriage was 'up' with its doors closed. The aircraft then circled for 45 minutes with the pilot making further attempts to lower the port undercarriage by applying varying amounts of 'G' and finally using the carbon dioxide emergency extension system, but to no avail.

The aircraft eventually landed on runway 28 at Glasgow airport on the starboard main and nose undercarriages in a flaps up, power off configuration. Using aileron control the port wing was held up until the speed dropped and the aircraft slewed off the runway onto the grass, coming to rest at approximately 90° to its direction of travel.

The cause of the failure of the port main undercarriage to extend was found to be a ruptured hydraulic actuator hose which had been chafed by a 'P' clip which had lost its insulating grommet. Another hose had also been chafed and failed on subsequent test. The reason for the failure of the emergency extension system to function is believed to be a sticking gas/fluid shuttle valve, since the system functioned correctly following replacement of this item.